APPENDICES TO THE DRAFT ENVIRONMENTAL IMPACT REPORT (VOLUME 2 OF 2)

NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project

(UPD #EIR-2023-006) (SCH No. 2022040595)

Prepared for:

PORT of SAN DIEGO
Waterfront of Opportunity

San Diego Unified Port District

April 2023

APPENDICES TO THE DRAFT ENVIRONMENTAL IMPACT REPORT (VOLUME 2 OF 2)

NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project

(UPD #EIR-2023-006) (SCH No. 2022040595)

Prepared for:

San Diego Unified Port District
3165 Pacific Highway
San Diego, CA 92101

Contact:

Scott Vurbeff
619.821.2307

Prepared by:

Ascent Environmental
1230 Columbia St., Ste 440
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San Diego, CA 92119

Contact:

Charlie Richmond
619.838.5225

April 2023

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Appendix A

Notice of Preparation

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NOTICE OF PREPARATION
of a
DRAFT ENVIRONMENTAL IMPACT REPORT
and
NOTICE of PUBLIC SCOPING MEETING

PROJECT TITLE: **NASSCO FLOATING DRY DOCK REPLACEMENT AND WATERFRONT IMPROVEMENT PROJECT (UPD #EIR-2023-006)**

APPLICANT: General Dynamics-NASSCO

LOCATION: 2798 East Harbor Drive in San Diego, in San Diego County, California

REFERENCE: California Code of Regulations, Title 14, Sections 15082(a), 15103, 15375

The San Diego Unified Port District (District) will be the Lead Agency in preparing an Environmental Impact Report (EIR) for the project identified above (project). The District is soliciting input and feedback from various agencies, stakeholders, and the public pertaining to the scope and content of the environmental information that will be included in the EIR. For certain agencies, this may be germane to statutory responsibilities in connection with the proposed project. An agency may need to use the proposed project's EIR when considering its permit or other approval for the project. The project description, location, and possible environmental effects of the proposed project are contained in the attached materials.

Due to the time limits mandated by state law, your comments must be sent at the earliest possible date but no later than 30 days after issuance of this notice. **Comments regarding environmental concerns will be accepted until 5:00 p.m. on Friday, February 24, 2023,** and should be mailed to: San Diego Unified Port District, Development Services Department, Attn: Scott Vurbeff, Senior Planner, 3165 Pacific Highway, San Diego, CA 92101 or emailed to: svurbeff@portofsandiego.org.

A virtual public scoping meeting to solicit comments on the scope of the proposed EIR will be held on Thursday, February 16, 2023 at 5:00 p.m. If you wish to attend the virtual scoping meeting, please email a request to attend to Scott Vurbeff at svurbeff@portofsandiego.org to receive a link to participate in the meeting.

For questions on this Notice of Preparation, please contact Scott Vurbeff, Senior Planner, Development Services Department, at (619) 821-2307.

Signature: _____ Date: Jan 23, 2023

Wileen C. Manaois
Director, Development Services

Issuance Date: January 25, 2023

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San Diego Unified Port District
3165 Pacific Highway
San Diego, CA 92101

NOTICE OF PREPARATION
of a
DRAFT ENVIRONMENTAL IMPACT REPORT
for the
NASSCO FLOATING DRY DOCK REPLACEMENT AND WATERFRONT IMPROVEMENT PROJECT
(UPD #EIR-2023-006)

The proposed project includes the repair, maintenance, and replacement of several existing in-water facilities used to repair military and other vessels within the General Dynamics NASSCO (NASSCO) leasehold area. Specifically, NASSCO is proposing to remove and replace the existing floating dry dock and supporting infrastructure, demolish and construct a new Repair Complex Wharf, repair quay walls and revetments along identified stretches of shoreline, and perform as-needed programmatic repair or replacement of selected structural support piles throughout the project site. There would be no increase in operational capacity following completion of the proposed project. A Non-appealable Coastal Development Permit (CDP) is required to implement the proposed project.

Publication of this Notice of Preparation (NOP) initiates the San Diego Unified Port District's (District) environmental review and analysis of the project pursuant to the California Environmental Quality Act (CEQA). The NOP is the first step in the CEQA process. It describes the project and is distributed to responsible agencies, trustee agencies, involved federal agencies, and the general public. As stated in CEQA Guidelines Section 15375, the purpose of the NOP is "to solicit guidance from those agencies as to the scope and content of the environmental information to be included" in the Environmental Impact Report (EIR). The NOP provides an opportunity for agencies and the general public to comment on the scope and content of the environmental review of a project.

A Draft Initial Study/Mitigated Negative Declaration (IS/MND) (State Clearinghouse No. 2022040595) was previously published in April 2022 to disclose the potential environmental effects of the project. The Draft IS/MND found that the proposed project would result in less-than- significant impacts related to Aesthetics, Agriculture and Forestry Resources, Cultural Resources, Energy, Greenhouse Gas Emissions, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Tribal Cultural Resources, Transportation, Utilities and Service Systems, and Wildfire and potentially significant impacts related to Air Quality, Biological Resources, Geology and Soils, Hazards and Hazardous Materials, and Hydrology and Water Quality. In response to comments

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received on the Draft IS/MND, the District has decided to prepare an EIR for the project.

The Draft IS/MND and Appendices can be accessed through the following links:

- https://pantheonstorage.blob.core.windows.net/ceqa/NASSCO-Floating-Dry-Dock-Replacement-WIP-DRAFT-MND.pdf
- https://pantheonstorage.blob.core.windows.net/ceqa/NASSCO-Floating-Dry-Dock-Replacement-WIP-Appendices-A-H.pdf

EXISTING SETTING

The project site is located on and adjacent to San Diego Bay within the NASSCO leasehold, located at 2798 East Harbor Drive in San Diego, California. Although the NASSCO leasehold encompasses 126 acres of tideland area, project improvements would occur on approximately 2.2 acres of water-side facilities within the leasehold. The NASSCO leasehold is situated in a highly industrialized area and is bordered to the north by Harbor Drive, a major north-south transportation corridor that connects the San Diego International Airport, waterfront, Convention Center, Gaslamp District, Ballpark District, and Barrio Logan. The San Diego Bay borders the project site to the south and west. Heavy industry land uses to the northwest of the project site include a ship repair facility operated by BAE Systems. Military land uses to the east and southeast of the project site include Naval Base San Diego. Land uses north of the project site across Harbor Drive and the railroad right of way include military, light industry, and commercial and office land uses.

LAND AND WATER USE DESIGNATIONS

The project site is in an urbanized area that is developed entirely with maritime-related industrial uses. The land use designation for the project site is Marine Related Industrial (Land) and Specialized Berthing (Water). The project site is located within the Harbor Drive Industrial Subarea of Planning District 4, Tenth Avenue Marine Terminal, of the District's certified Port Master Plan.

BACKGROUND

The proposed project is needed to address deficiencies related to the age and condition of structures, shoreline sloughing, and operational conditions at the existing dry dock. Absent these activities, the NASSCO shipyard would not be able to safely function in supporting various shipbuilding and repair operations.

The current floating dry dock, built in 1983, has reached the end of its useful life and requires replacement to meet safety standards. Specifically, the existing floating dry dock and mooring dolphins do not meet U.S. Navy's MIL-STD-1625D, Department of Defense Standard Practice: Safety Certification Program for Drydocking Facilities and Shipbuilding Ways for U.S. Navy Ships, which is the current standard for all floating dry docks and associated infrastructure. The existing Repair Complex Wharf is located landward of the existing floating dry dock. Currently, the wharf provides limited laydown and space for offices. However, it is in disrepair and would need to be replaced to fully use this area of the facility.

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The project would also include repair of the failed revetment and exposed shoreline present throughout the NASSCO leasehold, including shoreline segments from Lot 20 to Pier 12, floating dry dock approach pier to Berth 8, Ways to Building Dock, Berth 2 to Berth 3, Berth 4 to Berth 5, and Berth 6 to Navy Base Quay Wall. Proposed repairs include placement of stabilizing material (mostly rock riprap) to address existing damage and prevent future damage from wave action and to maintain existing safe operation of the NASSCO shipyard. Finally, the project includes programmatic repair and/or replacement of damaged piles that support Berths 2, 3, 4, 5, 6, and Pier 12 and the floating dry dock approach pier and the Berth 1 Platform. The proposed repairs are necessary to restore the structural integrity of these piers, extend their service lives, and provide safe mooring berths for new construction and repair vessels.

BRIEF PROJECT DESCRIPTION

The proposed project includes the following elements:

- Removal and replacement of the existing floating dry dock and construction of supporting infrastructure;
- Improvements to the Repair Complex Wharf;
- Repairs to the quay wall revetment along stretches of shoreline throughout the NASSCO leasehold, which includes shoreline segments Lot 20 to Pier 12, floating dry dock approach pier to Berth 8, Ways to Building Dock, Berth 2 to Berth 3, Berth 4 to Berth 5, and Berth 6 to Navy Base Quay Wall; and
- As-needed structural repair and/or replacement of selected piles at Berths 2, 3, 4, 5, 6, at Pier 12 and the floating dry dock approach pier, and at the Berth 1 Platform.

The proposed project includes replacement of the existing floating dry dock with a new floating dry dock of similar characteristics and the same functionality. Improvements to supporting infrastructure (i.e., replacing mooring dolphins and utilities and reconfiguring the existing approach pier) are required to comply with current standards and codes. The proposed mooring dolphins are designed to meet the required seismic and wind loading requirements outlined in this standard. The proposed approach pier modification and subsequent mechanical and utility modifications are required to allow for the relocation of the floating dry dock during the launch of new construction vessels within the NASSCO leasehold.

Overall, the proposed structures would result in a net increase in overwater coverage area and in-water fill. Up to 957 piles supporting the various wharves and piers would be repaired or replaced. Approximately 100 piles would be repaired or replaced per year over a period of approximately 10 years. The project would not expand the existing use of the project site or increase shipbuilding and repair operations; rather, the project would improve the safety and efficiency of NASSCO's shipbuilding operations. The project would not result in any additional employees other than the up to 10 construction contract workers needed during construction.

Most project components (i.e., floating dry dock replacement and modification, Repair Complex Wharf improvements, and quay wall revetment repairs [berths 2-5]) are anticipated to be constructed between 2024 and 2026; however, as-needed quay wall repairs may extend to 2028 and structural pile repair and replacement may extend to 2035.

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All proposed construction elements would be waterside (in-water and/or over water). NASSCO would be required to maintain all existing operational and maintenance BMPs in compliance with NASSCO's individual National Pollutant Discharge Elimination System (NPDES) Permit (Order R9-2016-0116) and facility BMP Plan Manual. Stormwater runoff from the NASSCO facility, including the new overwater structures, would be captured and contained in the existing stormwater diversion system for subsequent discharge to the San Diego Metropolitan Sanitary Sewer System.

ENVIRONMENTAL CONSIDERATIONS

Probable Environmental Effects to be Addressed in the EIR

The District has determined that the following environmental topics will be included and analyzed in the EIR:

- Air Quality
- Biological Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation

The EIR would also address feasible mitigation measures, a reasonable range of alternatives, and additional mandatory sections as required by CEQA. The District would also prepare a mitigation monitoring and reporting program to address the potential significant impacts of the project.

Effects Determined to be Less than Significant During Preparation of the Initial Study

Based on the existing conditions present at the project site and a review of the project, it has been determined that implementation of the project would not result in significant impacts to the following resource areas:

- Aesthetics
- Agriculture and Forestry Resources
- Cultural Resources
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

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NOTICE OF PREPARATION COMMENTS

The Notice of Preparation is available for a minimum 30-day public review period that starts on **Wednesday, January 25, 2023 and ends at 5:00 p.m. on Friday, February 24, 2023**. Written comments will be accepted until 5:00 p.m. on Friday, February 24, 2023. Comments regarding the scope and content of the environmental information that should be included in the EIR and other environmental concerns should be mailed to:

San Diego Unified Port District
Attn: Scott Vurbeff, Senior Planner
Development Services Department
3165 Pacific Highway
San Diego, CA 92101

or emailed to: svurbeff@portofsandiego.org

PUBLIC SCOPING MEETING

A virtual public scoping meeting to solicit comments on the scope and content of the proposed EIR for the project will be held on Thursday, February 16, 2023 at 5:00 p.m. If you wish to attend the virtual scoping meeting, please email a request to attend to Scott Vurbeff at svurbeff@portofsandiego.org to receive a link to participate in the meeting.

The District, as Lead Agency pursuant to CEQA, will review the public comments on the NOP to determine which issues should be addressed in the EIR.

Other opportunities for the public to comment on the environmental effects of the project include, but are not limited to, the following.

- A minimum 45-day public review period for the Draft EIR
- A public meeting before the Board of Port Commissioners to consider certification of the EIR

For questions regarding this Notice of Preparation, please contact Scott Vurbeff, Development Services Department, at (619) 821-2307 or svurbeff@portofsandiego.org.

ATTACHMENTS

Figure 1: Project Vicinity Map
Figure 2: Proposed Site Plan

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ANCHOR QEA

Figure 1
Vicinity Map
NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project

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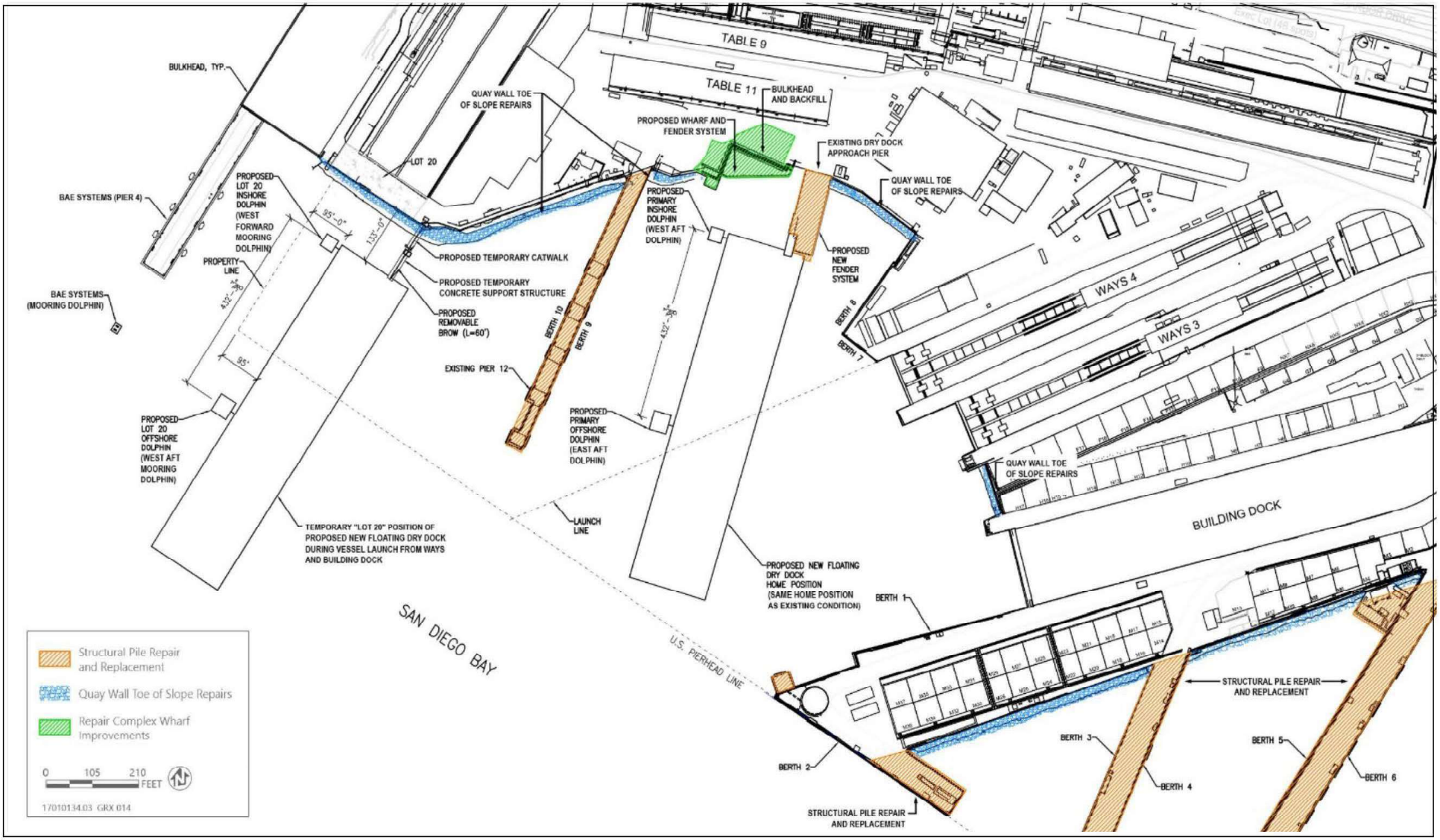

Source: Figure by Anchor QEA, LLC in 2021; adapted by Ascent Environmental in 2021.

Figure 2 Proposed Site Plan

Appendix B

Comment Letters Received During EIR Scoping Period

From: Huang, Ya-Chi CIV USN NAVFAC SW SAN CA (USA) <ya-chi.huang.civ@us.navy.mil>
Sent: Thursday, February 23, 2023 10:35 AM
To: Scott Vurbeff <svurbeff@portofsandiego.org>
Cc: Popaditch, Nicholas A Jr CIV USN NAVFAC SW SAN CA (USA) <nicholas.a.popaditch2.civ@us.navy.mil>; Lui, Samantha E CIV USN NAVFAC SW SAN CA (USA) <samantha.e.lui.civ@us.navy.mil>
Subject: Re: Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Scott,

No comments from an EV perspective. Any discharge would have to comply with NPDES permitting and they will have to demonstrate how any additional air emissions will be tackled.

Thank you.

V/r
Ya-chi Huang
Community Planning & Liaison Officer
Naval Base San Diego

STATE OF CALIFORNIA Gavin Newsom, *Governor*

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COMMISSIONER
[Vacant]

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NAHC HEADQUARTERS
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Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

January 26, 2023

Scott Vurbeff
San Diego Unified Port District
3165 Pacific Highway P.O. Box 120488
San Diego, CA 92112

Re: 2022040595, NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project, San Diego County

Dear Mr. Vurbeff:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Pricilla.Torres-Fuentes@nahc.ca.gov.

Sincerely,

Pricilla Torres-Fuentes

Pricilla Torres-Fuentes
Cultural Resources Analyst

cc: State Clearinghouse

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February 24, 2023

San Diego Unified Port District
Development Services Department
Attn: Scott Vurbeff
3165 Pacific Highway
San Diego, California 92101

Via Electronic Mail
svurbeff@portofsandiego.org

RE: NOP NASSCO Floating Dry Dock & Waterfront Improvement Project
EHC and San Diego Coastkeeper Comments

Dear Mr. Vurbeff:

Please accept the following comments regarding NASSCO's Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Floating Dry Dock Replacement and Waterfront Improvement Project (Project) on behalf of our clients, Environmental Health Coalition (EHC) and San Diego Coastkeeper (Coastkeeper). For 41 years, EHC has been dedicated to achieving environmental and social justice by empowering San Diego communities. Coastkeeper is dedicated to the preservation, protection, and defense of the environment, wildlife, and natural resources of San Diego County watersheds. To further these goals, Coastkeeper actively seeks federal and state agency implementation of the Clean Water Act, and, where necessary, directly initiates enforcement actions on behalf of themselves and their members.

Both Coastkeeper and EHC are advocates for Portside communities most directly impacted by industrial operations at the Port, EHC is also particularly worried about air quality impacts to sensitive receptors adjacent to the proposed Project.

As a preliminary matter, Coastkeeper and EHC are pleased to see the Port is preparing an EIR for the Project in response to comments – including ours. Below, we reiterate our comments to inform the preparation of the EIR.

A. Analysis and Mitigation of Water Quality Impacts

Because the Project is within the sediment contamination area covered by the sediment cleanup and abatement order,[1] it is extremely likely the Project will encounter and disturb contaminated sediment. As a result, the Project should conduct a marine sediment characterization study in conjunction with the Project's CEQA review, and not improperly defers analysis of such impacts and formulation of specific mitigation measures (as suggested in the prior MND).

[1] See. Sediment cleanup and abatement order:
https://www.waterboards.ca.gov/sandiego/board_decisions/adopted_orders/2012/R9-2012-0024.pdf

> " 'Deferral of the specifics of mitigation is permissible where the local entity commits itself to mitigation and lists the alternatives to be considered, analyzed and possibly incorporated in the mitigation plan. [Citation.] On the other hand, an agency goes too far when it simply requires a project applicant to obtain a biological report and then comply with any recommendations that may be made in the report. [Citation.]' [citation] If mitigation is feasible but impractical at the time of a general plan or zoning amendment, it is sufficient to articulate specific performance criteria and make further approvals contingent on finding a way to meet them. [Citation.]"[2]

However, "[s]imply stating a generalized goal for mitigating an impact does not allow the measure to qualify for the exception to the general rule against the deferred formulation of mitigation measures."[3] In *King & Gardiner Farms, LLC* , the County impermissibly deferred the formulation of mitigation measures where it failed to incorporate specific performance standards:

> The deferral exists because the measures will not be determined until the applicant requests a permit and receives an approval from the County. The terms "increase" and "reduce"—even though preceded by the mandatory term "shall" and modified by the phrase "to the extent feasible"—are not specific performance standards. Feasible means capable of being accomplished in a successful manner within a reasonable time, taking into account various factors. (§ 21061.1; Guidelines, § 15364.) It addresses whether a measure would be employed, but does not address the performance of the measure. In other words, it does not provide a standard relating to performance for any increase in use of produced water or reduction use of M&I water.[4]

The prior MND acknowledged the Project is virtually certain to disrupt contaminated sediment. In lieu of characterizing the extent and scope of such contamination, the MND improperly delayed development of a monitoring, characterization, and mitigation plan until after Project approval.[5] If remediation (mitigation) is necessary, the MND did not specify what performance standards will be applicable.[6] Instead, the remediation was simply to be conducted to the Regional Board and Port's satisfaction consistent with the cleanup and abatement order "or other levels as prescribed by" the Regional Board.[7] As explained below, because the prior cleanup efforts have not met the cleanup and abatement order requirements after a decade of implementation, and in light of the potential impacts that will results from deferred mitigation measures themselves, impacts to water quality (and air quality) would remain significant.

[2] *King & Gardiner Farms, LLC v. County of Kern* (2020) 45 Cal.App.5th 814, 856 [internal citations omitted].
[3] *Id*.
[4] *Id*. at p. 858.
[5] MM-HAZ-10.
[6] MM-HAZ-11.
[7] MND, p. 4-87.

a. Water Quality Impacts Are Significant and Unmitigated in the MND

As noted in the MND, the Project is within the 56 water acres of a shipyard sediment cleanup site.[8] Notwithstanding the MND's characterization of the cleanup efforts, the site remains contaminated. In the most recently submitted 5-year monitoring report, "composite site-wide surface-weighted average concentration (SWAC) goals for total polychlorinated biphenyls (PCBs) were above the composite site-wide SWAC goal, and therefore, an Exceedance Investigation and Characterization Study Report will be developed…"[9] Despite the likelihood that contamination is present within the Project area, the MND did not include an analysis of existing marine sediment contamination. Rather, it inappropriately deferred analysis and potential mitigation for marine sediment contamination.[10] Further, as evidenced by NASSCO's failure to meet the cleanup and abatement order limits for PCBs in connection with the prior remediation efforts and the MND's reliance on the cleanup and abatement order measures here, it is likely significant impacts to water and sediment quality will also result from the instant Project – without feasible near-term mitigation. The cleanup and abatement order was issued in 2012. Ten years later, the sediment remains contaminated. This significant water quality impact will only be perpetuated and exacerbated by further sediment disturbance.

In addition, the deferral of analysis and mitigation for water quality impacts related to sediment dredging and disposal activities means significant impacts related to the mitigation measures themselves have not been disclosed.[11] For example, dredging, dewatering, and off-site disposal of contaminated sediment will result in increased air quality, greenhouse gas, traffic, and hazardous materials impacts. Construction and hauling equipment necessary to carry out mitigation efforts were not been included in the air quality modeling and were likely excluded from the undisclosed HRA as well. As noted in the MND:

> However, **sand or gravelly sand covers were placed in areas within the NASSCO leasehold where dredging activities would have threatened the stability of the slopes or in-water structures** (refer to Section 4.9 for additional information). As such, **the contamination present in those sediments was not removed, but was covered to prevent mixing of contaminants with the water column or clean sediment**.

[8] MND, p. 4-73.
[9] Year 5 Post-Remedial Monitoring Progress Report, February 14, 2022, available at https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/6906253218/T10000003580.PDF
[10] MND, p. 4-86 [MM-HAZ-10].
[11] 14 Cal. Code Regs., §15126.4(a)(1)(D) ["If a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure shall be discussed but in less detail than the significant effects of the project as proposed. (*Stevens v. City of Glendale* (1981) 125 Cal.App.3d 986.)"].

> **The proposed pile removal and replacement has potential to disturb contaminated sea-floor sediments associated with CAO R9-2012-0024, which may result in a potentially significant impact water quality impact** (Impact-WQ-3). As described in Section 4.9.3(b), mitigation measures MM-HAZ-10 and MM-HAZ-11 would include implementation of a sediment management program and post-waterside construction remediation. With implementation of mitigation measures MM-HAZ-10 and MM-HAZ-11, Impact-WQ-3 would be reduced to less than significant.[12]

Pursuant to MM-HAZ-11, if contaminated sediment is disturbed (as is likely) and post-construction remediation is necessary (equally likely), NASSCO will propose remediation consistent with CAO R9-2012-0024 (or other levels prescribed the Regional Water Board).[13] "The project applicant's remediation approaches may include, but are not limited to, dredging, placement of sand cover, or Enhanced Monitored Natural Recovery sand containing active carbon."[14] Any of these remediation approaches will result in increased construction activities which have not been characterized or analyzed in the MND. Notably, dredging and/or importation of sand will substantially increase emissions and air quality impacts to the surrounding neighborhood. As a result these significant environmental impacts must be analyzed in detail in an EIR.

B. Air Quality Impacts Are Significant and Unmitigated

In addition to significant water quality impacts, the Project will also result in air quality impacts that must be analyzed in the forthcoming EIR. Though the MND found air quality impacts would be less than significant with implementation of mitigation measures, the air quality technical appendices and modeling assumptions did not match the MND mitigation measures. For example, MM-AQ-1 required 75 precent of off-road construction meet Tier 4 emissions standards for off-road diesel engines.[15] However, the CalEEMod Outputs show "at least 90% Tier 4 engines" for construction off-road equipment mitigation, resulting in a significant emission reduction.[16] Therefore, it MM-AQ-1 would be insufficient to reduce air quality impacts to a less than significant level.

In addition, the MND stated "[a] health risk assessment (HRA) was done to determine the risks posed by TAC emissions generated during the construction phase of the project."[17] The MND references and relies on the HRA in numerous places:

[12] MND, pp. 4-96 to 4-97, emphasis added.
[13] MND, p. 16.
[14] *Id.*
[15] MND, p. 4-30.
[16] Appendix A, pp. 2, 50 of CalEEMod Output.
[17] MND, p. 4-12.

Regulation 8, Rules 1200–1210: establishes rules and procedures governing new, relocated, or modified emission units that may increase emissions of one or more TAC. **While the project is not necessarily subject to the requirements of this regulation, the risk assessment guidelines and procedures published as part of this regulation are used in the health risk assessment herein**.[18]

Consistent. The proposed project would generate emissions from construction activities. **The Health Risk Assessment prepared for the proposed project concluded that the cancer risk to receptors at the nearest school in the vicinity of the project site, Logan Memorial Educational Center, due to construction emissions would be 1.2 chances per million**. The chronic non-cancer health hazard index at the nearest school would be 0.00036; both indices are below 10 cases per million. The project will not be inconsistent with or obstruct the District from reducing cancer risk in the Portside Community, for emissions associated with activities on Tidelands.[19]

To evaluate the potential health effects of construction-related diesel PM emissions on receptors near the project site, **an HRA was performed based on these emissions estimates and the MICR and chronic HHI were calculated at the nearest residential receptor.**[20]

An HRA was prepared for this project to provide an estimate of potential cancer risk to nearby receptors due to construction emissions. This HRA was done in accordance with OEHHA's Air Toxic Hot Spot Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2015) and SDAPCD's Supplemental Guidelines for Submission of Rule 1200 Health Risk Assessments (SDAPCD 2019b). Construction emissions of PM2.5 (exhaust) were estimated using CalEEMod based on the anticipated construction schedule and the proposed land uses, as well as defaults in CalEEMod (CAPCOA 2021).[21]

The cancer risk was estimated using the OEHHA-derived calculation method for residential receptors and the exposure duration was adjusted in accordance with the anticipated construction schedule (12 years). **See Appendix A for all risk assessment assumptions/calculations and model output files**.[22]

Cancer risk to the nearest residential receptor proximal to the project site (i.e., at northwest corner of Main St. and South 27th St.) due to construction emissions would be 11.7 chances per million (Appendix B). The chronic non-cancer health hazard index at this residential receptor would be 0.0034. The cancer risk to receptors at the nearest school in the vicinity of the project site, Logan Memorial Educational Center (i.e., at 3,010 feet from

[18] MND, p. 4-19, Table 4.3-4, emphasis added.
[19] MND, p. 4-23, Table 4.3-4, emphasis added.
[20] MND, p. 4-28, emphasis added.
[21] MND, p. 4-28, emphasis added.
[22] MND, p. 4-28.

> the project site boundary), due to construction emissions would be 10.4 chances per million. The chronic non-cancer health hazard index at the nearest school would be 0.0031. Therefore, prior to mitigation, the cancer risk posed to nearby sensitive receptors who would be exposed to TAC emissions from project construction that would exceed SDAPCD's MICR threshold of 10 chances in one million (Impact-AQ-1).[23]
>
> With the incorporation of MM-AQ-1, cancer risk to the nearest residential receptor proximal to the project site (i.e., at northwest corner of Main St. and South 27th St.) due to construction emissions would be 8.9 chances per million (**Appendix B**).[24]

However, Appendix B is not an HRA – it is the Marine Habitat Assessment. Upon inquiry, Port staff stated Appendix A contains the modeling results and "there is not a separate HRA document per se and as may be expected with an EIR."[25] The calculations, however, are not decipherable in Appendix A. There is no reference in Appendix A to the cancer risk, health hazard index, or maximum increase in cancer risk.

Either an HRA which contains the calculations and analysis to support the air quality analysis in the MND was prepared and undisclosed, or the MND's assertions are misleading and unfounded. To fulfill its information purposes, the EIR must include a detailed HRA that explains the assumptions used in the modelling and analysis, including but not limited to the following information:[26]

1. The HRA must explain the assumptions used to develop the AERMOD trip adjustment. The CALEEMOD modeling uses 20 miles as the haul truck trip length, whereas AERMOD uses 1715 meters.
2. What is the basis of AERMOD trip adjustment and is this consistent with OEHHA methodology?
3. How was truck idling (both at the construction site and within the vicinity) taken into account?
4. How does the HRA account for health risks to children who both live in the neighborhood and go to school at Logan Memorial and Perkins Elementary?
5. Identification of total risk for an individual exposed to multiple emission pathways should be disclosed.
6. APCD's concerns about the HRA analysis and methodology should be fully addressed in the EIR.

[23] MND, p. 4-29, emphasis added.
[24] MND, p. 4-30, emphasis added.
[25] See enclosed email exchange.
[26] Pub. Res. Code §21091(b); 14 Cal Code Regs §15073(a).

The Project is also inconsistent with Port policies aimed at reducing air pollution from Port maritime and industrial operations.[27] MND Tables 4.3-4 and 4.3-5 purport to show the Project's consistency with the Maritime Clean Air Strategy (MCAS) and Community Emissions Reduction Program (CERP). However, as noted above, the MND and technical appendices do not provide substantial evidence that the Project's significant air quality impacts will be mitigated to a less than significant level.

To mitigate impacts and ensure consistency with the MCAS, CERP, and the Port's climate goals, proposed mitigation measures should include the use of ZEV for all trucks, cars, and construction equipment. Indeed, if the Project maximizes the use of ZEV during construction, it may significantly reduce the need for and/or scope of an HRA.

Further, air quality modeling must include the most up-to-date information regarding equipment, instead of regional averages. Likewise, the EIR must evaluate cumulative impacts related to compliance with Rule 1210 SDAPCD Air Toxics Rule.

Further, the Project's reliance on compliance with the City of San Diego's established truck route is misplaced. For years the City's truck route ordinance has been ignored by trucks servicing the Port. Police have stopped ticketing trucks and no feasible alternative enforcement mechanisms have been put in place. Years of noncompliance render the Coastal Development Permit compliance condition meaningless.[28] Instead, the community is pursuing alternative measures, such as roundabouts.[29] To ensure consistency with the truck route and traffic-related policies and goals in the MCAS and CERP, the Project must be conditioned to not only comply with the truck route ordinance, but to establish enforcement mechanisms separate from the San Diego Police Department and fund traffic calming measures currently under City review and planning. Otherwise, significant impacts related to traffic and air quality will remain.

C. Conclusion

The MND ignored significant environmental impacts to water and air quality and improperly deferred analysis of impacts and formulation of mitigation measures. EHC and Coastkeeper thank the Port for preparing an EIR to assess, avoid, and/or mitigate the Project's significant impacts, including the potential to expose contaminated sediments prior to Project approval in an EIR.

[27] MND, p. 4-13.
[28] Barrio Logan Truck Route Enforcement Memo. Councilmember Vivian Moreno, September 10, 2019 https://www.sandiego.gov/sites/default/files/cd8memo091019.pdf (enclosed herewith)
[29] Voice of San Diego, *Police Stopped Ticketing Trucks Driving Through Barrio Logan. Advocates are Pushing an Alternative to Curb Truck Traffic*: https://voiceofsandiego.org/2022/04/06/police-have-stopped-ticketing-trucks-for-driving-through-barrio-logan-advocates-are-looking-for-an-alternative-to-curb-truck-traffic/ (enclosed herewith)

Thank you in advance for your consideration of our comments.

Sincerely,

COAST LAW GROUP LLP

Livia B. Beaudin
Attorneys for Environmental Health Coalition and San Diego Coastkeeper

Enclosures: Cited References

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May 31, 2022

San Diego Unified Port District
Development Services Department
C/O Megan Hamilton, Senior Planner
3165 Pacific Highway
San Diego, California 92101

Via Electronic Mail
Mhamilton@portofsandiego.org

RE: Draft MND NASSCO Floating Dry Dock & Waterfront Improvement Project
EHC and San Diego Coastkeeper Comments

Dear Ms. Hamilton:

Please accept the following comments regarding NASSCO's Draft Mitigated Negative Declaration (MND) for the Floating Dry Dock Replacement and Waterfront Improvement Project (Project) on behalf of our clients Environmental Health Coalition (EHC) and San Diego Coastkeeper (Coastkeeper). For 41 years EHC has been dedicated to achieving environmental and social justice by empowering San Diego communities. Coastkeeper is dedicated to the preservation, protection, and defense of the environment, wildlife, and natural resources of San Diego County watersheds. To further these goals, Coastkeeper actively seeks federal and state agency implementation of the Clean Water Act, and, where necessary, directly initiates enforcement actions on behalf of themselves and their members.

Both Coastkeeper and EHC were intimately involved in the San Diego Shipyard Sediment Cleanup effort and therefore have serious concerns regarding the potential water quality impacts of the Project. As an advocate for Portside communities most directly impacted by industrial operations at the Port, EHC is also particularly worried about air quality impacts to sensitive receptors adjacent to the proposed Project. Though lengthy, the MND fails to adequately characterize and mitigate the significant impacts to water and air quality. As a result, an Environmental Impact Report (EIR) must be prepared.

A. CEQA Carries a Strong Presumption in Favor of an EIR

The California Environmental Quality Act (CEQA) presumption in favor of the preparation of EIRs is reflected in the "fair argument" standard, under which an agency must prepare an EIR whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the environment.[1] An EIR must be prepared for any project that "may have a significant effect on the environment."[2]

[1] *Quail Botanical Gardens Found., Inc. v City of Encinitas* (1994) 29 Cal. App. 4th 1597, 1602; *Friends of "B" St. v City of Hayward* (1980) 106 Cal. App. 3d 988, 1002.
[2] Pub. Res. Code §21151; *No Oil, Inc. v City of Los Angeles* (1974) 13 Cal. 3d 68, 75.

"Significant effect upon the environment" is defined as "a substantial or potentially substantial adverse change in the environment."[3] A project "may" have a significant effect on the environment if there is a "reasonable probability" that it will result in a significant impact.[4] If substantial evidence shows any aspect of the project may result in a significant impact on the environment, an EIR must be prepared even if the overall effect of the project is beneficial.[5]

This standard sets a low threshold for preparation of an EIR.[6] If substantial evidence in the record supports a fair argument that the project may have a significant environmental effect, the lead agency must prepare an EIR even if other substantial evidence before it indicates the project will have no significant effect.[7]

As detailed below, the MND fails to disclose and adequately mitigate potentially significant impacts. Evidence in the record supports a fair argument that deferred, insufficient, and contradictory mitigation measures will not mitigate the Project's significant air and water quality impacts. An EIR must therefore be prepared.

B. Analysis and Mitigation of Water Quality Impacts is Improperly Deferred

Because the Project is within the sediment contamination area covered by the sediment cleanup and abatement order,[8] it is extremely likely the Project will encounter and disturb contaminated sediment. However, instead of conducting the marine sediment characterization study in conjunction with the Project's CEQA review, the MND improperly defers analysis of such impacts and formulation of specific mitigation measures.

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[3] Pub. Res. Code §21068; 14 Cal. Code Regs. §15382.
[4] *No Oil, Inc. v City of Los Angeles,* 13 Cal. 3d at 83 n16; *Sundstrom v County of Mendocino* (1988) 202 Cal. App. 3d 296, 309.
[5] 14 Cal. Code Regs. §15063(b)(1).
[6] *Consolidated Irrig. Dist. v City of Selma* (2012) 204 Cal. App. 4th 187, 207; *Nelson v County of Kern* (2010) 190 CA4th 252; *Pocket Protectors v City of Sacramento* (2004) 124 Cal. App. 4th 903, 928; *Bowman v City of Berkeley* (2004) 122 Cal. App. 4th 572, 580; *Citizen Action to Serve All Students v Thornley* (1990) 222 Cal. App. 3d 748, 754; *Sundstrom v County of Mendocino* (1988) 202 Cal. App. 3d 296, 310.
[7] *Save the Agoura Cornell Knoll v City of Agoura Hills* (2020) 46 Cal. App. 5th 665, 689, 696; *Georgetown Preservation Soc'y v County of El Dorado* (2018) 30 Cal. App. 5th 358, 373; *Jensen v City of Santa Rosa* (2018) 23 Cal. App. 5th 877, 886; *Clews Land & Livestock v City of San Diego* (2017) 19 Cal. App. 5th 161, 183; *Stanislaus Audubon Soc'y, Inc. v County of Stanislaus* (1995) 33 Cal. App. 4th 144, 150; *Brentwood Ass'n for No Drilling, Inc. v City of Los Angeles* (1982) 134 Cal. App. 3d 491; *Friends of "B" St. v City of Hayward* (1980) 106 CA3d 988; See also, 14 Cal. Code Regs. §15064(f)(1).
[8] See. Sediment cleanup and abatement order: https://www.waterboards.ca.gov/sandiego/board_decisions/adopted_orders/2012/R9-2012-0024.pdf

> " 'Deferral of the specifics of mitigation is permissible where the local entity commits itself to mitigation and lists the alternatives to be considered, analyzed and possibly incorporated in the mitigation plan. [Citation.] On the other hand, an agency goes too far when it simply requires a project applicant to obtain a biological report and then comply with any recommendations that may be made in the report. [Citation.]' [citation] If mitigation is feasible but impractical at the time of a general plan or zoning amendment, it is sufficient to articulate specific performance criteria and make further approvals contingent on finding a way to meet them. [Citation.]"[9]

However, "[s]imply stating a generalized goal for mitigating an impact does not allow the measure to qualify for the exception to the general rule against the deferred formulation of mitigation measures."[10] In *King & Gardiner Farms, LLC* , the County impermissibly deferred the formulation of mitigation measures where it failed to incorporate specific performance standards:

> The deferral exists because the measures will not be determined until the applicant requests a permit and receives an approval from the County. The terms "increase" and "reduce"—even though preceded by the mandatory term "shall" and modified by the phrase "to the extent feasible"—are not specific performance standards. Feasible means capable of being accomplished in a successful manner within a reasonable time, taking into account various factors. (§ 21061.1; Guidelines, § 15364.) It addresses whether a measure would be employed, but does not address the performance of the measure. In other words, it does not provide a standard relating to performance for any increase in use of produced water or reduction use of M&I water.[11]

Here, the MND acknowledges the Project is virtually certain to disrupt contaminated sediment. In lieu of characterizing the extent and scope of such contamination, the MND improperly delays development of a monitoring, characterization, and mitigation plan until after Project approval.[12] If remediation (mitigation) is necessary, the MND does not specify what performance standards will be applicable.[13] Instead, the remediation must simply be conducted to the Regional Board and Port's satisfaction consistent with the cleanup and abatement order "or other levels as prescribed by" the Regional Board.[14] As explained below, because the prior cleanup efforts have not met the cleanup and abatement order requirements after a decade of implementation, and in light of the potential impacts that will results from deferred mitigation measures themselves, impacts to water quality (and air quality) remain significant.

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[9] *King & Gardiner Farms, LLC v. County of Kern* (2020) 45 Cal.App.5th 814, 856 [internal citations omitted].
[10] *Id*.
[11] *Id*. at p. 858.
[12] MM-HAZ-10.
[13] MM-HAZ-11.
[14] MND, p. 4-87.

a. Water Quality Impacts Are Significant and Unmitigated

As noted in the MND, the Project is within the 56 water acres of a shipyard sediment cleanup site.[15] Notwithstanding the MND's characterization of the cleanup efforts, the site remains contaminated. In the most recently submitted 5-year monitoring report, "composite site-wide surface-weighted average concentration (SWAC) goals for total polychlorinated biphenyls (PCBs) were above the composite site-wide SWAC goal, and therefore, an Exceedance Investigation and Characterization Study Report will be developed…"[16] Despite the likelihood that contamination is present within the Project area, the MND does not include an analysis of existing marine sediment contamination. Rather, it inappropriately defers analysis and potential mitigation for marine sediment contamination.[17] Further, as evidenced by NASSCO's failure to meet the cleanup and abatement order limits for PCBs in connection with the prior remediation efforts and the MND's reliance on the cleanup and abatement order measures here, it is likely significant impacts to water and sediment quality will also result from the instant Project – without feasible near-term mitigation. The cleanup and abatement order was issued in 2012. Ten years later, the sediment remains contaminated. This significant water quality impact will only be perpetuated and exacerbated by further sediment disturbance.

In addition, the deferral of analysis and mitigation for water quality impacts related to sediment dredging and disposal activities means significant impacts related to the mitigation measures themselves have not been disclosed.[18] For example, dredging, dewatering, and off-site disposal of contaminated sediment will result in increased air quality, greenhouse gas, traffic, and hazardous materials impacts. Construction and hauling equipment necessary to carry out mitigation efforts have not been included in the air quality modeling and were likely excluded from the undisclosed HRA as well. As noted in the MND:

> However, **sand or gravelly sand covers were placed in areas within the NASSCO leasehold where dredging activities would have threatened the stability of the slopes or in-water structures** (refer to Section 4.9 for additional information). As such, **the contamination present in those sediments was not removed, but was covered to prevent mixing of contaminants with the water column or clean sediment**.
>
> **The proposed pile removal and replacement has potential to disturb contaminated sea-floor sediments associated with CAO R9-2012-0024, which may result in a potentially**

[15] MND, p. 4-73.
[16] Year 5 Post-Remedial Monitoring Progress Report, February 14, 2022, available at https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/6906253218/T10000003580.PDF
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> **significant impact water quality impact** (Impact-WQ-3). As described in Section 4.9.3(b), mitigation measures MM-HAZ-10 and MM-HAZ-11 would include implementation of a sediment management program and post-waterside construction remediation. With implementation of mitigation measures MM-HAZ-10 and MM-HAZ-11, Impact-WQ-3 would be reduced to less than significant.[19]

Pursuant to MM-HAZ-11, if contaminated sediment is disturbed (as is likely) and post-construction remediation is necessary (equally likely), NASSCO will propose remediation consistent with CAO R9-2012-0024 (or other levels prescribed the Regional Water Board).[20] "The project applicant's remediation approaches may include, but are not limited to, dredging, placement of sand cover, or Enhanced Monitored Natural Recovery sand containing active carbon."[21] Any of these remediation approaches will result in increased construction activities which have not been characterized or analyzed in the MND. Notably, dredging and/or importation of sand will substantially increase emissions and air quality impacts to the surrounding neighborhood. As a result of these significant environmental impacts, an EIR must be prepared.

C. Air Quality Impacts Are Significant and Unmitigated

In addition to significant water quality impacts, the Project will also result in air quality impacts that trigger preparation of an EIR. Though the MND finds air quality impacts would be less than significant with implementation of mitigation measures, the air quality technical appendices and modeling assumptions do not match the MND mitigation measures. For example, MM-AQ-1 requires 75 precent of off-road construction meet Tier 4 emissions standards for off-road diesel engines.[22] However, the CalEEMod Outputs show "at least 90% Tier 4 engines" for construction off-road equipment mitigation, resulting in a significant emission reduction.[23] Therefore, it MM-AQ-1 will be insufficient to reduce air quality impacts to a less than significant level.

In addition, the MND states "[a] health risk assessment (HRA) was done to determine the risks posed by TAC emissions generated during the construction phase of the project."[24] The MND references and relies on the HRA in numerous places:

> Regulation 8, Rules 1200–1210: establishes rules and procedures governing new, relocated, or modified emission units that may increase emissions of one or more TAC. **While the**

[19] MND, pp. 4-96 to 4-97, emphasis added.
[20] MND, p. 16.
[21] *Id*.
[22] MND, p. 4-30.
[23] Appendix A, pp. 2, 50 of CalEEMod Output.
[24] MND, p. 4-12.

project is not necessarily subject to the requirements of this regulation, the risk assessment guidelines and procedures published as part of this regulation are used in the health risk assessment herein.[25]

Consistent. The proposed project would generate emissions from construction activities. **The Health Risk Assessment prepared for the proposed project concluded that the cancer risk to receptors at the nearest school in the vicinity of the project site, Logan Memorial Educational Center, due to construction emissions would be 1.2 chances per million**. The chronic non-cancer health hazard index at the nearest school would be 0.00036; both indices are below 10 cases per million. The project will not be inconsistent with or obstruct the District from reducing cancer risk in the Portside Community, for emissions associated with activities on Tidelands.[26]

To evaluate the potential health effects of construction-related diesel PM emissions on receptors near the project site, **an HRA was performed based on these emissions estimates and the MICR and chronic HHI were calculated at the nearest residential receptor.**[27]

An HRA was prepared for this project to provide an estimate of potential cancer risk to nearby receptors due to construction emissions. This HRA was done in accordance with OEHHA's Air Toxic Hot Spot Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2015) and SDAPCD's Supplemental Guidelines for Submission of Rule 1200 Health Risk Assessments (SDAPCD 2019b). Construction emissions of PM2.5 (exhaust) were estimated using CalEEMod based on the anticipated construction schedule and the proposed land uses, as well as defaults in CalEEMod (CAPCOA 2021).[28]

The cancer risk was estimated using the OEHHA-derived calculation method for residential receptors and the exposure duration was adjusted in accordance with the anticipated construction schedule (12 years). **See Appendix A for all risk assessment assumptions/calculations and model output files**.[29]

Cancer risk to the nearest residential receptor proximal to the project site (i.e., at northwest corner of Main St. and South 27th St.) due to construction emissions would be 11.7 chances per million (Appendix B). The chronic non-cancer health hazard index at this residential receptor would be 0.0034. The cancer risk to receptors at the nearest school in the vicinity of the project site, Logan Memorial Educational Center (i.e., at 3,010 feet from the project site boundary), due to construction emissions would be 10.4 chances per million. The chronic non-cancer health hazard index at the nearest school would be 0.0031.

[25] MND, p. 4-19, Table 4.3-4, emphasis added.
[26] MND, p. 4-23, Table 4.3-4, emphasis added.
[27] MND, p. 4-28, emphasis added.
[28] MND, p. 4-28, emphasis added.
[29] MND, p. 4-28.

> Therefore, prior to mitigation, the cancer risk posed to nearby sensitive receptors who would be exposed to TAC emissions from project construction that would exceed SDAPCD's MICR threshold of 10 chances in one million (Impact-AQ-1).[30]
>
> With the incorporation of MM-AQ-1, cancer risk to the nearest residential receptor proximal to the project site (i.e., at northwest corner of Main St. and South 27th St.) due to construction emissions would be 8.9 chances per million (**Appendix B**).[31]

However, Appendix B is not an HRA – it is the Marine Habitat Assessment. Upon inquiry, Port staff stated Appendix A contains the modeling results and "there is not a separate HRA document per se and as may be expected with an EIR."[32] The calculations, however, are not decipherable in Appendix A. There is no reference in Appendix A to the cancer risk, health hazard index, or maximum increase in cancer risk.

Either an HRA which contains the calculations and analysis to support the air quality analysis in the MND was prepared and undisclosed, or the MND's assertions are misleading and unfounded. Under either scenario, the public has been deprived of its opportunity to provide meaningful input and the MND's conclusions are unsupported. If it exists, the HRA was not provided to the public during the comment period and perhaps has not been subject to review by Port staff either. As a result, the MND fails to fulfill its informational purpose and the document must be re-noticed for a new public comment period – with the promised HRA – as an EIR.[33]

The Project is also inconsistent with Port policies aimed at reducing air pollution from Port maritime and industrial operations.[34] MND Tables 4.3-4 and 4.3-5 purport to show the Project's consistency with the Maritime Clean Air Strategy (MCAS) and Community Emissions Reduction Program (CERP). However, as noted above, the MND and technical appendices do not provide substantial evidence that the Project's significant air quality impacts will be mitigated to a less than significant level.

Further, the Project's reliance on compliance with the City of San Diego's established truck route is misplaced. For years the City's truck route ordinance has been ignored by trucks servicing the Port. Police have stopped ticketing trucks and no feasible alternative enforcement mechanisms have been put in place. Years of noncompliance render the Coastal Development Permit compliance condition meaningless.[35] Instead, the community is pursuing alternative

[30] MND, p. 4-29, emphasis added.
[31] MND, p. 4-30, emphasis added.
[32] See enclosed email exchange.
[33] Pub. Res. Code §21091(b); 14 Cal Code Regs §15073(a).
[34] MND, p. 4-13.
[35] Barrio Logan Truck Route Enforcement Memo. Councilmember Vivian Moreno, September 10, 2019 https://www.sandiego.gov/sites/default/files/cd8memo091019.pdf (enclosed herewith)

measures, such as roundabouts.[36] To ensure consistency with the truck route and traffic-related policies and goals in the MCAS and CERP, the Project must be conditioned to not only comply with the truck route ordinance, but to fund traffic calming measures currently under City review and planning. Otherwise, significant impacts related to traffic and air quality will remain.

D. Conclusion

The MND ignores significant environmental impacts to water and air quality and improperly defers analysis of impacts and formulation of mitigation measures. As a result, an EIR must be prepared. As a steward of public trust resources and in order to fulfill the Port's promises to Portside communities, it is imperative that the Port disclose the promised Health Risk Assessment and assess, avoid, and/or mitigate the Project's potential to expose contaminated sediments prior to Project approval in an EIR.

Thank you in advance for your consideration of our comments.

Sincerely,

COAST LAW GROUP LLP

Livia B. Beaudin
Attorneys for Environmental Health Coalition and San Diego Coastkeeper

Enclosures: Cited References

[36] Voice of San Diego, *Police Stopped Ticketing Trucks Driving Through Barrio Logan. Advocates are Pushing an Alternative to Curb Truck Traffic*: https://voiceofsandiego.org/2022/04/06/police-have-stopped-ticketing-trucks-for-driving-through-barrio-logan-advocates-are-looking-for-an-alternative-to-curb-truck-traffic/ (enclosed herewith)

Livia Borak Beaudin

From: Peter Eichar <peichar@portofsandiego.org>
Sent: Wednesday, May 25, 2022 10:16 AM
To: Livia Borak Beaudin; Megan Hamilton
Subject: RE: Notice of Availability and Notice of Intent to Adopt a Mitigated Negative Declaration for the NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project

Appendix A contains the modeling results, there is not a separate HRA document per se and as may be expected with an EIR.

The last sentence on page 4-28 reads: *See Appendix A for all risk assessment assumptions/calculations and model output files*

The Appendix B reference (an correct reference) is on page 4-29 as you identified, reads: *Cancer risk to the nearest residential receptor proximal to the project site (i.e., at northwest corner of Main St. and South 27th St.) due to construction emissions would be 11.7 chances per million (Appendix B).*

The HRA results and analysis are discussed within Attachment A to the MND, beginning on page 4-28. The potential impact (Impact-AQ-1) is discussed on page 4-29 and feasible mitigation (MM-AQ-1) identified on page 4-30.

Best,

Peter

Peter Eichar, AICP
Senior Environmental Specialist
Planning

PORT of SAN DIEGO

From: Livia Borak Beaudin <livia@coastlawgroup.com>
Sent: Wednesday, May 25, 2022 10:00 AM
To: Peter Eichar <peichar@portofsandiego.org>; Megan Hamilton <mhamilton@portofsandiego.org>
Subject: RE: Notice of Availability and Notice of Intent to Adopt a Mitigated Negative Declaration for the NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thanks, Peter. Can you tell me what page the actual HRA is on? I don't see it in the linked documents.

Thanks,
~Livia

Livia Borak Beaudin (she/her)

Coast Law Group LLP
1140 South Coast Highway 101
Encinitas, California 92024
tel. 760.942.8505 x118
fax 760.942.8515

"Like music and art, love of nature is a common language that can transcend political or social boundaries." – Jimmy Carter

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From: Peter Eichar <peichar@portofsandiego.org>
Sent: Wednesday, May 25, 2022 9:57 AM
To: Livia Borak Beaudin <livia@coastlawgroup.com>; Megan Hamilton <mhamilton@portofsandiego.org>
Subject: RE: Notice of Availability and Notice of Intent to Adopt a Mitigated Negative Declaration for the NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project

Good Morning – that would be an incorrect reference in the MND, we shall correct it for final publication. The Air Quality, GHG, Energy and HRA modeling are in Appendix A, link below. This file contains all appendices.

NASSCO-Floating-Dry-Dock-Replacement-WIP-Appendices-A-H.pdf (windows.net)

Peter Eichar, AICP
Senior Environmental Specialist
Planning

PORT of SAN DIEGO

From: Livia Borak Beaudin <livia@coastlawgroup.com>
Sent: Wednesday, May 25, 2022 9:43 AM
To: Peter Eichar <peichar@portofsandiego.org>; Megan Hamilton <mhamilton@portofsandiego.org>
Subject: FW: Notice of Availability and Notice of Intent to Adopt a Mitigated Negative Declaration for the NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning Peter and Megan,

I'm reviewing the NASSCO MND and see a reference to the Health Risk Assessment as Appendix B. (MND, p. 4-29). Appendix B is the marine biology report. I don't see it anywhere in the MND itself or appendices. Is it available somewhere?

Thanks,
~Livia

Livia Borak Beaudin (she/her)

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tel. 760.942.8505 x118
fax 760.942.8515

"Like music and art, love of nature is a common language that can transcend political or social boundaries." – Jimmy Carter

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From: Peter Eichar <peichar@portofsandiego.org>
Sent: Thursday, April 28, 2022 7:41 AM
To: Peter Eichar <peichar@portofsandiego.org>; Megan Hamilton <mhamilton@portofsandiego.org>
Subject: Notice of Availability and Notice of Intent to Adopt a Mitigated Negative Declaration for the NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project

Please see the attached Notice of Availability and Notice of Intent for information to access, review and provide comments on the proposed Mitigated Negative Declaration.

Project Description Summary: The proposed project is the repair, maintenance, and replacement of certain existing in-water facilities within the project site used in the repair of military and other vessels. A Non-appealable Coastal Development Permit is required to implement the proposed project. Specifically, the removal and replacement of the existing floating dry dock and supporting infrastructure, improvements to the repair complex wharf, repairs to the quay wall and revetments along identified stretches of shoreline and as-needed structural repair or replacement of selected piles throughout the project site. There would be no increase in operational capacity at the project site following completion of the proposed project. Construction of the floating dry dock, repair complex wharf, and quay wall is expected to begin early 2023 and be completed in 2025. As-needed repairs would occur periodically from 2025 to 2034.

Public Comments: The Draft MND is available for a minimum 30-day public review period that starts on Thursday April 28 and ends at 5:00 p.m. on Tuesday May 31, 2022. Comment letters stating specific environmental concerns with the Draft MND should be mailed to: San Diego Unified Port District, Attn: Megan Hamilton, Development Services Department, 3165 Pacific Highway, San Diego, CA 92101-1128 or emailed to mhamilton@portofsandiego.org. **Comments are due at 5:00 p.m. on May 31, 2022.**

Megan Hamilton
Senior Planner
Development Services

Peter Eichar, AICP
Senior Environmental Specialist
Planning

3165 Pacific Highway, San Diego, CA 92101
(o) 619.686.6284 (m) 619.380.0928

PORT of SAN DIEGO

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NEWS

Police Stopped Ticketing Trucks Driving Through Barrio Logan. Advocates are Pushing an Alternative to Curb Truck Traffic.

Environmental justice advocates and Barrio Logan residents for years pressed police to keep commercial trucks off residential streets – away from homes and schools – but citation numbers show enforcement has proven difficult and ineffective. Now, advocates are pursuing different avenues to keep trucks out of the community.

VOICE of SAN DIE DONATE

A semi-truck drives under the Barrio Logan gateway sign on Cesar E. Chavez Parkway on March 29, 2022. / Photo by Kristian Carreon for Voice of San Diego

San Diego Police Department officers have stopped giving out tickets to enforce a city law that bans five-ton commercial trucks from rolling through certain residential streets in Barrio Logan.

That ban was intended to keep pollution from diesel trucks out of an already overly polluted neighborhood. But the last ticket issued related to the ban was recorded in November of last year, city data show. A spokesman for the San Diego Police Department told Voice of San Diego that its traffic division continues to patrol the area and is focused on issuing warnings as part of an education and outreach strategy.

That lack of enforcement would have floored those who played a crucial role in getting that law on the books four years ago. But now, advocates say it's proof that relying on SDPD hasn't helped and they need to look elsewhere for a solution.

The Environmental Health Coalition, the nonprofit environmental justice group that **once pushed police to enforce the city's law**, has shifted to pushing for traffic calming measures – roundabouts, speed humps and road medians – to curb commercial truck traffic in the neighborhood.

EHC says that shift comes from seeing minimal improvement from enforcement, but also in response to concerns about requesting an increased police presence in the heavily Latino community.

A FedEx truck turns onto Cesar E. Chavez Parkway from Main Street in Barrio Logan on March 29, 2022. / Photo by Kristian Carreon for Voice of San Diego

Barrio Logan has long dealt with commercial vehicle traffic because of its proximity to major highways and a port terminal. Surrounding businesses and industrial companies have also played a role.

It's not uncommon to spot a semi-truck idling near a home or making a wide turn on a small street.

As a result, residents and environmental justice advocates with EHC spent years asking the city, and the Port of San Diego, which manages the Tenth Avenue Marine Terminal on Main Street, to keep heavy duty trucks away from residential streets and schools.

That was seen by proponents as something that would **increase neighborhood safety**, but most importantly, reduce community members' exposure to **pollutants coming from diesel trucks**. The neighborhood is **one of the most polluted in the city**.

The city created a designated truck route for drivers to keep them out of residential areas. In turn, the city in 2018 made it illegal for large commercial trucks to use smaller streets, with a resolution backed by the community and EHC. That resolution added the prohibited streets to the city's Municipal Code. Those streets included sections of Main Street, Boston Avenue, Beardsley Street, Sigsbee Street a**nd a few more**.

The city set aside about $1,300 to install signs throughout the community to inform drivers of prohibited streets. And the San Diego Police Department **committed to enforcing the resolution**.

But there were issues early on.

Residents started raising concerns about lax enforcement in September 2019. EHC leadership told The San Diego Union-Tribune at the time that whatever SDPD was doing wasn't working and **that they needed to increase enforcement.** Councilwoman Vivan Moreno requested that the department **develop a plan to increase enforcement** later that month.

SDPD issued the most citations to drivers during the two-month period following the councilwoman's request with 65 citations issued in October and 74 in November 2019.

Citations Issued to Truck Drivers on Banned Barrio Logan Streets

The number of citations issued by the San Diego Police Department to trucks drivers on banned streets in Barrio Logan have decreased significantly over the last two years. SDPD says it has not stopped enforcement, but rather focused on issuing warnings and an educational approach for drivers.

Number of Citations

Source: City of San Diego

View citation numbers in another tab here.

Citations dropped down to the low 20s per month in December, January and February, then to seven citations in March 2020. Citations issued in the months after that ranged from six to zero. The last citation was handed out in November 2021.

Jose Ysea, city spokesman for SDPD, said officers stopped issuing citations because the city's policy worked, and truckers no longer flout the ban. After the regulation went into effect, he said, truck drivers were unaware of it. He said new signage and increased education and outreach have increased compliance, "which translates into the lower number of citations you see today."

"SDPD is not planning to no longer issue citations for these offenses," Ysea said in an email. "Motor officer[s] from SDPD's Traffic Division continue to patrol and ensure compliance of the new regulation."

The City Attorney's Office last December reviewed citation numbers issued to truck drivers and found that officers were transitioning to warnings because tickets were getting dismissed in traffic court. The office moved to install new signs as a result.

Miguel Espinoza, the resident manager of the Barrio Senior Villas apartments, does not agree that truckers have started complying with the ban.

"It's a joke," he said, of how police officers enforce the city law.

Nearly every morning, Espinoza said, he goes out in the early hours and asks truck drivers parked alongside the apartments to move along, because residents can't sleep from the sounds of their idling engines or refrigerated trailers.

After leading efforts to advocate for more enforcement of the city's truck ban for several years, EHC **advocates have changed their tune**.

Julie Corrales, a policy advocate with EHC, said that shift has come in response to community concerns that truck enforcement was a pretext for increased police presence in the community.

She said that EHC was never asking for additional police presence in the community, only that officers enforce the truck ban. But conversations about enforcement with SDPD's Central Division, which covers Barrio Logan, included talks of overtime and increasing the number of officers in the area to cite trucks, she said.

It was also clear that even though there was an increase in warnings and citations given to truck drivers in 2019, community members saw little improvement, she said, and then the following year enforcement dropped significantly.

“Because of all this, EHC decided to switch its focus to more holistic approaches that address the truck route violations,” she said.

A sign prohibiting trucks over 5 tons displayed near the corner of Main Street and 26th Street in Barrio Logan on March 29, 2022. / Photo by Kristian Carreon for Voice of San Diego

While it’s true that there was more enforcement in 2019, that ranged from one to 16 citations before October 2019, when SDPD issued 65 citations and more in November. Shortly after that, citations decreased again.

The organization’s shift has not done much to address truck traffic, she said, but they have made progress on pushing traffic calming measures.

EHC advocated for traffic calming measures, which are intended to make it physically impossible for trucks to drive in the community, to get implemented in the neighborhood's most **recent community plan update** and for the city to set aside money to study that alternative, she said.

Espinoza, who is constantly dealing with complaints from residents of the senior villas about the trucks, said built-in barriers might prove more effective at preventing the trucks from using residential streets as shortcuts or to idle, but wondered how long it would take to build them.

Some 23 tenants live in the senior villas Espinoza manages. He said residents don't have air conditioning, but many say they can't open their windows to let in a breeze because the sounds and smells from the trucks are bothersome.

He said the city should work fast to protect residents by installing barriers, because it's not worth having enforcement if the tickets get thrown out in court. He does worry though, that it might take years, and without enforcement, then residents will keep dealing with the same issues.

"If nothing changes in the next year or so, I might leave," he said. "It's challenging living here."

Vivian Moreno refused to comment.

Hector Villegas, a Barrio Logan resident and former member of the neighborhood's planning group, said physical barriers that prevent trucks from using residential streets could be a good option and would open opportunities for beautification projects.

Villegas grew up in the community and remembers dealing with this issue since he was a little kid. He said that the community is going to keep growing, as are businesses and the port, so it's important for something to be done to alleviate the problem.

Not everyone agrees that stepping away from enforcement is a good idea.

“I’m very concerned,” said Pablo Castaneda, who lives in the community.

Castaneda said it’s shocking that police are not issuing citations because he sees trucks on his street and others in the neighborhood every day.

He is also a commercial truck driver, which is why he doesn’t buy the excuse that drivers just get lost or don’t see the signs posted in the community.

“Being a professional driver means something – it means you have to obey the rules of the community wherever you go,” Castaneda said.

Craig

April 7, 2022 at 1:21 pm

Expand comments

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COUNCILMEMBER VIVIAN MORENO
City of San Diego
Eighth District
MEMORANDUM

DATE: September 10, 2019

TO: Honorable Mayor Kevin Faulconer

FROM: Councilmember Vivian Moreno

SUBJECT: Barrio Logan Truck Route Enforcement

On December 10, 2018, after decades of environmental injustice in the community of Barrio Logan, the San Diego City Council unanimously approved an ordinance which diverts commercial truck traffic away from the community's residential areas. This ordinance passed with support from community members, the Barrio Logan Planning Group, the Environmental Health Coalition, the Port District, Caltrans, and the City of National City. Upon passage of the ordinance, signage was installed to clearly mark the new truck route.

Despite the new signage, commercial trucks over 5 tons continue to use residential streets as a shortcut, in direct violation of the ordinance. In fact, informal surveys conducted by residents document up to 40 violations per hour on a regular basis. This stands in stark contrast to the 41 citations that have been issued by the San Diego Police Department (SDPD) since the ordinance came into effect over 8 months ago. These continued violations endanger the parents and children who frequently use the sidewalks and cross the street in these residential areas.

On the morning of Friday, August 9, 2019, at around 1:45 a.m., the driver of a semi-truck on the 3000 block of Main Street lost control of their vehicle. The semi-truck crashed into two power lines and a fire hydrant before bursting into flames, knocking out power for over 4,000 customers in the surrounding area. Although there were no serious injuries, this is exactly the type of incident the truck route was designed to prevent.

In the wake of this recent event and in the interest of transparency, I respectfully request that the SDPD present a comprehensive and effective enforcement plan to the community at the upcoming Barrio Logan Planning Group meeting on Wednesday, September 18, 2019. Additionally, I request that the SDPD present their plan on October 23, 2019 at the Public Safety and Livable Neighborhoods Committee, of which I am a member.

Thank you for your prompt action in this important matter.

CC: Councilmember Monica Montgomery, Chair, Public Safety and Livable Neighborhoods Committee
Mark Steele, Chair, Barrio Logan Planning Group
Chief David Nisleit, San Diego Police Department

San Diego County
Air Pollution
Control District

May 31, 2022

San Diego Unified Port District
Attn: Megan Hamilton, Development Services Department
3165 Pacific Highway, San Diego, CA 92101-1128

Dear Ms. Hamilton,

The San Diego County Air Pollution Control District (APCD) appreciates the opportunity to provide comments on the proposed project. General comments contained in this letter are for information/education of APCD rules and requirements and do not require a response. The APCD requests a response when specific comments are made that reference a section of the CEQA document.

General Information About the APCD

The APCD is mandated under federal and state law to regulate air pollutant emissions and improve air quality to protect public health and the environment. Accordingly, the APCD operates a countywide air quality permitting, monitoring, and enforcement programs to ensure compliance with applicable air pollution regulations for healthful air quality. The APCD's jurisdiction covers all of San Diego County, including both the incorporated and unincorporated areas.

Project Description as Understood by the APCD

The NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project (project) consists of the removal and replacement of the existing floating dry dock with a new floating dry dock of similar characteristics and the same functionality. Also, the removal and replacement of supporting infrastructure, demolition of the old and construction of a new Repair Complex Wharf, repair of the quay wall and revetments along identified stretches of shoreline, and as-needed programmatic repair or replacement of selected structural support piles throughout the project site. There would be no increase in operational capacity following completion of the proposed project.

Specific Comments on Emissions Estimates and the Health Risk Assessment (HRA)

The HRA did not address any risk from construction emissions other than long term (both cancer and non-cancer) for Diesel Particulate Matter (DPM). Other construction activities may contribute to risk (such as welding, coatings, abrasive blasting, etc.), and the acute risk must also be evaluated. Note that for diesel-fired equipment, the acute risk is based on the speciated toxic air contaminant emissions,

1. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-10.pdf
2. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-11.pdf
3. https://www.sdapcd.org/content/dam/sdapcd/documents/compliance/advisories/2020/Proper%20Uses%20of%20Portable%20Equipment.pdf
4. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-50.pdf
5. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-51.pdf
6. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-55.pdf
7. https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation
8. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-1206.pdf

rather than on the diesel particulate matter (DPM) emissions. The APCD has emission calculation methods for welding and other construction activities on its website at: https://www.sdapcd.org/content/sdapcd/permits/toxics-emissions/calculation-procedures.html

The HRA only evaluated long term risk to offsite receptors during the 12-year project life. To accurately evaluate the potential risk, the exposure should be set to 30 years for residents and 25 years for offsite workers.

In the AERMOD run, volume sources for the construction emissions extended to cover all the area of the ways and building dock, even though no construction activities are described for that entire area. The volume sources should only be placed where construction activities are proposed to occur.

In the AERMOD run, the emissions assessed to the volume sources making up both the construction source and the haul road source do not total up to 1 gram/sec (g/s) each, as stated in the Air Dispersion Modeling and Health Risk discussion within section 4.3.3(c) of the Draft Environmental Initial Study Checklist (all the sources within AERMOD combined equal 0.83 g/s emissions, when they should have equaled 2 g/s (1 g/s for haul road and 1 g/s for construction)). Additionally, when the AERMOD results were brought into HARP, the annual emissions were not adjusted to account for this.

The annual emissions presented in Appendix A – Annual Emission Rates (w/T-BACT [Tier 4]) are slightly different than those listed in Appendix A – HRA Input Calculations (w/T-BACT [Tier 4]). It should be ensured that the correct emissions are evaluated.

In the HARP emissions input file, the annual emissions for both the haul road and construction emission sources are slightly different than the annual emissions presented in Appendix A – HRA Input Calculations (w/T-BACT [Tier 4]). It should be ensured that the correct emissions are evaluated in HARP.

In the Draft Environmental Study Checklist, it is stated that the required mitigation would be to have at least 75% of the construction equipment meet Tier 4 standards. However, the inputs into CalEEMod (a construction emissions estimator) show all offroad equipment would be Tier 4, and CalEEMod emissions were used in the HRA (notwithstanding the above comments). It should be clarified why only 75% of the equipment needs to be Tier 4 if the analysis assumed 100% of the equipment would be Tier 4.

The APCD recommends that different settings with HARP should be used, per the Office of Environmental Health Hazard Assessment's (OEHHA's) Guideline Manual for Preparation of Health Risk Assessments (https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf) and APCD's "Hot Spots" Supplemental HRA Guidelines (https://www.sdapcd.org/content/dam/sdapcd/documents/permits/air-toxics/Hot-Spots-Guidelines.pdf):

1. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-10.pdf
2. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-11.pdf
3. https://www.sdapcd.org/content/dam/sdapcd/documents/compliance/advisories/2020/Proper%20Uses%20of%20Portable%20Equipment.pdf
4. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-50.pdf
5. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-51.pdf
6. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-55.pdf
7. https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation
8. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-1206.pdf

- The daily breathing rate should be set to the ARB Risk Management Policy (RMP) daily breathing rates, not the LongTerm24HR rate used in the HARP run (Supplemental Guidelines section 4.).
- The dermal climate should be set to warm, not mixed as was used in the HARP run (OEHHA Guidelines Section 5.4.2.1
- The Draft Environmental Initial Study Checklist has some statements that indicate the HRA was done differently than it actually was:
    - The aforementioned issue with the emissions assessed in AERMOD
    - The aforementioned issue with the annual emissions in HARP
    - The Checklist says the Urban dispersion parameters were used, whereas the HRA used Rural dispersion parameters. Note that Urban dispersion parameters would be acceptable for evaluating this project.
    - The Checklist says meteorological data from Lindbergh Field was used, whereas the HRA used meteorological data from Perkins Elementary (Perkins Elementary is the appropriate data to use for this project).
- With these issues, it is recommended to re-run the HRA, to ensure all the construction emissions are evaluated and that all the risks are determined, in accordance with the OEHHA Guidelines and the APCD's Supplemental Guidelines. Additionally, if the HRA is re-run, the receptor grid may need to be expanded.

General Information About Equipment Potentially Requiring Permits

The APCD's permitting program has been established to minimize air pollution by specifying operating and compliance requirements for stationary and portable sources that emit air contaminants. APCD Rule 10 [1]requires that any person building, erecting, altering or replacing any article, machine, equipment or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate or reduce or control the issuance of air contaminants, shall first obtain written authorization for such construction and operation from the APCD. Examples of air contaminants include, but are not limited to, carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, sulfur dioxide or toxic air contaminants, which can negatively impact public health. APCD Rule 11[2] lists exemptions for equipment or processes that do not emit a significant amounts of air pollutants.

Specific Comment on Equipment Which May be Used at Project

The following equipment listed in the project description may require authority to operate from the APCD; Crane for pile installation (second engine 50 hp or greater), Vibratory and/or diesel impact pile driver for pile installation, Concrete pump and boom, Portable welding units for overwater welding and Diesel-powered generators for barge power.

1. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-10.pdf
2. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-11.pdf
3. https://www.sdapcd.org/content/dam/sdapcd/documents/compliance/advisories/2020/Proper%20Uses%20of%20Portable%20Equipment.pdf
4. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-50.pdf
5. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-51.pdf
6. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-55.pdf
7. https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation
8. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-1206.pdf

There may be also instances where portable equipment may need to have a permit to operate in lieu of a registration. Please see the compliance advisory, Proper Uses of Portable Equipment[3].

The MND states that no changes in NASSCO's operation are expected to occur due to this project, with the change in dimensions of the dry dock and repair and expansion of the Repair Complex Wharf, there is the potential that operations could increase (a concept known as debottlenecking). The MND should show how this will not occur. If it cannot be shown that operations would not increase, then an application for Authority to Construct would need to be filed with the APCD for the dry dock replacement.

General Information About Dust

Projects or operations that can generate fugitive dust emissions may be subject to the following APCD rules:

- APCD Rule 50[4], *Visible Emissions*, which states air contaminants shall not be discharged into the atmosphere for a period or periods aggregating more than three minutes in any period of 60 consecutive minutes which is darker in shade than a number 1 on the Ringlemann Chart (20% opacity).
- APCD Rule 51[5], *Nuisance*, which states "*a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property*"

In addition to the rules listed above, any commercial construction or demolition activity capable of generating fugitive dust emissions may be subject to APCD Rule 55[6], *Fugitive Dust Control*. This rule has restrictions for airborne dust beyond the property line and visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out.

General Information About Off-Road Construction Equipment

Any project using off-road vehicles or equipment that are diesel-powered, self-propelled, and 25 horsepower (hp) or greater must comply with the In-Use Off-Road Diesel-Fueled Fleets Regulation[7] and must be registered under the current owner with the California Air Resources Board (CARB) Diesel Off-Road Online Reporting System (DOORS). Each vehicle is assigned an Equipment Identification Number (EIN) which must be labeled on both sides of the vehicle. Fleets must meet emission targets.

1. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-10.pdf
2. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-11.pdf
3. https://www.sdapcd.org/content/dam/sdapcd/documents/compliance/advisories/2020/Proper%20Uses%20of%20Portable%20Equipment.pdf
4. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-50.pdf
5. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-51.pdf
6. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-55.pdf
7. https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation
8. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-1206.pdf

Fleets must limit unnecessary idling to 5 minutes; there are exceptions for vehicles that need to idle to perform work (such as a crane providing hydraulic power to the boom), vehicles being serviced, or in a queue waiting for work.

Written Idling Policy – Medium fleets (total max hp 2,501 – 5,000) and large fleets (total max hp greater than 5,000 hp) must also have a written idling policy that is made available to operators of the vehicles and informs them that idling is limited to 5 consecutive minutes or less.

Specific Comment on Off-Road Equipment

Mitigation Measure AQ-1: Construction Fleet Emissions Requirements, states "Prior to issuance of a construction-related permit, the applicant shall submit evidence to the District that the proposed off-road construction fleet will consist of at least 75 percent of offroad diesel construction equipment (greater than 50 horsepower) that meet Tier 4 (final) California Emissions Standards for off-road diesel engines.

The APCD recommends considering implementation of zero emission equipment wherever feasible as well as diesel equipment meeting Tier 4 standards to minimize emissions from project activities to the maximum extent practicable.

General Information About Asbestos

Asbestos is a known human carcinogen and the primary route of exposure is through inhalation of asbestos fibers. More information on the health effects of asbestos may be found at www.epa.gov/asbestos . As such, APCD Rule 1206[8] incorporates the requirements of the federal asbestos requirements found in National Emission Standards for Hazardous Air Pollutants (NESHAP) and includes additional requirements to minimize exposure to asbestos fibers.

APCD Rule 1206[8] requires a facility survey for certain projects to determine if asbestos is present prior to commencement of renovation or demolition. Persons conducting facility surveys shall have taken and passed a current EPA-approved Building Inspector Course. The asbestos content shall be analyzed by a laboratory certified by the National Voluntary Laboratory Accreditation Program (NVLAP).

If more than 100 square feet of asbestos containing materials will be disturbed or a demolition will occur a notification must be submitted to the APCD and procedures for asbestos emission control and waste handling and disposal must be in compliance with APCD Rule 1206.

Specific Comment About Asbestos

The environmental analysis states, "The existing building situated on the Repair Complex Wharf has been partially demolished and is anticipated to be fully demolished by July 2022 as part of a separate action related to structural concerns and safety".

1. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-10.pdf
2. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-11.pdf
3. https://www.sdapcd.org/content/dam/sdapcd/documents/compliance/advisories/2020/Proper%20Uses%20of%20Portable%20Equipment.pdf
4. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-50.pdf
5. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-51.pdf
6. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-55.pdf
7. https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation
8. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-1206.pdf

San Diego County Air Pollution Control District

"The existing building situated on the wharf (Building 19) would be demolished prior to project construction."

As stated in the general information about asbestos, "If more than 100 square feet of asbestos containing materials will be disturbed or a demolition will occur a notification must be submitted to the APCD and procedures for asbestos emission control and waste handling and disposal must be in compliance with APCD Rule 1206."

Should you have any questions about these comments or APCD requirements please contact Air Quality Specialist, Eric Luther (858) 586-2806 or eric.luther@sdapcd.org .

Sincerely,

Eric Luther

Eric Luther
Air Quality Specialist

1. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-10.pdf
2. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-11.pdf
3. https://www.sdapcd.org/content/dam/sdapcd/documents/compliance/advisories/2020/Proper%20Uses%20of%20Portable%20Equipment.pdf
4. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-50.pdf
5. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-51.pdf
6. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-55.pdf
7. https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation
8. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-1206.pdf

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VIA E-MAIL

February 15, 2023

Scott Vurbeff, Senior Planner
San Diego Unified Port District, Development Services Department
3165 Pacific Highway
San Diego, CA 92101
Em: svurbeff@portofsandiego.org

RE: NASSCO FLOATING DRY DOCK REPLACEMENT AND WATERFRONT IMPROVEMENT PROJECT (UPD #EIR-2023-006).

Dear Mr. Vurbeff,

On behalf of the Southwest Mountain States Regional Council of Carpenters ("**Southwest Carpenters**" or "**SWMSRCC**"), my Office is submitting these comments for the San Diego Unified Port District's ("District") February 16, 2023, Public Scoping Meeting for the NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project ("**Project**").

The Southwest Carpenters is a labor union representing over 63,000 union carpenters in 10 states, including California, and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects.

Individual members of the Southwest Carpenters live, work, and recreate in the District and surrounding communities and would be directly affected by the Project's environmental impacts.

The Southwest Carpenters expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

The Southwest Carpenters incorporates by reference all comments raising issues regarding the Environmental Impact Report (EIR) submitted prior to certification of

the EIR for the Project. See *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project's environmental documentation may assert any issue timely raised by other parties).

Moreover, the Southwest Carpenters requests that the District provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (**CEQA**) (Pub. Res. Code, § 21000 *et seq.*), and the California Planning and Zoning Law ("**Planning and Zoning Law**") (Gov. Code, §§ 65000–65010). California Public Resources Code Sections 21092.2, and 21167(f) and California Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

I. THE DISTRICT SHOULD REQUIRE THE USE OF A LOCAL WORKFORCE TO BENEFIT THE COMMUNITY'S ECONOMIC DEVELOPMENT AND ENVIRONMENT

The District should require the Project to be built using a local workers who have graduated from a Joint Labor-Management Apprenticeship Program approved by the State of California, have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from such a state-approved apprenticeship training program, or who are registered apprentices in a state-approved apprenticeship training program.

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded:

> [L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

Furthermore, workforce policies have significant environmental benefits given that they improve an area's jobs-housing balance, decreasing the amount and length of job commutes and the associated greenhouse gas (GHG) emissions. In fact, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program" can result in air pollutant reductions.[2]

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[3]

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (VMT). As planning experts Robert Cervero and

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[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10.

[3] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf

Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must match those held by local residents.[4] Some municipalities have even tied local hire and other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.

Recently, the State of California verified its commitment towards workforce development through the Affordable Housing and High Road Jobs Act of 2022, otherwise known as Assembly Bill No. 2011 ("**AB2011**"). AB2011 amended the Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet affordability and labor requirements.

The District should consider utilizing local workforce policies and requirements to benefit the local area economically and to mitigate greenhouse gas, improve air quality, and reduce transportation impacts.

II. THE CITY SHOULD IMPOSE TRAINING REQUIREMENTS FOR THE PROJECT'S CONSTRUCTION ACTIVITIES TO PREVENT COMMUNITY SPREAD OF COVID-19 AND OTHER INFECTIOUS DISEASES

Construction work has been defined as a Lower to High-risk activity for COVID-19 spread by the Occupations Safety and Health Administration. Recently, several

[4] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

construction sites have been identified as sources of community spread of COVID-19.[5]

Southwest Carpenters recommend that the Lead Agency adopt additional requirements to mitigate public health risks from the Project's construction activities. Southwest Carpenters requests that the Lead Agency require safe on-site construction work practices as well as training and certification for any construction workers on the Project Site.

In particular, based upon Southwest Carpenters' experience with safe construction site work practices, Southwest Carpenters recommends that the Lead Agency require that while construction activities are being conducted at the Project Site:

Construction Site Design:

- The Project Site will be limited to two controlled entry points.
- Entry points will have temperature screening technicians taking temperature readings when the entry point is open.
- The Temperature Screening Site Plan shows details regarding access to the Project Site and Project Site logistics for conducting temperature screening.
- A 48-hour advance notice will be provided to all trades prior to the first day of temperature screening.
- The perimeter fence directly adjacent to the entry points will be clearly marked indicating the appropriate 6-foot social distancing position for when you approach the screening area. Please reference the Apex temperature screening site map for additional details.
- There will be clear signage posted at the project site directing you through temperature screening.

[5] Santa Clara County Public Health (June 12, 2020) COVID-19 CASES AT CONSTRUCTION SITES HIGHLIGHT NEED FOR CONTINUED VIGILANCE IN SECTORS THAT HAVE REOPENED, *available at* https://www.sccgov.org/sites/covid19/Pages/press-release-06-12-2020-cases-at-construction-sites.aspx.

- Provide hand washing stations throughout the construction site.

Testing Procedures:

- The temperature screening being used are non-contact devices.
- Temperature readings will not be recorded.
- Personnel will be screened upon entering the testing center and should only take 1-2 seconds per individual.
- Hard hats, head coverings, sweat, dirt, sunscreen or any other cosmetics must be removed on the forehead before temperature screening.
- Anyone who refuses to submit to a temperature screening or does not answer the health screening questions will be refused access to the Project Site.
- Screening will be performed at both entrances from 5:30 am to 7:30 am.; main gate [ZONE 1] and personnel gate [ZONE 2]
- After 7:30 am only the main gate entrance [ZONE 1] will continue to be used for temperature testing for anybody gaining entry to the project site such as returning personnel, deliveries, and visitors.
- If the digital thermometer displays a temperature reading above 100.0 degrees Fahrenheit, a second reading will be taken to verify an accurate reading.
- If the second reading confirms an elevated temperature, DHS will instruct the individual that he/she will not be allowed to enter the Project Site. DHS will also instruct the individual to promptly notify his/her supervisor and his/her human resources (HR) representative and provide them with a copy of Annex A.

Planning

- Require the development of an Infectious Disease Preparedness and Response Plan that will include basic infection prevention measures (requiring the use of personal protection equipment), policies and procedures for prompt identification and isolation of sick individuals, social distancing (prohibiting gatherings of no more than 10 people including all-hands meetings and all-hands lunches) communication and training and workplace controls that meet standards that may be promulgated by the Center for Disease Control, Occupational Safety and Health Administration, Cal/OSHA, California Department of Public Health or applicable local public health agencies.[6]

The United Brotherhood of Carpenters and Carpenters International Training Fund has developed COVID-19 Training and Certification to ensure that Carpenter union members and apprentices conduct safe work practices. The Agency should require that all construction workers undergo COVID-19 Training and Certification before being allowed to conduct construction activities at the Project Site.

Southwest Carpenters has also developed a rigorous Infection Control Risk Assessment ("**ICRA**") training program to ensure it delivers a workforce that understands how to identify and control infection risks by implementing protocols to protect themselves and all others during renovation and construction projects in healthcare environments.[7]

ICRA protocols are intended to contain pathogens, control airflow, and protect patients during the construction, maintenance and renovation of healthcare facilities. ICRA protocols prevent cross contamination, minimizing the risk of secondary infections in patients at hospital facilities.

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[6] *See also* The Center for Construction Research and Training, North America's Building Trades Unions (April 27 2020) NABTU and CPWR COVIC-19 Standards for U.S Constructions Sites, *available at* https://www.cpwr.com/sites/default/files/NABTU_CPWR_Standards_COVID-19.pdf; Los Angeles County Department of Public Works (2020) Guidelines for Construction Sites During COVID-19 Pandemic, *available at* https://dpw.lacounty.gov/building-and-safety/docs/pw_guidelines-construction-sites.pdf.

[7] For details concerning Southwest Carpenters's ICRA training program, *see* https://icrahealthcare.com/.

The City should require the Project to be built using a workforce trained in ICRA protocols.

Sincerely,

Reza Bonachea Mohamadzadeh
Attorneys for Southwest Mountain States Regional
Council of Carpenters

Attached:

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B); and

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C).

EXHIBIT A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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March 8, 2021

Mitchell M. Tsai
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Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. Tsai,

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2]

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

> "$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$
>
> Where:
>
> n = Number of land uses being modeled."[5]

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

> "$\text{Emissions}_{pollutant} = VMT * EF_{running,pollutant}$
>
> Where:
>
> $\text{Emissions}_{pollutant}$ = emissions from vehicle running for each pollutant
>
> VMT = vehicle miles traveled
>
> $EF_{running,pollutant}$ = emission factor for running emissions."[6]

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[8] The default number of construction-related worker trips is calculated by multiplying the

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Minimum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

Location Type	Location Name	Rural H-W (miles)	Urban H-W (miles)
Air Basin	Great Basin	16.8	10.8
Air Basin	Lake County	16.8	10.8
Air Basin	Lake Tahoe	16.8	10.8
Air Basin	Mojave Desert	16.8	10.8
Air Basin	Mountain	16.8	10.8
Air Basin	North Central	17.1	12.3
Air Basin	North Coast	16.8	10.8
Air Basin	Northeast	16.8	10.8
Air Basin	Sacramento	16.8	10.8
Air Basin	Salton Sea	14.6	11
Air Basin	San Diego	16.8	10.8
Air Basin	San Francisco	10.8	10.8
Air Basin	San Joaquin	16.8	10.8
Air Basin	South Central	16.8	10.8
Air Basin	South Coast	19.8	14.7
Air District	Amador County	16.8	10.8
Air District	Antelope Valley	16.8	10.8
Air District	Bay Area AQMD	10.8	10.8
Air District	Butte County	12.54	12.54
Air District	Calaveras	16.8	10.8
Air District	Colusa County	16.8	10.8
Air District	El Dorado	16.8	10.8
Air District	Feather River	16.8	10.8
Air District	Glenn County	16.8	10.8
Air District	Great Basin	16.8	10.8
Air District	Imperial County	10.2	7.3
Air District	Kern County	16.8	10.8
Air District	Lake County	16.8	10.8
Air District	Lassen County	16.8	10.8
Air District	Mariposa	16.8	10.8
Air District	Mendocino	16.8	10.8
Air District	Modoc County	16.8	10.8
Air District	Mojave Desert	16.8	10.8
Air District	Monterey Bay	16.8	10.8
Air District	North Coast	16.8	10.8
Air District	Northern Sierra	16.8	10.8
Air District	Northern	16.8	10.8
Air District	Placer County	16.8	10.8
Air District	Sacramento	15	10

Air District	San Diego	16.8	10.8
Air District	San Joaquin	16.8	10.8
Air District	San Luis Obispo	13	13
Air District	Santa Barbara	8.3	8.3
Air District	Shasta County	16.8	10.8
Air District	Siskiyou County	16.8	10.8
Air District	South Coast	19.8	14.7
Air District	Tehama County	16.8	10.8
Air District	Tuolumne	16.8	10.8
Air District	Ventura County	16.8	10.8
Air District	Yolo/Solano	15	10
County	Alameda	10.8	10.8
County	Alpine	16.8	10.8
County	Amador	16.8	10.8
County	Butte	12.54	12.54
County	Calaveras	16.8	10.8
County	Colusa	16.8	10.8
County	Contra Costa	10.8	10.8
County	Del Norte	16.8	10.8
County	El Dorado-Lake	16.8	10.8
County	El Dorado-	16.8	10.8
County	Fresno	16.8	10.8
County	Glenn	16.8	10.8
County	Humboldt	16.8	10.8
County	Imperial	10.2	7.3
County	Inyo	16.8	10.8
County	Kern-Mojave	16.8	10.8
County	Kern-San	16.8	10.8
County	Kings	16.8	10.8
County	Lake	16.8	10.8
County	Lassen	16.8	10.8
County	Los Angeles-	16.8	10.8
County	Los Angeles-	19.8	14.7
County	Madera	16.8	10.8
County	Marin	10.8	10.8
County	Mariposa	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Merced	16.8	10.8
County	Modoc	16.8	10.8
County	Mono	16.8	10.8
County	Monterey	16.8	10.8
County	Napa	10.8	10.8

County	Nevada	16.8	10.8
County	Orange	19.8	14.7
County	Placer-Lake	16.8	10.8
County	Placer-Mountain	16.8	10.8
County	Placer-	16.8	10.8
County	Plumas	16.8	10.8
County	Riverside-	16.8	10.8
County	Riverside-	19.8	14.7
County	Riverside-Salton	14.6	11
County	Riverside-South	19.8	14.7
County	Sacramento	15	10
County	San Benito	16.8	10.8
County	San Bernardino-	16.8	10.8
County	San Bernardino-	19.8	14.7
County	San Diego	16.8	10.8
County	San Francisco	10.8	10.8
County	San Joaquin	16.8	10.8
County	San Luis Obispo	13	13
County	San Mateo	10.8	10.8
County	Santa Barbara-	8.3	8.3
County	Santa Barbara-	8.3	8.3
County	Santa Clara	10.8	10.8
County	Santa Cruz	16.8	10.8
County	Shasta	16.8	10.8
County	Sierra	16.8	10.8
County	Siskiyou	16.8	10.8
County	Solano-	15	10
County	Solano-San	16.8	10.8
County	Sonoma-North	16.8	10.8
County	Sonoma-San	10.8	10.8
County	Stanislaus	16.8	10.8
County	Sutter	16.8	10.8
County	Tehama	16.8	10.8
County	Trinity	16.8	10.8
County	Tulare	16.8	10.8
County	Tuolumne	16.8	10.8
County	Ventura	16.8	10.8
County	Yolo	15	10
County	Yuba	16.8	10.8
Statewide	Statewide	16.8	10.8

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Mininum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1969	213.1969	0.0601	0.0000	214.6993
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6826	1,721.6826	0.1294	0.0000	1,724.9187
2023	0.6148	3.3649	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5295	1,627.5295	0.1185	0.0000	1,630.4925
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9078	52.9078	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6826**	**1,721.6826**	**0.1294**	**0.0000**	**1,724.9187**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1967	213.1967	0.0601	0.0000	214.6991
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6823	1,721.6823	0.1294	0.0000	1,724.9183
2023	0.6148	3.3648	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5291	1,627.5291	0.1185	0.0000	1,630.4921
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9077	52.9077	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6823**	**1,721.6823**	**0.1294**	**0.0000**	**1,724.9183**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4103	1.4103
2	**12-1-2021**	**2-28-2022**	1.3613	1.3613
3	**3-1-2022**	**5-31-2022**	1.1985	1.1985
4	**6-1-2022**	**8-31-2022**	1.1921	1.1921
5	**9-1-2022**	**11-30-2022**	1.1918	1.1918
6	**12-1-2022**	**2-28-2023**	1.0774	1.0774
7	**3-1-2023**	**5-31-2023**	1.0320	1.0320
8	**6-1-2023**	**8-31-2023**	1.0260	1.0260

9	**9-1-2023**	**11-30-2023**	1.0265	1.0265
10	**12-1-2023**	**2-29-2024**	2.8857	2.8857
11	**3-1-2024**	**5-31-2024**	1.6207	1.6207
		Highest	2.8857	2.8857

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1521
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1520
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7654	210.7654	0.0600	0.0000	212.2661
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6554	1,418.6554	0.1215	0.0000	1,421.6925
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4412	1,342.4412	0.1115	0.0000	1,345.2291
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6355	44.6355	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6554**	**1,418.6554**	**0.1215**	**0.0000**	**1,421.6925**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7651	210.7651	0.0600	0.0000	212.2658
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6550	1,418.6550	0.1215	0.0000	1,421.6921
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4409	1,342.4409	0.1115	0.0000	1,345.2287
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6354	44.6354	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6550**	**1,418.6550**	**0.1215**	**0.0000**	**1,421.6921**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4091	1.4091
2	**12-1-2021**	**2-28-2022**	1.3329	1.3329
3	**3-1-2022**	**5-31-2022**	1.1499	1.1499
4	**6-1-2022**	**8-31-2022**	1.1457	1.1457
5	**9-1-2022**	**11-30-2022**	1.1415	1.1415
6	**12-1-2022**	**2-28-2023**	1.0278	1.0278
7	**3-1-2023**	**5-31-2023**	0.9868	0.9868
8	**6-1-2023**	**8-31-2023**	0.9831	0.9831

9	**9-1-2023**	**11-30-2023**	0.9798	0.9798
10	**12-1-2023**	**2-29-2024**	2.8757	2.8757
11	**3-1-2024**	**5-31-2024**	1.6188	1.6188
		Highest	2.8757	2.8757

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0956
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0955
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Attachment C

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

EXHIBIT B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
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Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

EXHIBIT C

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

Appendix C

Public Draft Initial Study Environmental Checklist

DRAFT ENVIRONMENTAL INITIAL STUDY CHECKLIST

NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project

Prepared for:

PORT of SAN DIEGO
Waterfront of Opportunity

San Diego Unified Port District

April 2022

DRAFT ENVIRONMENTAL INITIAL STUDY CHECKLIST

NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project

Prepared for:

San Diego Unified Port District
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April 2022

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LIST OF ABBREVIATIONS

°C	degrees Celsius
2017 Scoping Plan	2017 Climate Change Scoping Plan
AB	Assembly Bill
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model Improvement Committee modeling system
AFY	acre-feet per year
ALUCP	Airport Land Use Compatibility Plan
AQIA	Air Quality Impact Analysis
CAA	federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFÉ	corporate average fuel economy
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
CalEMA	California Emergency Management Agency
Caltrans	California Department of Transportation
CAO	Cleanup and Abatement Order
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCA	California Coastal Act
CCAA	California Clean Air Act
CCC	California Coastal Commission
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDO	Cease and Desist Actions
CEC	California Energy Commission
CEMP	California Eelgrass Mitigation Policy
CERP	Community Emission Reduction Plan
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geologic Survey
CH_4	methane
CNEL	community noise equivalent level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
COC	contaminants of concern
CRHR	California Register of Historical Resources
CWA	Clean Water Act
cy	cubic yards

dB	decibels
diesel PM	particulate matter contained in diesel exhaust
District	San Diego Unified Port District
DOC	California Department of Conservation
DTSC	California Department of Toxic Substances Control
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
EO	Executive Order
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency
ESHA	Environmentally Sensitive [Habitat] Area
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Maps
FR	Federal Register
GHG	greenhouse gas
GWP	global warming potential
HARP2	Hotspots Analysis and Reporting Program Version 2
HHI	health hazard index
HPD	Port of San Diego Harbor Police Department
HRA	health risk assessment
HU	hydrologic unit
I-15	Interstate 15
I-5	Interstate 5
in/sec	inches per second
L_{eq}	Equivalent Continuous Sound Level
L_{max}	Maximum Sound Level
LOS	level of service
LUST	leaking underground storage tank
MBTA	Migratory Bird Treaty Act
MCAS	Maritime Clean Air Strategy
mgd	million gallons per day
MHPA	Multi-Habitat Planning Area
MICR	maximum individual cancer risk
MLLW	mean lower low water
MMPA	Marine Mammal Protection Act
$MMTCO_2e$	million metric tons of CO_2e
MRZ	Mineral Resource Zone

MSCP	Multiple Species Conservation Program
MT	metric ton
$MTCO_2e$	metric tons of CO_2e
MTS	San Diego Metropolitan Transit System
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NASSCO	General Dynamics-NASSCO
NCCP	natural community conservation plan
NED	National Elevation Dataset
NHTSA	National Highway Traffic and Safety Administration
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OEHHA	California Office of Environmental Health Hazard Assessment
OPR	Governor's Office of Planning and Research
PAH	polynuclear aromatic hydrocarbons
PCB	polychlorinated biphenyl
PCT	polychlorinated terphenyls
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to 10 microns in diameter
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in diameter
PMP	Port Master Plan
PPV	peak particle velocity
project	Floating Dry Dock Replacement and Waterfront Improvement Project
RAQS	San Diego Regional Air Quality Strategy
RCRA	Resource Conservation and Recovery Act
RES	Regional Energy Strategy
RMS	root-mean-square
ROW	right-of-way
RPS	Renewables Portfolio Standard
RWQCB	San Diego Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCIC	South Coastal Information Center
SDAB	San Diego Air Basin

SDAPCD	San Diego Air Pollution Control District
SDG&E	San Diego Gas and Electric Company
SDPD	City of San Diego Police Department
SDUSD	San Diego Unified School District
SIP	California State Implementation Plan
SLC	California State Lands Commission
SLR	Sea Level Rise
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO_2	sulfur dioxide
SPL	sound pressure level
SR 75	State Route 75
SWDS	Storm Water Diversion System
SWPPP	storm water pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
T-BACT	Toxics Best Available Control Technology
Technical Advisory	*Technical Advisory on Evaluating Transportation Impacts in CEQA*
TIS	*NASSCO Floating Dry Dock and Waterfront Improvement Project Transportation Impact Study*
TMDL	total maximum daily load
TPH	total petroleum hydrocarbons
USACE	U.S. Army Corps of Engineers
USC	University of Southern California
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	vibration decibels
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
VOC	volatile organic compounds

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1 INTRODUCTION

The following Environmental Initial Study Checklist addresses the environmental impacts associated with the General Dynamics-NASSCO (NASSCO) Floating Dry Dock Replacement and Waterfront Improvement Project (project). This Environmental Initial Study Checklist has been prepared in accordance with the California Environmental Quality Act (CEQA), as amended, the State CEQA Guidelines, and the San Diego Unified Port District's CEQA Guidelines.

1.1 INITIAL STUDY INFORMATION SHEET

1. **Project Title:** NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project

2. **Lead Agency Name and Address:** San Diego Unified Port District (District)
   3165 Pacific Highway
   San Diego, CA 92101

3. **Contact Person and Phone Number:** Megan Hamilton, (619) 686-8113

4. **Project Location:** 2798 East Harbor Drive, San Diego, California

5. **Project Sponsor's Name and Address:** General Dynamics-NASSCO
   2798 East Harbor Drive, San Diego, California

6. **Port Master Plan Designation:** Marine Related Industrial (Land) and Specialized Berthing (Water)

7. **Description of Project:**

   NASSCO is proposing the Floating Dry Dock Replacement and Waterfront Improvement Project (project) located at the NASSCO shipyard on and adjacent to San Diego Bay at 2798 East Harbor Drive in San Diego, California (project site). The project includes the following elements:

   - Removal and replacement of the existing floating dry dock and construction of supporting infrastructure;
   - Improvements to the Repair Complex Wharf;
   - Repairs to the quay wall and revetment along stretches of shoreline throughout the NASSCO leasehold, which includes shoreline segments Lot 20 to Pier 12, floating dry dock approach pier to Berth 8, Ways to Building Dock, Berth 2 to Berth 3, Berth 4 to Berth 5, and Berth 6 to Navy Base Quay Wall; and
   - As-needed structural repair and/or replacement of selected piles at Berths 2, 3, 4, 5, 6, at Pier 12 and the floating dry dock approach pier, and at the Berth 1 Platform.

   These project elements are described in more detail in Section 2.

   Implementation of the project would not expand the existing use of the project site or expand existing shipyard operations, including any increase in capacity to service or build more ships.

9. **Surrounding Land Uses and Setting:** Located approximately 1.3 miles southeast of Downtown San Diego, the project site is situated in a highly industrialized area on and adjacent to the San Diego Bay. The NASSCO shipyard is bordered to the north by Harbor Drive, a major north-south transportation corridor that connects the San Diego International Airport, waterfront, Convention Center, Gaslamp District, Ballpark District, and Barrio Logan. Railroad right-of-way (ROW) is located immediately north of Harbor Drive. Harborside Station on the San Diego Metropolitan Transit System (MTS) Blue Line is approximately 200 feet northeast of the NASSCO shipyard and 800 feet northeast of the project site. Highways in proximity to the project site include Interstate 5 (I-5), Interstate 15 (I-15), and State Route 75 (SR 75).

   The San Diego Bay borders the project site to the south and west. Heavy industry land uses to the northwest of the project site include a ship repair facility operated by BAE Systems. Military land uses to the east and southeast of the project site include Naval Base San Diego. Land uses north of the project site across Harbor Drive and the railroad ROW include military, light industry, and commercial and office land uses. The nearest residence is approximately 1,180 feet northeast of the project site and is separated from the project site by Harbor Drive, railroad ROW, and a recycling center.

10. **Other public agencies whose approval is required: (e.g., permits, financing approval, or participation agreement)**

    The District is the primary approval authority for the project. District discretionary approvals would include the following:

    - Approval of the project
    - Adoption of the Mitigated Negative Declaration
    - Adoption of the Mitigation Monitoring and Reporting Program

    Additional subsequent approvals and other permits that may be required from local, regional, state, and federal agencies include, but are not limited to the following:

    - U.S. Army Corps of Engineers (USACE) – Individual or Nationwide Permit, potentially Nationwide #3 for the repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure or fill, or of any currently serviceable structure or fill authorized by Title 33 of the Code of Federal Regulations (CFR), Section 330.3 (33 CFR 330.3), provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification, per the Clean Water Act (CWA) Section 404 Permit (33 U.S. Code Section 1341) and Rivers and Harbors Act Section 10 Permit
    - California Coastal Commission (CCC)– Approval of project elements outside the Port Master Plan limits (i.e., installation of west offshore mooring dolphin)
    - San Diego Regional Water Quality Control Board (RWQCB) – Stormwater Construction General Permit (including the development and implementation of a Storm Water Pollution Prevention Plan) and CWA Section 401 Water Quality Certification
    - San Diego County Air Pollution Control District – Permits for Diesel Generators
    - City of San Diego – Issuance of ministerial permits (e.g., grading)

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

    No California Native American tribes have requested consultation pursuant to Public Resources Code section 21080.3.1.

2 PROJECT DESCRIPTION

2.1 PROJECT OVERVIEW

General Dynamics-NASSCO (NASSCO) is proposing the Floating Dry Dock Replacement and Waterfront Improvement Project (project) located at the NASSCO shipyard on and adjacent to San Diego Bay at 2798 East Harbor Drive in San Diego, California. The NASSCO shipyard leasehold encompasses 5,507,621 square feet (126 acres) of tideland area that is leased from the San Diego Unified Port District (District). Project improvements would occur within the existing NASSCO leasehold on approximately 94,869 square feet (2.2 acres) (project site), including 26,158 square feet of overwater coverage (permanent and temporary) and 68,711 square feet of fill area. The project includes the following elements:

- Removal and replacement of the existing floating dry dock and construction of supporting infrastructure;
- Improvements to the Repair Complex Wharf;
- Repairs to the quay wall and revetment along stretches of shoreline throughout the NASSCO leasehold, which includes shoreline segments from Lot 20 to Pier 12, floating dry dock approach pier to Berth 8, Ways to Building Dock, Berth 2 to Berth 3, Berth 4 to Berth 5, and Berth 6 to Navy Base Quay Wall; and
- As-needed structural repair and/or replacement of selected piles at Berths 2, 3, 4, 5, 6, at Pier 12 and the floating dry dock approach pier, and at the Berth 1 Platform.

These project elements are described in more detail in Section 2.4. Implementation of the project would not result in an expansion of the existing use of the project site or an increase in shipbuilding and repair operations. This chapter's contents also include the project background and need, project objectives, project site and location, existing conditions, best management practices, and potential permits and approvals required for the project.

2.1 PROJECT BACKGROUND AND NEED

The current floating dry dock, built in 1983, has reached the end of its useful life. The project includes replacement of the existing floating dry dock with a new floating dry dock of similar characteristics and the same functionality. Improvements to supporting infrastructure (i.e., replacing mooring dolphins and utilities and reconfiguring the existing approach pier) would be required to comply with current standards and codes. Specifically, the existing floating dry dock and mooring dolphins do not meet U.S. Navy's MIL-STD-1625D, Department of Defense Standard Practice: Safety Certification Program for Drydocking Facilities and Shipbuilding Ways for U.S. Navy Ships, which is the current standard for all floating dry docks and associated infrastructure. The proposed mooring dolphins are designed to meet the required seismic and wind loading requirements outlined in this standard. The proposed approach pier modification and subsequent mechanical and utility modifications are required to allow for the relocation of the floating dry dock during the launch of new construction vessels within the NASSCO leasehold.

The Repair Complex Wharf is landward of the existing and proposed floating dry dock. Currently, the wharf provides limited laydown and space for offices. However, it is in disrepair and would need to be replaced to fully use this area of the facility. As part of the project, NASSCO is proposing to replace the existing wharf with a new structure that would permit storage and laydown capabilities in this area of the facility.

The project would also include repair of the failed revetment and exposed shoreline present throughout the NASSCO leasehold, including shoreline segments from Lot 20 to Pier 12, floating dry dock approach pier to Berth 8, Ways to Building Dock, Berth 2 to Berth 3, Berth 4 to Berth 5, and Berth 6 to Navy Base Quay Wall. Proposed repairs include placement of stabilizing material (mostly rock riprap) to address existing damage and prevent future damage from wave action and to maintain existing safe operation of the NASSCO shipyard.

Finally, the project includes programmatic repair and/or replacement of damaged piles that support Berths 2, 3, 4, 5, 6, and Pier 12 and the floating dry dock approach pier and the Berth 1 Platform. The proposed repairs are necessary to restore the structural integrity of these piers, extend their service lives, and provide safe mooring berths for new construction and repair vessels.

The project is needed to address deficiencies related to the age and condition of structures, shoreline sloughing, and operational conditions at the existing dry dock. Absent these activities, the NASSCO shipyard would not be able to safely function in supporting various shipbuilding and repair operations.

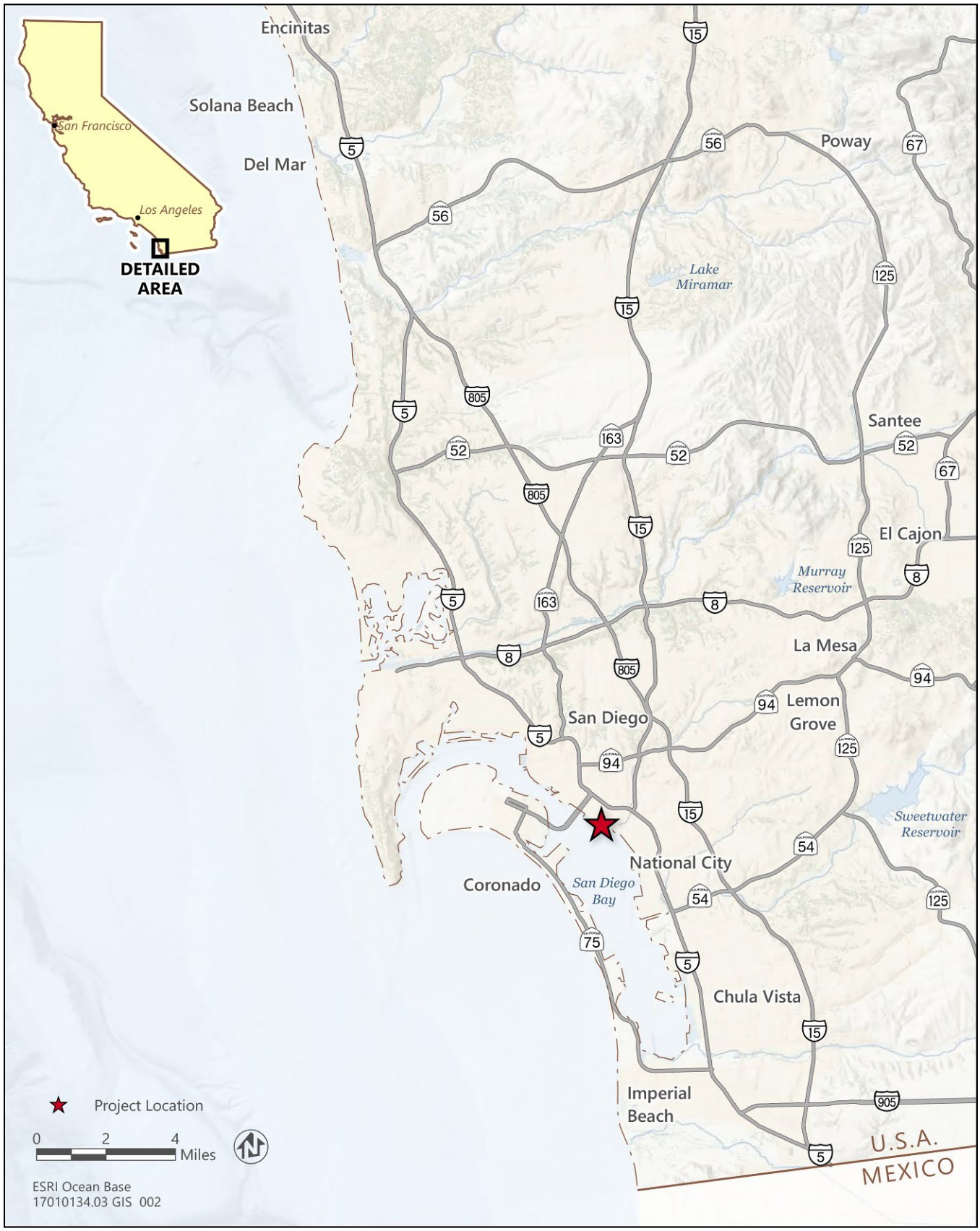
2.2 PROJECT LOCATION

The 2.2-acre project site is located within the 126-acre NASSCO leasehold at 2798 East Harbor Drive. The regional location is shown on Figure 2-1 and the project location is shown on Figure 2-2.

The NASSCO leasehold is situated in a highly industrialized area on and adjacent to the San Diego Bay, and is bordered to the north by Harbor Drive, a major north-south transportation corridor that connects the San Diego International Airport, waterfront, Convention Center, Gaslamp District, Ballpark District, and Barrio Logan. Railroad right-of-way (ROW) is located immediately north of Harbor Drive. Harborside Station on the San Diego Metropolitan Transit System Blue Line is approximately 200 feet northeast of the NASSCO leasehold and 800 feet northeast of the project site. Highways in proximity to the project site include Interstate 5, Interstate 15, and State Route 75.

The project site is within Planning District 4 (Tenth Avenue Marine Terminal) of the certified PMP. The San Diego Bay borders the project site to the south and west. Heavy industry land uses to the northwest of the project site include a ship repair facility operated by BAE Systems. Military land uses to the east and southeast of the project site include Naval Base San Diego. Land uses north of the project site across Harbor Drive and the railroad ROW include military, light industry, and commercial and office land uses. The nearest residence is approximately 1,250 feet northeast of the project site and is separated from the project site by Harbor Drive, railroad ROW, and a recycling center.

Although the NASSCO leasehold encompasses 126 acres of tideland area, project improvements would be limited to the project site, which is approximately 2.2 acres of water-side facilities within the leasehold. The specific shipyard facilities proposed for repair or improvement under the project are described in Section 2.4 and shown on Figure 2-3. The proposed site plan is shown on Figure 2-4.

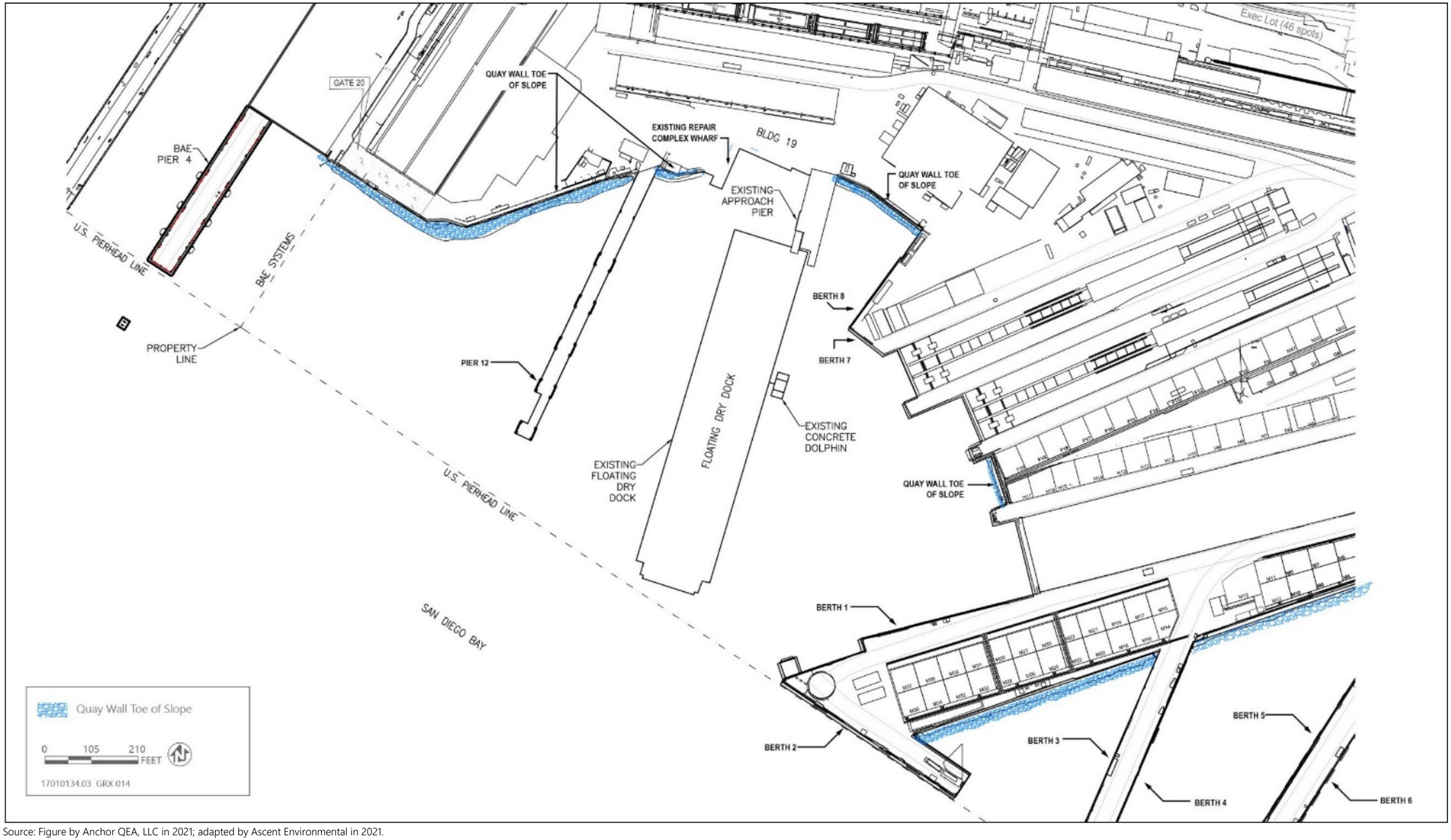


Source: adapted by Ascent Environmental in 2021

Figure 2-1 Regional Location

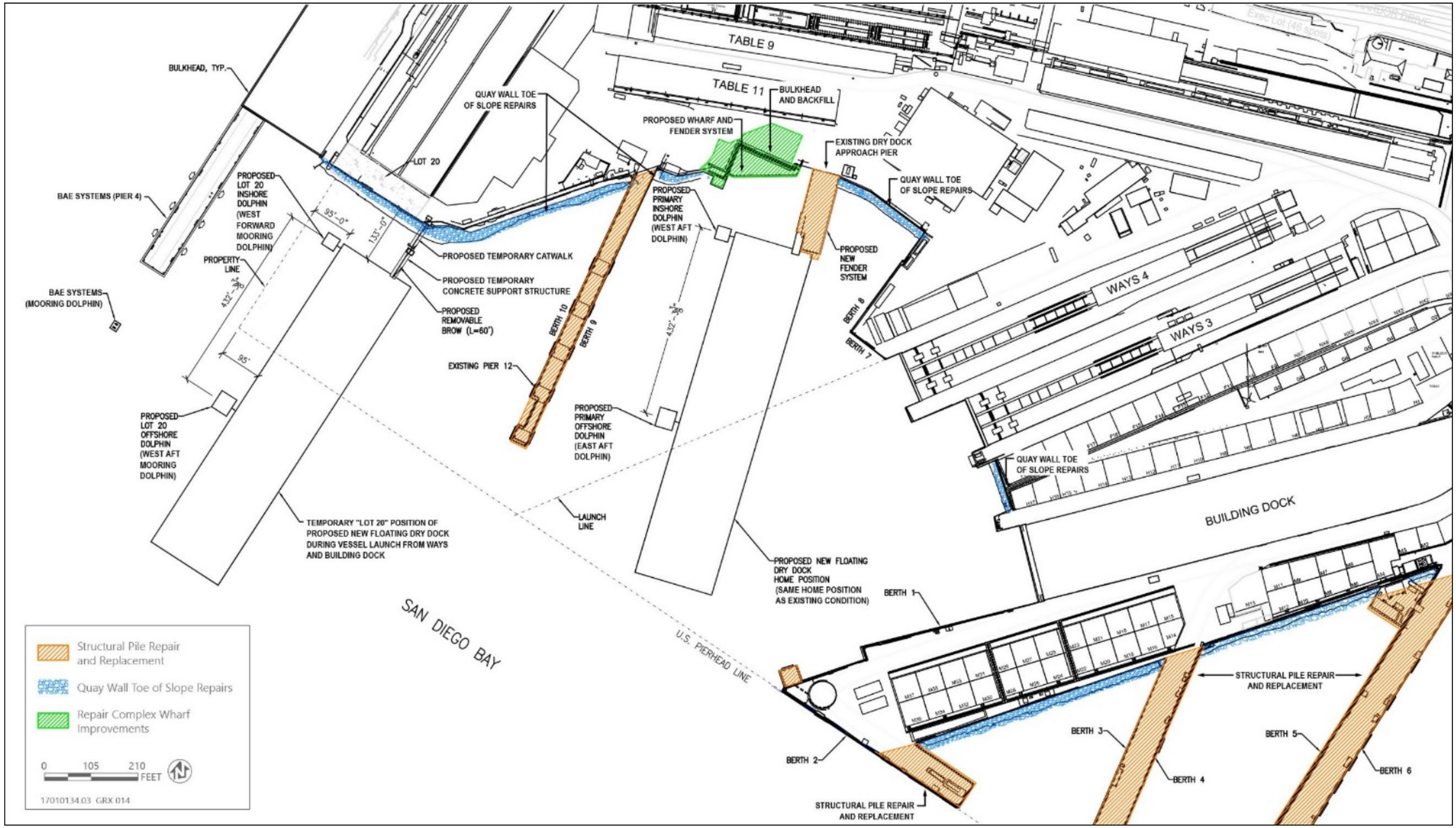
Source: adapted by Ascent Environmental in 2021

Figure 2-2 Project Location



Source: Figure by Anchor QEA, LLC in 2021; adapted by Ascent Environmental in 2021.

Figure 2-3 Existing Facilities



Source: Figure by Anchor QEA, LLC in 2021; adapted by Ascent Environmental in 2021.

Figure 2-4 Proposed Site Plan

2.3 PROJECT COMPONENTS

The project includes replacement or repair to each of the components described below, including the floating dry dock, Repair Complex Wharf, revetment along the quay wall, and structural piles associated with berths and piers throughout the NASSCO leasehold. The following sections include a description of the existing conditions, proposed improvements, and construction methods for each of the project components. Existing shipyard facilities proposed for repair or improvement under the project are shown on Figure 2-3. The proposed site plan is shown on Figure 2-4.

2.3.1 Component 1 – Floating Dry Dock Replacement and Modification

EXISTING CONDITIONS

The existing floating dry dock facilities consist of a floating dry dock, a pile-supported mooring dolphin (Figure 2-5), and a pile-supported approach pier with integrated mooring dolphin used for vehicle and pedestrian access to the floating dry dock. The existing floating dry dock is approximately 820 feet by 174 feet for a total area of 142,680 square feet. The existing mooring dolphin is approximately 56 feet by 26 feet for a total area of 1,456 square feet. The existing approach pier is approximately 33 feet by 17 feet for a total area of 1,561 square feet.

As shown in Figure 2-3, the home position for the existing floating dry dock is the primary location in which the floating dry dock is sited. The current configuration requires the floating dry dock to be relocated from the home position to another berth within the leasehold during vessel launches from the inclined building ways or building dock. Figure 2-3 shows the configuration of the floating dry dock under normal conditions. Figure 2-8 in the following section shows the trajectories from ingress and egress of vessels from the ways and building dock.

Source: Photograph by Anchor QEA, LLC in 2020.

Figure 2-5 View Looking North Showing Existing Dolphin Supporting the Dry Dock

PROPOSED IMPROVEMENTS

To support the siting of the new floating dry dock, the existing mooring dolphin would be removed and replaced with four new concrete pile-supported mooring dolphins and associated fender systems (see Figure 2-4). The proposed east forward and east aft dolphins would support the floating dry dock in the home position, while the proposed west forward and west aft dolphins would support the floating dry dock in the temporary "Lot 20" position (see Figures 2-6 and 2-7). Structural piles on the existing approach pier would be repaired or replaced. In addition, a portion of the floating dry dock approach pier would be removed, and a new fender system would be installed. The project would also include a new temporary catwalk and gangway system for the new Lot 20 temporary position. The new floating dry dock would not require any additional draft (i.e., the distance between the waterline and the deepest point of the floating dry dock) as compared to the existing NASSCO floating dry dock; therefore, no additional or new dredging would be required. In addition, no new dredging would be required for the new Lot 20 temporary position.

The replacement floating dry dock would be 828.54 feet long and 170.60 feet wide (slightly narrower and longer than the existing dry dock) and would have the same lifting capacity as the existing dry dock (35,000 long tons). Two 50-ton electric wing wall cranes would be installed to support ship repair operations. The entire area of the floating dry dock is contained to ensure that all stormwater can be collected and is outfitted with 178,000 gallons of onboard stormwater storage capacity. All coating systems within the ballast tanks as well as the exterior hull would be free of copper. Lastly, the installed diesel generators would be U.S. Environmental Protection Agency (EPA) Tier 4-rated[1] and would be outfitted with a closed-loop cooling water system.

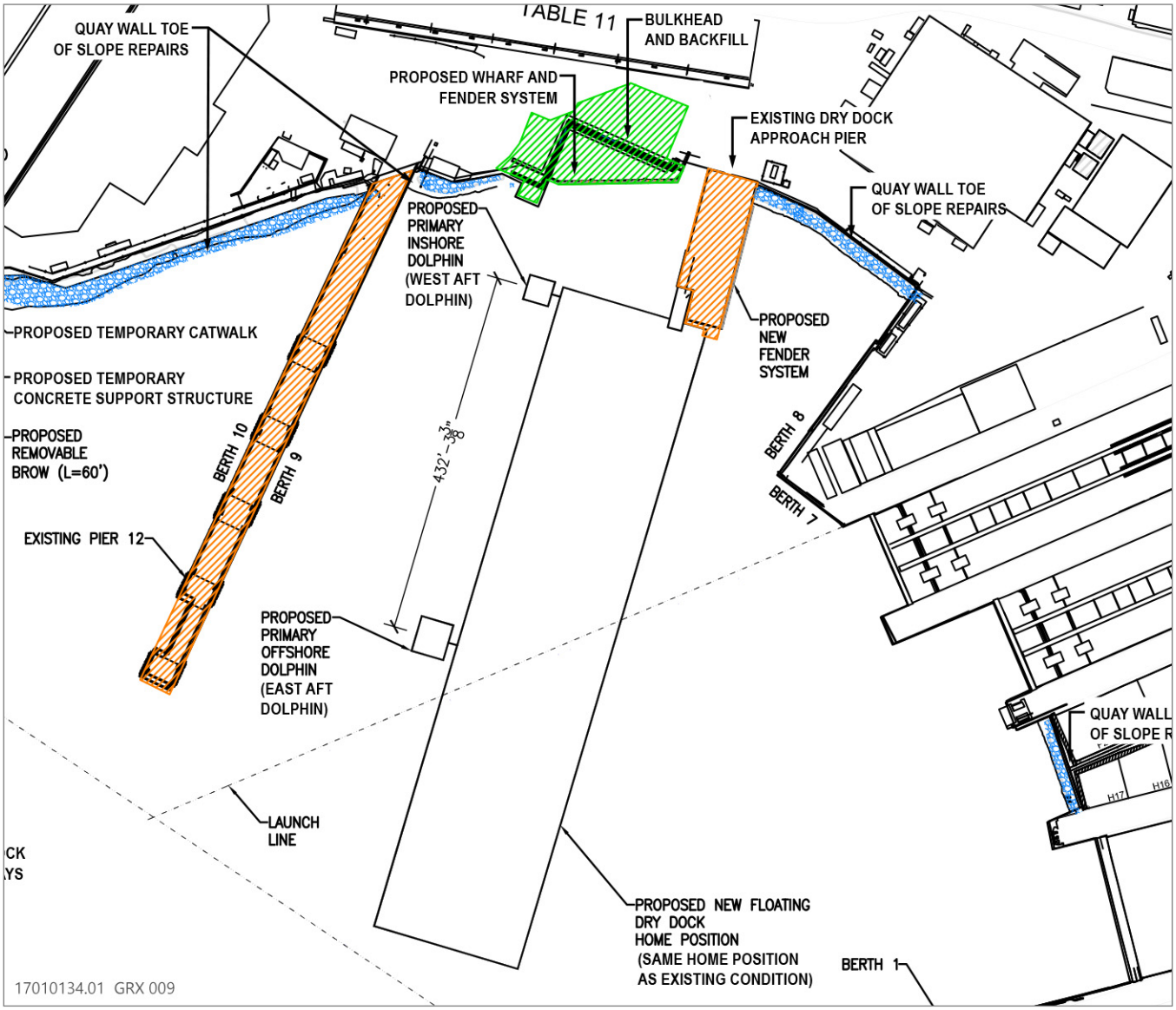
The new floating dry dock would be positioned in the same mooring location as the existing floating dry dock, as shown in Figure 2-3. The home position would continue to be the primary location in which the floating dry dock would be sited. The current configuration requires the floating dry dock to be relocated from the home position to another berth farther from the home position during vessel launches from the inclined building ways or building dock (see Figure 2-8). As a result of the project improvements, the new floating dry dock would instead be repositioned to the Lot 20 temporary location west of Pier 12 during vessel launches from the ways and building dock (see Figures 2-4 and 2-7). Approximately four vessel launches would occur each year. During each vessel launch, the new floating dry dock would be temporarily relocated to the Lot 20 location for up to several days. Although the temporary positioning of the floating dry dock during vessel launches would change from existing conditions, no changes in operational activities would occur with the exception of reduced tug boat use due to the closer temporary position to the home position.

The proposed new dolphins would be identical for the home and Lot 20 temporary locations (see Figures 2-4, 2-6, and 2-7). The east and west aft mooring dolphins would each be supported by 56 24-inch precast piles. The east and west forward mooring dolphins would each be supported by 22 24-inch octagonal precast concrete piles. The depth of the reinforced concrete pad for all four dolphins would be approximately 6 feet. Each of the four proposed dolphins includes a fender system to protect the floating dry dock when moored at both the home and Lot 20 temporary locations. Each fender system consists of fender piles, rubber fender units, timber whalers, and timber chocks installed along the length of each dolphin concrete pad. The wood fender blocks require a chemical preservative treatment to reduce the rate of wood rot and corrosion for materials within the water. The treatment would be in accordance with American Wood Protection Association UC5B Marine Use (Material Subject to Marine Borer Exposure) with waterborne preservative. As required by the USACE, all chemically treated wood that is in contact with the water and within the tidal zone would be wrapped to prevent the chemical contact with the water. To ensure worker safety, all treated wood would be handled by a licensed contractor in accordance with applicable regulations, including Division 20, Chapter 6.5, and Title 22, Division 4.5 of the California Health and Safety Code and Occupational Safety and Health Administration (OSHA) standards listed in 29 CFR 1910 Subpart H.

To access the floating dry dock when the dock is in its temporary position, an 80-foot catwalk and gangway system would be constructed near Lot 20. The outboard end of the catwalk and the inboard end of the gangway would be supported by a concrete cap constructed on a pair of 16-inch round or square concrete piles. A 60-foot removable brow would connect the catwalk to the floating pontoon when positioned in the temporary location (see Figures 2-4 and 2-7).

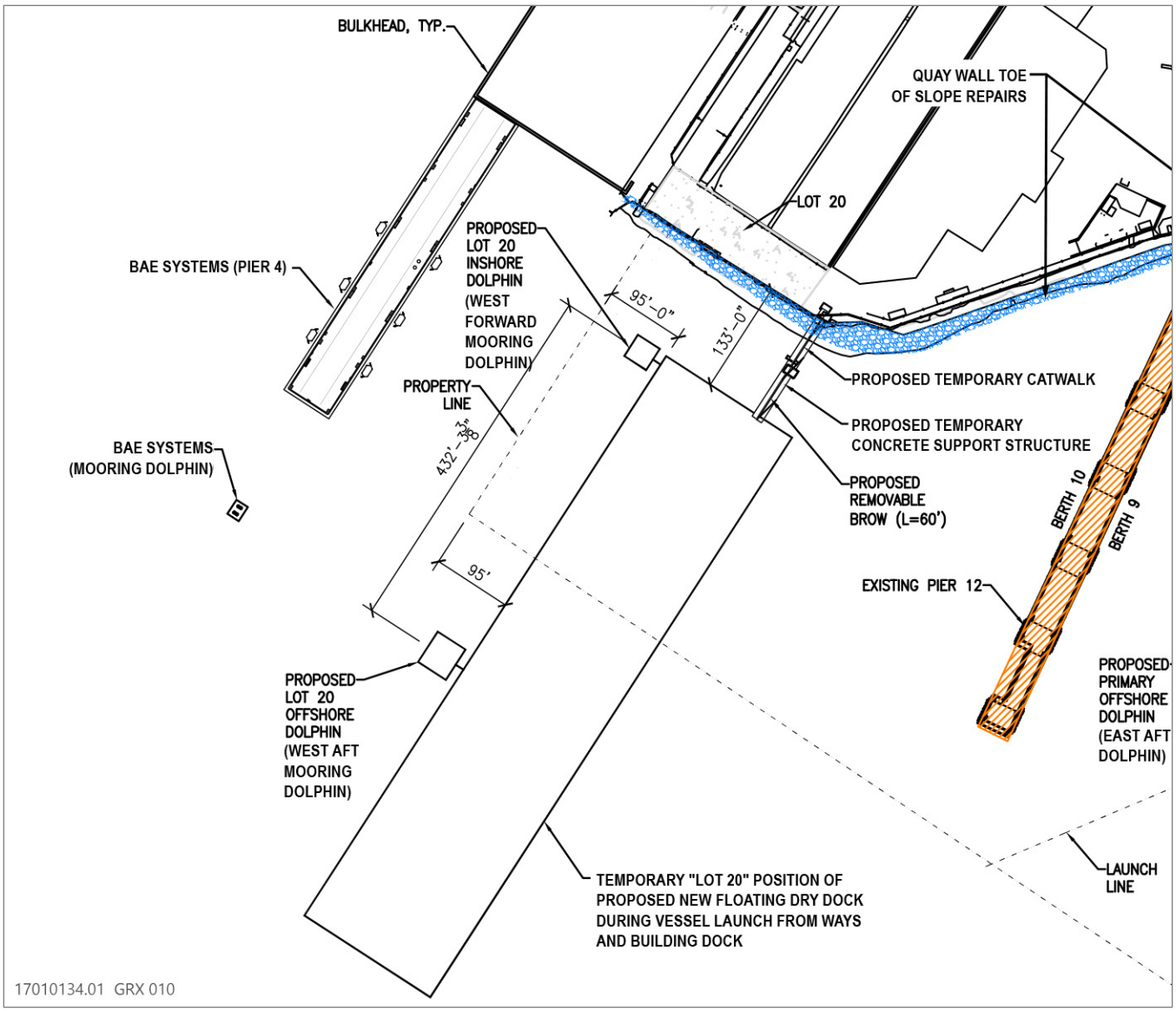
[1] Although the project is committed to Tier 4 diesel generators, the CDP will stipulate that Tier 4 diesel generators must be used to ensure use.

The existing drydock approach pier would be modified by removing a 33-foot-long by 16.5-foot-wide section at the waterward end. A new floating dry dock approach pier fender system would be installed to protect the floating dry dock approach pier, consisting of 19 fender piles, rubber fender units, timber whalers, and timber chocks installed along a 150-foot length along the eastern side of the approach pier. Like the dolphin fender systems, the wood fender blocks require a chemical preservative treatment to reduce the rate of wood rot and corrosion for materials within the water. As described above, the treatment would also be in accordance with American Wood Protection Association UC5B Marine Use (Material Subject to Marine Borer Exposure) with waterborne preservative and the same California Health and Safety Code and OSHA requirements mentioned previously would apply.



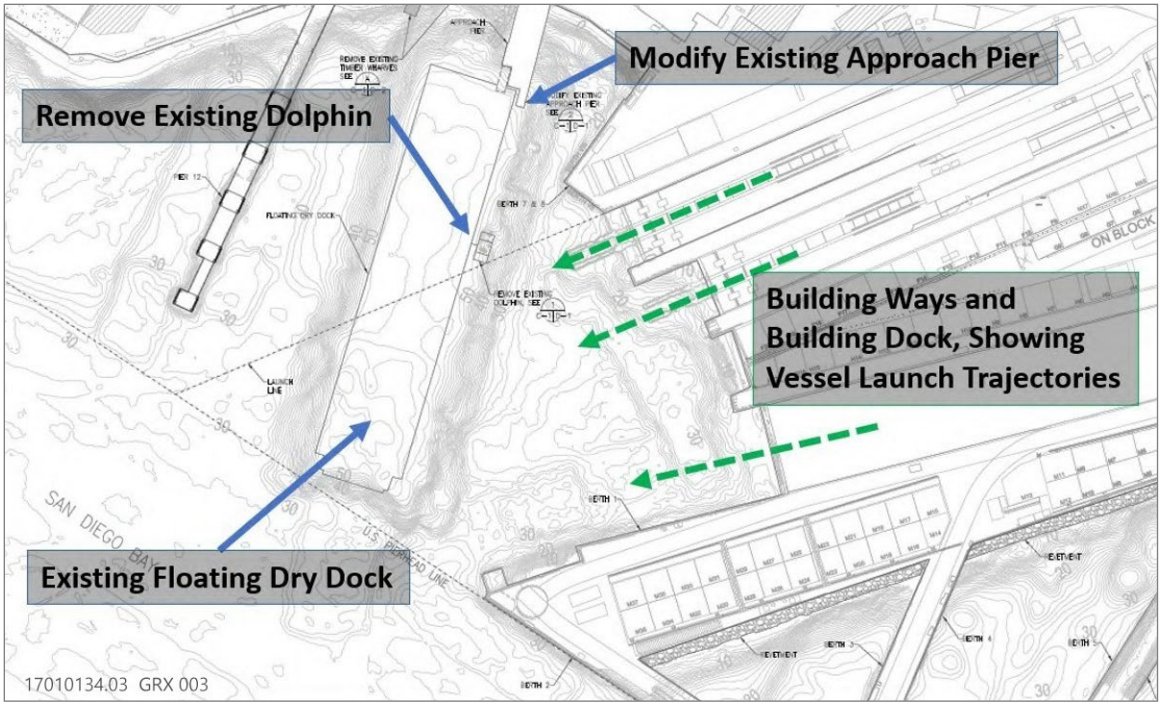
Source: Figure by Anchor QEA, LLC in 2021; adapted by Ascent Environmental in 2021.

Figure 2-6 Home Position Project Elements



Source: Figure by Anchor QEA, LLC in 2021; adapted by Ascent Environmental in 2021.

Figure 2-7 Temporary "Lot 20" Project Elements



Source: Figure by Anchor QEA, LLC in 2020.

Figure 2-8 Vessel Trajectories from Ways and Building Dock

A comparison of the existing and proposed overwater coverage, pile counts, and fill values for each of the floating dry dock components is provided in Table 2-1.

Table 2-1 Comparison of Floating Dry Dock and Associated Infrastructure

Project Component	Estimated Overwater Coverage Area	Estimated In-Water Fill			
		Pile Type	Pile Quantity	Fill Area	Fill Volume
Existing					
Floating Dry Dock	142,680 sf	NA	NA	NA	NA
Mooring Dolphin	1,456 sf	20-inch precast concrete	37	81 sf	188 cy
Approach Pier	561 sf	20-inch precast concrete	5	11 sf	26 cy
Total Existing	*144,697 sf*	*NA*	*42*	*92 sf*	*214 cy*
Proposed					
Floating Dry Dock	141,349 sf	NA	NA	NA	NA
Catwalk and Removable Brow	400 sf (permanent), 300 sf (temporary)	16-inch round or square precast concrete	2	4 sf	6 cy
West Aft Dolphin	2,070 sf	24- inch octagonal precast concrete	56	NA (beneath deck)	252 cy
East Aft Dolphin	2,070 sf	24- inch octagonal precast concrete	56	NA (beneath deck)	334 cy
West Forward Dolphin	900 sf	24- inch octagonal precast concrete	22	NA (beneath deck)	99 cy
East Forward Dolphin	900 sf	24- inch octagonal precast concrete	22	NA (beneath deck)	130 cy
West Aft Dolphin Fender	243 sf	HP14 x 89	18	3 sf	5 cy
East Aft Dolphin Fender	243 sf	HP14 x 89	18	3 sf	6 cy
West Forward Dolphin Fender	196 sf	HP14 x 89	15	3 sf	3 cy
East Forward Dolphin Fender	196 sf	HP14 x 89	15	3 sf	3 cy
Approach Pier Fender	300 sf	HP14 x 89	19	3 sf	5 cy

Project Component	Estimated Overwater Coverage Area	Estimated In-Water Fill			
		Pile Type	Pile Quantity	Fill Area	Fill Volume
Total Proposed	*148,867 sf (permanent), 300 sf (temporary)*	*NA*	*243*	*19 sf*	*843 cy*
Net Change	**+4,170 sf (permanent), 300 sf (temporary)**	NA	**+201**	**-73 sf**	**+629 cy**

CONSTRUCTION METHODS

The existing mooring dolphin, which is supported by 37 20-inch precast concrete piles, would be demolished. In addition, a 33-foot-long by 16.5-foot-wide section at the end of the existing dry dock approach pier would also be demolished. This section of pier is approximately 545 square feet in plan area and is supported by five 20-inch precast concrete piles. The existing piles would be removed from the seabed using vibratory extraction. The use of jetting, subject to any restrictions associated with mandatory mitigation measures, may be required to facilitate pile removal. If any given pile is damaged and cannot be extracted in its entirety, the contractor would cut the pile at or up to two feet below the existing mudline. The removed piles would be disposed of at an approved disposal site outside the coastal zone.

The existing floating dry dock would be sold outside of the United States or dispositioned in Ensenada, Mexico. The new floating dry dock would be constructed outside of the United States as well. Tugboats would be required to transport the existing and new floating dry docks to and from the NASSCO leasehold.

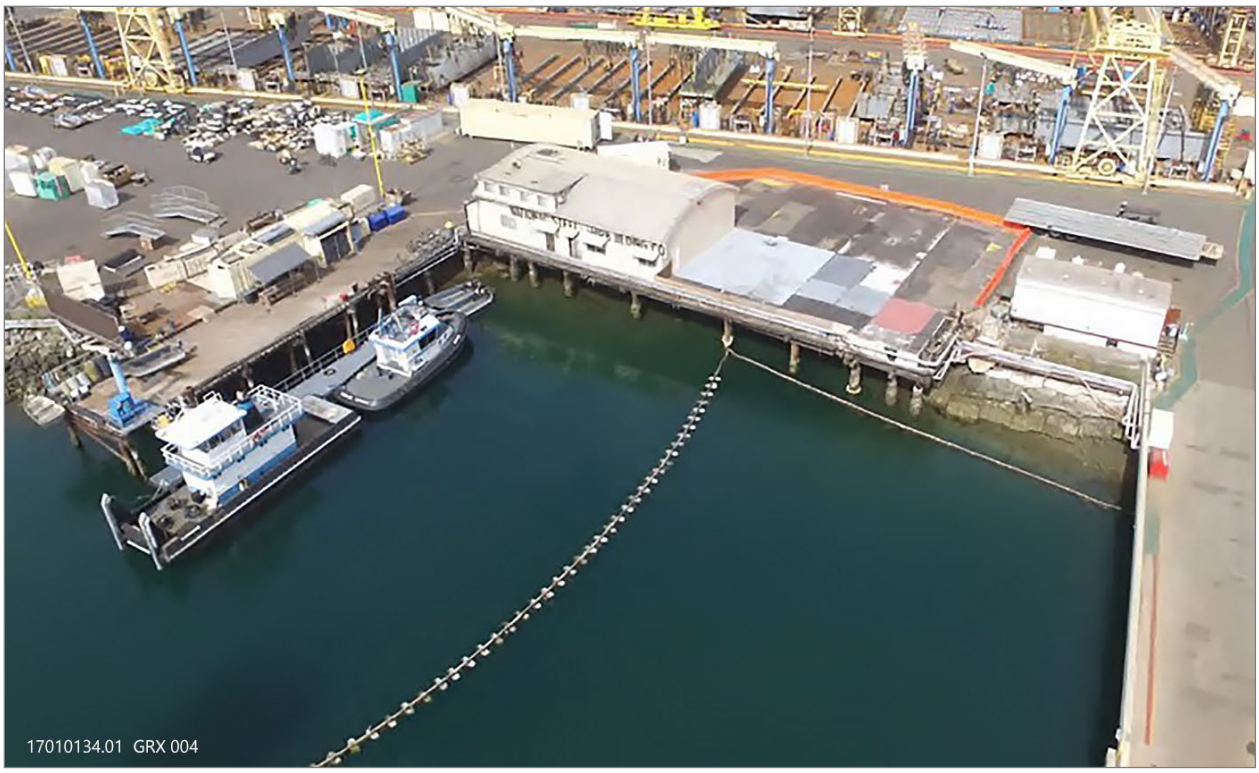
During construction of the new floating dry dock infrastructure, the new floating dry dock may be positioned at the temporary Lot 20 mooring facility upon delivery and until construction of the permanent mooring location is completed, which may be for a period up to six months. There may be a period of transition when both the existing floating dry dock and the new floating dry dock would be berthed within the NASSCO leasehold to allow shipbuilding and repair activities within the existing floating dry dock to be completed before fully transitioning to the new floating dry dock. During this transition period, only one floating dry dock would be operational.

The concrete piles proposed to support the new mooring dolphins, dry dock approach pier, and catwalk and removable brow would be installed with a crane-supported diesel impact hammer or vibratory hammer. Internal jetting may be used to facilitate pile installation by penetrating into relatively deeper and denser material layers; however, jetting would only be allowed if NASSCO can demonstrate to the District's satisfaction that there are no feasible alternatives to the use of internal jetting. Concrete mooring dolphin platforms would either be cast-in-place or partially pre-cast. For a cast-in-place system, construction would consist of installing the timber formwork, supported by steel-friction collars attached to the concrete piles. After the forms are set up, reinforcing steel would be installed. Concrete trucks would deliver concrete to the project site, and a pump truck would place the concrete into the forms. Timber forms and steel-friction collars would be removed after the concrete has cured for several days. Construction of the concrete decks would likely be divided into several concrete pours.

2.3.2 Component 2 - Repair Complex Wharf Replacement

EXISTING CONDITIONS

The existing timber-constructed Repair Complex Wharf includes approximately 12,600 square feet of timber deck planks, timber stringers, and timber pile caps. The piles generally consist of a mix of round timber piles, round timber piles encased with a concrete jacket, steel H-piles (i.e., structural beams that are square in dimension and typically used for deep foundations), and concrete-filled steel pipe piles. In its current condition, the timber wharf is not useable to support repair operations. The existing building situated on the Repair Complex Wharf has been partially demolished and is anticipated to be fully demolished in accordance with the existing demolishing permit. The location of the Repair Complex Wharf area is shown on Figure 2-3 and a photograph of the existing Repair Complex Wharf is shown on Figure 2-9.



Source: Photograph by Anchor QEA, LLC in 2020.

Figure 2-9 Existing Repair Complex Wharf

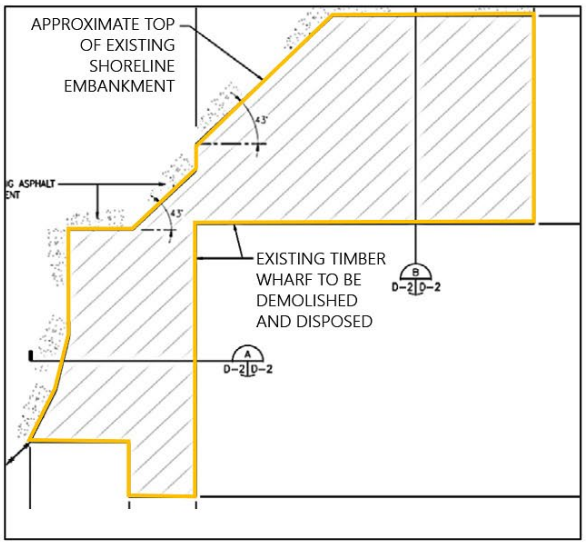
PROPOSED IMPROVEMENTS

The Repair Complex Wharf improvements entail replacement of the formerly existing timber wharf with a larger wharf supported by concrete piles and protected by a wharf fender system. A sheet-piled bulkhead (i.e., retaining wall) would be installed to reinforce the shoreline adjacent to the improved wharf.

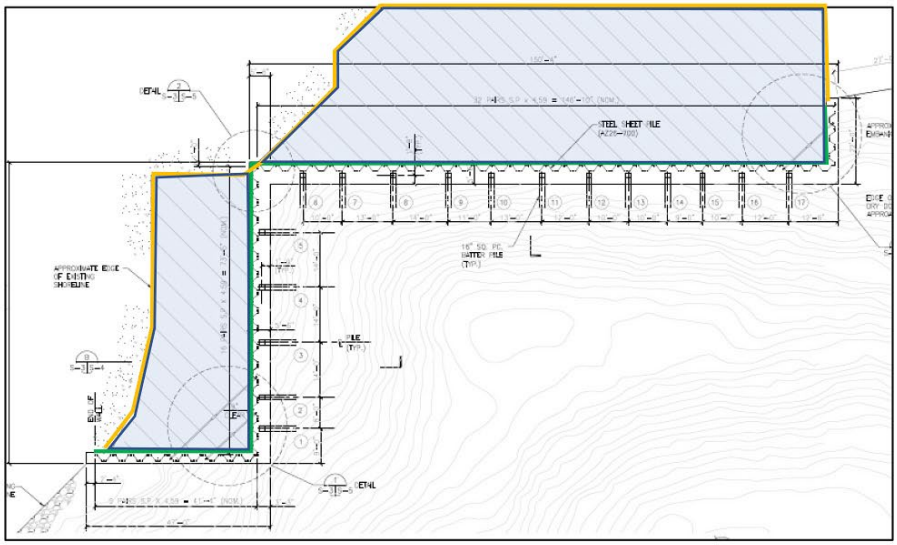
The proposed wharf would be a triangular shaped structure with a plan area of approximately 6,330 square feet (see Figure 2-4). The wharf would consist of a concrete deck supported by 34 24-inch octagonal vertical precast concrete piles. The deck thickness would be nominally 20 inches. A fender system would be installed along the 140-foot-long water side edge of the proposed wharf. The fender system would be supported by 20 HP 14x89 piles (i.e., an H-pile with a 14-inch-wide section that weighs 89 pounds). The fender deck would consist of rubber fender units, timber whalers, and timber chocks. Wood preservation treatment would be the same as previously described, and in accordance with American Wood Protection Association UC5B Marine Use (Material Subject to Marine Borer Exposure) with waterborne preservative.

The existing building situated on the wharf (Building 19) would be demolished prior to project construction. Demolition of Building 19 would occur as part of a separate action to improve vehicle and pedestrian traffic flow throughout the NASSCO shipyard, which was previously analyzed and permitted by the District (ICF 2018). The remaining wharf deck, supporting piles, and other supporting infrastructure (e.g., utilities) would be demolished and replaced as part of the project. The project would include removal and disposal of approximately 100 supporting piles. These piles will be disposed of at an approved disposal site outside the coastal zone, which, if necessary, would occur at an appropriate landfill that accepts hazardous waste (see Section 2.5.4 for additional information). Following pile removal, a steel sheet-piled bulkhead would be installed along the 293-foot shoreline face adjacent to the proposed wharf. The bulkhead would be laterally supported by precast batter piles and restrained laterally by a series of 18-inch square precast concrete batter piles installed at a 3:1 sloped angle towards the water. The sheet piles would be capped by a reinforced concrete beam 5.5 feet wide and 4 feet deep. Gravel backfill and compacted granular backfill would be placed at the location of the existing wharf behind the sheet pile bulkhead to match the elevation of existing upland paving. Following installation of the sheet pile bulkhead and placement of backfill, the new pile-supported concrete wharf and fender system would be constructed just south of the existing wharf. Construction sequencing to replace the Repair Complex Wharf is presented in Figure 2-10.

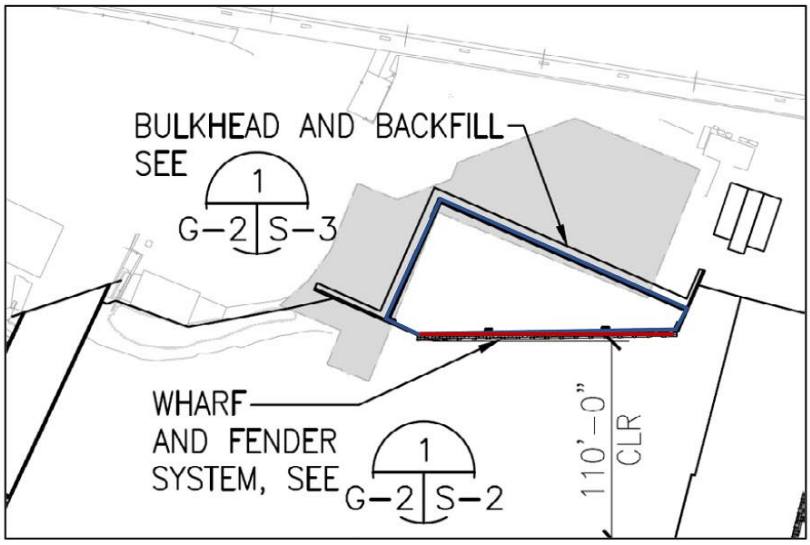
1. Demolish existing wharf and supporting piles



2. Install sheetpile wall and backfill with compacted granular soil



3. New pile-supported concrete wharf and fender system



Source: Figure by Anchor QEA, LLC in 2020; adapted by Ascent Environmental in 2021.

Figure 2-10 Repair Complex Wharf Construction Sequencing

The proposed overwater coverage, pile counts, and fill values for each of the proposed Repair Complex Wharf improvement components is provided in Table 2-2.

Table 2-2 Repair Complex Wharf Improvements

Project Feature	Estimated Overwater Coverage Area	Estimated Fill						
		Pile Type	Pile Quantity	Pile Area	Pile Fill Volume	Backfill Material	Backfill Area	Backfill Volume
Existing								
Repair Complex Wharf	12,600 sf	Mix of round timber piles, round timber piles encased with a concrete jacket, steel H-piles, and concrete-filled steel pipe piles	100[1]	100 sf	20 cy	Existing (NA)	Existing (NA)	Existing (NA)
Proposed								
Repair Complex Wharf Sheet pile Wall and Backfill	12,000 sf	Steel sheet pile	128 sheet pile sections (293 linear feet)	216 sf (beneath wharf)	182 cy	Sheet pile wall and compacted granular backfill	12,003 sf	11,496 cy
Repair Complex Wharf (Concrete Pad)	6,330 sf	24-inch octagonal precast concrete piles	34	96 sf (beneath wharf)	70 cy	NA	NA	NA
		18-inch square precast concrete batter piles	24	54 sf (beneath pile cap and wharf)	38 cy	NA	NA	NA
Repair Complex Wharf (Fender System)	310 sf	HP14x89 Fender Pile	20	3 sf	3 cy	NA	NA	NA
Total Proposed	18,640 sf	NA	78 piles plus 293 linear feet of sheet pile	3 sf (only includes fender system)	293 cy	NA	12,003 sf	11,496 cy
Net Change	**+6,040 sf**	NA	-22 piles/+293 linear feet of sheet pile	+272 sf	+566 cy	NA	+12,203 sf	+11,496 cy

[1] The pile fill area and pile fill volume of the existing piles at the Repair Complex Wharf are not known because not all piles are accessible until the wharf deck is removed. Current conditions are unsafe to get an accurate count of the number of piles under the Repair Complex Wharf; however, an estimate of 100 piles has been used based on the size of the area.

CONSTRUCTION METHODS

The existing pile supported timber Repair Complex Wharf structure would be demolished and all materials disposed of offsite. The total wharf area to be demolished is approximately 12,600 square feet consisting of timber deck planks, timber stringers, and timber pile caps. The piles consist of a mix of round timber piles, round timber piles encased with a concrete jacket, and concrete filled steel pipe piles. As described in Section 2.3.1 above, the existing piles would be removed from the bay floor using vibratory extraction. The replacement pile would be installed with a diesel impact hammer or vibratory hammer. Internal jetting may be used to facilitate pile installation by penetrating into relatively deeper and denser material layers; however, jetting would only be allowed if NASSCO can demonstrate to the District's satisfaction that there are no feasible alternatives to the use of internal jetting. If any given pile is damaged and cannot be extracted in its entirety, the contractor would cut the pile at or up to two feet below the existing mudline. The removed piles would be disposed of at an approved disposal site outside the coastal zone.

The sheet pile wall would be installed using a crane-supported impact or vibratory pile driver. Gravel backfill would be brought to the site using either a barge or trucked in from the uplands. The material would be placed behind (landward of) the sheet pile wall by offloading directly from a truck or using an excavator positioned from the uplands or on a flat deck barge.

The concrete piles, wharf fender piles, and sheet piles would be installed with the same method described above for the floating dry dock dolphins. The wharf deck would also be constructed with the same method described above for the concrete mooring dolphin platforms (either cast- in-place or pre-cast).

2.3.3 Component 3 – Quay Wall Revetment Repairs and Replacement

EXISTING CONDITIONS

The project would include repairs to the quay wall and supporting revetments in front of the quay wall at several areas, including Lot 20 to Pier 12, floating dry dock approach pier to Berth 8, Ways to Building Dock, and Berth 6 to Navy Base Quay Wall (Figure 2-3 and Figure 2-11). Existing conditions within these areas are summarized in the following sections.

Berth 2 and Berth 3 Revetment

An approximately 550-foot-long section of sloping revetment extends between Berth 2 and Berth 3 (Figure 2-3). The revetment between Berths 2 and 3 is constructed from concrete elements, including layers of flat slabs or blocks forming a steeply sloped wall (approximate 2:1 slope; Figure 2-11). Portions of the sloped revetment slabs and blocks are cemented together, and some areas contain additional rock riprap at the toe of slope. At the top of the revetment, there is an approximately 4-foot-high vertical cemented stone wall. Numerous utility pipes are present on the stone wall.

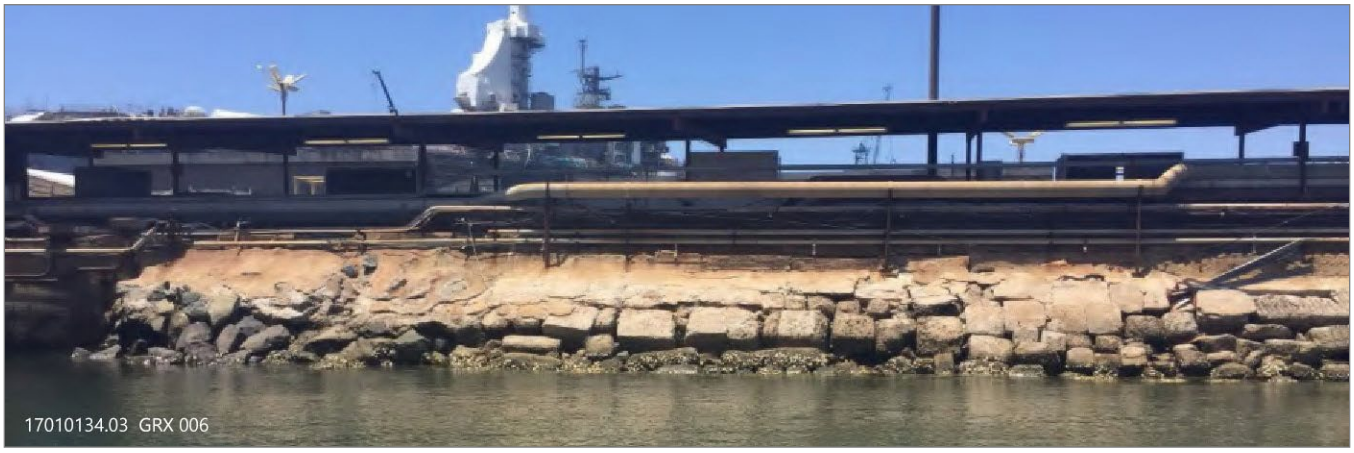
The 300-foot western portion of revetment connects the Berth 2 pier with the Berth 3 pier (Figure 2-11). This western revetment length is constructed from large square and rectangular concrete blocks stacked to form a sloped wall. The top 6 to 8 feet of the sloped revetment is covered with a layer of binding cement mortar, which has mostly fractured and broken away. Towards the middle of the western revetment, the style of revetment changes to layered flat concrete slabs similar to other revetment areas throughout the facility. The first approximately 100 feet of this section of revetment has undergone repair using a cement mortar to fill voids. The remaining 200 feet of layered concrete slab revetment is considered to be in fair condition.

Berth 4 and Berth 5 Revetment

An approximately 400-foot-long section of revetment extends between Berth 4 and Berth 5 (Figure 2-3). This length of revetment is constructed from layers of concrete slabs. Some of the slabs near the waterside launch rail have partially collapsed (Figure 2-11). Directly east of this collapsed area, a previous repair is visible where an additional layer of riprap was placed and voids were grouted. The observed quay wall revetment distress is likely caused by wave action and pressure created by tidal fluctuations. The areas that show major distress at both revetments appear to be in areas more directly exposed to prevailing bay current and wave action and less sheltered by adjacent pier structures.

Source: Photograph by Anchor QEA, LLC in 2020.

Revetment Between Berth 2 and Berth 3.



Source: Photograph by Anchor QEA, LLC in 2020.

West End of Berth 2 and Berth 3 Revetment.

Source: Photograph by Anchor QEA, LLC in 2020.

Collapsed Portion of Berth 4 and Berth 5 Revetment.

Figure 2-11 Existing Quay Wall Revetment

PROPOSED IMPROVEMENTS

The project would include repairs to the failed revetments along the 950 linear feet of exposed shoreline between Berth 2 and Berth 5 (Figure 2-4). The project would also include repairs to an additional 1,500 linear feet of exposed shoreline segments, including Lot 20 to Pier 12, the floating dry dock approach pier to Berth 8, Ways to Building Dock, and Berth 6 to Navy Base quay wall. In total, quay wall revetment repairs would occur along approximately 2,450 linear feet within the leasehold. Repairs of the revetment would include building up a new rock toe, overlaid with an approximate 9-inch layer of filter stone and 2-foot layer of quarter-ton rock riprap. Grout bags and concrete may also be placed to fill voids on the failed slope. Fill would be underlain with filter fabric. Fill values associated with the quay wall and revetment repair are provided in Table 2-3.

Table 2-3 Proposed Revetment Repairs Along Quay Wall

Project Feature	Backfill Quantities			
	Material	Length	Area	Volume
Revetment Repairs Along Quay Wall	Filter fabric, filter stone, quarter-ton rip rap	2,450 feet	53,900 sf	7,940 cy

CONSTRUCTION METHODS

Revetment repairs along selected segments of quay wall would be conducted from the landside, waterside, or from a combination of both. Earthmoving equipment would likely include an articulated long-reach bucket arm, skip loader, and/or front-end loader. The work would include minor regrading of the existing revetment surface, possibly including removal of irregularities or debris to provide a consistent surface for installation of geotextile fabric and concrete-filled nylon bags when conducting slope stabilization on the top of the slope. Along the slope and toe of the slope, typical materials for revetment (e.g., geotextile fabric, filter stone, and riprap) would be installed to match the existing adjacent slopes.

2.3.4 Component 4 – Structural Pile Repair and Replacement

EXISTING CONDITIONS

Several existing structural piles that support Berths 2, 3, 4, 5, 6, and Pier 12, and the floating dry dock approach pier and the Berth 1 Platform show signs of damage. Specifically, the existing steel-jacketed concrete piles, concrete-filled steel pipe piles, and H-piles show signs of deterioration, cracking, corrosion, and wear. Throughout the leasehold, there are approximately 957 piles supporting the various wharves and piers, ranging in size from 14 to 20 inches. A summary of piles at each location is presented in Table 2-4.

PROPOSED IMPROVEMENTS

Structure pile repairs and replacement at Berths 2, 3, 4, 5, 6, and Pier 12, and the floating dry dock approach pier and the Berth 1 Platform would address deficiencies in steel pipe piles, steel-jacketed concrete piles, concrete-filled steel, and steel H-piles. Approximately 100 piles would be repaired or replaced per year with a total construction duration lasting approximately 10 years. The distribution may change based on the need at the facility, but the total number would not exceed 100 per year and 10 per day (Table 2-4). If condition of the structural piles is beyond repair, the piles would be replaced in kind with the same dimension and material.

Table 2-4 Structural Piles Proposed for Repair or Replacement

Structure	Range of Water Depth (MLLW)	Number of Piles	Type of Pile	Existing Pile Fill Area (sf)	Proposed Jacketed Pile Fill Area (sf)	Net Change (sf)	Existing Pile Volume (cy)	Proposed Pile Fill Volume (cy)	Net Change (cy)
Dry Dock Approach Pier	+8 to -55	76	20-inch square precast concrete	211	304	+93	234	338	+104
Berth 2 Extension	+8 to -14	91	16-inch square precast concrete (19) 16-inch octagonal precast concrete (60) 13-inch-diameter steel pipe (12)	133	230	+97	148	256	+108
Berths 3/4	+6 to -28	195	16-inch octagonal precast concrete	287	515	+228	319	572	+253
Platform Extension to Berths 3/4	-27 to -30	14	13-inch-diameter steel pipe pile	13	22	+9	14	24	+10
Berths 5/6	+8 to -30	344	16-inch octagonal precast concrete (96) 18-inch octagonal precast concrete (246) 14-inch steel H-pile (2)	599	1,030	+431	666	1,144	+478
Hatch Platform at Berth 5	+8 to -12	12	14-inch steel H-pile	2.2	27	+24.8	2	30	+28
Dry Dock Mooring Dolphin	-45 to -55	37	20-inch square precast concrete	66	148	+82	73	164	+91
Pier 12	0 to -26	188	12-inch square precast concrete (56) 12-inch diameter steel pipe (119) 12-inch square precast concrete (8) 12-inch steel H-pile (5)	177	513	+336	197	570	+373
Total	--	**957**	--	**1,488**	**2,789**	**+1,301**	**1,654**	**3,099**	**+1,445**

CONSTRUCTION METHODS

Structural Pile Replacement

Structural pile replacement would occur if the condition for piles is judged to be too damaged or degraded to be reasonably repaired. Pile replacements would be "like for like," with equivalently sized piles used for replacement. To access the pile, the top deck section would be temporarily removed. As described above, existing piles would be removed from the bay floor using vibratory extraction. The use of jetting, subject to any restrictions associated with mandatory mitigation measures, may be required to facilitate pile removal. If any given pile is damaged and cannot be extracted in its entirety, the contractor would cut the pile at or up to two feet below the existing mudline. The removed piles would be disposed of at an approved disposal site outside the coastal zone. The replacement pile would be installed with a diesel impact hammer or vibratory hammer.

Steel-jacketed Concrete Pile

Proposed steel jacketed concrete pile repairs would be made to piles showing severe corrosion of the steel jackets. Deteriorated steel jackets would be removed, repairs would be made to the underlying concrete, and new pile jackets would be installed. Delaminated and spalled areas would be demolished and filled with grout in conjunction with the installation of a new steel jacket. New pile jackets would include sacrificial cathodic protection (i.e., a form of corrosion protection with demonstrated ability to extend the service life of concrete piles in coastal environments).

A summary of the sequence of the proposed repairs is as follows:

1. Temporary scaffolding and/or floating platforms would be used for pile repairs.
2. In spalled areas, deteriorated concrete would be removed in a similar manner as is described above for underdeck concrete repair. Any debris collected during the work would be disposed at an approved disposal location.
3. Selected cracks would be injected with an epoxy resin or paste if the adjacent concrete is sound.
4. All concrete piles would receive a zinc cathodic protection jacket.

Concrete-filled Steel Pipe Pile

For piles experiencing severe corrosion and section loss, including through-thickness holes above the water line, replacement sections of concrete-filled steel pipe would be installed. The existing steel pile would be cut and removed at the water line to a point where section loss is no longer present. Next, a welded/mechanical ring connection would be installed in conjunction with the jacket installation to tie the new pile section to the existing pile section. Sacrificial bulk anodes would be installed to protect the below-water portions of the exposed steel. The method of jacket installation for the steel pipe is similar to the method that would be used to replace steel jackets on concrete piles, as discussed above.

Steel H-Pile

Proposed steel H-pile repairs would address corrosion above the water line. The existing steel pile would be cut and removed at the water line to a point where section loss is no longer present. Next, a welded/mechanical ring connection would be installed in conjunction with the jacket installation to tie the new pile section to the existing pile section. The jacket type would be similar to the structural concrete jacket described above. Sacrificial bulk anodes would be installed to protect the below-water portions of the exposed steel.

A summary of the sequence of the proposed H-pile repairs is as follows:

1. Pile surfaces would be cleaned by water blasting or a rotary abrading device to remove all loose clinging material, heavy scaling, marine growth, oil, debris, and other bond-inhibiting materials.
2. Protective corrosion-free jackets (cathodic protection pile jacket) would be installed with compressible sealing strip at the bottom.

3. Temporary supports, braces, and standoffs would be provided to hold jacket forms in position until grout has been placed and cured.
4. The interior of the jacket would be filled with cementitious grout that is designed to cure underwater. Grouting would be done within 24 hours after completion of cleaning operations and allowed to cure for at least 6 hours.
5. Reinforcing steel would be integrated into the grouted annular space between the fiberglass jacket and the H-piles to provide additional support.

2.4 COVERAGE AND FILL VOLUME SUMMARY

Table 2-5 summarizes net overwater coverage and fill volumes for the project. Note that Table 2-5 assumes that structural piles would be repaired, not replaced. If repair is infeasible, the replaced pile would match the existing pile and would not result in any net increase in fill or overwater coverage.

Table 2-5 Overwater Coverage and In-water Fill Values

Project Component	Overwater Coverage	Fill Area	Fill Volume
Existing			
Floating Dry Dock, Mooring Dolphin, and Approach Pier	144,697 sf	92 sf	214 cy
Repair Complex Wharf	12,600 sf	100 sf[1]	20 cy[1]
Quay Wall	--	53,900 sf	10,700 cy
Structural Piles	--	1,488 sf	1,654 cy
Total Existing	**157,297 sf**	**55,580 sf**	**12,588 cy**
Proposed			
Floating Dry Dock, Catwalk and Removable Brow, Mooring Dolphins and Dolphin Fenders, and Approach Pier Fender	148,867 sf (permanent) 300 sf (temporary)	19 sf	843 cy
Repair Complex Wharf (Sheet Pile Wall and Backfill, Concrete Pad, and Fender System)	18,640 sf	12,003 sf (including backfill and fender piles)	11,496 cy (including backfill and pile fill)
Quay Wall Revetment Repairs and Replacement	--	53,900 sf	7,940 cy
Structural Pile Repair and Replacement	--	2,789 sf	3,099 cy
Total Proposed	**167,507 sf (permanent) 300 sf (temporary)**	**68,711 sf**	**23,378 cy**
Net Total	**+10,210 sf (permanent) +300 sf (temporary)**	**+13,131 sf**	**+10,790 cy**

[1] The pile fill area and pile fill volume of the existing piles at the Repair Complex Wharf are not known because not all piles are accessible until the wharf deck is removed. Current conditions are unsafe to get an accurate count of the number of piles under the Repair Complex Wharf; however, an estimate of 100 piles has been used based on the size of the area.

2.5 PROJECT CONSTRUCTION

2.5.1 Construction Schedule

Construction of the various project components is anticipated to occur as follows:

- Floating Dry Dock Replacement and Modification: January 2023 to September 2024
- Repair Complex Wharf Improvements: September 2024 to July 2025
- Quay Wall Revetment Repairs (Berths 2-5): January 2024 to February 2024

- As-needed Quay Wall Revetment Repairs (additional 1,500 linear feet): January 2025 to December 2027 (500 linear feet per year)
- Structural Pile Repair and Replacement: January 2024 to January 2034 (100 piles per year as needed)

The anticipated construction schedule is approximate and is provided for analysis purposes. The actual start and end dates for construction of the project components may vary, but the duration is not anticipated to change.

Construction activities would occur 24 hours per day and seven days per week, in a manner consistent with the City of San Diego Noise Ordinance (Section 21.0104 of the San Diego Municipal Code). Construction work during night-time hours (between 7:00 p.m. and 7:00 a.m.) would be limited to project deliveries, formwork, welding, and other activities that would not generate disturbing, excessive, or offensive noise. Pile driving activities would only be conducted during daylight hours.

2.5.2 Construction Equipment and Workers

It is anticipated that the following equipment would be required to implement the project:

- Floating deck barge with spud well system
- Crane for pile installation
- Tugboat to support crane barge
- Vibratory and/or diesel impact pile driver for pile installation
- Floating scows for material shuttling to crane barge
- Push boats to shuttle personnel and small equipment
- Concrete pump and boom
- Portable welding units for overwater welding
- Diesel powered generators for barge power

Up to 10 construction workers would be present on the construction site each day, including one tug operator, two crane operators, one foreman, two oilers, and four laborers. Aside from construction worker commute trips, construction activities are anticipated to generate approximately two contractor vehicle truck trips per day for miscellaneous material and equipment loading. Contractor equipment and materials would generally be mobilized and demobilized from the water side of the project site and by using a barge.

2.5.3 Construction Staging and Parking

Existing designated areas at or near the construction site would be utilized for staging or laydown. Material delivery, staging, and maneuvering of materials in water would be conducted by deck barges and tugboats. All proposed construction elements would be over water and would require specific safety standards and best management practices (BMP). Construction would adhere to established construction BMPs as detailed in Section 2.5.5.

The contractor hired to perform the work would be required to park within the limits of the project site in designated equipment and material staging areas, which would ensure existing parking for NASSCO employees or other public parking would not be displaced. If needed due to limited space at various times throughout the construction activities, the contractor would use high occupancy vehicles to transport the approximately 10 construction workers from the contractor's facility to the project site and back daily.

2.5.4 Construction Waste and Disposal

The existing floating dry dock would be sold or dispositioned outside of the State. Non-hazardous construction trash and debris would be sent to approved recycling facilities in compliance with Assembly Bill (AB) 939, AB 341, and the City's Construction and Demolition (C&D) Debris Deposit Ordinance. A minimum of 65 percent of the construction waste would be recycled in accordance with the City of San Diego C&D Debris Deposit Ordinance. Remaining non-hazardous trash and debris that cannot be recycled would be handled through NASSCO's current trash hauler, Republic Services, and disposed at local landfills located outside the coastal zone. These landfills may include Republic Services Sycamore and Otay Landfills in San Diego County, California.

Removal of the existing Repair Complex Wharf is anticipated to generate approximately 100 creosote-treated timber piles. In conformance with California Department of Toxic Substances Control standards, the timber piles would be managed, manifested, and transported to a permitted landfill for disposal.

If other hazardous waste is generated, Resource Conservation and Recovery Act (RCRA) and non-RCRA hazardous waste would be removed by NASSCO's current hazardous waste haulers, Univar Solutions or US Ecology. All hazardous waste would be transported under a waste manifest to an authorized hazardous waste Treatment, Storage, and Disposal Facility. These facilities may include US Ecology/Univar Solutions Clearfield Plant in Clearfield, Utah; Clean Harbors Buttonwillow LLC in Buttonwillow, California; or US Ecology Nevada in Beatty, Nevada.

2.5.5 Construction Best Management Practices

During construction, BMPs would be implemented, as presented in the following subsections. During the District's project review and approval process, all BMPs would be incorporated as conditions of project approval in the CDP. The applicant would be responsible for meeting the conditions of the CDP and the District would be responsible for enforcing compliance. Where either the mitigation measure or BMP includes a more stringent requirement related to an identical issue and both cannot be successfully accomplished, the more stringent of the two shall take precedent.

GENERAL CONSTRUCTION BEST MANAGEMENT PRACTICES

Currently, all stormwater runoff from the facility, including from overwater structures, is captured and contained for subsequent discharge to the San Diego Metropolitan Sanitary Sewer System. During construction, the contractor shall comply with permit conditions imposed by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and other regulatory agencies. The following standard BMPs would be implemented:

- Floating debris will be removed from the water and disposed of properly.
- Disposal of construction and trash debris into the intertidal zone or nearshore waters is prohibited.
- All construction-related equipment will be maintained in good-working order to minimize the potential for hazardous waste spills.
- Current hazardous material spill prevention and cleanup plans will be maintained on site.
- Food-related trash items, such as wrappers, cans, bottles, and food scraps, will be disposed of in white skip tub containers and removed from the project site daily.
- Materials or supplies will be stored in a manner to avoid entrapment of wildlife and will be checked for the presence of wildlife before movement or use.
- Temporary portable restroom facilities may be used to ensure reasonable access to restroom facilities for construction workers. If used, temporary portable restroom facilities will be placed away from watercourses and storm drains.
- A scaffolding system or floating rafts will be placed under the wharf and pier to catch demolition debris.

- NASSCO will perform the waste determination on removed treated timber piles and pile stubs to determine the level of disposal facility that would be required.
- Temporary erosion and sedimentation control measures will be implemented throughout the project construction period, where applicable.
- All debris will be transported to, and disposed of, at an appropriate upland disposal site, or recycled, if appropriate.
- Excavated material will be disposed of at an upland disposal site. Wet and water-bearing materials will be dewatered before hauling off-site.
- Idling time and dust suppression requirements for commercial vehicles and construction equipment will comply with San Diego County Air Quality Management District. Idling will not be allowed for more than a 5-minute period, and temporary areas of disturbance will be treated with water or dust suppressant to prevent visible emissions of dust.
- Areas disturbed by construction activities, including staging areas, will be restored after construction. Restoration may include regrading, repaving, and other measures deemed appropriate. Disturbed areas will be restored as quickly as feasible at the end of the construction period to minimize the potential for windblown dust. Site restoration will be implemented in accordance with NASSCO's individual National Pollutant Discharge Elimination System (NPDES) permit.
- Temporary traffic control plan guidelines and BMPs will be implemented from the contractor's Traffic Control Plan and NASSCO's Facility Traffic Control BMPs. The contractor will develop a Traffic Control Plan, which will include approved state and local traffic truck routes to major highways and will apply to local roadways and streets outside of the NASSCO facility. The NASSCO Facility Traffic Control BMPs will govern inside the NASSCO facility.

BIOLOGICAL RESOURCES BEST MANAGEMENT PRACTICES

The following biological resource BMPs are from NASSCO's BMP Plan and would be implemented:

- The contractor will be required to avoid covering and disturbing any low-relief boulders that may support higher numbers of intertidal organisms, where possible.
- Consistent with the California Coastal Act and California Eelgrass Mitigation Policy (CEMP), a pre-construction eelgrass and Caulerpa taxifolia survey will be performed in the project area 30 to 60 days before commencement of proposed in- or over-water construction activities; a post-construction survey shall be performed if eelgrass is located during the pre-construction survey.
- Equipment operators and all other project workers are prohibited from harassing any marine mammals, turtles, birds including waterfowl, or fish in the project area.
- A scaffolding system or floating rafts will be used for containment of debris from underdeck repairs. Scaffolding will be covered with plywood panels to contain debris, and debris will be removed at end of each shift.
- Cementitious repair material will be placed in dry conditions at available low tides.

PILE DRIVING AND REPAIR BEST MANAGEMENT PRACTICES

Pile installation or removal shall be conducted in a manner that meets applicable permit requirements, including those required by the Clean Water Act Section 404 permit and Clean Water Act Section 401 Water Quality Certification. The measures described below are required based on the type of pile installation, or removal, that occurs.

Impact (and Vibratory) Hammer Pile Driving

- The pile driving contractor will conduct a visual scan before commencing any pile-driving operations to ensure no sensitive species are within the immediate vicinity of pile hammering and will employ soft-start techniques for any impact pile driving.

Pile Repairs

- For repairs below ordinary high water, only materials suitable for use in aquatic environments will be used, including, but not limited to, cementitious grout designed to cure underwater and multipurpose marine epoxy grout and binder.
- The contractor will employ ports with gauges and additional ports, vents, and valves necessary to ensure a successful grouting operation resulting in a dense annular grout that meets the requirements of the form manufacturer.
- Temporary supports and braces, as well as non-corrosive standoffs, will be used to maintain the jackets in required positions.

2.6 PROJECT OPERATION

Except for the proposed west offshore mooring dolphin that would serve the temporary Lot 20 position, all waterside improvements would occur within the existing NASSCO leasehold. The new floating dry dock and associated infrastructure would enable NASSCO employees to continue their existing shipbuilding and repair operations under safe working conditions. In addition, the new temporary Lot 20 position would improve the efficiency of NASSCO's shipbuilding operations and reduce the hours tugboats operate because of the closer temporary position location of the floating dry dock and easier positioning during vessel launches. The project would not result in an expansion of the existing use of the site, an increase in shipbuilding and repair operations, or additional employees, other than those needed during construction.

NASSCO operates under an individual NPDES Permit (Order R9-2016-0116), maintains a facility BMP Plan Manual, and has a fully contained stormwater diversion system where discharging to the receiving water does not occur. NASSCO would be required to maintain all existing operational and maintenance BMPs. Stormwater runoff from the new floating dry dock would be collected, contained, and treated within NASSCO's stormwater diversion system before being released to the San Diego Metropolitan Sewer System. In addition, the floating dry dock would be outfitted with 178,000 gallons of onboard stormwater storage capacity.

All coating systems within the proposed ballast tanks and the exterior hull would be free of copper. The new diesel generators would be U.S. EPA Tier 4-rated and would be outfitted with a closed-loop cooling water system. The new floating dry dock would be outfitted with an extensive electrical distribution system in an effort to reduce the quantity of temporary diesel air compressors utilized for production operations, as well as a modern electric salt water pumping system to minimize the need for portable diesel salt water pumps.

2.7 UTILITIES

The project would require the existing mechanical and electrical utilities to be replaced and reconfigured in order to support the existing demands of dockside operations. The utilities consist of fresh water, salt water, compressed air, compressed gases, and electrical, which are routed from existing distribution systems throughout the project site. Change in demand on municipal systems is not required for the implementation of the project.

2.8 POTENTIAL PERMITS AND APPROVALS REQUIRED

The permits and approvals required for the project are summarized in Table 2-6.

Table 2-6 List of Required Permits and Approvals

Agency	Permit or Approval
U.S. Army Corps of Engineers	▶ Authorize individual/nationwide Clean Water Act Section 404 Permit (33 U.S. Code Section 1341) ▶ Rivers and Harbors Act Section 10 Permit
California Coastal Commission	▶ Approval of Coastal Development Permit for project elements outside the U.S. Pierhead Line (i.e., installation of west offshore mooring dolphin and temporary repositioning of floating dry dock in "Lot 20" position during vessel launches from the inclined building ways or building dock) ▶ Right of Entry for construction activities on piers adjacent to U.S. Pierhead Line
San Diego Regional Water Quality Control Board	▶ Clean Water Act Section 401 Water Quality Certification
San Diego County Air Pollution Control District	▶ Permits for Diesel Generators
San Diego Unified Port District	▶ Approval of the project ▶ Authorization of Coastal Development Permit ▶ Adoption of the Mitigated Negative Declaration in compliance with CEQA ▶ Adoption of Mitigation Monitoring and Reporting Program ▶ Real Estate Agreement for west offshore mooring dolphin (Lot 20 position) that would be located outside the U.S. Pierhead Line

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3 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

An Initial Study is conducted by a Lead Agency to determine if a project may have a potentially significant effect on the environment. An Environmental Impact Report (EIR) must be prepared if an Initial Study indicates that further analysis is needed to determine whether a significant impact will occur or if there is substantial evidence in the record that a project may have a significant effect on the environment. The environmental factors checked below would be potentially affected by this project, involving at least one impact that may require mitigation to reduce the impact from "Potential Impact" to "Less than Significant with Mitigation." The potential impacts and mitigation are described in the Initial Study Checklist.

☐ Aesthetics	☐ Agriculture and Forest Resources	☒ Air Quality
☒ Biological Resources	☐ Cultural Resources	☐ Energy
☒ Geology / Soils	☐ Greenhouse Gas Emissions	☒ Hazards / Hazardous Materials
☒ Hydrology / Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☐ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities / Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

On the basis of this initial evaluation:

☐ I find that the proposed project could not have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

☒ I find that although the proposed project COULD have a significant effect on the environment, there WILL NOT be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Wileen C. Manaois
Director, Development Services

April 27, 2022
Date

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4 ENVIRONMENTAL INITIAL STUDY CHECKLIST

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a) Earlier Analysis Used. Identify and state where they are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a) the significance criteria or threshold, if any, used to evaluate each question; and
    b) the mitigation measure identified, if any, to reduce the impact to less than significance.

4.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics.				
Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

4.1.1 Environmental Setting

The project site is within the NASSCO shipyard, located on and adjacent to the San Diego Bay and under the jurisdiction of the San Diego Unified Port District (District). The project site is within a developed industrial area, approximately 1.3 miles southeast of Downtown San Diego. The visual character of the project site and surrounding area is defined by the existing industrial uses to the west, military uses to the south and east, transportation corridor to the north, and commercial and residential uses in the adjacent community of Barrio Logan further north. Views of the project site from nearby surrounding areas are generally obstructed by security fencing and intervening office buildings within the NASSCO shipyard although cranes and vessels can be seen in the background. Views of the project site from within the NASSCO shipyard include the existing dry dock and other associated facilities, Repair Complex Wharf, large ships, shipbuilding equipment (i.e., overhead cranes), working piers, berths, lighting, and permanent and modular buildings.

4.1.2 Discussion

a) Have a substantial adverse effect on a scenic vista?

Less-than-significant impact. Within the District's jurisdiction, the District Port Master Plan (PMP) designates vista areas, which are defined as "points of natural beauty, photo vantage points, and other panoramas" (San Diego Unified Port District 2020a). The PMP is intended to guide development within vista areas to preserve and enhance these areas of scenic and visual importance.

The project site is within Planning District 4 (Tenth Avenue Marine Terminal) of the PMP, which does not contain any designated vista areas (see Figure 13 of the PMP). The nearest designated vista areas are approximately 1.3 miles to the northwest of the project site within Planning District 6 (Coronado Bayfront). These vista areas are located along

the San Diego Bay waterfront with southeast facing views of the San Diego–Coronado Bridge. These vista areas offer limited views of the project site based on the distance to the project site and the intervening Coronado Bridge and BAE Systems shipyard. In addition, the PMP identifies vista areas located along the Embarcadero waterfront in Planning District 3 (Centre City/Embarcadero), approximately 1.6 miles northwest of the project site. These vista areas face southwest towards the City of Coronado and do not offer views of the project site.

During project construction, large equipment, such as cranes, floating deck barges, and pile drivers, would be temporarily present within the project site. Construction equipment would be visually compatible with the existing character of the project site and surrounding areas, which contain equipment for ongoing maritime industrial operations. Moreover, there are limited views of the project site from designated vista areas due to the direction of the viewsheds, distance to the project site, and presence of intervening structures. The construction equipment would not be large enough to dominate existing viewsheds or block scenic views. Following construction, the project site would be returned to a similar condition as the existing setting. The project would not introduce new permanent structures that would dominate existing viewsheds or block scenic views during project operation. Therefore, the project would not result in a substantial adverse effect on a scenic vista and impacts would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less-than-significant impact. The nearest state scenic highway that is officially designated by the California Department of Transportation (Caltrans) is the San Diego–Coronado Bridge (Coronado Bridge), which is a 1.4-mile segment on State Route 75 (SR-75) located approximately 0.6 mile northwest of the project site (Caltrans 2019). Coronado Bridge spans the San Diego Bay, connecting the City of San Diego to the City of Coronado. For traveling motorists, Coronado Bridge offers existing views of the San Diego Bay and Downtown San Diego to the northeast, including high-rise residential, commercial, and urban developments. Looking southeast from Coronado Bridge, the project site is partially visible behind the adjacent ship repair facility operated by BAE Systems. Views of the project site include a variety of maritime industrial facilities such as large ships, mooring dolphins, docks, piers, permanent and modular buildings, cranes, and associated equipment associated with the NASSCO shipyard.

As discussed in Section 4.1.2(a) above, large equipment, such as cranes, floating deck barges, and pile drivers, would be temporarily present within the project site during construction. This equipment may be partially visible from portions of the Coronado Bridge. However, these visual elements would not be readily noticeable because of the distance to the project site. Moreover, the project site includes existing equipment and facilities for ongoing maritime industrial operations within the NASSCO shipyard. The construction equipment that would be temporarily introduced to the project site would be similar in size, color, and scale to the existing elements. Furthermore, viewer groups on the Coronado Bridge would be limited to motorists traveling on the roadway. Viewer sensitivity would be considered low because motorists would generally focus on the roadway and would have momentary, distant views of the project site.

Project construction would occur within the NASSCO leasehold, except for the installation of the west offshore mooring dolphin, which would occur outside the District's jurisdiction. No project elements would encroach onto Caltrans right-of-way. Project construction would not have potential to damage scenic resources, such as trees, rock outcroppings, or historic buildings associated with views from the Coronado Bridge. Following construction, the project site would be returned to a similar condition as the existing setting. As with existing operations, operational activities would not encroach onto Caltrans right-of-way and would not affect views from the Coronado Bridge. Therefore, the project would not substantially damage scenic resources within a state scenic highway and impacts would be less than significant.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less-than-significant impact. The project site is in an urbanized area that is developed entirely with maritime-related industrial uses. The land use designation for the project site is Marine Related Industrial (Land) and Specialized Berthing (Water).

As discussed in Section 4.1.2(b) above, the project site includes existing equipment and facilities for ongoing maritime industrial operations within the NASSCO shipyard. Construction equipment that would be temporarily introduced to the project site would be similar in appearance and scale to the existing site conditions and equipment. Similarly, the appearance and scale of the proposed project components would resemble the appearance and scale of the existing components that were identified for repair or replacement (e.g., floating dry dock and supporting infrastructure, Repair Complex Wharf, quay wall and revetment, and structural piles). Therefore, construction and operation of the proposed project would not result in a noticeable visual change in the industrial quality of the project site.

The project would not expand the existing use of the project site or expand existing shipyard operations, including any increase in capacity to service or build more ships. In addition, the project would not require changes to existing land use designations. Furthermore, as evaluated in Section 4.1.2(a) above, the project would not conflict with policies identified in the PMP for preserving visual access and vista areas. Therefore, the project would not conflict with applicable zoning and other regulations governing scenic quality and impacts would be less than significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less-than-significant impact. The project site is within the NASSCO shipyard in a developed industrial area. Existing light sources in the project site include outdoor security lighting throughout the shipyard and on-site vehicles, as well as spillover lighting from existing buildings, adjacent industrial and military land uses, and streetlamps and vehicles from nearby roadways.

The project would require some nighttime construction activities, such as project deliveries, formwork, and welding. Additional temporary light sources may be required to illuminate work areas; however, lighting would be directed on-site and would be of similar intensity to existing light sources throughout the NASSCO shipyard and adjacent land uses. Following construction, the project site would be returned to a similar condition as the existing setting. During operations, the project would not introduce permanent light sources or new structures with highly reflective materials. Therefore, the project would not create new sources of substantial light or glare that would adversely affect day or nighttime views in the area. Impacts would be less than significant.

Required Mitigation Measures

The project would not result in significant impacts on aesthetics. Mitigation measures are not required.

4.2 AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agriculture and Forest Resources.				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

4.2.1 Environmental Setting

The project site is within the NASSCO shipyard and is developed entirely with maritime-related industrial uses. The land use designation for the project site is Marine Related Industrial (Land) and Specialized Berthing (Water). Land uses in proximity to the project site include heavy and light industry, military, and commercial and office land uses. No agricultural land or operations are located on or adjacent to the project site. The project site is classified as Urban and Built-Up Land by the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (DOC 2018, City of San Diego 2007: Figure 3.1-1). No portions of the project site or adjacent parcels are held under Williamson Act contracts (City of San Diego 2007: Figure 3.1-1). There are no areas within or adjacent to the project site that are zoned forestland or timberland.

4.2.2 Discussion

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No impact. According to the DOC Farmland Mapping and Monitoring Program, the project site is classified as Urban and Built-Up Land. The nearest land classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is approximately 7.5 miles southeast of the project site (DOC 2018). Project construction and operation would be contained within the NASSCO leasehold. Therefore, the project would not convert Important Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. No impact would occur.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No impact. The land use designation for the project site is Marine Related Industrial (Land) and Specialized Berthing (Water). The project site is not zoned for agricultural use and no agricultural resources or operations exist within the project site or adjacent areas. No Williamson Act contracts apply to the project site (City of San Diego 2007: Figure 3.1-1). Therefore, the project would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impact would occur.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No impact. As discussed in Section 4.2.2(b) above, the land use designation for the project site is Marine Related Industrial (Land) and Specialized Berthing (Water). The project site is not zoned for forestland, timberland, or zoned Timberland Production. There is no timberland present on or adjacent to the project site. Therefore, the project would not conflict with existing zoning for forest land or timberland and no impact would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No impact. As discussed in Section 4.2.2(c) above, no forest land or timberland resources exist on or adjacent to the project site, which is in an urbanized portion of the City of San Diego. Therefore, the project would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No impact. As discussed in Sections 4.2(a) through (d) above, no agricultural, forestland, or timberland resources exist on or adjacent to the project site. Therefore, the project would not result in changes to the existing environment that could result in the conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. No impact would occur.

Required Mitigation Measures

The project would not result in significant impacts associated with agricultural or forest resources. Mitigation measures are not required.

4.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality.				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations.				
Are significance criteria established by the applicable air district available to rely on for significance determinations?		☒ Yes		☐ No
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

4.3.1 Environmental Setting

The project site is located in the San Diego Air Basin (SDAB), which encompasses all of San Diego County and is under the jurisdiction of the San Diego Air Pollution Control District (SDAPCD). The ambient concentrations of air pollutant emissions are determined by the amount of emissions released by the sources of air pollutants and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality and odor conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources.

AMBIENT AIR QUALITY

Criteria Air Pollutants

The U.S. EPA has established National Ambient Air Quality Standards (NAAQS) for six criteria air pollutants, which are known to be harmful to human health and the environment. These pollutants are: carbon monoxide (CO), lead, nitrogen dioxide (NO_2), ozone, particulate matter with an aerodynamic diameter less than or equal to 10 microns in diameter (PM_{10}) and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in diameter ($PM_{2.5}$), and sulfur dioxide (SO_2). The State of California has also established California Ambient Air Quality Standards (CAAQS) for these six pollutants, as well as sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. NAAQS and CAAQS were established to protect the public with a margin of safety, from adverse health impacts caused by exposure to air pollution. A brief description of the source and health effects of criteria air pollutants is provided below in Table 4.3-1.

Table 4.3-1 Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects
Ozone	Secondary pollutant resulting from reaction of ROG and NO_X in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO_X results from the combustion of fuels	Increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	Permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	Incomplete combustion of fuels; motor vehicle exhaust	Reduced capacity to pump oxygenated blood; headache, dizziness, fatigue, nausea, vomiting, death	Permanent heart and brain damage
Nitrogen dioxide (NO_2)	Combustion devices (e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines), industrial processes, and fires	Coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; aggravation of existing heart disease leading to death	Chronic bronchitis, emphysema, decreased lung function
Sulfur dioxide (SO_2)	Combustion devices (e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines), industrial processes, and fires	Irritation of upper respiratory tract, increased asthma symptoms, aggravation of existing heart disease leading to death	Chronic bronchitis, emphysema
Respirable particulate matter (PM_{10}), Fine particulate matter ($PM_{2.5}$)	Fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO_2 and ROG	Breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	Alterations to the immune system, carcinogenesis
Lead	Metal processing, piston-engine aircraft or other vehicles operating on leaded fuel	Reproductive/developmental effects (fetuses and children)	Numerous effects including neurological, endocrine, and cardiovascular effects

Notes: NO_X = oxides of nitrogen; ROG = reactive organic gases, used interchangeably with volatile organic compounds (VOC) in CEQA documents.

[1] "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.

[2] "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.

Source: U.S. EPA 2019

Attainment Area Designations

The federal Clean Air Act (CAA) and the California Clean Air Act (CCAA) require all areas of California to be classified as attainment, nonattainment, or unclassified with respect to the NAAQS and CAAQS. Under the CAA and the CCAA, both the California Air Resources Board (CARB) and U.S. EPA use ambient air quality monitoring data to designate the attainment status of an air basin relative to the CAAQS and NAAQS for each criteria air pollutant. The purpose of these designations is to identify those areas with air quality problems and thereby initiate planning efforts for improvement. The three basic designation categories are "nonattainment," "attainment," and "unclassified." "Unclassified" is used in an area that cannot be classified based on available information as meeting or not meeting the standards. The SDAB is currently classified as a Nonattainment Area with respect to the 1-hour ozone CAAQS and the 8-hour ozone CAAQS and NAAQS (SDAPCD 2020, 2021; U.S. EPA 2020). Additionally, the SDAB is also classified as a Nonattainment Area with respect to the $PM_{2.5}$ and PM_{10} CAAQS. Attainment designations for the SDAB are shown in Table 4.3-2 for each criteria pollutant.

Table 4.3-2 Ambient Air Quality Standards and Current SDAB Attainment Status

Pollutant	Averaging Time	California (CAAQS)[a,b]		National (NAAQS)[c]	
		Standards	SDAB Attainment Status	Standards - Primary[b,d]	SDAB Attainment Status
Ozone	1-hour	0.090 ppm (180 µg/m^3)	Nonattainment	—	—
	8-hour	0.070 ppm (137 µg/m^3)	Nonattainment	0.070 ppm (137 µg/m^3)	Nonattainment
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	Attainment	35 ppm (40 mg/m^3)	Attainment
	8-hour	9 ppm[f] (10 mg/m^3)	Attainment	9 ppm (10 mg/m^3)	Attainment
Nitrogen dioxide (NO_2)	Annual arithmetic mean	0.030 ppm (57 µg/m^3)	Attainment	53 ppb (100 µg/m^3)	Attainment
	1-hour	0.18 ppm (339 µg/m^3)	Attainment	100 ppb (188 µg/m^3)	Attainment
Sulfur dioxide (SO_2)	24-hour	0.04 ppm (105 µg/m^3)	Attainment	—	—
	3-hour	—	Attainment	—	—
	1-hour	0.25 ppm (655 µg/m^3)	Attainment	75 ppb (196 µg/m^3)	Attainment
Respirable particulate matter (PM_{10})	Annual arithmetic mean	20 µg/m^3	Attainment	—	—
	24-hour	50 µg/m^3	Nonattainment	150 µg/m^3	Unclassified/Attainment
Fine particulate matter ($PM_{2.5}$)	Annual arithmetic mean	12 µg/m^3	Nonattainment	12 µg/m^3	Unclassified/Attainment
	24-hour	—	—	35 µg/m^3	Unclassified/Attainment
Lead[e]	Calendar quarter	—	—	1.5 µg/m^3	Attainment
	30-Day average	1.5 µg/m^3	Attainment	—	—
	Rolling 3-Month Average	—	—	0.15 µg/m^3	Attainment
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m^3)	Unclassified	No national standards	
Sulfates	24-hour	25 µg/m^3	Attainment		
Vinyl chloride[e]	24-hour	0.01 ppm (26 µg/m^3)	Unclassified		
Visibility-reducing particulate matter	8-hour	Extinction of 0.23 per km	Unclassified		

Notes: µg/m^3 = micrograms per cubic meter; km = kilometers; ppb = parts per billion; ppm = parts per million (by volume).

[a] California standards for ozone, carbon monoxide, SO_2 (1- and 24-hour), NO_2, particulate matter, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[c] National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. The PM_{10} 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than 1. The $PM_{2.5}$ 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

[d] National primary standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[e] The California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold of exposure for adverse health effects determined. This allows for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Source: U.S. EPA 2020; SDAPCD 2020; and SDAPCD 2021a

TOXIC AIR CONTAMINANTS

Toxic air contaminants (TACs) are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A TAC is defined as an air pollutant that may pose a hazard to human health cause or contribute to an increased likelihood of serious illness or mortality. TACs are usually present in minute quantities in the ambient air; however, their high toxicity may pose a threat to public health even at low concentrations.

A wide range of sources, from industrial plants to motor vehicles, emit TACs. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage. Exposure to TACs may also result in short-term acute affects such as eye watering, respiratory irritation, coughing, running nose, throat pain, or headaches.

According to the *California Almanac of Emissions and Air Quality* (CARB 2013), the majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter contained in diesel exhaust (diesel PM). Diesel PM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emissions control system is being used. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

Diesel PM poses the greatest health risk among these 10 TACs mentioned. Based on receptor modeling techniques, CARB estimated the average statewide cancer risk associated with diesel PM concentrations to be 360 excess cancer cases per million people in the year 2020 (CARB 2000:15). Overall, statewide emissions of diesel PM are forecasted to decline by 71 percent between 2000 and 2035 (CARB 2013:3-8).

SENSITIVE RECEPTORS

Sensitive receptors include land uses where exposure to pollutants could result in health-related risks to individuals more susceptible to air pollution, such as children, the elderly, and individuals with pre-existing respiratory illness and/or cardiovascular disease. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and the potential for increased and prolonged exposure of individuals to pollutants.

The project is located in a primarily industrial area that borders San Diego Bay to the west, the communities of Logan Heights and Barrio Logan to the north and northeast, and Cesar Chavez and Chicano Parks to the northwest. The nearest sensitive receptors within the City of San Diego include residents in the Barrio Logan community, just across Harbor Drive and the BNSF rail line north of the project site. The closest residence is located on the north side of Main Street just west of South 27th Street, approximately 1,180 feet north of the nearest project site boundary. The nearest school, the Logan Memorial Educational Campus, bordered on the south by Logan Avenue between South 28th and South 29th Streets, is located approximately 3,010 feet north of the project site. The nearest residential areas in the City of Coronado are located across San Diego Bay, approximately 1.4 miles west of the project site and are not discussed further due to their distance from the site.

4.3.2 Regulatory Setting

LOCAL

Criterial Air Pollutants

SDAPCD attains and maintains air quality conditions in the SDAB through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of SDAPCD includes the preparation of plans and programs for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations, and issuance of permits for stationary sources. SDAPCD also inspects stationary sources, responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements other programs and regulations required by the CAA and Clean Air Act Amendments, and the CCAA.

The CCAA requires air districts to submit air quality plans for areas that do not meet CAAQS for ozone, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$. SDAPCD has attained all CAAQS with the exception of ozone, PM_{10}, and $PM_{2.5}$ (SDAPCD 2020). The CCAA does not currently require attainment plans for PM_{10} and $PM_{2.5}$. Additionally, the SDAB has not attained the federal NAAQS for ozone. For the attainment and maintenance of ozone, in October of 2020, SDAPCD adopted its 2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone (Attainment Plan), which examined air quality conditions and documents efforts made by SDAPCD to improve air quality (SDAPCD 2020). The Attainment Plan demonstrates how the SDAB will further reduce air pollutant emissions, including ozone precursors volatile organic compounds (VOC) and oxides of nitrogen (NO_X), in order to attain and maintain the NAAQS and CAAQS for ozone, and includes the San Diego Regional Air Quality Strategy (RAQS), which addresses State requirements. The Attainment Plan is submitted to CARB for approval, and then to U.S. EPA as a revision to the San Diego portion of the California State Implementation Plan (SIP) for attaining ozone standards.

Neither the City of San Diego nor the District has adopted CEQA thresholds for significance for air quality. SDAPCD does not provide specific quantitative thresholds for determining the significance of air quality impacts under CEQA. However, the SDAPCD does specify Air Quality Impact Analysis (AQIA) trigger levels for new or modified stationary sources (SDAPCD Rules 20.2 and 20.3). If these incremental levels for stationary sources are exceeded, an AQIA must be performed for the source.

SDAPCD Rule 20.2, which outlines these trigger levels states that any project that results in an emissions increase equal to or greater than any of these levels, must:

> "demonstrate through an AQIA … that the project will not (A) cause a violation of a State or national ambient air quality standard anywhere that does not already exceed such standard, nor (B) cause additional violations of a national ambient air quality standard anywhere the standard is already being exceeded, nor (C) cause additional violations of a State ambient air quality standard anywhere the standard is already being exceeded, nor (D) prevent or interfere with the attainment or maintenance of any State or national ambient air quality standard." (SDAPCD 2019a)

For projects with stationary-source emissions that are below these criteria, no AQIA is typically required, and project level emissions are presumed to be less than significant. For CEQA purposes, these trigger levels are commonly used by San Diego agencies to determine whether a project's total emissions (e.g., stationary and fugitive emissions, as well as emissions from mobile sources) would result in a significant impact to air quality (Table 4.3-3; County of San Diego 2007). SDAPCD's trigger levels are tied to achieving or maintaining attainment designations with respect to the NAAQS and CAAQS, which are scientifically substantiated, numerical concentrations of criteria air pollutants considered to be protective of human health and public welfare.

Table 4.3-3 San Diego Air Pollution Control District Pollutant Trigger Levels

Pollutant	Emission Rate		
	lb/hr	lb/day	tons/yr
Carbon monoxide (CO)	100	550	100
Oxides of nitrogen (NO_X)	25	250	40
Particulate matter (PM_{10})	—	100	15
Particulate matter ($PM_{2.5}$)	—	55*	10*
Oxides of sulfur (SO_X)	25	250	40
Lead and lead compounds	—	3.2	0.6
Volatile organic compounds (VOC)	—	75**	13.7***

Notes: lb/hr = pounds per hour; lb/day = pounds per day; tons/yr = tons per year

According to the County of San Diego, the hourly and yearly levels are most appropriately used in situations when temporary emissions like emergency generators or other stationary sources are proposed as a part of a project. The daily levels are most appropriately used for the standard construction and operational emissions.

* U.S. EPA "Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards" published September 8, 2005. Also used by the South Coast Air Quality Management District.

** Threshold based on the threshold of significance threshold for volatile organic compounds (VOC) from the South Coast Air Quality Management District for the Coachella Valley.

*** 13.7 Tons Per Year threshold based on 75 lb/day multiplied by 365 days/year and divided by 2000 lb/ton.

Source: County of San Diego 2007, SCAQMD 2019

Toxic Air Contaminants

Toxic air pollutants are regulated through SDAPCD Regulation XII. A health risk assessment (HRA) was done to determine the risks posed by TAC emissions generated during the construction phase of the project. This HRA was conducted according to the guidance presented in SDAPCD Supplemental Guidelines for Submission of Health Risk Assessments (SDAPCD 2019a; 2019b), as well as South Coast Air Quality Management District (SCAQMD) Modeling Guidance for AERMOD (SCAQMD 2017), California Office of Environmental Health Hazard Assessment (OEHHA) Air Toxic Hot Spot Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2015), and guidance from the California Air Resources Board (CARB 2015 2019). An increase in the maximum individual cancer risk (MICR) due to project-related TAC emissions that exceeds the SDAPCD threshold of one chance in one million without application of Toxics Best Available Control Technology (T-BACT), 10 chances in one million with application of T-BACT, or a chronic or acute health hazard index (HHI) greater than one, would pose an excessive health risk to nearby receptors and would thus be considered a significant impact (SDAPCD 2019b).

Maritime Clean Air Strategy

The Maritime Clean Air Strategy (MCAS) is a strategic planning document, adopted by the Board of Port Commissioners (Board) on October 12, 2021, that identifies short-term and long-term goals and objectives intended to facilitate achievement of a clean, sustainable, and modern seaport (San Diego Unified Port District 2021a). The goals and objectives of the MCAS are aspirational, non-binding, and will be pursued through a variety of means—some of which are unknown at this time due to factors such as technological limitations and availability. As such, all of the goals and objectives are subject to feasibility and technological advances. Additionally, as the MCAS is a strategic plan, implementation of the MCAS is subject to future Board actions, as well as regular check-ins on a variety of topics including feasibility of implementation.

In alignment with its Vision Statement, "Health Equity for All," the MCAS is intended to guide future District decision-making and "provide a planning framework for potential future actions that may be implemented to achieve the goals and objectives identified in the MCAS." The MCAS also recognizes that various means may be employed or pursued by the District to reduce emissions, including the adoption of regulatory standards, purchase of equipment, or strategic partnerships. Accordingly, an individual project does not necessarily impede or obstruct achievement of

the MCAS's goals or the ability of the District to consider, approve, and implement projects and/or initiatives aimed at achieving the MCAS goals and objectives. The MCAS explains, for instance, that it "is also anticipated that technological advances will result in additional options for implementation toward achievement of near-term goals and objectives." To that end, the MCAS represents a strategy to be pursued by the District, through a variety of future means, including specific measures, projects, and initiatives.

Community Emissions Reduction Plan

The Portside Community's Community Emissions Reduction Plan (CERP) was adopted by the SDAPCD on July 16, 2021, and CARB on October 14, 2021 (SDAPCD 2021b). The CERP is a "plan for action to reduce air pollutant emissions and community exposure to those emissions in the Portside Community." The CERP specifies "aspirational goals," describes a variety of actions and strategies to achieve those goals and identifies governmental and organizational entities responsible for implementation of those actions. The goals in the CERP are aspirational and are intended to guide the community businesses, organizations, and government agencies partnering in the implementation of the CERP to support health and environmental justice in the Portside Community. While there might not be a clear path to reach some of these goals, the goals identify the direction for the community to achieve emission reductions beyond regulatory requirements. As technology evolves and data continues to be collected, the goals in the CERP may be adjusted accordingly.

4.3.3 Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less-than-significant impact. The SDAB is currently designated as nonattainment with respect to the NAAQS and CAAQS for ozone, and the CAAQS for PM_{10} and $PM_{2.5}$. Air quality planning for San Diego county is under the jurisdiction of SDAPCD, which has adopted the 2020 SDAB Attainment Plan to reduce emissions of VOC and NO_X, which are both ozone precursors (SDAPCD 2020). The Attainment Plan is first submitted to CARB for approval and then to U.S. EPA as a revision to the San Diego portion of the California SIP, with the goal of ultimately achieving attainment status with respect to the NAAQS and CAAQS. The San Diego RAQS is included in the Attainment Plan and thus consistency with the RAQS is also required. The Attainment Plan relies on emissions forecasts based on demographic and economic growth projections provided by city and county general plans. Projects whose growth is included in the projections used in the formulation of the Attainment Plan are consistent with the Attainment Plan and would not interfere with its implementation.

The current project would involve repairing, replacing, and improving existing waterfront structures including the Floating Dry Dock, the Repair Complex Wharf, and other marine-related infrastructure. Upon completion of construction activities, normal operations would resume, but with greater operational efficiency due to the shorter distance to the temporary moorage site of the dry dock at Lot 20, requiring less tug-assistance and thus reduced emissions. The existing floating dry dock utilizes Tier 0 diesel generators, while the replacement floating dry dock would utilize diesel generators that would be U.S. EPA Tier 4-rated and would be outfitted with a closed-loop cooling water system. In addition, the new floating dry dock would be outfitted with an extensive electrical distribution system in an effort to reduce the quantity of temporary diesel air compressors utilized for production operations, as well as a modern electric salt water pumping system to minimize the need for portable diesel salt water pumps. These improvements would reduce diesel emissions when compared to existing conditions.

The project would not result in an expansion of the existing use of the site or an increase in shipbuilding and repair operations. Moreover, additional employees would not be needed once the project is operational. Thus, the project would not include components that would induce growth or change the use of the site. Because the current project would not modify land uses or result in an unanticipated increase in the residential population, the project would be consistent with SDAPCD's Attainment Plan and potential impacts related to a conflict with the Attainment Plan would be less than significant.

As discussed in Section 4.3.2, the MCAS and the CERP propose goals to reduce air pollution from maritime cargo terminal and industrial-related operations. MCAS goals and measures are designed to be implemented if feasible and

through future binding actions, by the District, but not necessarily on a project-by-project basis. In addition, although the District's participation in the CERP and its implementation is important, most of the CERP's goals and actions, as enumerated, are not applicable to or under the control of the District to implement. For instance, a substantial component of the CERP is premised on future regulatory or policy action by the SDAPCD and/or CARB, and expanding and evolving the enforcement program to increase compliance rates, increase outreach efforts, and maximize compliance (see Chapters 5 and 6 of the CERP). Nevertheless, to provide full public disclosure and informed participation, this section includes an analysis of whether the proposed project would conflict with or obstruct implementation of the MCAS and CERP.

Tables 4.3-4 and 4.3-5 discuss whether the proposed project conflicts with or obstructs implementation of the goals and objectives of the District's MCAS and CERP to inform the public and Board regarding the proposed project's likely near-term and long-term impacts, if any. Merely being inconsistent with a MCAS or CERP goal or objective would not necessarily be considered a significant impact under CEQA in itself; rather, the inconsistency must result in a substantial adverse effect on the environment. As documented in Tables 4.3-4 and 4.3-5, no inconsistencies have been identified that would result in a significant impact on the environment.

Table 4.3-4 Maritime Clean Air Strategy Consistency Analysis

Goals and Objectives	Proposed Project Applicability and Consistency
Long-Term Goals	
Long-term Goal for Trucks: In advance of the State's goals identified in Executive Order No. N-79-20, attain 100% ZE truck trips by 2030 for all trucks that call to the Ports two marine cargo terminals.	**Not Applicable.** The proposed project is not located at one of the Port's marine terminals. The proposed project is not inconsistent with and does not obstruct the Port from attaining 100% ZE truck trips.
Long-term Goal for Cargo Handling Equipment: In advance of the State's goals identified in Executive Order No. N-79-20, the transition of diesel cargo handling equipment to 100% ZE by 2030.	**Not Applicable.** The proposed project does not involve the use of cargo handling equipment. The proposed project is not inconsistent with and does not obstruct the Port from transitioning diesel cargo handling equipment to 100% ZE.
Long-term Goal for Harbor Craft: Tugboat-related Diesel Particulate Matter (DPM) emissions identified in the Port's Emissions Inventory (2019) will be reduced by half by transitioning to ZE/near zero emission (NZE) technologies and/or other lower-emitting engines or alternative fuels.	**Consistent.** The proposed project would result in the reduction of tugboat-related DPM emissions during operations. Specifically, the new floating dry dock position at Lot 20 would reduce the distance of tugboat trips because the floating dry dock would no longer need to be repositioned farther away from the home position within the NASSCO leasehold during vessel launches. Furthermore, the proposed project would not obstruct transition of tugboats to technologies that reduce emissions (as tugs are owned by other operators and this transition is not related to operations of the shipyards).
Long-term Goal for Port Fleet: Transition Port-owned fleet of vehicles and equipment to ZE/NZE emission technologies in manner that meets operational needs and reduces emissions, as outlined below: ▶ Transition light-, medium-, and heavy-duty vehicles beginning in 2022 to ZE. ▶ Transition emergency vehicles to alternative fuels including hybrid, electric, and/or low carbon fuels. ▶ Convert equipment, such as forklifts and lawn maintenance equipment, to ZE. ▶ Seek opportunities to advance lower emitting solutions for marine vessels	**Not Applicable.** The NASSCO shipyard is a privately owned and operated shipyard facility. As such, the proposed project is not inconsistent with and does not obstruct the Port's ability to transition Port-owned fleet vehicles and equipment to ZE/NZE emission technologies.
Long-term Goal for Ocean-going Vessels: Equip marine terminals with shore power and/or an alternative technology to reduce ocean-going vessel emissions for ships that call to the Port.	**Not Applicable.** The proposed project is not located at one of the Port's marine terminals. The proposed project is not inconsistent with and does not obstruct the District from advancing implementation of shore power infrastructure and/or alternative technology to reduce ocean-going vessel emissions. Vessels within the dry dock are connected to shorepower when the dock is not in transit.

Goals and Objectives	Proposed Project Applicability and Consistency
Near-Term Goals and Objectives (2021 to June 30, 2026)	
Health	
Health Goal I. Protect and improve community health by reducing emissions and lessening Portside Community residents' exposure to poor air quality.	**Consistent.** The proposed project would result in the reduction of emissions during operations. Specifically, the new Lot 20 position would reduce the distance of tugboat trips because the floating dry dock would no longer need to be repositioned farther away from the home position within the NASSCO leasehold during vessel launches. As such, the proposed project's operational characteristics would result in reduced fuel use that would improve air quality and reduce TACs, when compared to existing conditions. In addition, the proposed project would include installation of replacement diesel generators that would be U.S. EPA Tier 4-rated and would be outfitted with a closed-loop cooling water system. In addition, the new floating dry dock would be outfitted with an extensive electrical distribution system in an effort to reduce the quantity of temporary diesel air compressors utilized for production operations, as well as a modern electric salt water pumping system to minimize the need for portable diesel salt water pumps. These improvements would reduce diesel emissions when compared to existing conditions. Furthermore, the use of off-road equipment with Tier 4 engines during project construction would be required as project conditions of approval to reduce construction-related emissions.
Health Objective 1: By October 2021, identify existing health risk levels generated from the Port's Tenth Avenue Marine Terminal and the National City Marine Terminal for Diesel Particulate Matter (DPM) and other Toxic Air Contaminant emissions. a. Reduce DPM Emissions: The Health Risk Assessment (HRA) may be used to inform an emission reduction goal. b. Reduce Health Risk: The HRA may be used to inform a cancer risk reduction goal.	**Not Applicable.** The proposed project is not located at one of the Port's marine terminals. The proposed project is not inconsistent with and would not obstruct the Port's ability to identify existing health risk levels generated at the Tenth Avenue Marine Terminal and National City Marine Terminal, nor would it affect the Port's ability to inform an emission reduction goal or cancer risk reduction goal at the marine terminals.
Health Objective 2: Assist the San Diego Air Pollution Control District and the California Air Resources Board with preparing a cumulative or community health risk analysis for the AB 617 Portside Community by providing them with the Port's Health Risk Assessment (October 2021) and other operational related information.	**Not Applicable.** This objective is not applicable as it pertains to sharing of information between the SDAPCD and the District.
Health Objective 3: Work collaboratively with the San Diego Air Pollution Control District (SDAPCD) on the SDAPCD's Portside Air Quality Improvement and Relief (also known as PAIR) program, including pursuing a Memorandum of Agreement with the SDAPCD to contribute Port Maritime Industrial Impact Fund for the SDAPCD's purchase and installation of new portable air filtration devices at participating Portside Community residences.	**Not Applicable.** The Port Maritime Industrial Impact Fund is administered by the District, not NASSCO; therefore, the proposed project is not inconsistent with and would not obstruct the District's ability to pursue an MOA with the SDAPCD to purchase and install residential air filtration devices in participating Portside community residences.
Health Objective 4: Collaborate with the San Diego Air Pollution Control District (SDAPCD) as they evaluate and consider developing a new rule to control emissions from indirect sources, in accordance with the timelines and dates established by the SDAPCD.	**Not Applicable.** The proposed project is not inconsistent with and does not obstruct the District's ability to collaborate with the SDAPCD to develop new rules to control emissions.
Community	
Community Goal 1: Enrich the AB 617 Portside Community through Education, Engagement, and Urban Greening.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct the District's ability to enrich the AB 617 Portside Community through community education, engagement, and urban greening.

Goals and Objectives	Proposed Project Applicability and Consistency
Community Objective 1: Rely on established processes for stakeholders and the public to provide input in the selection, deployment, and on-going monitoring of emission reduction projects.	**Not Applicable**. Community Objective 1 promotes active stakeholder and public involvement regarding District initiatives and other measures to facilitate emissions reductions. The proposed project is a waterfront improvement project that would result in lower operational emissions once the proposed project elements are constructed. As such, it is not inconsistent with and does not obstruct the District's ability to engage with and received input from stakeholders and the public on the issue of emission reductions.
Community Objective 2: Port staff will provide the Board of Port Commissioners, Barrio Logan Community Planning Group, the National City Council, and the AB 617 Portside Community Steering Committee with periodic updates on the status of its emission reduction projects and initiatives and associated emission reduction levels.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct the District's ability to provide status updates and/or to inform various governing and/or advisory bodies of the District's emission reduction projects.
Community Objective 3: Port staff will convene a group of stakeholders to explore increasing tree canopy in the Portside Community and continue to work with groups like Urban Corps of San Diego County to advance this objective.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct the District's ability to engage stakeholders on issues of community concern.
Community Objective 4: Support the expansion of the Port's existing outdoor educational programs to increase participation of youth that live in the AB 617 Portside Community.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct the District's ability to support the expansion of existing outdoor educational programs to youth that live in the AB 617 Portside Community.
Community Objective 5: Work with Portside Community residents and stakeholders to complete a comprehensive update in 2025 to the MCAS, including goals and objectives for 2026 to 2030 that are Specific, Measurable, Attainable, Relevant, Timebound, Inclusive, and Equitable that reflects updated technology, regulations, and market conditions.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct the District's ability to engage with residents and stakeholders to complete a comprehensive update of the District's MCAS in 2025, which would include setting goals and objectives for the 2026 to 2030 time period.
Cargo Handling Equipment	
Cargo Handling Equipment Goal 1: Attain substantial reductions for cargo handling equipment related emissions by facilitating upgrades to zero emission/near zero emission equipment alternatives.	**Not Applicable**. NASSCO specializes in the design and construction of auxiliary and support ships for the U.S. Navy and commercial markets. Consequently, NASSCO's operations do not involve the use of cargo handling equipment as the shipyard does not receive, store, or transport cargo.
Cargo Handling Equipment Objective 1: Reduce emissions from cargo handling equipment by approximately 90% for nitrogen oxides (NOX), 80% for diesel particulate matter (DPM), and 50% for carbon dioxide equivalent (CO_2e) below 2019 levels by January 1, 2025.	**Not Applicable**. NASSCO's operations do not involve the use of cargo handling equipment or movement of cargo. Therefore, the proposed project is not inconsistent with and does not obstruct the District's ability to reduce NOx, DPM, and CO_2e emissions, associated with cargo handling equipment, which operate at the Port's marine cargo terminals.
Harbor Craft	
Harbor Craft Goal 1: Reduce emissions from Harbor Craft by advancing emerging zero emission and advanced technologies.	**Not Applicable**. The proposed project would not be inconsistent with or obstruct a future transition to advanced Harbor Craft technologies that would reduce emissions. The proposed project would reduce Harbor Craft emissions (specifically from assist tugs) compared to existing conditions due to the reduced distance to move the dry dock to its temporary moorage at Lot 20.
Harbor Craft Objective 1: Facilitate implementation of the first all-electric tugboat in the United States by June 30, 2026.	**Not Applicable**. NASSCO's shipyard operations require the periodic use of tugboats to assist the movement of vessels in and out of mooring. However, NASSCO does not control tugboats, nor would implementation of its proposed project obstruct pursuit of an all-electric tugboat in San Diego Bay. These harbor craft are owned by third parties, not NASSCO, and the implementation of all-electric tugboats is not within the control of NASSCO.

Goals and Objectives	Proposed Project Applicability and Consistency
Harbor Craft Objective 2: Identify suitable projects to assist with advancing the State's goals for commercial harbor craft by supporting: • Existing fuel docks with the transition to renewable diesel by January 1, 2023; • Installation and maintenance of landside shore power for all facilities that receive more than 50 visits per year by 2024; • All new excursion vessels transition to zero emission capable hybrid technologies starting on January 1, 2025; and • Short run ferry-operators transition to zero emission technologies for all new and in use short-run (under 3 nautical miles) trips starting on January 1, 2026.	**Not Applicable**. The proposed project does not involve the use of fueling docks. No excursion or short run ferry operations are associated with shipyard operations.
Truck	
Truck Goal 1: Improve the air quality in the Portside Community by accelerating the implementation of zero emission/near zero emission trucks.	**Not Applicable**. The proposed project is a waterfront improvement project for a privately owned and operated shipyard facility, and it does not involve the use of heavy duty trucks that transport cargo to/from the Port's two marine cargo terminals. As such, the proposed project is not inconsistent with and does not obstruct the District's ability to accelerate the implementation of zero/near-zero emission trucks.
Truck Objective 1A: Prepare a heavy-duty truck transition plan by June 30, 2022 with ZE heavy-duty truck transition benchmarks of 40% of the Port's annual truck trips by June 30, 2026 and 100% by December 31, 2030 that includes the following: i. A compilation of all foreseeable tasks and their timelines including: charging infrastructure development; planning and implementation of a short-haul truck program; and creation of a truck registry. ii. Development of key policy concepts such as additional revenue source mechanisms and guidelines to utilize them; and new lease provisions for ZE truck requirements. This section should include the process required for consideration and adoption by the Board as well as their projected hearing dates. iii. Compilation and analysis of truck data (e.g. truck ownership, delivery distances within San Diego region and beyond) needed to prepare the transition plan.	**Not Applicable**. Pursuant to Objective 1A, the District is preparing a heavy duty truck transition plan, the details of which will include provisions that will aid and further facilitate the transition to ZE truck technologies, consistent with the objective. The proposed project will not be inconsistent with or obstruct the District's ability to prepare a truck transition plan that includes the three components that the Board directed staff to include in the heavy-duty truck transition plan.
Truck Objective 1B: By the end of 2022, Port staff will develop and present a short-haul, on-road, Zero Emission Truck Program for the Board's consideration that includes at least one collaborating trucking company and that targets having the necessary charging infrastructure in place by 2024, in order to displace approximately 65,000 diesel vehicle miles traveled.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct the District's ability to develop a Zero Emission Truck Program by the end of 2022.
Truck Objective 1C: Coordinate with the California Air Resources Board as they continue to develop the Advanced Clean Fleet Regulation regarding the transition to zero emission trucks to better understand associated State forecasts and forthcoming rulemaking.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct the District's ability to coordinate with CARB as they continue to develop the Advanced Clean Fleet Regulation.
Truck Objective 1D: In collaboration with the California Air Resources Board, the Port will utilize a truck registry or other system to summarize annual truck trips to the Port's marine cargo terminals and measure progress to achieve Port goals.	**Not Applicable**. The proposed project is not located at one of the marine terminals. Therefore, it is not inconsistent with and does not obstruct the District's ability to create and/or utilize a truck registry system to gain additional information relating to trucks the Port's marine terminals.
Truck Objective 1E: Provide status report to the Board of Port Commissioners with recommendations on zero emission truck technologies, as well as an evaluation of potential impacts to small fleets and/or independent truck drivers, as part of a biennial emissions reporting to better understand the transition zero emission truck technology.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct District staff from reporting to the Board of Port Commissioners.

Goals and Objectives	Proposed Project Applicability and Consistency
Truck Goal 2: Facilitate the deployment of infrastructure to support the transition to zero emission truck trips to the Port's marine cargo terminals.	**Not Applicable**. The NASSCO shipyard is not located at one of the Port's marine cargo terminals.
Truck Objective 2A: Within the fourth quarter of calendar year 2022, present a concept plan to the Board for its consideration that identifies four potential public-facing medium-duty/heavy-duty charging locations within the San Diego Region to support deployment of zero emission trucks, which may include locations in close proximity to or on the Tenth Avenue Marine Terminal and/or the National City Marine Terminal.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct District staff from identifying potential locations for infrastructure to support deployment of zero emission trucks.
Truck Objective 2B: Collaborate and coordinate with community residents, stakeholders, and agencies to ensure that the medium-duty/heavy-duty zero emission truck charging facilities identified in Objective 2A are aligned with and connect to the region's larger zero emission vehicle charging infrastructure system.	**Not Applicable.** The proposed project is not inconsistent with and does not obstruct District staff from ensuring any marine terminal truck charging infrastructure is consistent with other regional efforts to deploy and install truck charging infrastructure.
Truck Goal 3: Support the designated truck route to avoid truck impacts on the local community.	**Consistent**. Trucks over five (5) tons are required to follow the designated Truck Route along Harbor Drive to access north or southbound Interstate 5 or northbound Interstate 15, as adopted 10/31/2018 by the City of San Diego Resolution R-2019-249. In addition, the proposed project requires the issuance of a Coastal Development Permit which has been conditioned, as all projects located along the working waterfront, to require the use of the City of San Diego's designated Truck Route to further emphasize and improve compliance with the designated trucking route.
Truck Objective 3A: Work with partners to continue advancement of the connected and flexible freight and transit haul route concept to provide more efficient freeway access and encourage truck drivers to avoid residential neighborhoods by leveraging technology to support dedicated lanes and signal prioritization.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct District staff from advancing the flexible freight and transit route concept.
Fleet	
Fleet Goal 1: Update Port purchasing and/or procurement policies to acquire zero emission vehicles and best available alternative fuels or technologies.	**Not Applicable**. NASSCO is not involved in the update to the District's procurement policies.
Fleet Objective 1A: Update the Port's vehicle purchasing and/or procurement policy in Fiscal Year 2022 to identify a hierarchy of procurement considerations that prioritize zero emission vehicles, followed by the utilization of best available alternative fuels, to ensure Port fleet upgrades and replacements obtain the lowest emitting option available.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct District staff from updating procurement policies.
Fleet Objective 1B: Create a zero emission vehicle transition plan in Fiscal Year 2022 for the Port's fleet of vehicles and equipment that identifies a long-term acquisition schedule for when current vehicles and equipment will be phased out and when new electric vehicles and equipment are anticipated to be procured.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct District staff from developing a plan to transition the District fleet to zero emission vehicles.
Fleet Goal 2: Procure zero emission vehicles and necessary electric vehicle charging equipment and infrastructure beginning in Fiscal Year 2022.	**Not Applicable**. NASSCO is not involved in the District's procurement of zero emission vehicles and associated infrastructure.
Fleet Objective 2A: Procure at least two battery electric medium- to heavy-duty vehicles in Fiscal Year 2022. where feasible, provided. Developments providing public recreational opportunities are preferred.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct the District from procurement of two battery electric vehicles.
Fleet Objective 2B: Identify power needs and electric vehicle charging options at the General Services facility and apply to SDG&E's Power Your Drive for Fleets Program in calendar year 2021.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct District staff from identifying power needs and apply for program funding.

Goals and Objectives	Proposed Project Applicability and Consistency
Shipyard	
Shipyard Goal 1: Collaborate with the San Diego Air Pollution Control District as they review and propose modifications to applicable rules, regulations, and/or programs.	**Not Applicable**. NASSCO shipyard is subject to numerous laws and regulations implemented by the SDAPCD and would be a willing collaborative participant during modification or update to existing regulations. The project would not obstruct the ability of the District to collaborate with the SDAPCD on new and/or modified rules (regulations) that may be adopted by the SDAPCD. As applicable, the proposed project may be subject to the following SDAPCD rules, and others, during construction: ▶ Regulation 2, Rule 20.2—New Source Review Non-Major Stationary Sources: establishes Air Quality Impact Analysis (AQIA) Trigger Levels, which set emission limits for non-major new or modified stationary sources. ▶ Regulation 2, Rule 20.3—New Source Review Major Stationary Sources and Prevention of Significant Deterioration Stationary Sources: establishes AQIA Trigger Levels, which set emission limits for major new or modified stationary sources or Prevention of Significant Deterioration stationary sources. Major sources are defined in Regulation 8 as sources that emit 100 tons per year of PM_{10}, SO_X, CO, and lead; and 50 tons per year of NO_X and volatile organic compounds (VOC) in federal O_3 nonattainment areas. ▶ Rule 50—Visible Emissions: establishes limits for the opacity of emissions within the SDAPCD. The proposed project is subject to Rule 50(d)(1) and (6) and should not exceed the visible emission limitation. ▶ Rule 51—Nuisance: prohibits emissions that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; endanger the comfort, repose, health, or safety of any such persons or the public; or cause injury or damage to business or property. ▶ Rule 52—Particulate Matter: establishes limits for the discharge of any particulate matter from nonstationary sources. ▶ Rule 54—Dust and Fumes: establishes limits for the amount of dust or fume discharged into the atmosphere in any 1 hour. ▶ Rule 55—Fugitive Dust Control: sets restrictions on visible fugitive dust from construction and demolition projects. ▶ Rule 67—Architectural Coatings: establishes limits to the VOC content for coatings applied within the SDAPCD. ▶ Rule 67.7—Cutback and Emulsified Asphalts: establishes general provisions and limits to the VOC content for asphalt materials applied within the SDAPCD. ▶ Rule 69.2—Industrial and Commercial Boilers, Process Heaters and Steam Generators: establishes emissions testing and standards for boilers with a heat input rating of 5 million British thermal units (BTU) per hour or more. ▶ Regulation 8, Rules 1200–1210: establishes rules and procedures governing new, relocated, or modified emission units that may increase emissions of one or more TAC. While the project is not necessarily subject to the requirements of this regulation, the risk assessment guidelines and procedures published as part of this regulation are used in the health risk assessment herein.

Goals and Objectives	Proposed Project Applicability and Consistency
Shipyard Objective 1: Collaborate with the San Diego Air Pollution Control District as they evaluate and consider potentially lowering the health risk in Rule 1210, including the threshold for stationary sources that reduce their estimated cancer risk.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct implementation of this objective, which was completed in November 2021. More specifically, with input from the District, the SDAPCD updated Rule 1210 to lower the health risk threshold from 100 per one million to 10 per million on November 4, 2021.
Shipyard Objective 2: Continue to work with the shipyard facilities to identify and implement emission reduction projects and, subject to further Board approval, require such implementation, and support the shipyard-related actions that are identified in the Portside Community's AB 617 Community Emissions Reduction Program.	**Consistent**. The District and all shipyard facility operators, including NASSCO, will continue to work together to identify additional projects, programs, and initiatives intended to reduce emissions and increase efficiency at the shipyards and be consistent with the CERP. Implementation of the proposed project would not be inconsistent with or obstruct future coordination and implementation of such actions.
Ocean-Going Vessels	
Ocean-going Vessels In-Transit Goal 1: Reduce annual ocean-going vessel in-transit emissions.	**Not Applicable**. Ocean-going vessels are used to transport goods and people to and from domestic and international seaports. Ocean-going vessels visit the Port's two marine cargo terminals and the two cruise ship terminals. The proposed project does not involve the movement of goods or people to and from seaports, nor is the shipyard located at one of the Port's marine terminals or cruise ship terminals.
Ocean-going Vessels In-Transit Objective 1A: Pursue implementing an expanded Vessel Speed Reduction Program that achieves upwards of 90% participation, subject to further Board of Port Commissioners' approval.	**Not Applicable**. Vessels serviced at the proposed project site arrive from US Navy Base San Diego, within San Diego Bay where the VSR program does not apply. The Vessel Speed Reduction Program is a voluntary program asking cargo vessel operators entering or leaving San Diego Bay to observe a 12-knot speed limit. NASSCO operations involve the design and construction of auxiliary and support ships. Shipyard operations within the NASSCO leasehold would not involve activities that would be inconsistent with the Vessel Speed Reduction Program.
Ocean-going Vessels At-Berth Goal 2: Reduce ocean-going vessels' at-berth emissions by expanding existing and/or developing new shore power systems and/or equivalent technologies at the Port's marine terminals.	**Consistent**. The proposed project is not located at one of the Port's marine terminals. When vessels berth or dock for repairs, upgrades, and maintenance, their engines are turned off. The proposed project is not inconsistent with and does not obstruct the District from advancing implementation of shore power infrastructure and/or alternative technology to reduce ocean-going vessel emissions while at berth.
Ocean-going Vessels At-Berth Objective 2A: For cruise ships, add one additional plug to the existing shore power system by 2023.	**Not Applicable**. The proposed project does not involve the operation of cruise ships.
Ocean-going Vessels At-Berth Objective 2B: At the National City Marine Terminal, add a new shore power system with at least two plugs and/or an alternative technology that reduces ocean-going vessel emissions at berth by 2025.	**Not Applicable**. The proposed project is not located at the National City Marine Terminal.
Rail	
Rail Goal 1: Upgrade rail capabilities at the Tenth Avenue Marine Terminal to allow for more efficient and cleaner operations.	**Not Applicable**. The proposed project does not involve operations at the Tenth Avenue Marine Terminal.
Rail Objective 1: Outline options to further develop rail upgrades, including rail reconfiguration within the Tenth Avenue Marine Terminal by June 30, 2026.	**Not Applicable**. The proposed project does not involve the use of rail services; the proposed project is not located at the Tenth Avenue marine Terminal.
Rail Goal 2: Promote the use of a Single Engine Tier 4 Switcher if applicable to operations at the Tenth Avenue Marine Terminal and National City Marine Terminal.	**Not Applicable**. The proposed project does not involve the use of switchers and it is not located that the Tenth Avenue Marine Terminal or the National City Marine Terminal.

Goals and Objectives	Proposed Project Applicability and Consistency
Rail Objective 2: Encourage tenants that rely on rail operations that move cargo to use cleaner switchers.	**Not Applicable**. The proposed project does not rely on rail operations.
Enabling Goals	
Enabling Goal 1: Establish partnerships with stakeholders, tenants, and agencies to help increase the likelihood of implementation and project success.	**Not Applicable**. This goal focuses on partnerships established and maintained by the District to advance emission reduction projects within and around Tidelands to achieve the goals and objectives of the MCAS. The proposed project is not inconsistent with and does not obstruct the District's ability to establish partnerships to increase the likelihood of implementation of zero emission initiatives and/or projects.
Enabling Objective 1A: Pursue a potential Memorandum of Understanding with the San Diego Air Pollution Control District to administer California Air Resources Board Funding to help fund zero emission/ near zero emission trucks and/or cargo handling equipment.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct the District from pursuing an MOU with SDAPCD and/or CARB.
Enabling Objective 1B: Work with the California Department of Transportation and other west coast ports to implement domestic shipping services to reduce emissions by facilitating the movement of goods by waterborne routes that are currently served by trucks or rail.	**Not Applicable**. The proposed project does not involve domestic shipping services and is not inconsistent with and does not obstruct the District's ability to work with the California Department of Transportation to facilitate the movement of goods by waterborne routes.
Enabling Goal 2: Conduct the necessary research and analysis to inform additional options that could be used to help attain emission reductions and other MCAS-related goals.	**Not Applicable**. This goal focuses research and analysis for the District to advance emission reduction projects within and around Tidelands to achieve the goals and objectives of the MCAS. The proposed project is not inconsistent with and does not obstruct the District's ability to conduct additional research and analysis to inform additional options that could be used to attain emission reductions and other MCAS-related goals.
Enabling Objective 2A: Create a clearinghouse process to track progress towards achieving MCAS and relevant AB 617 CERP goals and objectives, including technology and emission improvements associated with development, within 30-days of final approval of both documents.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct the District from creating a clearinghouse to track and monitor MCAS-related goals and objectives.
Enabling Objective 2B: Establish an Emissions Reduction Incentive Program.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct the District from developing an emissions reduction incentive program.
Enabling Objective 2C: Prepare a market study/feasibility analysis for the Board of Port Commissioners that explores a range of potential fees that can support zero emission/near zero emission reduction projects, as well as identify any implications the fee may have on the Port's revenue and maritime business opportunities.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct the District's ability to prepare a market/feasibility study for the Board of Port Commissioners, that considers a range of fees that can support zero emission/near zero emission projects.
Enabling Objective 2D: Explore potential credentials for installation and maintenance of emerging zero emission technologies and report recommendations to the Board of Port Commissioners by end of calendar year 2021.	**Not Applicable**. The proposed project is not inconsistent with and does not obstruct the District's ability to provide a report and recommendations to the Board of Port Commissioners that explores potential credentials for the installation and maintenance of emerging zero emission technologies.
Enabling Objective 2E: Promote adoption of zero emission technologies by Port tenants, truckers, and other users of equipment.	**Consistent.** The proposed project would result in the reduction of emissions from harbor craft and diesel sources during operations. In addition, the use of off-road equipment with Tier 4 engines during project construction would be required as project mitigation to reduce construction-related emissions. The proposed project would not obstruct or limit the ability of the District, in conjunction with its tenants, to promote, adopt, and implement zero emissions technologies across the District, including at the shipyards.

Source: San Diego Unified Port District 2021a

Table 4.3-5 Community Emissions Reduction Program Consistency Analysis

Goals and Strategies	Proposed Project Consistency
Goal 1. By 2031, reduce Diesel PM from 2018 levels by 80% in ambient air at all Portside Community locations.	**Consistent.** Goal 1's aspirational objectives are long-term and may be pursued through a variety of measures, including future regulatory or policy action by the SDAPCD (and other public agencies, organizations, and businesses). The proposed project would result in the annual reduction of DPM from operation activities help assist in meeting the 80% reduction goal by 2031. Furthermore, the use of off-road equipment with Tier 4 engines during project construction would be required as a project mitigation to reduce construction-related emissions.
Goal 2. Medium and Heavy Duty trucks servicing Portside Community to be 100% ZEV 5 years ahead of the California state requirements.	**Not Applicable.** The proposed project complies with all applicable laws, regulations, and policies pertaining to air quality emissions and does not propose construction activities that involve medium or heavy-duty trucks servicing the Portside Community. The proposed project is not inconsistent with and does not obstruct the SDAPCD or CARB from developing and implementing ZEV requirements for medium and heavy-duty trucks; until such requirements are established with a time certain implementation date, it cannot be determined if and when the proposed project can meet as yet defined requirements.
Goal 3. Establish ZEV HD/MD truck charging infrastructure in Portside, by specified dates in Action E1, with 4 sites operational by 2026.	**Not Applicable.** The proposed project is not inconsistent with and does not obstruct SDAPCD staff from establishing ZEV HD/MD truck charging infrastructure. The SDAPCD and/or other entities may pursue and establish charging infrastructure, in strategic locations, designed to facilitate the use of ZE trucks.
Goal 4. Reduce emissions from HD/MD trucks servicing indirect sources by 100% 5 years in advance of regulatory requirements.	**Not Applicable.** The proposed project is in compliance with all applicable laws, regulations, and policies pertaining to air quality emissions and does not propose construction activities that involve medium or heavy-duty trucks serving the Portside Community. The proposed project is not inconsistent with and does not obstruct CARB from developing and implementing emission reduction requirements for medium and heavy-duty trucks serving the Portside Community. Until such requirements are established with a time certain implementation date, it cannot be determined if and when the proposed project can meet as yet defined requirements.
Goal 5. By December 2021, APCD to present the cumulative cancer risk for Portside Communities from Health Risk Assessments and modeling of cumulative risk (including freeways, rail, vessels, stationary sources, etc.) to inform Goal #6. APCD can achieve this modeling goal with CARB assistance and input from the Portside Community Steering Committee including methodology and input data.	**Not Applicable.** The proposed project is not inconsistent with and does not obstruct SDAPCD staff from presenting the cumulative cancer risk for Portside Communities from Health Risk Assessments and modeling of cumulative risk.
Goal 6. By February 2022, establish an estimated cancer risk reduction goal based on the modeling that is done in Goal #2. Estimated cancer risk at all census tracts in Portside Community from locally generated emissions, including both stationary and mobile sources, to meet goals of ___/ million by 2026 and ___ /million by 2031.	**Not Applicable.** The proposed project is not inconsistent with and does not obstruct SDAPCD staff from establishing an estimated cancer risk reduction goal.
Goal 7. Conduct a Health Risk Assessment (HRA) at the Port's two marine cargo terminals to establish an updated baseline that relies on the most recent source characterization and activity from the Port's 2019 Emissions Inventory to inform aspirational goals in support of public health community priorities:	**Goal 7 Not Applicable.** The NASSCO shipyard is not located at the District's marine terminals **Priority 2) Not Applicable.** The NASSCO Shipyard is not located at the District's marine terminals.

Goals and Strategies	Proposed Project Consistency
2) By October 2021, identify existing health risk levels generated from the Port's Tenth Avenue Marine Terminal (TAMT) and the National City Marine Terminal (NCMT) for Diesel Particulate Matter (DPM) and other Toxic Air Contaminant (TAC) emissions. a. Reduce Health Risk: The HRA may be used to inform an aspirational goal of reducing cancer risk b. Reduce DPM Emissions: The HRA may be used to inform an aspirational emission reduction goal c. Assist the San Diego Air Pollution Control District (SDAPCD) and the California Air Resources Board (CARB) with preparing a cumulative cancer risk analysis for the AB 617 Portside Community by providing them with the Port's HRA (October 2021) and the other operational related information.	**Priority 2) a. Not Applicable.** The proposed project is not inconsistent with and does not obstruct SDAPCD staff from developing an aspirational goal to reduce cancer risk. **Priority 2) b. Not Applicable.** The proposed project is not inconsistent with and does not obstruct SDAPCD staff from developing an aspirational goal to reduce emissions. **Priority 2) c. Not Applicable.** The proposed project is not inconsistent with and does not obstruct SDAPCD staff from establishing an estimated cancer risk reduction goal. **Priority 2) c. Not Applicable.** The proposed project is not inconsistent with and does not obstruct Port staff from assisting SDAPCD and CARB in preparing a cumulative cancer risk analysis.
GOAL 8. By 2026 reduce cancer risk below 10/million for each permitted stationary source, including portable equipment, in the Portside Environmental Justice Community.	**Consistent.** The proposed project would generate emissions from construction activities. The Health Risk Assessment prepared for the proposed project concluded that the cancer risk to receptors at the nearest school in the vicinity of the project site, Logan Memorial Educational Center, due to construction emissions would be 1.2 chances per million. The chronic non-cancer health hazard index at the nearest school would be 0.00036; both indices are below 10 cases per million. The project will not be inconsistent with or obstruct the District from reducing cancer risk in the Portside Community, for emissions associated with activities on Tidelands.
Goal 9. By 2031 complete Harbor Drive 2.0 truck freight improvements, including enforcement and signage of truck route for National City.	**Not Applicable.** The project site is not located in National City; therefore, the proposed project is not inconsistent with and does not obstruct completion of Harbor Drive 2.0 improvements.
Goal 10. By 2031 increase tree canopy in the Portside Community to 35%.	**Not Applicable.** The proposed project is not inconsistent with and does not obstruct the SDAPCD, City of San Diego, National City and stakeholders from increasing the tree canopy of Portside Communities. The proposed project is not anticipated to remove any mature trees.
Goal 11. Develop a new vision for park/green space for the Portside Community to increase park space by 30% by December 2022.	**Not Applicable.** The proposed project is not inconsistent with and does not obstruct the SDAPCD, City of San Diego, National City and stakeholders from increasing park space for Portside Communities.
Heavy Duty Truck Strategies	
Action E1: Advance the deployment of heavy-duty on-road electric trucks to demonstrate operational feasibility and reduce emissions within the Portside Community and other disadvantaged communities.	**Not Applicable.** The proposed project would not be inconsistent with or obstruct any actions to advance the deployment of on-road electric trucks to demonstrate feasibility.
Action E3: Support dedicated truck route and avoid truck impacts to local community	**Consistent.** Trucks over five (5) tons are required to follow the designated Truck Route along Harbor Drive to access north or southbound Interstate 5 or northbound Interstate 15, as adopted 10/31/2018 by the City of San Diego Resolution R-2019-249. In addition, the proposed project requires the issuance of a Coastal Development Permit which has been conditioned, as all projects located along the working waterfront, to require the use of the City of San Diego's designated Truck Route to further emphasize and improve compliance with the designated trucking route.
Action E4: Increase number of truck parking and staging facilities with electric charging capabilities to address regional parking needs and alleviate the truck parking burdens within the Portside Community.	**Not Applicable.** The proposed project would not result in any changes in available parking and would not increase operational truck trips.

Goals and Strategies	Proposed Project Consistency
Land Use Strategies	
Action F3: Urban Greening	**Not Applicable.** The proposed project is not inconsistent with and does not obstruct City of National City, City of San Diego, SANDAG, U.S. Navy, Port of San Diego, Caltrans or the Barrio Logan Community Planning Group from promoting programs, projects, and funding opportunities to increase urban greening efforts.
Action F5: Support Harbor Drive Multimodal Corridor Study (HDMCS) Land Use Proposals	**Not Applicable.** The proposed project is not inconsistent with and does not obstruct the City of San Diego, Port of San Diego or the City of National City from supporting the Harbor Drive Multimodal Corridor Study Land Use Proposals.
Action F7: Improve Transportation Efficiencies	**Not Applicable.** The proposed project is not inconsistent with and does not obstruct SDAPCD, SANDAG, Naval Base San Diego, Port of San Diego, City of San Diego, City of National City, and Caltrans from working with regional and local transportation agencies to improve transportation efficiencies.
Working Waterfront Activities (Port, Navy, and Shipyards)	
Action G2: Reduce Emissions from Ships at Berth	**Consistent.** When vessels berth or dock at NASSCO for repairs, upgrades and maintenance, their engines are turned off. Furthermore, the proposed project would include installation of new diesel generators on the new dry dock that would be U.S. EPA Tier 4-rated and would be outfitted with a closed-loop cooling water system. The new floating dry dock would be outfitted with an extensive electrical distribution system in an effort to reduce the quantity of temporary diesel air compressors utilized for production operations, as well as a modern electric salt water pumping system to minimize the need for portable diesel salt water pumps. The proposed project is not inconsistent with and does not obstruct the Port from advancing implementation of shore power infrastructure and/or alternative technology to reduce ocean-going vessel emissions.
Action G3: Reduce emissions from harbor craft	**Consistent.** The proposed project would result in the reduction of emissions from harbor craft during operations, compared to existing conditions. Specifically, the new Lot 20 position would reduce the distance of tugboat trips because the floating dry dock would no longer need to be repositioned farther away from the home position within the NASSCO leasehold during vessel launches.
Action G4: Reduce DPM and NOx emissions from portable air compressors and other diesel sources at shipyards.	**Consistent.** The proposed project would result in the reduction of emissions from diesel sources during operations, compared to existing conditions. Specifically, the proposed project would include installation of new diesel generators that would be U.S. EPA Tier 4-rated and would be outfitted with a closed-loop cooling water system, which would replace the Tier 0 generators used on the existing floating dry dock. The new floating dry dock would be outfitted with an extensive electrical distribution system in an effort to reduce the quantity of temporary diesel air compressors utilized for production operations, as well as a modern electric salt water pumping system to minimize the need for portable diesel salt water pumps. Furthermore, the use of off-road equipment with Tier 4 engines during project construction would be required as project conditions of approval to reduce construction-related emissions.

Goals and Strategies	Proposed Project Consistency
Action G5: Promote best practices for reducing diesel, VOC and other emissions from ship repair activities.	**Consistent.** See the consistency analysis for Action G2 and G4 above. The proposed project would result in the reduction of emissions from harbor craft and diesel sources during ship repair activities, compared to existing conditions.
Action G6: Reduce emissions from shipyard employee transportation	**Consistent.** As discussed in Section 4.17, "Transportation," no new vehicle trips would be generated during operation of the project. Additionally, NASSCO provides subsidized vanpool, discounted trolley passes, and employee bike lockers. On-premises transportation is also aided by over 150 electrics carts and more than 200 electric bikes. Therefore, the proposed project would not affect emissions from shipyard employee transportation.
Action G7: Promote adoption of ZE technologies by Port tenants, truckers, and other users of equipment	**Consistent.** As discussed above, the proposed project would result in the reduction of emissions from harbor craft and diesel sources during ship repair activities, compared to existing conditions. Furthermore, the use of off-road equipment with Tier 4 engines during project construction would be required as project mitigation to reduce construction-related emissions. The proposed project would not be inconsistent with the ability of the Port to promote the adoption of ZE technologies when these technologies become feasible and available.
Advocacy Measures	
Action H1: Support Emission Reduction Opportunities Some measures require a commitment by an agency that cannot be made until after a public process and/or after May 2021 when the CERP will be finalized. The only action the APCD and/or Steering Committee can take is to support an outcome that will improve air quality in Portside, all disadvantaged communities, or the region.	**Consistent.** As discussed above, the proposed project would result in the reduction of emissions from harbor craft and diesel sources during ship repair activities, compared to existing conditions. Furthermore, the use of off-road equipment with Tier 4 engines during project construction would be required as mitigation to reduce construction-related emissions. The proposed project would not be inconsistent with or obstruct the District's ability to support emission reduction opportunities intended to improve air quality.

Source: SDAPCD 2021b

In summary, the floating dry dock would no longer need to be relocated to another berth farther from the home dock during vessel launches from the inclined building ways or building dock. Rather, the floating dry dock would be repositioned to the "Lot 20" temporary location, which is closer to the home position. As such, the proposed project would result in reduced fuel use associated with tug trips during operations that would improve air quality and reduce TACs, when compared to existing conditions. In addition, the new diesel generators would be U.S. EPA Tier 4-rated and would be outfitted with a closed-loop cooling water system. The new floating dry dock would be outfitted with an extensive electrical distribution system in an effort to reduce the quantity of temporary diesel air compressors utilized for production operations, as well as a modern electric salt water pumping system to minimize the need for portable diesel salt water pumps. Therefore, the proposed project would reduce emissions from stationary sources during operations, when compared to existing conditions. Furthermore, the use of off-road equipment with Tier 4 engines during project construction would be required as project mitigation to reduce construction-related emissions (see Issue III.c. below). For these reasons, the proposed project would not conflict with the applicable goals, objectives, and strategies of the MCAS and CERP. As a result, there would be a less than significant impact, and no mitigation would be required.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less-than-significant impact. The SDAB is designated as a nonattainment area with respect to the NAAQS and CAAQS for ozone, and the CAAQS for $PM_{2.5}$ and PM_{10}. The trigger levels developed by SDAPCD used as mass emission thresholds for this analysis are tied to attaining and maintaining these health-based standards. Projects that exceed these thresholds would result in a cumulative, regional contribution (i.e., significant) to the nonattainment status of the SDAB and may also contribute to adverse health impacts affecting nearby receptors.

Short-Term Construction-Related Emissions of Criteria Air Pollutants and Precursors

Implementation of the proposed project would include construction necessary to replace NASSCO's floating dry dock and perform other structural repair and replacement activities as part of waterfront infrastructure improvements. Based on information provided by the project applicant, construction is anticipated to begin in January 2023, with expected completion of most phases by December 2027. Intermittent construction would consist of as-needed structural repair and replacement of existing structural piles throughout the leasehold, including those that support Berths 2, 3, 4, 5, 6, and Pier 12, the floating dry dock approach pier, and the Berth 1 Platform. The existing steel-jacketed concrete piles, concrete-filled steel pipe piles, and H-piles show signs of deterioration, cracking, corrosion, and wear. These structural repairs would continue from January 2023 through January 2034.

The proposed project's construction-related emissions were modeled based on project specifications and default settings and parameters contained in California Emissions Estimator Model (CalEEMod) Version 2020.4.0, modified using vehicle emission factors from CARB's latest Emission Factor Model (EMFAC 2021) (CAPCOA 2021, CARB 2021). Emissions associated with the derrick and spud barges (e.g., exhaust emissions from tugboats utilized to mobilize the barges during construction, emissions from on-board generator sets) were estimated using the Sacramento Metropolitan Air Quality Management District (SMAQMD) Harborcraft Emissions Calculator (SMAQMD 2017), which is the most up-to-date calculator for marine vessel emissions. Specific input parameters and modeling output results are included in Appendix A. Construction activities related to the proposed project would result in the intermittent, temporary generation of emissions of criteria air pollutants and precursors from heavy-duty off-road construction equipment, vehicle use during worker commute trips and construction materials transport, and the emissions of marine watercraft (i.e., tugboats used to mobilize barges). Existing operational efficiency would be improved by this project in that the new floating dry dock would be repositioned from the home position to Lot 20 which is a shorter distance from the home position during vessel launches under existing conditions, thus reducing fuel consumption and emissions associated with power necessary to move the dry dock, especially during extreme weather events. Operational emissions after project completion would therefore not increase and would actually be reduced due to increased fuel efficiency of operations of repositioning the dry dock to the closer temporary position of Lot 20.

Construction-related emissions were assessed for each phase of project construction, with daily emissions from overlapping phases summed, to calculate conservative maximum daily emissions. Each phase of construction was modeled separately, including:

- Floating dry dock replacement and waterfront infrastructure improvements (January 2023-September 2024)
- Repair and improvements to the Repair Complex Wharf (September 2024-July 2025)
- Repair of failed revetment along Quay Wall, Berths 2-5 (January 2024-February 2024)
- Derrick and spud barge transport (January 2023-July 2025)
- Additional repairs to 1,500 linear feet of shoreline segments, including shoreline segments Lot 20 to Pier 12, floating dry dock approach pier to Berth 8, Ways to Building Dock, and Berth 6 to Navy Base Quay Wall (January 2025-December 2027)
- As-needed structural repair/placement of select piles (100 piles/year) at Berths 2, 3, 4, 5, 6, and Pier 12 and the floating dry dock approach pier, and at the Berth 1 Platform (January 2024-January 2034)

Estimated maximum daily emissions during each construction phase are presented in Table 4.3-6.

Table 4.3-6 Maximum Daily Construction Emissions

Phase	Dates	Pollutant Emissions (pounds per day)					
		VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Phase 1	Jan 2023-Sept 2024	0.8	3.9	25.5	0.1	0.2	0.1
Phase 2	Sept 2024-July 2025	1.5	10.3	29.8	0.1	0.5	0.4
Phase 3	Jan 2024-Feb 2024	1.1	7.5	36.8	0.1	0.3	0.2
Phase 4	Jan 2025-Dec 2027	1.1	7.4	36.8	0.1	0.3	0.2
Phase 5	Jan 2024-Jan 2034	0.9	4.8	27.1	0.1	0.3	0.2
Derrick Barge (1 main engine, 2 generator sets)[1]	Jan 2023-July 2025	2.4	70	15	0.1	1.9	1.7
Spud Barge (1 portside and 1 starboard engines)	Jan 2023-July 2025	0.8	21	4.1	< 0.1	0.5	0.5
Tugboat (1 main engine)	Jan 2023-July 2025	0.8	9	2.7	< 0.1	0.5	0.5
	Combined Daily Emissions[2]	7.5	121.7	115.6	0.3	4.0	3.4
	SDAPCD Daily Threshold	**75**	**250**	**550**	**250**	**100**	**55**
	Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: VOC = volatile organic compounds; NO_X = Oxides of Nitrogen; CO = Carbon Monoxide; SO_X = Oxides of Sulfur; PM_{10} = Particulate Matter with a diameter < 10 micrometers; $PM_{2.5}$ = Particulate Matter with a diameter < 2.5 micrometers

[1] Barge emissions refer to emissions associated with both the main propulsion engine and on-board generators used to provide electricity on the barge.

[2] Combined maximum overlap of daily emissions occurs Jan-June 2025 (Phases 2, 4, 5, barges and tugboats). All estimates are with Toxic Best Available Control Technology (i.e., Tier 4 engines). Tier 4 engines will be required as project conditions of approval.

Source: Modeling by Ascent Environmental 2021

Emissions of NO_X would be primarily associated with off-road construction equipment exhaust; secondary sources would include on-road trucks for the hauling of materials and equipment, as well as worker vehicles for commuting. Worker commute trips using gasoline-fueled vehicles would be the primary source of VOC, with additional VOC coming from off- and on-road construction equipment. Emissions of fugitive PM_{10} and $PM_{2.5}$ dust are associated primarily with ground-disturbance activities, and may vary as a function of such soil parameters such as silt content, soil moisture, wind speed, and the area of disturbance. Exhaust emissions from diesel equipment, worker commute trips, on-board generators on barges, barge engines, and tugboats used to mobilize barges also contribute to short-term increases in PM_{10} and $PM_{2.5}$.

The levels of criteria air pollutants and precursors generated during project construction would not exceed the applicable mass emission thresholds based on SDAPCD trigger levels. Therefore, project-related emissions would not result in a cumulatively considerable net increase of any criteria pollutant for which the SDAB is in nonattainment with the CAAQS and NAAQS. In addition, the project would not exacerbate or interfere with the region's ability to attain any health-based standards and would not cause adverse health impacts related to criteria air pollutant emissions. Therefore, this impact would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than significant with mitigation incorporated. Sensitive receptors include land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and the potential for increased and prolonged exposure of individuals to pollutants. The project is located in a waterfront industrial area. The nearest sensitive receptors include residents in the Barrio Logan community of San Diego, which lies approximately 1,100 feet north of the project site, across Harbor Drive and the BNSF rail line.

Barrio Logan is a residential area composed of single- and multi-family homes, along with various schools, neighborhood restaurants, and retail stores interspersed throughout. The closest residence is located on the north side of Main Street just west of South 27th Street, approximately 1,180 feet north of the nearest project site boundary, and the nearest school, the Logan Memorial Educational Campus, bordered on the south by Logan Avenue between South 28th and South 29th Streets, is located approximately 3,010 feet north of the project site.

Because the operational emissions at the NASSCO facility would not be increased from implementation of the proposed project, only emissions associated with construction are evaluated. Construction-related activities would result in temporary, intermittent emissions of diesel PM from the exhaust of off-road, heavy-duty diesel equipment. Construction activities would occur no closer than 1,180 feet away from the nearest sensitive receptor over a period of 12 years, from 2023 to 2034. According to CARB, more than 90 percent of diesel PM is less than 1 micrometer in diameter and is, thus, a subset of $PM_{2.5}$ (CARB 2022). As such, $PM_{2.5}$ exhaust from diesel equipment is used as a surrogate for diesel PM. Based on emissions modeling, the total exhaust $PM_{2.5}$ emissions over the entire construction period within one mile of the project site would be 0.5 tons, or an average of 83.4 pounds per year over 12 years. To evaluate the potential health effects of construction-related diesel PM emissions on receptors near the project site, an HRA was performed based on these emissions estimates and the MICR and chronic HHI were calculated at the nearest residential receptor.

Air Dispersion Modeling and Health Risk Assessment

The potential cancer risk from inhaling diesel PM emissions associated with project construction outweighs the potential for all other diesel PM-related health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs. With regards to exposure of diesel PM, the dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance, and is positively correlated with time, meaning that a longer exposure period would result in a higher level of health risk for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period.

An HRA was prepared for this project to provide an estimate of potential cancer risk to nearby receptors due to construction emissions. This HRA was done in accordance with OEHHA's Air Toxic Hot Spot Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2015) and SDAPCD's Supplemental Guidelines for Submission of Rule 1200 Health Risk Assessments (SDAPCD 2019b). Construction emissions of $PM_{2.5}$ (exhaust) were estimated using CalEEMod based on the anticipated construction schedule and the proposed land uses, as well as defaults in CalEEMod (CAPCOA 2021). $PM_{2.5}$ emissions associated with the derrick and spud barges (i.e., exhaust emissions from tugboats utilized to mobilize the barges during construction) were calculated using SMAQMD's Harborcraft Emissions Calculator (SMAQMD 2017). The resulting $PM_{2.5}$ (exhaust) emissions, used as a surrogate for diesel PM emissions, were averaged over the duration of the entire construction period to determine the annual average diesel PM emission rate. Because the project does not contain earth movement/excavation that generates dust, diesel PM is the TAC of primary concern. In addition, cancer-potency factors for diesel PM account for the combined health effects of the many chemicals that make up diesel PM. The modeling considered the length of exposure time, local meteorological data, and proximity of receptors, including sensitive receptors, to the project site.

Dispersion modeling was conducted with the CARB-approved American Meteorological Society/Environmental Protection Agency Regulatory Model Improvement Committee modeling system (AERMOD), Version 21112 (EPA 2021), with a unit emission rate of 1.0 gram per second (g/s) for all modeled sources. The modeling included PM_{10} exhaust emissions, as a surrogate for diesel PM emissions, from diesel-fueled equipment, tugboats, and haul trucks that would be operated during construction. Dispersion modeling was conducted in AERMOD to estimate ground-level exhaust $PM_{2.5}$ concentrations at each receptor location. This approach enabled the output files to be assigned appropriate emission rates and to estimate diesel PM concentrations, as well as resulting cancer and non-cancer risk levels, at each receptor location. The health risks to residents were estimated in the Hotspots Analysis and Reporting Program Version 2 (HARP2) (CARB 2019). The cancer risk was estimated using the OEHHA-derived calculation method for residential receptors and the exposure duration was adjusted in accordance with the anticipated construction schedule (12 years). See Appendix A for all risk assessment assumptions/calculations and model output files.

The modeling included all standard regulatory default options, including the use of urban dispersion parameters and local terrain. Terrain in the project vicinity is generally flat. The following specific parameters were used to perform airborne dispersion modeling and the assessment of health risks related to diesel PM emissions resulting from project construction, including general AERMOD configuration, meteorological data inputs, selection of emission sources and receptors, and cancer risk determination.

AERMOD Model Configuration

The following input parameters were used in all model runs:

- Projected Coordinate System: Universal Transverse Mercator zone 11;
- Geographic Datum: World Geodetic System of 1984;
- Unit emission rate of 1 g/s for all sources; and
- U.S. Geological Survey (USGS) National Elevation Dataset (NED) 1/3 terrain data.

Meteorological Data

Pre-processed meteorological data collected at San Diego International Airport (Lindbergh Field) was obtained from CARB (CARB 2015b) for the complete 5-year period of 2009 through 2013. San Diego International Airport is the nearest and most representative meteorological station to the proposed project site. A wind rose displaying the wind speed and wind direction is shown in Appendix A. The wind primarily blows from the west towards the northeast during most of the year. Using these data, dispersion modeling applied a time-averaged, simplified representation of turbulent, atmospheric transport to approximate how pollutants are carried, mixed, dispersed, and diluted by the local winds.

Emission Sources and Receptor Grid

A receptor grid with 50-meter spacing was placed in the areas surrounding the proposed project site per SDAPCD HRA guidelines, extending out to approximately 1,500 meters (1 mile) beyond the project site boundary. The receptor grid was placed to estimate the level of cancer risk and to determine whether residents would be exposed to excessive concentrations of diesel PM. Adjacent volume sources placed within the proposed project site to represent off-road equipment and tugboats/barges used during construction, each with a 10-meter diameter, an internal lateral dimension of 4.7 meters, and an internal vertical dimension of 1.2 meters, were used for dispersion modeling and to determine ground-level concentrations at receptors. Line volume sources spaced at 10-meter intervals, with a 4.2-meter plume height, 8.0-meter plume width, and a 2.6-meter release height were used to represent haul routes to the I-5 freeway. These dimensions assumed that trucks traveling on these routes would have an average height of 3 meters and width of 2.4 meters. The elevations of volume sources and receptors were based on terrain-feature data obtained from CARB's Digital Elevation Model Files (CARB 2022).

Cancer and Non-Cancer Risks at Sensitive Receptors

Cancer risk to the nearest residential receptor proximal to the project site (i.e., at northwest corner of Main St. and South 27th St.) due to construction emissions would be 11.7 chances per million (Appendix B). The chronic non-cancer health hazard index at this residential receptor would be 0.0034. The cancer risk to receptors at the nearest school in the vicinity of the project site, Logan Memorial Educational Center (i.e., at 3,010 feet from the project site boundary), due to construction emissions would be 10.4 chances per million. The chronic non-cancer health hazard index at the nearest school would be 0.0031. Therefore, prior to mitigation, the cancer risk posed to nearby sensitive receptors who would be exposed to TAC emissions from project construction that would exceed SDAPCD's MICR threshold of 10 chances in one million (**Impact-AQ-1**). However, the chronic non-cancer risks would not exceed the HHI threshold of 1.0.

Mitigation would be required to reduce cancer and non-cancer health risk to below a level of significance. To reduce construction emissions below the MICR threshold of 10 chances in one million, the project applicant and its contractor would be required to use off-road construction equipment that meets Tier 4 (final) California Emissions Standards for off-road diesel engines (**MM-AQ-1**). This mitigation measure would require that at least 75 percent of the off-road construction fleet that has engines sizes that are greater than 50 horsepower meet Tier 4 California Emission standards.

With the incorporation of **MM-AQ-1**, cancer risk to the nearest residential receptor proximal to the project site (i.e., at northwest corner of Main St. and South 27th St.) due to construction emissions would be 8.9 chances per million (Appendix B). The chronic non-cancer health hazard index at this residential receptor would be 0.0026. The cancer risk to receptors at the nearest school in the vicinity of the project site, Logan Memorial Educational Center (i.e., at 3,010 feet from the project site boundary), due to construction emissions would be 1.2 chances per million. The chronic non-cancer health hazard index at the nearest school would be 0.00036. Therefore, with mitigation, the cancer risk posed to nearby sensitive receptors who would be exposed to TAC emissions from project construction would not exceed SDAPCD's MICR threshold of 10 chances in one million nor the HHI threshold of 1.0. **Impact-AQ-1** would be less than significant with mitigation incorporated.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less-than-significant impact. Project operations would not include activities that typically generate odors, such as those associated with wastewater treatment facilities, sanitary landfills, composting facilities, petroleum refineries, chemical manufacturing plants, or food processing facilities. Implementation of the project would therefore not result in exposure of a substantial number of people to objectionable odors. Minor odors from the use of heavy-duty diesel equipment during project construction activities would be intermittent and temporary, and would dissipate rapidly from the source with an increase in distance. Therefore, project construction is not anticipated to result in an odor-related impact. Thus, this impact would be less than significant, and no mitigation is required.

Required Mitigation Measures

With implementation of the following mitigation measure, the impact on air quality would be less than significant:

Mitigation Measure AQ-1: Construction Fleet Emissions Requirements

Prior to issuance of a construction-related permit, the applicant shall submit evidence to the District that the proposed off-road construction fleet will consist of at least 75 percent of off-road diesel construction equipment (greater than 50 horsepower) that meet Tier 4 (final) California Emissions Standards for off-road diesel engines. The equipment shall be properly maintained and tuned in accordance with manufacturer specification. This shall be verified by submitting an equipment inventory to the District for off-road equipment greater than 50 horsepower that includes the engine model year, horsepower rating, projected hours of use, and the CARB equipment identification number for each piece of equipment. The submittal shall include a statement indicating compliance with MM-AQ-1 and signed verification by the Applicant and Contractor.

If 75 percent of off-road construction fleet cannot meet the Tier 4 construction equipment requirement of this measure due to lack of availability in the region, the applicant shall demonstrate the details of the attempt to obtain Tier 4 equipment and shall also provide to the District an off-road equipment inventory with air quality emissions estimates calculated by a qualified air quality specialist, prior to commencement of any construction activities, indicating that the construction fleet to be used achieves an average fleetwide emission rate (g/hp/hr for NOx and PM) that does not exceed the applicable health-based threshold of 10 chances in a million for cancer risk at the nearest sensitive receptor. The qualified air quality specialist is defined as having at least 3 years of experience conducting health risk assessments using a CARB-recognized model. The submitted air quality emission calculations shall include a signed statement from the Applicant and Contractor indicating compliance with MM-AQ-1.

4.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. Biological Resources.				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

The environmental setting and project impact analysis for marine biological resources provided below is based on two project-specific technical reports. The *Marine Habitat Assessment for the General Dynamics-NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project*, prepared by Marine Taxonomic Services (February 2022), is included as Appendix B. In addition, *The Port of San Diego NASSCO Floating Drydock and Waterfront Improvement Project Underwater Assessment,* prepared by Illingworth and Rodkin (February 2022) is included as Appendix C.

4.4.1 Environmental Setting

TERRESTRIAL HABITAT

The terrestrial portion of the project site is completely developed and contains no natural habitat, natural vegetation, or landscape vegetation. The project site is situated in a highly industrialized area on and adjacent to the San Diego Bay.

MARINE HABITAT

Marine habitats on the project site were surveyed and characterized in May of 2021 using side-scan sonar surveys and SCUBA-based transect surveys (Appendix B). The natural and human-made habitats observed and surveyed within the project site included intertidal and subtidal hard bottom, intertidal and subtidal piles, subtidal unvegetated soft bottom, subtidal vegetated soft bottom, and open water habitats. These marine habitats are discussed below.

Hard Bottom Habitat

Hard bottom habitats observed throughout the project site were generally present along the shallow water edges of survey sites and consisted of items used for the purpose of armoring the shoreline. Hard bottom substrate was generally composed of varying and on occasion multiple types of hard material including riprap rock, stacked concrete blocks, and concrete poured over stacked concrete block. Organisms observed over and within hard bottom habitats included marine invertebrates, marine fishes, and several species of marine algae. Hard bottom habitat is present along the shoreline, in shallow subtidal areas, and in some areas below -12 feet mean lower low water (MLLW) (Appendix B).

Piles

Piles are present throughout the project site that support overwater structures of the NASSCO facility. The upper reaches of the piles (i.e., 2 to -2 feet MLLW) were generally colonized by a fouling community dominated by Pacific oysters (*Crassostrea gigas*), barnacles (*Chthamalus* spp.), and foliose species of red algae (*Gelidium* sp., *Gracilaria* sp.) (Appendix B). Fish were not observed around the piles, however, marine fish species observed elsewhere in the project site may utilize these structures on occasion.

Unvegetated Soft Bottom Habitat

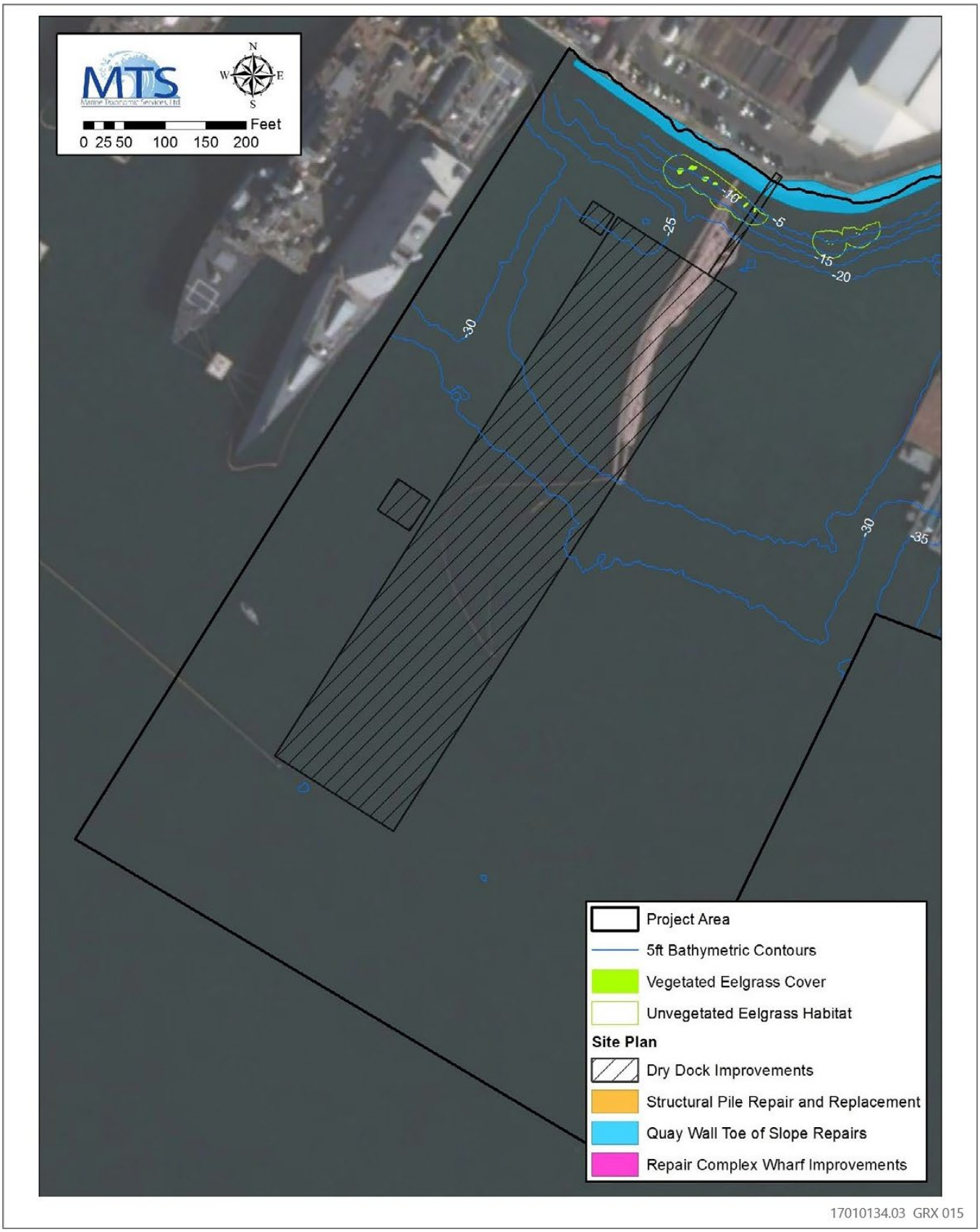
Most of the marine habitat within the project site was unvegetated soft bottom habitat. Unvegetated soft bottom habitat was generally characterized by sediment grain size of mud to fine sand and shell hash. Bioturbation (i.e., the disturbance of sedimentary deposits by living organisms) was generally low throughout all soft bottom habitats. In portions of deep subtidal unvegetated habitat moderate bioturbation was observed due to reduced coarseness of sediment and reduced presence of shell hash and shells. Organisms observed within unvegetated soft bottom habitats included marine invertebrates, marine fishes, stingrays, and sparse marine algae (Appendix B).

Vegetated Soft Bottom Habitat

Vegetated soft bottom (i.e., eelgrass [*Zostera marina*]) occurs within portions of the project site. Eelgrass covers approximately 5,150 square feet and unvegetated eelgrass habitat (i.e., areas within approximately 16 feet of established eelgrass habitat where the beneficial aspects of eelgrass presence extend and influence benthic communities) covers approximately 0.7 acre within the project site (Appendix B). Eelgrass is typically present in shallow subtidal habitats in the project site but is occasionally present in intertidal and moderately deep subtidal habitat (Appendix B).

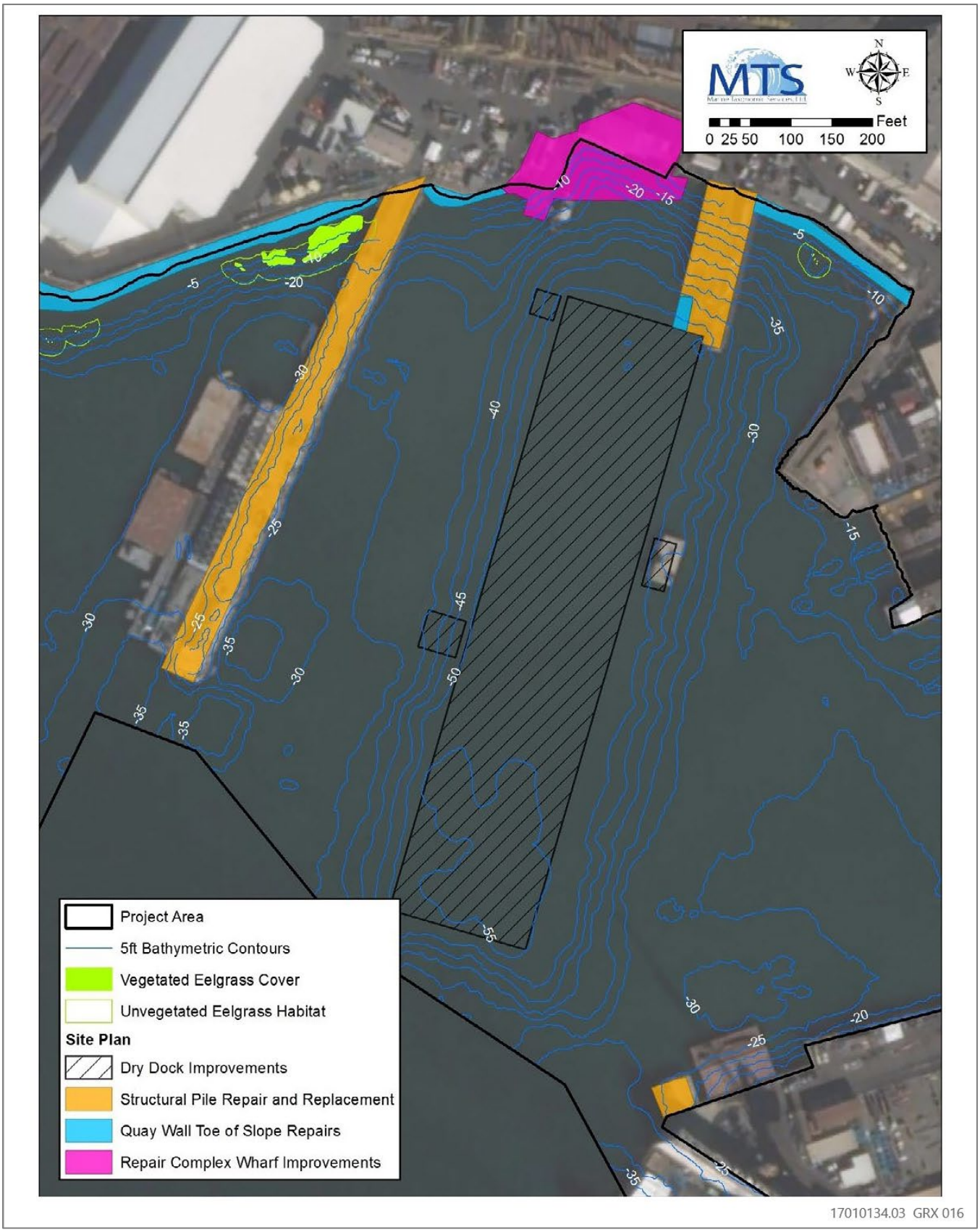
Open Water Habitat

Topsmelt (*Atherinops affinis*) were observed swimming in open water, and it is likely that schooling baitfish frequent the open waters of project site, which are important prey items for seabirds (Appendix B).



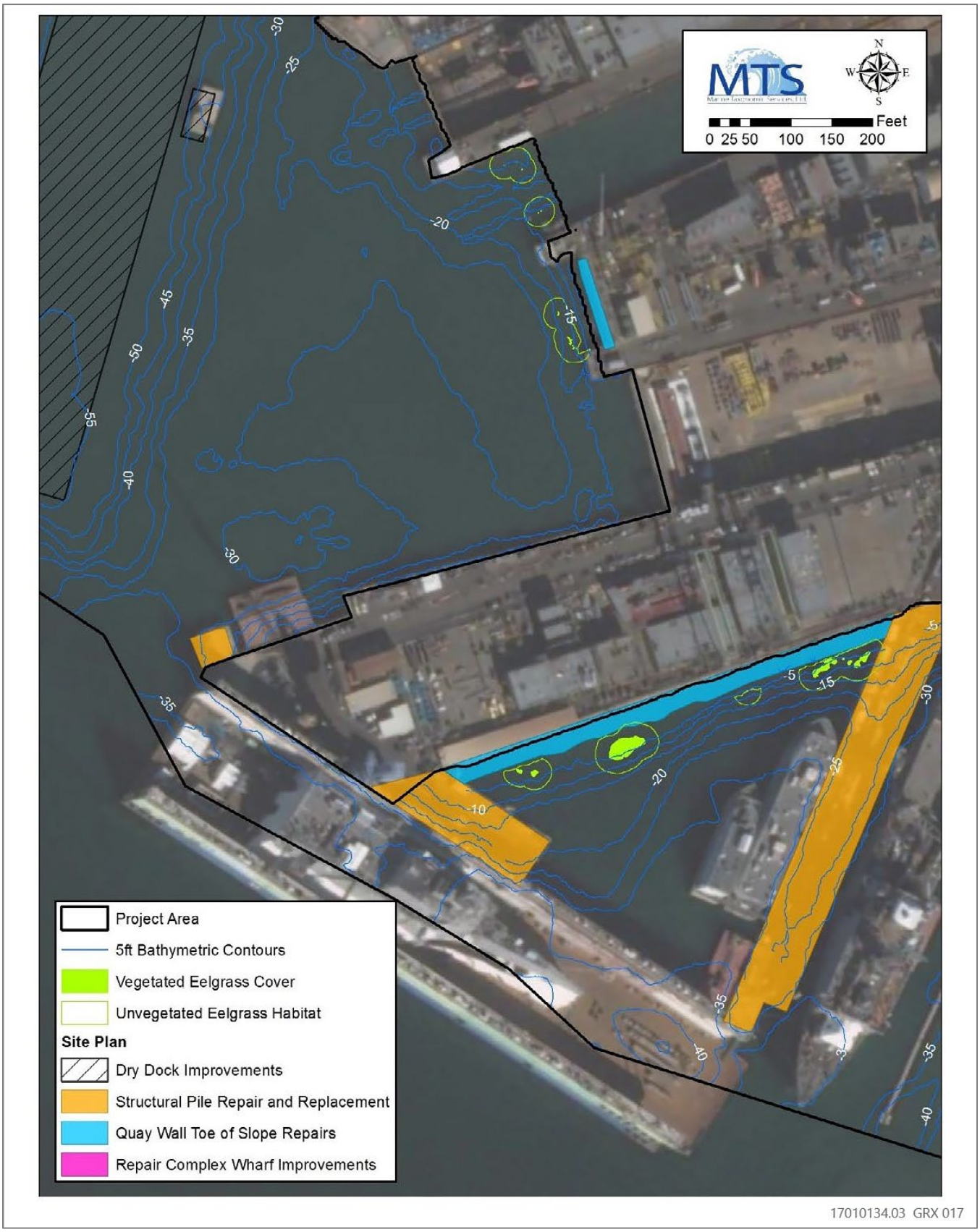
Source: Image provided by Marine Taxonomic Services, LTD in 2021

Figure 4.4-1 Mapped Eelgrass (Sheet 1 of 4)



Source: Image provided by Marine Taxonomic Services, LTD in 2021

Figure 4.4-1 Mapped Eelgrass (Sheet 2 of 4)



Source: Image provided by Marine Taxonomic Services, LTD in 2021

Figure 4.4-1 Mapped Eelgrass (Sheet 3 of 4)

Source: Image provided by Marine Taxonomic Services, LTD in 2021

Figure 4.4-1 Mapped Eelgrass (Sheet 4 of 4)

SPECIAL-STATUS SPECIES

A query of the California Natural Diversity Database and a California Native Plant Society Inventory of Rare and Endangered Plants search of the La Jolla, La Mesa, Point Loma, National City, and Imperial Beach USGS 7.5-minute quadrangles were conducted to identify sensitive biological resources within the vicinity of the project site. A review of the query and search results, documented species ranges, and habitat within the project site identified no special-status plant species that may occur on the project site due to lack of suitable natural habitat (Appendix D; CNDDB 2021; CNPS 2021). A total of 14 special-status wildlife species were indicated as possibly occurring on the project site: green sea turtle (*Chelonia mydas*), American peregrine falcon (*Falco peregrinus anatum*), black skimmer (*Rynchops niger*), brant (*Branta bernicla*), California brown pelican (*Pelecanus occidentalis californicus*), California least tern (*Sternula antillarum browni*), common loon (*Gavia immer*), gull-billed tern (*Gelochelidon nilotica*), bottlenose dolphin (*Tursiops truncatus*), California sea lion (*Zalophus californianus*), gray whale (*Eschrichtius robustus*), harbor seal (*Phoca vitulina*), long-beaked common dolphin (*Delphinus capensis*), and short-beaked common dolphin (*Delphinus delphis*) (Appendix B; CNDDB 2021). Specific details of birds, turtles, and marine mammals with the potential to occur onsite or in the vicinity are described below.

Birds

As discussed in Appendix B, available space for nesting California least terns does not occur within the project site; however, due to the proximality of the facility relative to known nesting colonies there is moderate potential for least terns to utilize areas of open water within the project site to actively forage for fish. Similarly, although California brown pelican do not nest in San Diego Bay, they do forage within the bay and there is moderate potential for this species to utilize areas of open water within the Project site to forage for fish.

Like the California least tern, available space for California snowy plovers nesting does not occur within the project site. The species forages on sandy shorelines and mudflats at low tide. Given that there is minimal suitable foraging habitat exposed at any given tide, there is low potential for this species to utilize space within the facility for foraging.

Turtles

The population requirements of green sea turtles in San Diego Bay mean that the animals spend most of their time in the south bay. The potential to observe animals in more northern portions of San Diego Bay and in offshore environments increases in summer months when warmer surface water is present. The decommissioning of the South Bay Power Plant has also been attributed to an increased number of more northern observations. Animals will also leave foraging opportunities in San Diego Bay when they migrate to nesting sites. There is moderate potential for green sea turtle presence at the project site due to the facility's central location within San Diego Bay. Other sea turtle species have not been observed in San Diego Bay thus it is unlikely for them to be observed within the Project site.

Cetaceans

Common dolphin's and bottlenose dolphins have widespread distributions and are commonly observed in southern California nearshore environments. They are also often observed in the north San Diego Bay area from the San Diego Bay entrance to approximately Harbor Island (Appendix B). These animals are often observed either swimming alongshore or bowriding vessels entering and leaving the bay. However, due to the location of the project site, further south and away from the San Diego Bay entrance, the potential for the occurrence of these species is low.

All the remaining cetaceans except for the gray whale, have very low potential for observation along the San Diego coast and are unlikely to occur within the project site. The gray whale performs annual migrations from cooler northern Pacific feeding areas to embayments in Baja California, Mexico for mating and caving. Gray whales migrate south through San Diego coastal waters in fall and early winter and can be observed on their northbound migration in later winter and early spring. Animals have been occasionally observed entering San Diego Bay (Appendix B); these events are likely accidental and are rare. Should animals enter San Diego Bay there is very low potential for them to travel as far south as the project site.

Pinnipeds

Pinnipeds are documented to occupy natural settings: sandy beaches, rocky beaches, boulder beaches, rocks and pinnacles, mud flats, reefs, fallen trees, and rock shelves. California sea lion (*Zalophus californianus*) and occasionally Pacific harbor seal (*Phoca vitulina*) occupy man-made structures (e.g., docks, buoys, landings, breakwaters, boats, barges, and fish ladders). Potential disturbance occurs when these "haul-out" locations overlap with urbanized areas.

In San Diego Bay, both California sea lion and Pacific harbor seal haul out on natural (e.g., beaches) and man-made structures, forage, raft, and mill throughout the entirety of the bay. California sea lion and harbor seal are not typically found in the same haul out locations due, in part, to their physiology. The California sea lion is able to haul out on steep, rocky habitat because it can rotate its pelvis to use all four limbs to walk. Harbor seal cannot rotate the pelvis and must move on land by undulating the body (Appendix B). Within San Diego Bay, California sea lion is the dominant and most numerous pinniped observed, whereas harbor seal is more elusive and found in lower numbers. California sea lion haul out in large numbers at the two bait barges that are located near the entrance to San Diego Bay in Point Loma. They also haul out individually or in small groups on buoys, docks, and boats throughout San Diego Bay but are most prevalent in northern portions of San Diego Bay. In addition to the animals that haul out on the buoys, docks, and boats, California sea lion rests in moderate numbers on the rock riprap that forms Zuniga Jetty at the entrance to San Diego Bay (Appendix B). On the exposed ocean side of the Point Loma Peninsula, harbor seals have established one of two mainland hauling and rookery sites in San Diego County. As a result, Pacific harbor seals and their pups have been documented in San Diego Bay, mostly at the northern end of the Bay nearest Ballast Point. The harbor seals use a portion of the docks in a restricted area adjacent to the Naval Base Point Loma Submarine docking station to haul out. In addition, harbor seals have been observed to haul out along the shore south of Ballast Point (Appendix B).

Other pinnipeds seen in the bay include northern elephant seal (*Mirounga angustrirostris*) and Steller sea lion (*Eumetopias jubatus*). These are rare sightings and**,** in the case of the elephant seals, they are typically undernourished juveniles that strand on the shore within the bay. Steller sea lions have been recorded hauled out on the bait barge and navy docks, and swimming in the north bay (Appendix B).

While the project site is located further from the San Diego Bay entrance and the established natural haul out sites there is potential for these species to travel further into the bay in search of anthropogenic haul out areas and foraging for food. There is potential for California sea lions and harbor seals to transit within the open waters of the project site and utilize structures within the NASSCO leasehold as haul out sites. Given the overall rarity of sightings of other pinniped species in north San Diego Bay, all other pinniped species are considered to be unlikely to occur within the project site and its immediate surroundings.

ESSENTIAL FISH HABITAT

To adequately address Essential Fish Habitat (EFH) within the study area, fish species managed by the Pacific Fishery Management Council (PFMC) that are known to either occur within the study area, have historically occurred within the study area, or depend upon those marine habitats that are known to occur within study area, were identified. In all, 28 species managed by the PFMC were identified, including species managed under the Coastal Pelagic Species Fishery Management Plan (FMP), the Highly Migratory Species FMP, and the Pacific Groundfish FMP (See Table 3 of Appendix B).

In addition, Habitat Areas of Particular Concern (HAPC) were observed within the Project site. HAPCs are a discreet subset of EFH, that are distinguished by characteristics including their high ecological value and vulnerability to anthropogenic stressors. As indicated in Appendix B, a review of mapping NMFS mapping data for pacific Coast HAPCs, and confirmation obtained from side-scan sonar and visual SCUBA survey observation, 478 square meters of eelgrass (*Zostera marina*), seagrass habitat, were identified within the project site and is classified as a HAPC (See Figure 4.1-1).

4.4.2 Regulatory Setting

FEDERAL

Coastal Zone Management Act of 1972

The U.S. Congress recognized the importance of meeting the challenge of continued growth in the coastal zone by passing the Coastal Zone Management Act in 1972. The act, administered by NOAA's Office of Ocean and Coastal Resource Management, provides for management of the nation's coastal resources and balances economic development with environmental conservation.

The Coastal Zone Management Act outlines two national programs. The National Coastal Zone Management Program includes 34 coastal programs that aim to balance competing water and land issues in the coastal zone. The National Estuarine Research Reserve System creates field laboratories that provide a greater understanding of estuaries and how humans affect them. The overall program objectives of the act are to "preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone."

The Coastal Zone Management Act ensures that development projects in coastal areas are designed and sited in a manner that is consistent with coastal zone land uses, maximizes public health and safety, and ensures that biological resources (e.g., wetlands, estuaries, beaches, and fish and wildlife and their habitat) within the coastal zone are protected. The California Coastal Commission enforces the Coastal Zone Management Act by certifying that any proposed project is consistent with the California Coastal Act of 1976 (as amended). The enforceable policies of the Coastal Zone Management Act are found in Chapter 3 of the California Coastal Act.

Rivers and Harbors Act (Section 10)

Pursuant to Section 10 of the Rivers and Harbors Act, the U.S. Army Corps of Engineers (USACE) is authorized to regulate any activity within or over any navigable water of the United States. Rivers and Harbors Act Section 10 jurisdiction is defined as "those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use, to transport interstate or foreign commerce" (33 Code of Federal Regulations 322). The San Diego Bay is considered traditional navigable water regulated under Section 10 of the Rivers and Harbors Act; therefore, any future work activities proposed within or over any navigable waters would require Section 10 compliance and coordination with USACE.

Federal Endangered Species Act

Species listed as endangered and/or threatened by the USFWS are protected under Section 9 of the Federal ESA, which forbids any person to "take" an endangered or threatened species. Take is defined in Section 3 of the act as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The U.S. Supreme Court ruled in 1995 that the term "harm" includes destruction or modification of habitat. Sections 7 and 10 of the Act may authorize "incidental take" for an otherwise lawful activity (a development project, for example) if it is determined that the activity would not jeopardize survival or recovery of the species. Section 7 applies to projects where a Federally listed species is present and there is a Federal nexus, such as a Federal CWA Section 404 permit (e.g., impacts on waters of the United States [WoUS]) that is required. Section 10, requiring an incidental take permit, applies when a Federally listed species is present, but there is no Federal nexus.

Magnuson-Stevens Fishery Management and Conservation Act

Federal agencies must consult with NOAA Fisheries on actions that may adversely affect essential fish habitat (EFH). EFH is defined as those "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." NOAA Fisheries encourages streamlining the consultation process using review procedures under the National Environmental Policy Act, Fish and Wildlife Coordination Act, the CWA, and/or the Federal ESA provided that documents meet requirements for EFH assessments under Section 600.920(g). EFH assessments must include (1) a description of the proposed action, (2) an analysis of effects, including cumulative effects, (3) the Federal agency's views regarding the effects of the action on EFH, and (4) proposed mitigation, if applicable.

Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) of 1972 prohibits, with certain exceptions, the take of marine mammals in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the United States. Congress passed the MMPA based on the following findings and policies: (1) some marine mammal species or stocks may be in danger of extinction or depletion as a result of human activities, (2) these species of stocks must not be permitted to fall below their optimum sustainable population level (depleted), (3) measures should be taken to replenish these species or stocks, (4) there is inadequate knowledge of the ecology and population dynamics, and (5) marine mammals have proven to be resources of great international significance.

The MMPA was amended substantially in 1994 to provide for: (1) certain exceptions to the take prohibitions, such as for Alaska Native subsistence, and for permits and authorizations for scientific research; (2) a program to authorize and control the taking of marine mammals incidental to commercial fishing operations; (3) preparation of stock assessments for all marine mammal stocks in waters under U.S. jurisdiction; and (4) studies of pinniped-fishery interactions. Additionally, under the 1994 amendments to the MMPA, harassment is statutorily defined as any act of pursuit, torment, or annoyance that:

- Has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment); or
- Has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavior patterns, including, but not limited to migration, breathing, nursing, breading, feeding, or sheltering but which does not have the potential to injure a marine mammal or marine mammal stock in the wild (Level B harassment).

NOAA Fisheries and USFWS administer the MMPA. Project activities that may result in Level A or B harassment, injury, or mortality would require consultation with NOAA Fisheries and USFWS under the MMPA.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. The MBTA provides that it is unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. Under the MBTA, "take" is defined as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities." A take does not include habitat destruction or alteration, if there is not a direct taking of birds, nests, eggs, or parts thereof. The current list of species protected by the MBTA can be found in 50 CFR 10.13. The list includes nearly all birds that are native to the United States.

Clean Water Act

The Federal Water Pollution Control Act Amendments of 1972, commonly known as the Clean Water Act (33 United States Code [USC] 1251–1376), as amended by the Water Quality Act of 1987, is the major Federal legislation governing water quality. The purpose of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Discharges into WoUS are regulated under CWA Section 404. WoUS include: (1) all navigable waters (including all waters subject to the ebb and flow of the tide); (2) all interstate waters and wetlands; (3) all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, or natural ponds; (4) all impoundments of waters mentioned above; (5) all tributaries to waters mentioned above; (6) the territorial seas; and (7) all wetlands adjacent to waters mentioned above. Important applicable sections of the CWA are discussed below.

- Section 401 requires an applicant for any Federal permit that proposes an activity that may result in a discharge into WoUS (as defined by the navigable water protection rule) to obtain certification from the State that the discharge will comply with other provisions of the CWA. Certification is provided by the respective Regional Water Quality Control Board (RWQCB). A Section 401 certification from the San Diego RWQCB would be required for future projects if a Section 404 permit and/or Rivers and Harbor Act (Section 10) permit are required.
- Section 404 provides for USACE issuance of permits for discharge of dredged or fill material into WoUS by Permits typically include conditions to minimize impacts on water quality. Common conditions include: (1) USACE

review and approval of sediment quality analysis before dredging; (2) a detailed pre- and post-construction monitoring plan that includes disposal site monitoring; and (3) requiring compensation for loss of WoUS.

California Eelgrass Mitigation Policy

The National Marine Fisheries Service (NMFS) is an office of the NOAA and is responsible for the stewardship of the nation's ocean resources and their habitat. NMFS developed the California Eelgrass Mitigation Policy (CEMP) in order to establish and support a goal of protecting eelgrass and its habitat functions (NMFS 2014). The CEMP includes guidance on defining eelgrass habitat, surveying, mapping, assessing impacts, avoiding and minimizing impacts on eelgrass, and mitigation options. Avoidance and minimization measures included within the CEMP relate to turbidity, shading, circulation, and nutrient and sediment loading impacts. Mitigation options include comprehensive management plans, in-kind mitigation, mitigation banks and in-lieu-fee programs, and out-of-kind mitigation.

NMFS has provided this policy to other State and Federal agencies, including the California Department of Fish and Wildlife (CDFW), as guidance for handling project-related impacts on eelgrass habitat.

STATE

California Endangered Species Act; Fully Protected Species

The CESA establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA mandates that State agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. For projects that affect both a State- and Federally listed species, compliance with the Federal ESA will satisfy the CESA if the CDFW determines that the Federal incidental take authorization is consistent with the CESA under California Fish and Game Code Section 2080.1. For projects that would result in a take of a State-only listed species, the project proponent must apply for a take permit under Section 2081(b).

Also, California Fish and Game Code Sections 3511, 4700, 5050, and 5515 prohibit take or possession of fully protected species. Incidental take of fully protected species may be authorized only under an approved Natural Communities Conservation Plan (NCCP).

California Fish and Game Code

Other sections of the California Fish and Game Code establish the Fish and Game Commission, as authorized by Article IV, Section 20, of the Constitution of the State of California. The Fish and Game Commission is responsible, under the provisions of Sections 200–221, for regulating the take of fish and game, not including the taking, processing, or use of fish, mollusks, crustaceans, kelp, or other aquatic plants for commercial purposes. However, the Fish and Game Commission does regulate aspects of commercial fishing, including fish reduction; shellfish cultivation; take of herring, lobster, sea urchins, and abalone; kelp leases; leases of State water bottoms for oyster allotments; aquaculture operations; and other activities. These resource protection responsibilities involve the setting of recreational and commercial fishing seasons, bag and size limits, and methods and areas of take, as well as prescribe the terms and conditions under which permits or licenses may be issued or revoked by CDFW. The Fish and Game Commission also oversees the establishment of wildlife areas and ecological reserves and regulates their use and sets policy for CDFW.

Sections 3503, 3503.5, 3505, 3800, and 3801.6 of the Fish and Game Code protect all native birds, birds of prey, and all nongame birds, including their eggs and nests, that are not already listed as fully protected and that are naturally present within the state. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (e.g., hawks, owls, eagles, falcons), including their nests or eggs.

CDFW is the lead State agency that manages native fish, wildlife, plant species, and natural communities for their ecological value and their benefits to people. CDFW oversees the management of marine species through several programs, some in coordination with NMFS and other agencies.

The CEMP is administered by NMFS and CDFW. The effects of a project on any surrounding eelgrass beds and any compensatory mitigation would be addressed under the CEMP.

California Coastal Act

The California Coastal Act of 1976 recognizes California ports, harbors, and coastline beaches as primary economic and coastal resources and as essential elements of the national maritime industry. Decisions to undertake specific development projects, where feasible, are to be based on consideration of alternative locations and designs in order to minimize any adverse environmental impacts. The California Coastal Act is implemented by the California Coastal Commission (CCC). The District's currently adopted Port Master Plan was certified by CCC on January 21, 1981, and subsequently amended.

LOCAL

San Diego Port District Port Master Plan

Through implementation of the Port Master Plan (PMP), the District maintains authority over tidelands and submerged lands conveyed in trust to the District by the California legislature. Any amendments to the PMP are first reviewed and adopted by the Board of Port Commissioners and then certified by the California Coastal Commission, thereby allowing the District to issue coastal development permits for projects within its jurisdiction. The PMP provides for protection of biological resources and states that the District will remain sensitive to the needs of, and will cooperate with, other communities and other agencies in Bay and tideland development.

San Diego Bay Integrated Natural Resources Management Plan

The San Diego Bay INRMP is a long-term strategy sponsored by two of the major managers of San Diego Bay: the U.S. Navy and the District. Its intent is to provide direction for the good stewardship that natural resources require while also supporting the ability of the Navy and District to meet their missions and continue functioning within the Bay. The core strategies of the plan are to (1) manage and restore habitats, populations, and ecosystem processes; (2) plan and coordinate projects and activities so that they are compatible with natural resources; (3) improve information sharing, coordination, and dissemination; (4) conduct research and long-term monitoring that supports decision-making; and (5) put in place a Stakeholder's Committee and Focus Subcommittees for collaborative, ecosystem-based problem-solving in pursuit of the goal and objectives.

Port of San Diego Environmental Mitigation Property (BPC Policy No. 735)

Board of Port Commissioners (BPC) Policy 735 establishes a policy for the allocation of environmental mitigation property within District Tidelands. Environmental mitigation property refers to land, water area, natural or constructed habitats, credit for the removal of shading over open water, or other assets, held in trust by the District and that could be used to offset the environmental impacts of projects. The District recognizes the demand for mitigation property within Tidelands for capital development projects and major maintenance pursuant to the District's land-use obligation (as defined in Section 4 of the San Diego Unified Port District Act). The District also recognizes that the demand for environmental mitigation property for non-District funded projects is increasing. It is the policy of the District that property suitable for mitigation, which is held in trust by the District, will be retained for District-funded capital development and major maintenance projects. Due to the limited area of mitigation property available to the District, each project requiring mitigation shall be evaluated through an administrative procedure as described in BPC Policy No. 735 to ensure that environmental mitigation property is only used for the most appropriate project. Further, unused mitigation land and new mitigation opportunities on District Tidelands that are not encumbered by a project will be under the control of the District and will be added to the District's accounting of available mitigation property. New mitigation land or credits will be managed in accordance with the District's administrative policy for use of District Environmental Mitigation Property.

4.4.3 Discussion

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Less than significant with mitigation incorporated. Project construction activities would potentially cause substantial noise, increases in turbidity, release of construction-related pollutants into U.S. and State waters, and have an anticipated increase in overwater coverage that would have the potential to significantly impact a special-status species. Each is described in more detail below.

The landside portion of the project site is fully developed and does not contain natural habitat suitable for special-status plant species. Therefore, there would be no impact on special-status plant species.

Impacts from Construction Noise

The use of large machinery for construction and demolition as well as pile driving could result in construction-induced noise impacts that could alter the behavior of protected species. These impacts could occur from construction activities such as hammering, drilling, operation of heavy construction equipment, or transport of construction materials. Additionally, the installation of new in-water and overwater structures would also have the potential to result in similar impacts on protected species from in-water construction activities such as pile driving. Construction-induced noise impacts from pile driving could disrupt the foraging behavior of the California least tern if construction occurs during the California least tern nesting season. Other sensitive fish-foraging avian species such as brown pelican can similarly be impacted. This would be considered a significant impact (**Impact-BIO-1**).

Mitigation measures for reducing noise related impacts on foraging California least tern and other sensitive fish feeding avian predators during nesting season (**Impact-BIO-1**) include construction monitoring during the nesting season (**MM-BIO-1**). The monitor would have the ability to reduce or temporarily stop noise producing activities if those activities were believed to impact or otherwise alter foraging behavior of sensitive avian species during the nesting season. For instances involving impact hammer or vibratory pile driving, the driving of piles would be limited to the non-breeding season (i.e., September 16 to March 31) for California least terns. The use of impact hammering or vibratory pile driving during the nesting season would require the qualified biologist to establish, to the satisfaction of regulatory agencies, that equivalent or greater protection can be provided by an alternate approach, such as the installation of sound barriers. Implementation of **MM-BIO-1** would reduce **Impact-BIO-1** to less than significant.

Construction noise can also impact species protected under the Migratory Bird Treaty Act and California Fish and Game Code. For instance, marine dependent avian species such as the black-crowned night heron nest in trees near shore where there nesting activities could be disturbed by construction noise. Disturbance can cause nesting birds to abandon nest sites or alter nesting behavior in ways that lower nesting success. This would be considered a significant impact (**Impact-BIO-2**).

While disturbance of nesting marine dependent avian species (**Impact-BIO-2**) is not anticipated due to the lack of nesting habitat within the Project site, disturbance can be minimized by ensuring that nesting bird behavior is not modified during construction activities that generate loud noises. **MM-BIO-2** would require the project applicant to retain a qualified biologist to perform a nesting bird survey of the noise generating activity one week prior to the start of construction utilizing heavy equipment, and if nests are found, survey once per week during construction until use of heavy equipment ceases. If noise levels are anticipated to be 10dBA or greater above ambient background noise levels within the vicinity of an active nest, sound barriers with a minimum sound transmission class (STC) rating of 28 would be placed between the noise generating activity and the nest. Distance from the nest would be determined by the qualified biologist based on the species nesting and the noise acceptability exhibited by the bird. If noise effects cannot be minimized, construction shall be altered, to the extent necessary to ensure that impacts to the nesting species are negligible in a manner determined by regulatory agencies and based on the opinion of the qualified biologist. Implementation of **MM-BIO-2** would reduce **Impact-BIO-2** to less than significant.

Several marine species may occur in marine environments on the project site, including green sea turtle, and marine mammals such as bottlenose dolphin, long-beaked common dolphin, short-beaked common dolphin, California sea lion, and harbor seal (Appendix B). California sea lions and harbor seals may haul out on human-made structures in the NASSCO facility. Some project activities (i.e., impact and vibratory pile driving) would generate loud noise and vibration. NMFS defines noise thresholds for marine mammal harassment relative to "Level A" and "Level B" harassment. Level B harassment refers to disruption of marine mammal behavior (e.g., foraging, traveling, resting) due to impulsive noise (i.e., impact pile driving) or continuous noise (i.e., vibratory pile driving). (Appendix B). Pile driving activities may also disrupt the behavior of green sea turtles if present in the project site. In addition, pile installation activities are predicted to have potential Level A marine mammal impacts are those impacts that can cause injury. Level A impacts may extend out to 474 meters each day, depending on the type of activity and animal species (Table 4.4-1). The range of Level B impacts would be greater, extending out to approximately 1.8 kilometers (1.1 miles) during vibratory pile driving under the unattenuated condition (Table 4.4-1). For activities involving impact driving only, Level B zones would be less than 160 meters under the unattenuated condition (Table 4.4-1). The prediction that sounds would extend out to these distances would be associated with waters that have clear line of sight to the construction activity.

Table 4.4-1 Distance to the Adopted Marine Mammal Thresholds for Pile Driving Activities

Driving Method	Pile Type	Pile Size	Piles per Day	Number of Strikes per Pile	Condition[1]	Level A Injury Zone (meters)[2]					Level B Harassment Zone (meters)[5]
						Cetaceans[3]			Pinnipeds[4]		
						LF	MF	HF	PW	OW	
Impact	Concrete	12–18 inches. Round or Square	10	1,000	Unattenuated	136	5	162	73	5	63
					Attenuated	63	2	75	34	3	29
Impact	Concrete	20–24 inches. Round or Square	10	1,000	Unattenuated	398	14	474	213	16	100
					Attenuated	185	7	220	99	7	46
Impact	Steel H	12–14 inches	10	1,000	Unattenuated	341	12	406	183	13	158
					Attenuated	158	6	189	85	6	74
Vibratory	Steel Pipe	13 inches	2	NA	Unattenuated	6	1	9	4	<1	1,131
					Attenuated	3	<1	4	2	<1	525
Vibratory	Steel Sheet	—	2	NA	Unattenuated	9	<1	14	6	<1	1,792
					Attenuated	4	<1	6	3	<1	832

1 Attenuated condition assumes 5- decibels lower sounds owing to different attenuation mechanisms like bubble curtains, isolation casing, or other methods that may be used during the pile driving activities.

2 Using SEL_{cum} threshold.

3 Cetaceans include whales and dolphins.

4 Pinnipeds include seals and sea lions.

5 Green sea turtle monitoring follows the marine mammal Level B Harassment Zone parameters.

Notes: NA = Not Applicable. LF = Low Frequency cetaceans (gray whales). MF = Mid-Frequency cetaceans (dolphins, toothed whales, beaked whales, bottlenose whales). HF = High Frequency cetaceans (true porpoises). PW = Phocids [i.e., true seals including harbor seal]. OW = Otariids [i.e., sea lions including California sea lion].

Source: Data provided by Illingworth & Rodkin in 2022 (Appendix C).

In addition to marine mammals and green sea turtles, several species of fish have been observed within and surrounding the project site, including on hard bottom habitat, unvegetated soft bottom, and vegetated soft bottom. As described in the project underwater assessment (Attachment B), pile driving activities would generate loud noise and vibration up to 150 dB root-mean-square pressure (RMS) that would travel out to distances in the unattenuated condition of between 46 meters and 736 meters, assuming no intervening structures or land mass and depending on the type of pile being driven, the number of piles driven per day, and the number of strikes per pile.

Table 4.4-2 Distance to the Various Adopted Fish Thresholds for Pile Driving Activities

Driving Method	Pile Type	Pile Size	Piles Installed per Day	Number of Strikes per Pile	Condition[1]	Distance to Various Adopted Fish Thresholds (meters)			
						Peak 206 dB[2]	RMS 150 dB[2]	Cumulative SEL	
								187 db[3]	183 db[3]
Impact	Concrete	12–18 inches. Round or Square	10	1,000	Unattenuated	<1	293	46	46
					Attenuated	<1	136	22	22
Impact	Concrete	20–24 inches. Round or Square	10	1,000	Unattenuated	<1	464	136	136
					Attenuated	<1	215	63	63
Impact	Steel H	12–14 inches	10	1,000	Unattenuated	4	736	117	117
					Attenuated	2	341	54	54
Vibratory	Steel Pipe	13 inches	2	NA	Unattenuated	<1	46	N/A	N/A
					Attenuated	<1	22	N/A	N/A
Vibratory	Steel Sheet	—	2	NA	Unattenuated	<1	74	N/A	N/A
					Attenuated	<1	34	N/A	N/A

[1] Attenuated condition assumes 5- decibels lower sounds owing to different attenuation mechanisms like bubble curtains, isolation casing, or other methods that may be used during the pile driving activities.

[2] dB : re 1 µpa

[3] dB : re 1 µpa2sec

Therefore, in-water construction associated with proposed construction could generate enough underwater noise to physically injure marine mammals, sea turtles, and fishes from impact hammer or vibratory pile driving occurring during construction. Any noise related impacts would be dependent on the type of activity being performed, the proximity to marine waters, and the biology of the considered species. In-water impact hammer or vibratory pile driving activity could potentially generate enough underwater noise to injure (Level A Harassment) or alter behavior (Level B Harassment) for marine mammals, green sea turtles, and fishes. Impacts are therefore considered significant (Impact-BIO-3).

Potential noise-related impacts on marine mammals, green sea turtles, and fishes (Impact-BIO-3) can be minimized by implementing the various measures required under mitigation measure MM-BIO-3. This mitigation measure would require development of a marine mammal monitoring plan and subsequent monitoring of hauled out marine mammals whenever noise generating activities are in excess of 90 dB root mean square (RMS) for harbor seals and 100 dB RMS for non-harbor seals (sea lions) at the haul out locations or if the haul out is within 500 feet of the noise source. These criteria are established by NOAA NMFS as noise levels for a Level B harassment (behavior alteration) of marine mammals when those mammals are hauled out. Protecting marine mammals against Level B harassment when hauled out also ensures protection against Level A harassment (injury). If marine mammals are hauled out within the zone where sound thresholds are exceeded, then the biological monitor will notify the contractor to halt or alter the noise generating activity such that construction noise is at or below 90 dB RMS or 100 dB RMS for harbor seals and non-harbor seals, respectively. The zones of influence to thresholds for harassment of hauled out marine mammals is provided in Appendix C. For portions of the proposed project that generate in water noise such as impact and vibratory pile driving, the biological monitor will monitor for marine mammals when in the water within isopleth distances calculated (Appendix C) to be within the range of sound thresholds established by NOAA NMFS for Level A and Level B harassment of marine mammals (Appendix B). Like monitoring for hauled out animals, the biological monitor will have the authority to halt or modify work based on animal observations relative to monitoring isopleths. Green sea turtles will be monitored using the maximum calculated isopleth for Level B harassment of marine mammals; there is no specific guidance for sea turtles, but they are often monitored alongside marine mammals to ensure their protection. In addition, construction activities where impact hammer and vibratory pile driving occurs shall utilize a soft start for pile driving. This generally means performance of three pile strikes at reduced (approximately 50%) force, then waiting 30 seconds. This is repeated three times before starting pile driving

at full force. This measure provides time for marine mammals, green sea turtles, and fishes to disperse from the sound source area in the event the sound is a source of stress for the animal. Implementation of MM-BIO-3 would reduce Impact-BIO-3 to less than significant.

Impacts from Increased Turbidity

Construction activities associated with structural pile repair and replacement, quay wall revetment repairs, and the Repair Complex Wharf improvements could increase levels of turbidity in waters within the Bay in the absence of mitigation. This could occur either during activities such as pile driving, incidentally during vessel contact with bottom substrate, and by propeller wash in shallower water. Increases in turbidity in water may occur as a result of displaced sediment from construction activities. In general, increased turbidity could limit the ability of California least terns and other sensitive fish-foraging avian species to locate prey. Construction activities could potentially result in impacts on protected species by the inadvertent introduction of pollutants such as fuel, oil, and/or other industrial and mechanical fluids into waters of the U.S., either from construction equipment, landside construction vehicles, construction vessels, and from partially completed overwater structures. Additionally, disruption to eelgrass can occur due to increased turbidity. Prolonged increases in turbidity can reduce primary productivity associated with eelgrass because turbid water prevents sunlight from reaching this primary producer and sensitive species. These impacts would be considered a significant impact (Impact-BIO-4).

Turbidity generated by in water construction activities (Impact-BIO-4) can be reduced by implementing MM-BIO-4. This mitigation measure requires that vessel operators shall be instructed regarding the impacts of propeller wash with regards to erosion of sediment and suspension of fine particulates; allowing vessel operators to adjust operations that lessen the impact. All vessels would be required to use depth sounders which are routinely checked to ensure vessels are positioned to avoid shallow water areas to the extent practical. Finally, when construction involves necessary bottom disturbance such as dredging or pile driving, silt curtains would be in place around the activity to limit the spread of any turbidity generated during the bottom disturbing activity. As such, MM-BIO-4 would reduce Impact-BIO-4 to less than significant.

Impacts from Shading on Foraging Habitat

Total overwater coverage would increase from 157,297 square feet to 167,507 square feet. Additionally, a total of 300 square feet of overwater coverage would be temporarily present during project construction. The installation and use of overwater structures would result in temporary and permanent reduction of potential open water foraging habitat for California least tern and other sensitive fish-foraging species. The overwater coverage also leads to lower eelgrass productivity due to shading if the overwater structure is above eelgrass. Similarly, structures on shore that increase shading of water area will lower eelgrass productivity where eelgrass is shaded. The effect will increase as the structure gets closer to the water and as the height of the structure increases. Additionally, solar aspect will influence the level of impact. Structures that face the sun to the south with water to the north will result in a greater temporal impact from shading. The lost eelgrass productivity impacts all higher trophic levels due to the lost production of organic carbon. The impacts to California least tern foraging habitat resulting from overwater coverage are considered a significant impact (Impact-BIO-5).

Overwater cover from permanent structures can be mitigated in-kind if feasible, or out-of-kind if in-kind options are not available. Mitigation measure MM-BIO-5 includes options for mitigating impacts associated with Impact-BIO-5. These options can be implemented either individually or in combination, as may be required through consultation with applicable resource agencies during permitting processes, including but not limited to, NMFS, CDFW, USFWS, RWQCB, and/or USACE, to offset impacts from permanent overwater coverage. The in-kind option includes removal of existing overwater coverage at a 1:1 mitigation ratio at other locations within the Project site. Out-of-kind mitigation measures include creation or restoration of wetlands or eelgrass habitat at a 1:1 mitigation ratio to improve fisheries and associated wildlife beneficial uses in consultation with regulatory agencies identified above, and/or contribution to an approved mitigation bank. Implementation of MM-BIO-5 would reduce Impact-BIO-5 to less than significant. The potential impacts and mitigation measures relative to eelgrass are discussed under Issue IV.b below.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Less than significant with mitigation incorporated. Terrestrial habitat within the project site is entirely developed and does not contain any natural habitat. Therefore, no terrestrial sensitive natural communities or riparian habitat would be adversely affected as a result of project implementation. Eelgrass habitat, which comprises approximately 478 square meters (5,145 square feet) of the marine habitat in the project site, is considered a sensitive habitat, and is managed by NMFS as EFH. The eelgrass habitat on the project site is also classified as a Habitat Area of Particular Concern (HAPC) as defined by the Magnuson-Stevens Fishery Management and Conservation Act.

Proposed construction activities have the potential to have a substantial adverse effect on eelgrass. These activities include temporary new placement of the dry dock structure, structural pile repair and replacement, quay wall revetment repairs, and the Repair Complex Wharf improvements. Construction related impacts that could result from these proposed activities could result from increased turbidity from support vessels, equipment, installation of structures and piles, and shading from support vessels, barges, and relocation of the dry dock structure. The operation of vessels over shallow water during construction can decrease light to the seafloor by increasing turbidity from propeller wash or direct contact with the seafloor. Suspended particles reduce water clarity and can reduce the light reaching plant and algae cells. When suspended particles settle on primary producers such as periphyton, macroalgae, and eelgrass, they can further continue to prevent light from reaching the plant cells. Additionally, any contact with the seafloor where eelgrass occurs could directly dislodge and remove eelgrass and other vegetation. Although **MM-BIO-4** provides for measures to reduce and restrict turbidity, in some cases eelgrass may occur within the footprint where construction vessels and turbidity curtains are placed during construction. In such cases, the contained turbidity may still impact eelgrass that is within the limits of the silt curtains and construction activity. In some locations where quay wall revetment repair is proposed, eelgrass is immediately adjacent to repair activities and may be impacted by placement and/or removal of material at those select locations. Additionally, extended temporary placement of the dry dock, construction support vessels, and barges could impede eelgrass growth depending on the location, height of structure, and sun angle during the presence of each structure. These construction-related impacts would be significant (**Impact-BIO-6**).

The mitigation measures to reduce construction turbidity impacts to eelgrass beds are the same as those proposed under **MM-BIO-4**. Impacts associated with reduced growth and cover of eelgrass or direct removal of eelgrass during construction would be mitigated by mitigation measures identified under **MM-BIO-6**. This mitigation measure would follow guidelines set by the CEMP (NMFS 2014). Pre- and post-construction eelgrass surveys would be required at the construction site and a suitable reference area. The final calculation of mitigation requirements should occur after the post-construction monitoring. Should losses to eelgrass occur, mitigation should be carried out in accordance with the CEMP at or before the time of impact in a manner that conservatively mitigates for all potential impacts to eelgrass. Mitigation by replanting or restoring eelgrass should follow the CEMP's eelgrass restoration ratio. Any implemented eelgrass mitigation site shall be monitored for 5 years to ensure successful eelgrass establishment in accordance with the CEMP. **MM-BIO-4** and **MM-BIO-6** would reduce **Impact-BIO-4** and **Impact-BIO-6**, respectively, to less than significant.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less-than-significant impact. The terrestrial portion of the project site is completely developed and does not contain any natural habitat, including state or federally protected wetlands. The project site contains a portion of San Diego Bay, which would be considered a water of the United States.

Aside from gains in efficiency, such as reducing the distance required to move the dry dock when not in use and replacement of older dry dock ancillary engines with Tier 4 ancillary engines, project implementation would not result in changes in operational activities; thus, protect operation would not result in increased adverse effects on waters of the United States relative to existing conditions.

Construction of the in-water project elements could result in short-term water quality impacts from the disturbance of sediments within the project site. San Diego Bay is also a navigable water and regulated by USACE under Section 10 of the Rivers and Harbors Act.

To address the potential for impacts on waters of the United States and navigable waters, NASSCO would be required to obtain authorization from USACE pursuant to the Section 10 process and potentially Section 404 for fill associated with additional pilings, each also requiring a CWA Section 401 water quality certification. No other modifications to state of federally protected wetlands would occur. As such, the proposed project would not result in any significant and adverse impacts on state or federally protected wetlands.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less-than-significant impact. The project site is fully developed, does not contain natural terrestrial habitat that could function as a native wildlife nursery site, and is characterized by many existing barriers to wildlife movement, including human-made structures and vessel traffic. The terrestrial portion of the project site is surrounded completely by intensive development, and likely does not function as a wildlife movement corridor. Aquatic wildlife, including fish, birds, and marine mammals, likely transit periodically through the marine environment in the project site to access foraging and resting habitat elsewhere in San Diego Bay or at sea. Project construction activities, such as pile driving and operation of construction vessels may temporarily interfere with the movement of aquatic wildlife species during project construction, however; there would be no substantial change in conditions on the project site following construction. This impact would be less than significant, and no mitigation is required.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less than significant with mitigation incorporated. Applicable local policies and ordinances of the District that relate to biological resources are the PMP, San Diego Unified Port District Code, and the District's INRMP. As discussed in Section 4.11, "Land Use and Planning," the project is consistent with the PMP and the San Diego Unified Port District Code. The INRMP includes objectives and policy recommendations to guide planning, management, conservation, restoration, and enhancement of natural resources in San Diego Bay. Implementation of MM-BIO-1 through MM-BIO-6 would avoid and reduce significant impacts on special-status wildlife and eelgrass habitat and biological monitoring from construction activities. Therefore, project implementation would not result in a conflict with any INRMP policies, and impacts would be reduced to less than significant with mitigation incorporated.

Required Mitigation Measures

With implementation of the following mitigation measures, impacts on biological resources would be less than significant:

MM-BIO-1: Implement Construction Measures to Avoid or Reduce Noise-Related Foraging Impacts on California Least Tern and Other Sensitive Fish Foraging Avian Species. If pile driving activities occur between April 1st and September 15th, the project applicant shall retain a qualified biologist approved by the District to monitor during pile driving activities. The project applicant shall take specific actions, as approved by the District, to reduce or temporarily stop noise-producing activities if the qualified biologist identifies that the activities are impacting the foraging behavior of sensitive avian species. These actions shall include, but not be limited to, the following:

- For all pile driving activities performed during the California least tern nesting season (April 1st to September 15th), a qualified biologist shall be on site observing for foraging California least terns. If any California least terns are observed, the qualified biologist shall have the authority to halt or modify pile driving activity to ensure foraging behavior is not altered by construction. Work modifications that may limit pile driving noise impacts may include:

- Reducing the intensity of pile driving.
- Placing sound dampening panels on pile driving equipment.
- Restricting pile driving to periods when sensitive avian species are not present.

For all pile driving projects that may impact sensitive nesting avian species refer to MM-BIO-2

MM-BIO-2: Implement Construction Noise Measures to Avoid or Reduce Noise Impacts on Sensitive Nesting Marine-Dependent Avian Species. To avoid impacts on nesting marine-dependent birds, during the breeding season (i.e., April 1st- September 15th), the project proponent shall implement the following measures during construction:

- The project proponent shall retain a qualified biologist, approved by the District, to perform a marine dependent nesting bird survey within 500 feet of the noise-generating activity 1 week prior to the start of construction utilizing heavy equipment, and, if nests are found, the qualified biologist shall perform a survey once per week during construction until use of noise-generating heavy equipment ceases.
- The project proponent shall submit the survey to the District for review and approval of the survey and the buffer area, defined below, if any, prior to the commencement of these activities at the project site.
- The nesting surveys shall consist of a thorough inspection of the project area by a qualified biologist(s). The survey shall occur between sunrise and 12:00 p.m., when birds are most active. If no active nests are detected during these surveys, the qualified biologist(s) shall prepare and submit to the District a letter report documenting the results of the survey. If there is a delay of more than 7 days between when the nesting bird survey is performed and construction activities begin, the qualified biologist shall resurvey to confirm that no new nests have been established.
- If the survey confirms nesting within 500 feet of the disturbance footprint, the project proponent shall establish a no-disturbance buffer around each nest site to avoid disturbance or destruction of the nest until after the nesting season or a qualified biologist determines that the nest is no longer active. The size and constraints of the no-disturbance buffer shall be determined by the qualified biologist, at the time of discovery. In addition, if the qualified biologist(s) prepares any subsequent reports, the reports shall be submitted to the District.
- The qualified biologist shall establish a baseline ambient sound level by measuring ambient sound levels during the time of day that work is expected to occur. The monitoring distance from the nest shall be chosen to not disturb the species.
- If noise-generating activities are within 500 feet and the species behavior is modified due to noise, the qualified biologist shall monitor noise levels daily, during construction activities, at a distance that would prevent the disturbance of the relevant species. Sound levels at nest sites shall not exceed 10 dBA above ambient levels. This monitoring shall occur until the nest is no longer active.
- If sensitive avian species begin nesting within 500 feet of noise-generating construction and the species behavior is modified, the qualified biologist shall establish a baseline ambient sound level by measuring sound levels at a distance without disturbing the species during a representative construction day. The qualified biologist shall monitor those nests daily during construction activities, until after the nesting season or a qualified biologist determines that the nest is no longer active. If the monitoring shows sound levels more than 10 dBA above the baseline ambient levels (representative construction noise included), and the species behavior is modified, the qualified biologist shall have the authority to halt or modify construction activity to ensure the behavior of sensitive nesting avian species is not altered by construction noise.
- If the above noted sound thresholds are exceeded, the project proponent shall implement actions recommended by the qualified biologist and approved by the District to reduce sound levels to within thresholds.

If the qualified biologist determines that noise cannot be attenuated, noise-generating activities must cease until such time that adequate noise attenuation is achieved, or nesting is complete.

MM-BIO-3: Implement Noise Reducing Measures During Pile Installation Activities to Avoid Impacts on Marine Mammals, Green Sea Turtles, and Fish. Prior to and during construction activities involving in-water impact hammer pile installation or vibratory pile installation or removal, the project proponent shall implement marine mammal, green sea turtle and fishes noise reducing measures, which shall include the following requirements:

- For a period of 15 minutes prior to the start of in-water construction, a qualified biologist, retained by the project proponent and approved by the District, shall monitor an impact radius around the active pile installation areas to ensure that special-status species do not modify behavior. The qualified biologist must meet the minimum requirements as defined by the NOAA's Guidance for Developing a Marine Mammal Monitoring Plan (2017). The impact radius shall be established by determining the largest zone of influence associated with in-water construction activities occurring that workday (Zone of Influence is the area that extends out to Level B harassment area indicated in Table 4.4-1 of the IS/MND).
- The project proponent shall not start work if the qualified biologist observes any special-status species prior to starting pile installation until the special-status species has left the area to be affected.
- Pile driving activities shall only be conducted during daylight hours when biological monitors can visually observe marine mammals.
- Pile driving shall not exceed 10 piles per day and 1,000 strikes per pile or a combination that does not exceed a total of 10,000 strikes in 1 day.
- In-water pile driving shall begin with soft starts in accordance with Section 4.5 of the District's Best Management Practices and Environmental Standards for Overwater Structural Repair and Maintenance Activities for Existing Port Facilities Conducted by the San Diego Unified Port District (District 2019), gradually increasing the force of the pile driving.
- Installation of an acoustical bubble curtain, isolation casing, or another attenuation method approved by NMFS or CDFW shall be installed if monitoring to the attenuated distance identified in Table 10 (Fishes), Table 11 (Marine Mammals, and Table 12 (Green Sea Turtle) of Appendix C (i.e., *The Port of San Diego NASSCO Floating Drydock and Waterfront Improvement Project Underwater Assessment*, prepared by Illingworth and Rodkin [February 2022]) to the IS/MND. Otherwise, monitoring shall be required to the distances identified under the unattenuated condition of these same tables.
- The biological monitor shall note observations of the presence of sensitive marine species, including California least tern, green sea turtles, and marine mammals, within the zone of influence (see Tables 10, 11, and 12 of Appendix C of the IS/MND). Observations shall include hauled out harbor seals and California sea lions. The biological monitor shall observe the site for 15 minutes prior to all pile driving activities and during all pile driving activities. If sensitive marine species are observed within the zone of influence, during or 15 minutes before pile driving, the biological monitor shall immediately notify the on-site supervisor or inspector and require that pile driving either not be initiated or temporarily cease until the animals have moved outside of the zone of influence on their own. The biological monitor shall have the authority to stop work at any time due to observed animal behavior or uncertainty regarding potential to harm an animal due to pile driving activities or noise generated from the activity.
- "Shutdown zones" have been established for sensitive marine species. If a sensitive marine species enters the shutdown zone during active pile driving, the biological monitor shall stop pile driving. These shutdown zones are provided in Table 4.4-1 of the IS/MND.
- If weather or sea conditions restrict the biological monitor's ability to observe marine mammals or sea turtles within the zone of influence, then pile driving activities shall cease until conditions improve.

The biological monitor shall maintain records of the species, date, and time of any marine mammal or sea turtle sightings, as well as species behavior, and communications with the contractor during pile driving.

MM-BIO-4: Implement Construction Measures to Eliminate Water Quality Impairment Impacts on California Least Tern, Other Sensitive Fish Foraging Avian Species, and Eelgrass. During all in-water construction activities that would disturb sediment, the project applicant shall implement the following construction measures in accordance with applicable Federal, State, and local regulations, including but not limited to CWA Sections 401 and 404, Rivers and Harbors Act Section 10, and applicable NPDES permit conditions, and Stormwater Management and Discharge Control Ordinance:

- The project applicant shall implement contractor education for vessel operations. Vessel operators shall be trained that any contact with the bottom from the vessel, barges, anchors, or spuds can suspend sediment that results in water quality and turbidity impacts that limit the ability of fish foraging avian species to locate prey and disrupt eelgrass productivity. Additionally, vessel operators shall be instructed to minimize activities that direct propeller wash toward shallow areas with substrates that can be suspended and result in increased turbidity.
- The project applicant shall deploy a turbidity curtain around the pile driving or other sediment-disturbing activity areas to restrict the visible surface turbidity plume to the area of construction. The turbidity curtain shall consist of a hanging ballast-weighted curtain with a surface float line and shall extend from the surface into the water column without disturbing the bottom based on the lowest tidal elevation and swing of the curtain within the water column. The turbidity curtain shall meet the specifications for design, installation, use, performance, and/or modification outlined in the District's Best Management Practices and Environmental Standards for Overwater Structural Repair and Maintenance Activities for Existing Port Facilities Conducted by the San Diego Unified Port District (District 2019). The goal of this measure is to minimize the area in which visibility of prey by California least terns and other sensitive fish foraging avian species (e.g., California brown pelican) is obstructed.
- If impacts on eelgrass due to water quality cannot be mitigated through contractor education and deployment of silt curtains, the project applicant shall implement mitigation measures for losses to eelgrass in accordance the California Eelgrass Mitigation Policy and with MM-BIO-6.

The project applicant shall implement MM-WQ-1, Monitoring Turbidity and Constituents of Concern During Construction-Related Sediment Disturbance and MM-WQ-2, Implement Best Management Practices During Construction-Related Sediment Disturbance.

MM-BIO-5: Implement Overwater Coverage Mitigation in Coordination with the Appropriate Resource Agencies and the District to Compensate for Loss of Open Water Habitat. Prior to construction activities that may result in overwater coverage, the project applicant shall comply the following:

1. The project applicant shall consult with the appropriate resource agencies, including but not limited to, NMFS, USFWS, RWQCB, and/or USACE, regarding mitigation of impacts associated with loss of beneficial uses from overwater coverage, loss of open water habitat function, and shading. The project applicant shall secure all applicable permits for the mitigation of overwater coverage prior to commencement of waterside construction. One or more of the appropriate resource agencies may require additional or greater mitigation than specified in this mitigation measure.
2. The project applicant shall implement one of the following mitigation options, or a combination thereof. These options provide the minimum mitigation for overwater coverage impacts and/or shading impacts. One or more of the appropriate resource agencies may require additional or greater mitigation than specified in this mitigation measure.
    A. Remove an amount of existing overwater coverage within San Diego Bay that is equivalent to the proposed project's net increase in overwater coverage. This would replace the area affected by the project at a 1:1 mitigation ratio, subject to the District's review and approval.
    B. Restore or create an amount of eelgrass habitat within San Diego Bay equivalent to the proposed project's net increase in overwater coverage at a suitable location within San Diego Bay, at a 1:1 ratio for eelgrass consistent with the CEMP, which would offset the net increase in overwater coverage by improving the habitat structure and primary productivity at the restoration site. (Note, the 1:1 ratio is suitable mitigation for

open water impacts. The 1.2:1 ratio is appropriate for impacts on eel grass as identified in MM-BIO-6. These should not be confused.) The restoration or creation of eelgrass habitat shall require the project applicant to prepare a mitigation plan for the District's review and approval. The mitigation plan at a minimum shall include a description of the restoration site, mitigation requirements, planting plan (e.g., transplant sites, donor sites, reference site), restoration methods (e.g., plant collection or purchase, transplant units), timing of the restoration work, and a monitoring program to include a mitigation success criteria. The mitigation project shall secure all applicable permits and all applicable District Real Estate agreements for the mitigation site prior to commencement of construction. Additionally, all fill materials proposed for discharge into San Diego Bay for the development of the mitigation site shall meet the requirements of the USACE's Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. – Testing Manual (Inland Testing Manual).

C. If a suitable mitigation bank within the Coastal Zone that is not yet available becomes available in the future, prior to construction of the proposed project, the project applicant shall purchase overwater coverage credits to offset the net increase in overwater coverage.

D. Subject to the Board of Port Commissioners' approval and findings, the project applicant may purchase an amount of credits from the District's shading credit program established pursuant to BPC Policy 735 equivalent to that of the project's final shading total (i.e., to the satisfaction of the appropriate resource agencies).

F. As specified in MM-BIO-6, for overwater coverage, a qualified biologist shall conduct eelgrass surveys per the CEMP to determine potential impacts on eelgrass from construction. If pre- versus post-construction eelgrass surveys determine that overwater structures will shade and impact eelgrass, then mitigation for the loss of eelgrass will be conducted pursuant to the CEMP at a 1.2:1 mitigation ratio based on the amount of eelgrass impacted.

MM-BIO-6: Implement Eelgrass Mitigation and Monitoring in Compliance with the California Eelgrass Mitigation Policy. The project applicant shall comply with all requirements of the California Eelgrass Mitigation Policy (CEMP) (NMFS 2014). If impacts on eelgrass occur based on a comparison of pre- and post-construction eelgrass surveys as specified in this mitigation measure, NASSCO shall retain a qualified marine biologist to develop an eelgrass mitigation and monitoring plan in compliance with the CEMP (NMFS 2014). The mitigation and monitoring plan shall be submitted to the District and NMFS for approval and shall be implemented to compensate for any loss of eelgrass. Specific requirements of this mitigation include the following:

- Prior to the commencement of any in-water construction activities, a qualified marine biologist retained by NASSCO and approved by the District shall conduct a preconstruction eelgrass survey. Surveys for eelgrass will be conducted during eelgrass growing season (March–October), and results will be valid for 60 days, unless completed in September or October; if completed in September or October, results will be valid until resumption of next growing season. The project applicant shall provide the preconstruction eelgrass survey to the District and the NMFS as well as regulatory points of contact for agencies that will be required to provide project permits such as the CCC, USACE, and San Diego RWQCB.
- Within 30 days of completion of in-water construction activities, a qualified marine biologist retained by NASSCO and approved by the District shall conduct a post construction eelgrass survey during the active eelgrass growing season (March 1st – October 31st). If construction ends during the non-growing season (November 1 to February 28), the monitoring shall be delayed until the resumption of the growing season. The postconstruction survey shall evaluate potential eelgrass impacts associated with construction. Upon completion of the postconstruction survey, the qualified marine biologist shall submit the survey report to the District and resource agencies within 30 days.
- If impacts on eelgrass are detected, NASSCO shall implement the following:
  - A qualified marine biologist retained by NASSCO and approved by the District shall develop an eelgrass mitigation plan for in-kind mitigation. The qualified marine biologist shall submit the mitigation plan to the District and NMFS within 60 days following the postconstruction survey.

- Mitigation for eelgrass impacts shall be at a ratio of no less than 1.2:1, as required by the CEMP.
- Mitigation shall commence within 135 days of any noted impacts on eelgrass, such that mitigation commences within the same eelgrass growing season that impacts occur.
- Upon completing mitigation, the qualified biologist shall conduct mitigation performance monitoring at performance milestones of 0, 12, 24, 36, 48, and 60 months.
- The qualified biologist shall conduct all mitigation monitoring during the active eelgrass growing season and shall avoid the low growth season (November–February). Performance standards shall be in accordance with those prescribed in the CEMP.
- The qualified biologist shall submit the monitoring reports and spatial data to the District and NMFS within 30 days after the completion of each monitoring period. The monitoring reports shall include all specific requirements identified in the CEMP.

► At least two years of annual post-construction eelgrass surveys shall be conducted during the active eelgrass growing season. The additional annual surveys shall evaluate the potential for structural shading on eelgrass.

If impacts on eelgrass are detected during the 2-year post-construction period, the project proponent shall provide additional mitigation for eelgrass impacts by transplanting eelgrass at a suitable restoration site at a ratio of 1.2:1. Conservative mitigation planning can avoid this additional mitigation through planning for long-term impacts and providing eelgrass transplantation prior to monitoring and evaluation of all impacts.

4.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources.				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☐	☒
c) Disturb human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

The historical resources evaluation provided below is based on the *Cultural Resources Assessment Floating Dry Dock and Waterfront Improvement Project,* by Anchor QEA (June 2021; Appendix E).

4.5.1 Environmental Setting

RECORDS SEARCH

A cultural resources records search was obtained from the South Coastal Information Center (SCIC), which is located at San Diego State University and is part of the California Historical Resources Information System. The records search provides for identification of previously documented resources within and near the project site. The SCIC reported the results of the record search on April 5, 2021. No historical resources have been previously identified within the project site. The records search revealed that a total of 20 cultural resources studies have been conducted within a quarter-mile radius of the project site. Of these, only 2 have covered at least some portion of the project site. The record search also revealed the presence of 22 previously recorded cultural resources within a quarter-mile radius of the project site. Sixteen of the resources are historic-aged built environment resources (primarily military buildings), five historic-era archaeological sites (four of which contain remains related to railroads and one is the foundation of a building), and one prehistoric archaeological site consisting of shell midden and habitation debris. An additional built environment resource, Building 19 of the NASSCO shipbuilding facility, was revealed through review of received SCIC cultural resources studies. This building is located within the project site; however, the building itself has not been catalogued by the SCIC, therefore it did not appear in the record search results as a previously recorded cultural resource. Building 19 was determined to be not eligible for listing in either the California Register of Historical Resources (CRHR) or National Register of Historic Places (NRHP) in 2019. No other cultural resources were identified within the project site as a result of the SCIC records search.

HISTORICAL RESOURCES EVALUATION

Because the project site consists of harbor fill and is entirely developed with buildings and pavement, a site visit was not conducted to identify archaeological resources. A historical resources assessment was conducted for the built environment, to determine if any existing structures located within the project site were eligible for listing in the NRHP or the CRHR. To be eligible for inclusion in the NRHP or the CRHR, a property generally must be at least 50 years old, have significance, and retain integrity. Under NRHP Criteria Consideration G and CRHR criteria at CCR 15, Chapter 11.5, Section 4850(d), a property less than 50 years old can be eligible if it is of exceptional significance. A

property can have exceptional significance if it is notable in context of other similar properties, if it has been the object of scholarly study, if it is fragile or short-lived, or if there is widespread recognition of its historical value. The assessment concluded that there are no structures older than 50 years old within the project site and the piers, berths, and bulkheads are of common construction and are not significantly associated with local, state, or national historical context in order to be considered exceptional significance; therefore, none of the existing structures are considered historical resources under CEQA (see Appendix E; Anchor QEA, LLC 2021).

4.5.2 Discussion

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

No impact. As described above, the existing structures on the project site do not appear to meet the criteria for listing in the CRHR or the NRHP. Because they are less than 50 years old, they do not meet the definition of a historical resource pursuant to CEQA. Therefore, there would be no impact to historical resources.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

No impact. The shoreline and majority of the project site above ground is underlain by artificial fill; including compacted engineered and non-compacted, nonengineered fill. Although the records search described archaeological resources have previously been recorded within a quarter-mile radius of the project site, the prehistoric archaeological resource is not located within artificial fill. The historic-era archaeological resources consist of railroad remnants and a building foundation; the project site has been redeveloped numerous times and has no potential to contain historic-era archaeological resources of this nature. Activities related to the repair and replacement of the quay wall will occur in the artificial fill. Therefore, no original ground would be disturbed and no impacts to archaeological resources are expected as a result of the repair and replacement of the quay wall. The pile replacement process would involve ground-disturbing activities within the Bay, primarily in locations that have been previously disturbed by the installation of the existing piles. Additionally, the project site portion of the Bay has been previously dredged and disturbed during installation of the existing piles and other past activities at the project site. As such, it is not anticipated that significant (i.e., intact) archaeological resources are present where the project would involve ground-disturbing activities. Therefore, the project would not cause an adverse change in the significance of an archaeological resource; no impact would occur.

c) Substantially disturb human remains, including those interred outside of formal cemeteries?

Less-than-significant impact. There are no known cemeteries or burials on the project site or immediate area. However, because ground disturbing activities associated with project construction would occur, there is potential to encounter buried human remains or unknown cemeteries in areas with little or no previous disturbance.

California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.

These statutes require that, if human remains are discovered, potentially damaging ground-disturbing activities in the area of the remains shall be halted immediately, and the County coroner shall be notified immediately. If the remains are determined by the coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. Following the coroner's findings, the NAHC-designated Most Likely Descendant and the landowner shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments, if present, are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in Public Resources Code Section 5097.94.

Compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097 would provide an opportunity to avoid or minimize the disturbance of human remains, and to appropriately treat any remains that are discovered. Therefore, this impact would be less than significant.

Required Mitigation Measures

The project would not result in significant impacts on cultural resources. Mitigation measures are not required.

4.6 ENERGY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy.				
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

4.6.1 Environmental Setting

GENERAL SETTING

California relies on a regional power system composed of a diverse mix of natural gas, petroleum, renewable, hydroelectric, and nuclear generation resources.

Petroleum: Petroleum products (gasoline, diesel, jet fuel) are consumed almost exclusively by the transportation sector, and account for almost 99 percent of the energy used in California by the transportation sector, with the rest provided by ethanol, natural gas, and electricity (Bureau of Transportation Statistics 2015). Between January 2011 and August 2020, approximately 171.5 billion gallons of gasoline and diesel fuel were purchased in California (California State Board of Equalization 2020). Gasoline and diesel fuel sold in California for motor vehicles is refined in California to meet specific formulations required by CARB (EIA 2018).

Natural Gas: Almost two-thirds of California households use natural gas for home heating, and about half of California's utility-scale net electricity generation is fueled by natural gas (EIA 2018).

Electricity and Renewables: The California Energy Commission (CEC) estimates that 34 percent of California's retail electricity sales in 2018 will be provided by Renewables Portfolio Standard (RPS)-eligible renewable resources such as solar and wind (CEC 2019a). Additionally, the CEC's Energy Efficiency Action Plan (CEC 2019b) focuses on energy efficiency savings in new and existing buildings and reducing greenhouse gas (GHG) emissions and provides strategy recommendations for realizing these goals. The 2019 Energy Efficiency Action Plan is separated into three goals that drive energy efficiency: doubling energy efficiency savings by 2030, removing and reducing barriers to energy efficiency in low-income and disadvantaged communities, and reducing GHG emissions from the buildings sector.

Alternative Fuels: Conventional gasoline and diesel may be replaced (depending on the capability of the vehicle) with many alternative transportation fuels (e.g., biodiesel, hydrogen, electricity, and others). Use of alternative fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard, AB 32 Scoping Plan).

ENERGY PROVIDER

Electric and natural gas services in San Diego county is provided by the San Diego Gas and Electric Company (SDG&E), a subsidiary of Sempra Energy. SDG&E operates electricity and natural gas infrastructure in the county, including power lines, power plants, pipelines, and substations. As of 2018, SDG&E procured 44 percent of its electricity from renewable sources (CEC 2019c). This project site is currently served by SDG&E.

4.6.2 Regulatory Setting

FEDERAL REGULATIONS

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Under this act, the National Highway Traffic and Safety Administration (NHTSA), is responsible for revising existing fuel economy standards and establishing new vehicle economy standards. The Corporate Average Fuel Economy program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Three Energy Policy Acts have been passed, in 1992, 2005, and 2007, to reduce dependence on foreign petroleum, provide tax incentives for alternative fuels, and support energy conservation.

STATE REGULATIONS

Warren-Alquist Act

The 1974 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the CEC. The creation of the act occurred as a response to the State legislature's review of studies projecting an increase in statewide energy demand, which would potentially encourage the development of power plants in environmentally sensitive areas. The act introduced State policy for siting power plants to reduce potential environmental impacts, and additionally sought to reduce demand for these facilities by directing CEC to develop statewide energy conservation measures to reduce wasteful, inefficient, and unnecessary uses of energy. Conservation measures recommended establishing design standards for energy conservation in buildings that ultimately resulted in the creation of the Title 24 Building Energy Efficiency Standards (California Energy Code), which have been updated regularly and remain in effect today. The act additionally directed CEC to cooperate with the Office of Planning and Research, the California Natural Resources Agency, and other interested parties in ensuring that a discussion of wasteful, inefficient, and unnecessary consumption of energy is included in all environmental impact reports required on local projects.

State of California Energy Action Plan

CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The current plan is the 2003 California Energy Action Plan (2008 update). The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs; and encouragement of urban design that reduces vehicle miles traveled (VMT) and accommodates pedestrian and bicycle access.

Transportation-Related Regulations

U.S. EPA and NHTSA have issued rules to reduce GHG emissions and improve corporate average fuel economy (CAFE) standards for light-duty vehicles for model years 2017 and beyond (77 Federal Register [FR] 62624). NHSTA's CAFE standards have been enacted under the Energy Policy and Conservation Act since 1978. This national program requires automobile manufacturers to build a single light-duty national fleet that meets all requirements under both federal programs and the standards of California and other states. The purpose of this program is to increase fuel economy and limit vehicle emissions, including carbon dioxide (CO_2) emissions, of cars and light-duty trucks (77 FR 62630).

Various regulatory and planning efforts are aimed at reducing dependency on fossil fuels, increasing the use of alternative fuels, and improving California's vehicle fleet. Senate Bill (SB) 375 aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. CARB, in consultation with the metropolitan planning organizations, provides each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in their respective regions for 2020 and 2035.

Pursuant to AB 2076 (Chapter 936, Statutes of 2000), CEC and CARB prepared and adopted a joint agency report in 2003, Reducing California's Petroleum Dependence. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita VMT (CEC and CARB 2003).

AB 1007 (Chapter 371, Statues of 2005) required CEC to prepare the State Alternative Fuels Plan to increase the use of alternative fuels in California.

Renewable Energy Regulations

The State has passed legislation requiring the increasing use of renewables to produce electricity for consumers. California utilities are required to generate 33 percent of their electricity from renewables by 2020 (Senate Bill X1-2 of 2011); 52 percent by 2027 (SB 100 of 2018); 60 percent by 2030 (also SB 100 of 2018); and 100 percent by 2045 (also SB 100 of 2018).

LOCAL REGULATIONS

Port of San Diego Climate Action Plan

The Port of San Diego Climate Action Plan (CAP) was adopted in December 2013 and includes an inventory of existing (2006) and projected emissions in 2020, 2035, and 2050, as well as strategies to meet the District's goal of reducing annual GHG emissions to 25 percent below 2006 levels by 2035 (San Diego Unified Port District 2013). To achieve the Port's goals, the CAP details various GHG reduction measures related to transportation and land use, alternative energy generation, energy conservation, waste reduction, water conservation, and recycling. These GHG reduction strategies and measures included in the CAP support meeting the statewide goals set forth in AB 32.

The Port's CAP meets the criteria listed in Section 15183.5 of the State CEQA Guidelines by providing reduction targets that align with statewide goals. However, the CAP does not cover construction activities. A critical aspect of having a CAP that fits the criteria within State CEQA Guidelines Section 15183.5 is having reduction targets that align with statewide goals. Because the Port's reduction targets outlined in the CAP parallel the State's commitment in AB 32, and align with statewide goals to reduce GHG emissions, the CAP is consistent with AB 32. While the Port's CAP includes a long-term 2035 goal, it does not include post-2020 reduction quantification. Therefore, the CAP cannot be used as a qualified plan for reduction of GHG emissions pursuant to Section 15183.5 of the CEQA Guidelines for projects with a post-2020 buildout date. Because project construction is not expected to commence until 2023, the CAP is not used to assess the significance of the project's GHG emissions.

San Diego Association of Governments Regional Energy Strategy

The San Diego Association of Governments (SANDAG) Regional Energy Strategy (RES) serves as an energy policy blueprint for the region through 2050. It established long term goals in eleven topic areas including energy efficiency, renewable energy, distributed generation, transportation fuels, land use and transportation planning, border energy issues, and the green economy. Using the strategies as guiding principles, and taking into consideration the myriad of policy measures recommended across the energy topics, six early actions were identified to focus on in the near term. These include building retrofit programs, financing programs, energy savings at government buildings and in communities, land use and transportation strategies that reduce energy use and GHG emissions, electric vehicle and alternative fueling infrastructure, and use of reclaimed water. In 2014, a technical update of the RES was completed to inform development of San Diego Forward: The Regional Plan. This technical update demonstrates progress toward attaining the RES goals, updates existing conditions and future projections data, and recommends priorities for moving forward. The RES is not an adopted plan or policy document; rather it is a strategy framework that was accepted by the SANDAG Board of Directors. As such, it does not represent a state or local plan for renewable energy or energy efficiency. However, it is included here for completeness as it is a local resource focused on energy.

4.6.3 Discussion

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less-than-significant impact. Thresholds that define when energy consumption is considered wasteful, inefficient, or unnecessary have not been established in federal or state law or in the State CEQA Guidelines. Compliance with the California Energy Code would result in energy-efficient buildings. However, compliance with building codes alone does not adequately address all potential energy impacts during construction. For example, energy would be required to transport people and goods to and from the project site. Energy use is discussed further below.

Construction

Energy would be required to operate and maintain construction equipment and for the transport of construction materials by barge and haul truck. The one-time energy expenditure required to repair and replace the existing physical facilities and infrastructure associated with the proposed project would be nonrecoverable. Most energy consumption would result from operation of off-road construction equipment and on-road vehicle trips associated with construction, worker commute trips, vendor haul truck trips, and barge mobilization.

The energy consumption associated with proposed project construction by year was estimated using CalEEMod Version 2020.4.0 (CAPCOA 2021). Fuel usage of tugboats utilized to mobilize the spud and derrick barges, barge propulsion engines, and barge generator sets during construction was estimated using the SMAQMD Harborcraft Emissions Calculator (SMAQMD 2017) and CO_2 diesel emissions factor (10.21 kilograms-CO_2 per gallon). Refer to Appendix A for specific input parameters and modeling output results. Most of the construction-related energy consumption would be associated with off-road equipment, worker vehicle trips, and the transport of equipment and waste using barges and on-road haul trucks during construction. Average annual energy consumption is presented in Table 4.6-1.

Table 4.6-1 Annual Construction Energy Consumption

Energy Type	Annual Energy Consumption	Units
Construction		
Gasoline[1]	9,233	gal/year
Diesel[2]	155,140	gal/year

Notes: gal/year = gallons per year

[1] Consumption by worker commute vehicle trips

[2] Average usage per year over 12 years (2023-2034)

Source: Calculations performed by Ascent Environmental in 2022

Once operational, the project site would continue to be served by SDG&E. No new or expanded service is proposed. Rather, operational energy use is anticipated to be reduced when compared to existing conditions. Specifically, the floating dry dock would no longer need to be relocated to another berth outside of the leasehold during vessel launches from the inclined building ways or building dock. The floating dry dock would instead be repositioned to the "Lot 20" temporary location, which is closer to the home position. As such, the proposed project would result in reduced energy consumption associated with tug trips during operations when compared to existing conditions. In addition, the diesel generators on the new floating dry dock would be U.S. EPA Tier 4-rated and would be outfitted with a closed-loop cooling water system. These new engines would improve energy efficiency when compared with existing Tier 0 diesel engines. Moreover, the new floating dry dock would be outfitted with an extensive electrical distribution system, as well as a modern electric salt water pumping system to minimize the need for portable diesel salt water pumps, which would further improve energy efficiency. Lastly, the new Repair Complex Wharf would create a centralized laydown area to support ship repair operations in the vicinity of the floating dry dock. This centralized laydown area is anticipated to reduce the distance of forklift trips, and associated energy consumption, throughout the shipyard when compared with existing conditions. Thus, operational emissions would not result in wasteful, inefficient, and unnecessary consumption of energy resources. This impact would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

Less-than-significant impact. State and local renewable energy and energy efficiency plans that are applicable to the proposed project include California Title 24 energy efficiency standards, the State of California Energy Action Plan, which contain required standards related to energy efficiency for buildings and renewable energy development (CEC 2019b), the District's CAP, which includes strategies to reduce GHG emissions, and SANDAG's Regional Energy Strategy, which establishes long-term energy goals in the region through 2050, including energy efficiency, renewable energy, distributed generation, transportation fuels, land use and transportation planning, border energy issues, and the green economy. The proposed project is required to comply with these regulations, to the extent applicable, all of which are aimed at increasing energy efficiency and renewable energy development. Because the project is expected to result an increase in fuel efficiency with no other changes in operations, the project would not conflict with state or local long-term renewable energy or energy efficiency plans.

Energy to meet the project's construction electricity demand would be provided by the San Diego Gas and Electric Company (SDG&E), which is subject to meeting California's RPS. SDG&E plans to increase procurement from eligible renewable energy resources to 44 percent of retail sales by December 31, 2024; 52 percent of retail sales by December 31, 2027; and 60 percent of retail sales by December 31, 2030 (SDG&E 2018). For these reasons, the project would not conflict with or obstruct state or local plans for renewable energy or energy efficiency. Therefore, this impact would be less than significant.

Required Mitigation Measures

The project would not result in significant impacts on energy. Mitigation measures are not required.

4.7 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Geology and Soils.				
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

4.7.1 Environmental Setting

The information in this section is based in part on the *Geotechnical Investigation* prepared for the project (TerraCosta Consulting Group 2020), which is included as Appendix F. The *Geotechnical Investigation* evaluated the following project components: the sheet-pile bulkhead supported by precast concrete batter piles; the triangular-shaped wharf supported by octagonal vertical precast concrete piles and associated fender system; the dry dock approach fenders; the dry dock mooring dolphins; the catwalk support to access the floating dry dock while moored in its temporary position; and the shoreline repairs between Berths 2 and 6. Although the *Geotechnical Investigation* focused on shoreline repairs between Berths 2 and 6, similar conditions are anticipated along the quay walls throughout the

entire NASSCO leasehold. The *Geotechnical Investigation* presents recommendations pertaining to the various geotechnical aspects of the proposed improvements based on the results of field investigation, laboratory testing, and engineering analyses of the subsurface conditions at the project site.

According to the California Geologic Survey (CGS) California Earthquake Hazards Zone Application map, the project site is not within an earthquake fault zone. The nearest active Alquist-Priolo fault zone is the Point Loma Fault Zone, located approximately 0.6 mile northwest of the project site (CGS 2019; TerraCosta Consulting Group 2020). The project site is within a seismically active region and is located approximately 1,800 feet south-southeast of the Silver Strand Fault, which has demonstrated fault activity during the last 10,000 years.

According to the City of San Diego Seismic Safety Study, the project site is in an area with high potential for liquefaction due to shallow groundwater, major drainages, and hydraulic fills (City of San Diego 2008a: Grid Tile 13). Based on the *Geotechnical Investigation*, the project site is underlain with artificial fill and Holocene-age sediments, which overlie bay deposits, Quaternary-aged terrace deposits, and the San Diego Formation. Some of the soil within the bay deposits are comprised of soils that are potentially liquefiable. However, the soils comprising the Quaternary-aged terrace deposits are not considered liquefiable (TerraCosta Consulting Group 2020).

The *Geotechnical Investigation* concluded that lateral spreading is likely to occur in the bay deposits and fill soils that surround the bay. In addition, slopes comprised of bay deposits and some fill soils comprised of loose sands and soft clays may be subject to seismic-induced slope instability. The *Geotechnical Investigation* did not identify any features indicative of ancient natural landslides on or adjacent to the project site (TerraCosta Consulting Group 2020).

4.7.2 Discussion

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)

No impact. As discussed in Section 4.7.1 above, the project site is not within an earthquake fault zone (CGS 2019). The nearest active Alquist-Priolo fault zone is the Point Loma Fault Zone, located approximately 0.6 mile northwest of the project site. The Geotechnical Investigation concludes that the risk associated with ground rupture at the project site is considered low (TerraCosta Consulting Group 2020). Because there are no active faults within the project site, the project would have no potential to cause or exacerbate the risk of a fault rupture. No impact would occur.

ii) Strong seismic ground shaking?

Less-than-significant impact. Although the project site is not within an active fault zone, the project site is in a seismically active region of southern California and would be susceptible to seismic ground shaking produced by nearby faults during earthquakes. The *Geotechnical Investigation* concluded that the risk associated with ground shaking is considered very high (TerraCosta Consulting Group 2020). However, the project components, including the proposed pile driving, would have no potential to exacerbate the existing risk of strong seismic ground shaking. In addition, the project would be designed and constructed in accordance with the recommendations in the *Geotechnical Investigation* that address risks related to seismic ground shaking. The *Geotechnical Investigation* provides recommendations for pile installation methods; slope inclination; pile capacity, including lateral load capacities for vertical piles; and sheet-pile bulkhead lateral pressures, which would provide structure stability and security and would not worsen the existing conditions (refer to Attachment D for additional information). Because the project would be engineered to specifications based on site-specific geotechnical conditions, project construction and operations would not cause potential substantial adverse effects from strong seismic ground shaking and a less than significant impact would occur.

iii) Seismic-related ground failure, including liquefaction?

Less than significant with mitigation incorporated. According to the City of San Diego Seismic Safety Study, the project site is in an area with high potential for liquefaction due to shallow groundwater, major drainages, and hydraulic fills (City of San Diego 2008a: Grid Tile 13). In addition, the *Geotechnical Investigation* notes that some of the soil within the bay deposits are comprised of soils that are potentially liquefiable (TerraCosta Consulting Group 2020).

No project components would require grading on the landside portion of the project site and, therefore, there would be no impact associated with the potential of seismic-related ground failure on the landside portion of the project site. Moreover, the in-water project components would not have the potential to exacerbate the existing risk of seismic-related ground failure, including liquefaction, because the in-water structures would be engineered to the existing sediment and soil conditions. As discussed in Section 4.7.2(a)(ii), the project would be designed and constructed in accordance with the recommendations in the *Geotechnical Investigation* (TerraCosta Consulting Group 2020) that address risks related to seismic-related ground failure. The *Geotechnical Investigation* provides recommendations for pile installation methods; slope inclination; pile capacity, including lateral load capacities for vertical piles; and sheet-pile bulkhead lateral pressures, which would provide structure stability and security and would not worsen the existing conditions (refer to Attachment D for additional information).

As discussed in Section 4.7.1, the *Geotechnical Investigation* (TerraCosta Consulting Group 2020) evaluated 950 linear feet of shoreline repairs between Berths 2 and 6. Geologic conditions for the as-needed 1,500 linear feet of shoreline repairs (from Lot 20 to Pier 12, the floating dry dock approach pier to Berth 8, Ways to Building Dock, and Berth 6 to Navy Base quay wall) were not specifically evaluated. However, as noted above, the *Geotechnical Investigation* evaluated shoreline repairs between Berths 2 and 6 and similar conditions are anticipated along the quay walls throughout the entire NASSCO leasehold. Without proper geotechnical engineering, the proposed structures may not be designed and installed to withstand and avoid causing or exacerbating geologic hazards (**Impact-GEO-1**). With implementation of **MM-GEO-1**, NASSCO would be required to prepare a geotechnical investigation prior to commencing any as-needed shoreline repairs. In addition, NASSCO would be required to implement the recommendations in the supplemental geotechnical investigation to ensure that all structures are engineered to specifications based on site-specific geotechnical conditions. Implementation of **MM-GEO-1** would ensure that the project would not result in hazards from seismic-related ground failure.

The project would be designed and constructed in accordance with recommendations from the *Geotechnical Investigation* (TerraCosta Consulting Group 2020) and any supplemental geotechnical investigations as required by **MM-GEO-1**; therefore, project construction and operations would not cause substantial adverse effects from seismic-related ground failure and impacts would be less than significant.

iv) Landslides?

No impact. According to the City of San Diego Seismic Safety Study, the project site is not within a landslide hazard area (City of San Diego 2008a: Grid Tile 13). In addition, the *Geotechnical Investigation* did not identify any features indicative of ancient natural landslides on or adjacent to the project site (TerraCosta Consulting Group 2020). The landside portions of the NASSCO shipyard are completely developed and generally flat. There are no steep slopes within or adjacent to the project site. Project construction would occur over or within water and there are no project components that would have the potential to exacerbate existing the risk of landslides. Therefore, project construction and operations would not cause potential substantial adverse effects from landslides and no impact would occur.

b) Result in substantial soil erosion or the loss of topsoil?

No impact. The landside portion of the NASSCO facility is entirely paved with no areas of exposed soil. Construction activities would occur over water and would not involve grading or excavation activities that have potential to disturb soils. In addition, NASSCO operates under an individual National Pollutant Discharge Elimination System (NPDES) Permit (Order R9-2016-0116) and maintains a facility Best Management Practices (BMP) Plan Manual, which include operational erosion control and site stabilization measures. NASSCO would be required to maintain all existing

operational and maintenance BMPs. Therefore, project construction and operations would not result in substantial erosion or the loss of topsoil and no impact would occur.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less than significant with mitigation incorporated. Refer to Sections 4.7.2(a)(iii) and (iv) for discussions related to liquefaction and landslides. According to the *Geotechnical Investigation* (TerraCosta Consulting Group 2020), lateral spreading and seismic-induced slope instability could occur in the bay deposits and fill soils within the project site. As discussed above, the project components would not occur on the landside portion of the project site. In addition, the project would be designed and constructed in accordance with the recommendations in the *Geotechnical Investigation* (TerraCosta Consulting Group 2020) that address soil instability. The *Geotechnical Investigation* provides recommendations for pile installation methods; slope inclination; pile capacity, including lateral load capacities for vertical piles; and sheet-pile bulkhead lateral pressures, which would provide structure stability and security and would not worsen the existing conditions (refer to Attachment D for additional information).

As discussed in Section 4.7.2(a)(iii), the geologic conditions for the as-needed quay wall revetment repairs and improvements were not specifically evaluated, but the Geotechnical Investigation did evaluate specific areas and conditions are assumed to be the same within the project site. Nevertheless, with implementation of **MM-GEO-1**, NASSCO would be required to prepare a geotechnical investigation prior to commencing any as-needed shoreline repairs. In addition, NASSCO would be required to implement the recommendations in the supplemental geotechnical investigation to ensure that all structures are engineered to specifications based on site-specific geotechnical conditions. Implementation of **MM-GEO-1** would ensure that the project would not result in hazards from geologic unit or soil instability.

The project would be designed and constructed in accordance with recommendations from the *Geotechnical Investigation* (TerraCosta Consulting Group 2020) and any supplemental geotechnical investigations as required by **MM-GEO-1**; therefore, project construction and operations would not cause substantial adverse effects from geologic unit or soil instability and impacts would be less than significant with mitigation.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?

Less-than-significant impact. Expansive soils are fine-grained soils (generally high-plasticity clays) that can undergo a significant increase in volume with an increase in water content as well as a significant decrease in volume with a decrease in water content. Changes in the water content of highly expansive soils can result in severe distress for structures constructed on or against the soils.

Underlying soils found in the BAE Systems leasehold adjacent to the project site include Huerhuero-Urban land complex (2 to 9 percent slope) and Tidal flats, which have high shrink-swell behavior, as well as Urban land, which has variable shrink-swell behavior (San Diego Unified Port District 2020b; USDA 1973). The underlying soils in the BAE Systems leasehold are partially composed of clays and, as such, could be subject to expansion. Because of the developed nature of the project site, it is likely that any expansive soils have been removed during previous development of the site. No construction activities are proposed on the landside of the project site. In addition, the project design would include all necessary stabilizing components for in-water structures, as described in Section 4.7.2(a) above, including the installation of piles and reconstruction of the revetment walls. Because the project would be engineered to specifications based on site-specific geotechnical conditions, project construction and operations would not result in substantial risks to life or property from constructing on expansive soils. Impacts would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No impact. The project does not propose septic tanks or alternative wastewater disposal systems. Therefore, no impact would occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No impact. The project site is situated on artificial engineered fill, which overlies Holocene marine deposits. This underlying formation has a low paleontological sensitivity. Given that construction activities would be in-water and would not require disturbance of native soils and all in-water work would consist of pile replacement/installation and reconstruction of revetments, it is unlikely that paleontological resources would be encountered. Following construction, the project site would be returned to a similar condition as the existing setting. The project would not introduce new activities during operation that would have potential to disturb native soils. Therefore, the project would not destroy a unique paleontological resource or site or unique geologic feature. No impact would occur.

Required Mitigation Measures

With implementation of the following mitigation measure, impacts related to geology and soils would be less than significant:

MM-GEO-1: Supplemental Geotechnical Investigation. The project applicant shall complete a supplemental geotechnical investigation prior to the completion of any as-needed shoreline repairs from Lot 20 to Pier 12, the floating dry dock approach pier to Berth 8, Ways to Building Dock, and Berth 6 to Navy Base quay wall. The applicant shall incorporate all recommendations from the supplemental geotechnical investigation into the project design to ensure that all structures are engineered to specifications based on site-specific geotechnical conditions. Should the Engineer of Record (licensed Professional Engineer) determine there is sufficient available information to properly design the as-needed shoreline repairs, such determination will be clearly documented and provided to the District for review and approval. Should the District concur with the determination not to prepare a Supplemental Geotechnical Investigation, this measure will not be required.

4.8 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. Greenhouse Gas Emissions.				
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

4.8.1 Environmental Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are CO_2, methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. GHG emissions contributing to global climate change are attributable, in large part, to human activities associated with on-road and off-road transportation, industrial/manufacturing, electricity generation by utilities and consumption by end users, residential and commercial onsite fuel usage, and agriculture and forestry. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forcing together (IPCC 2014:5).

Climate change is a global problem. GHGs are global pollutants because even local GHG emissions contribute to global impacts. GHGs have long atmospheric lifetimes (one to several thousand years) and persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any particular GHG molecule is dependent on multiple variables and cannot be determined with any certainty, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration (IPCC 2013:467).The three primary GHGs discussed when quantifying GHG emissions in the context of climate change include CO_2, CH_4, and N_2O. Emissions of these gases are converted to a comparable unit by multiplying each non-CO_2 gas by their global warming potential (GWP), reporting emissions in terms of carbon dioxide equivalent (CO_2e). These equivalencies are typically represented as million metric tons of CO_2e ($MMTCO_2e$) and metric tons of CO_2e ($MTCO_2e$). CH_4, for example, with a GWP of 25, can trap 25 times as much heat in the atmosphere as the same quantity of CO_2, thus the heat trapped in the atmosphere by one metric ton (MT) of CH_4 is equivalent to that trapped by 25 metric tons of CO_2 or 25 $MTCO_2e$. This conversion to CO_2e allows consideration of all gases in comparable terms and makes it easier to communicate how various sources and types of GHG emissions contribute to global climate change.

GHG inventories provide a detailed accounting of the sources and quantities of GHG emissions generated from activities. For example, at the State level, CARB prepares regular GHG inventory updates for a defined set of gases that contribute to climate change. In 2014, the statewide total quantity of GHGs emitted was 443 $MMTCO_2e$/year (CARB 2020a). At the local level, total GHG emissions in San Diego county during 2014 was 3.2 $MMTCO_2e$/year (County of San Diego 2014). Additionally, the District's 2016 Maritime Emissions Inventory reports that the maritime activity at the port, including harbor craft and on-road vehicles, emitted 67,431 $MTCO_2e$ in 2016 (San Diego Unified Port District 2016).

4.8.2 Regulatory Setting

STATE

Statewide GHG Emission Targets and the Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the State government for approximately two decades (CARB 2020b). GHG emission targets established by the State legislature include reducing statewide GHG emissions to 1990 levels by 2020 (AB 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). Executive Order (EO) S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. EO B-55-18 calls for California to achieve carbon neutrality no later than 2045 and achieve and maintain net negative GHG emissions thereafter. These targets align with the scientifically established levels needed globally to limit the rise in global temperature to no more than 2 degrees Celsius (°C), the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected. These targets also align with efforts to limit the temperature increase even further to 1.5°C (UN 2015:3).

The 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by CARB, outlines the main strategies California shall implement to achieve the legislated GHG emission target for 2030 and "substantially advance toward our 2050 climate goals" (CARB 2017:1, 3, 5, 20, 25–26). It identifies the reductions needed by each GHG emission sector including transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste. The State has also passed more detailed legislation addressing GHG emissions associated with industrial sources, transportation, electricity generation, and energy consumption.

LOCAL

Port of San Diego Climate Action Plan

The Port of San Diego CAP was adopted in December 2013 and includes an inventory of existing (2006) and projected emissions in 2020, 2035, and 2050, as well as strategies to meet the District's goal of reducing annual GHG emissions to 25 percent below 2006 levels by 2035 (San Diego Unified Port District 2013). To achieve the Port's goals, the CAP details various GHG reduction measures related to transportation and land use, alternative energy generation, energy conservation, waste reduction, water conservation, and recycling. These GHG reduction strategies and measures included in the CAP support meeting the statewide goals set forth in AB 32.

The Port's CAP meets the criteria listed in Section 15183.5 of the State CEQA Guidelines by providing reduction targets that align with statewide goals. However, the CAP does not cover construction activities. A critical aspect of having a CAP that fits the criteria within State CEQA Guidelines Section 15183.5 is having reduction targets that align with statewide goals. Because the Port's reduction targets outlined in the CAP parallel the State's commitment in AB 32, and align with statewide goals to reduce GHG emissions, the CAP is consistent with AB 32. While the Port's CAP includes a long-term 2035 goal, it does not include post-2020 reduction quantification. Therefore, the CAP cannot be used as a qualified plan for reduction of GHG emissions pursuant to Section 15183.5 of the CEQA Guidelines for projects with a post-2020 buildout date. Because project construction is not expected to commence until 2023, the CAP is not used to assess the significance of the project's GHG emissions.

4.8.3 Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less-than-significant impact. The issue of global warming and climate change is inherently a cumulative issue because the GHG emissions associated with an individual project cannot be shown to have a material effect on global climate. Thus, the quantity of GHG emissions associated with construction of the project is addressed as a cumulative impact.

The District has not established quantitative significance thresholds for evaluating GHG emissions. The California Air Pollution Control Officers Association (CAPCOA) presented a 900 $MTCO_2e$ per year threshold in a white paper titled *CEQA and Climate Change* (CAPCOA 2008). This threshold was developed based on various land use densities and discretionary project types that were analyzed to determine the size of projects that would likely have a less than cumulatively considerable contribution to climate change. Projects that meet or fall below the CAPCOA 900 $MTCO_2e$ threshold are expected to result in GHG emissions that would not result in a cumulatively considerable impact.

When compared to similar mass emissions thresholds adopted by other regional air districts in California, the CAPCOA 900 $MTCO_2e$ per year threshold is relatively conservative and can be used to support cumulative impact determinations beyond 2020. Additionally, in June 2020, SMAQMD published updated CEQA significance thresholds and determined that construction activities that estimated to generate less than 1,100 $MTCO_2e$ per year would not result in a significant cumulative impact. This *de minimis* screening threshold was developed to demonstrate compliance with the statewide 2030 GHG reduction target, and was determined by SMAQMD to capture 98 percent of total GHG emissions associated with representative projects analyzed in determining this threshold (SMAQMD 2014; 2020). However, the CAPCOA threshold of 900 $MTCO_2e$ per year represents a more conservative threshold than has been approved by other air districts in compliance with 2030 statewide reduction targets, and will thus be used in this analysis.

The proposed project's construction-related GHG emissions were modeled based on project specifications and default settings and parameters contained in CalEEMod Version 2020.40 (CAPCOA 2021), modified using vehicle emission factors from EMFAC 2021. GHG emissions from tugboats utilized to mobilize the spud and derrick barges during construction and the on-board spud and barge engines were estimated using the SMAQMD Harborcraft Emissions Calculator (SMAQMD 2017). Project-specific information, including specified equipment and CalEEMod defaults, were used to model emissions. When assessing construction-related GHG emissions over the lifetime of the project, an amortization period of 30 years is recommended as an estimate of equivalent annual emissions (SCAQMD 2008). Refer to Appendix A for specific input parameters and modeling output results. Construction activities related to the proposed project that would result in the generation of GHG emissions include the use of heavy-duty off-road construction equipment, vehicle use during worker commute trips and construction materials transport, emissions of tugboats used to move barges, and emissions from on-board propulsion engines and generator sets.

Construction-related GHG emissions were assessed over the total duration of project construction, a period of 12 years, to calculate average annual emissions. Each phase of construction was modeled separately, including:

- Floating dry dock replacement and waterfront infrastructure improvements (January 2023-September 2024)
- Repair and improvements to the repair complex wharf (September 2024-July 2025)
- Repair of failed revetment along Quay Wall, Berths 2-5 (January 2024-February 2024)
- Additional repairs to 1500 linear feet of shoreline segments, including shoreline segments Lot 20 to Pier 12, floating dry dock approach pier to Berth 8, Ways to Building Dock, and Berth 6 to Navy Base Quay Wall (January 2025-December 2027)
- As-needed structural repair/placement of select piles (100 piles/year) at Berths 2, 3, 4, 5, 6, and Pier 12 and the floating dry dock approach pier, and at the Berth 1 Platform (January 2024-January 2034)

CalEEMod results indicated that construction-related activity over the course of the construction period would result in the estimated annual emissions listed in Table 4.8-1.

Table 4.8-1 Annual Construction GHG Emissions

Year	Annual GHG Emissions (MT per year)			
	CO_2	CH_4	N_2O	Total CO_2e
2023	1,223	0.2	0.01	1,231
2024	2,491	0.5	0.01	2,506
2025	2,994	0.6	0.01	3,012
2026	2,292	0.5	0.01	2,306
2027	2,290	0.5	0.01	2,304
2028	1,016	0.2	< 0.01	1,023
2029	1,013	0.2	< 0.01	1,019
2030	1,133	< 0.1	< 0.01	1,135
2031	1,133	< 0.1	< 0.01	1,135
2032	1,136	< 0.1	< 0.01	1,137
2033	1,132	< 0.1	< 0.01	1,134
2034	96	< 0.01	< 0.01	96
Total	17,948	2.8	0.06	18,037
Amortized Emissions (30 years)	598	0.095	< 0.01	601
Threshold	–	–	–	900
Exceeds Threshold?	N/A	N/A	N/A	No

Notes: MT = Metric Tons; CO_2 = Carbon Dioxide; CH_4 = Methane; N_2O = Nitrous Oxide; CO_2e = Carbon Dioxide Equivalents

Source: Modeling by Ascent Environmental 2021

Project construction emissions, when amortized over 30 years, would be 601 $MTCO_2e$ per year, which is below the 900 $MTCO_2e$ per year significance threshold. Thus, this impact would be less than significant, and no mitigation is required.

Operational energy use is anticipated to be reduced when compared to existing conditions, thereby reducing operation-related GHG emissions. Specifically, the floating dry dock would no longer need to be relocated to another berth outside of the leasehold during vessel launches from the inclined building ways or building dock. The floating dry dock would instead be repositioned to the "Lot 20" temporary location, which is closer to the home position. As such, the proposed project would result in reduced energy consumption associated with tug trips during operations when compared to existing conditions. In addition, the diesel generators on the new floating dry dock would be U.S. EPA Tier 4-rated and would be outfitted with a closed-loop cooling water system. These new engines would improve energy efficiency when compared with existing Tier 0 diesel engines. Moreover, the new floating dry dock would be outfitted with an extensive electrical distribution system, as well as a modern electric salt water pumping system to minimize the need for portable diesel salt water pumps, which would further improve energy efficiency. Lastly, the new Repair Complex Wharf would create a centralized laydown area to support ship repair operations in the vicinity of the floating dry dock. This centralized laydown area is anticipated to reduce the distance of forklift trips, and associated energy consumption, throughout the shipyard when compared with existing conditions. Thus, operational emissions under the proposed project would be decreased compared to existing conditions and operational GHG emissions associated with the proposed project would be less than significant.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less-than-significant impact. Reducing GHG emissions in California has been the focus of the State government for approximately two decades (CARB 2020b). GHG emission targets established by the State legislature include reducing

statewide GHG emissions to 1990 levels by 2020 (AB 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (SB 32 of 2016). EO S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. EO B-55-18 calls for California to achieve carbon neutrality no later than 2045 and achieve and maintain net negative GHG emissions thereafter. These targets align with the scientifically established levels needed globally to limit the rise in global temperature to no more than 2°C, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected. These targets also align with efforts to limit the temperature increase even further to 1.5°C (UN 2015:3).

The 2017 Scoping Plan, prepared by CARB, outlines the main strategies California shall implement to achieve the legislated GHG emission target for 2030 and "substantially advance toward our 2050 climate goals" (CARB 2017:1, 3, 5, 20, 25–26). The plan identifies the reductions needed by each GHG emission sector including transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste. The State has also passed more detailed legislation addressing GHG emissions associated with industrial sources, transportation, electricity generation, and energy consumption. CARB and other agencies are charged with implementing regulations that achieve the reduction goals on a statewide basis, including through increased building efficiency (through California Building Code updates) and vehicle efficiency (through truck and car rulemaking), among other things. Those statewide regulations apply to ensure local construction and operation increase efficiencies toward achievement of statewide GHG emissions reduction goals.

At the local level, the District adopted their CAP in December 2013 and identified the District's reduction goals and measures to be implemented to achieve the reduction goals set forth in AB 32 and long-term goals beyond 2020. The CAP includes an inventory of existing (2006) and projected emissions in 2020, 2035, and 2050, as well as strategies to meet the District's goal of reducing annual GHG emissions to 25 percent below 2006 levels by 2035 (San Diego Unified Port District 2013). To achieve the Port's goals, the CAP details various GHG reduction measures related to transportation and land use, alternative energy generation, energy conservation, waste reduction and recycling, water conservation, and recycling. Therefore, AB 32, SB 32, and the District's CAP represent the most applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions.

The Port's CAP meets the criteria within State CEQA Guidelines Section 15183.5 of the CEQA Guidelines by providing reduction targets that align with statewide goals. A critical aspect of having a CAP that fits the criteria within State CEQA Guidelines Section 15183.5 is having reduction targets that align with statewide goals. Because the Port's reduction targets outlined in the CAP parallel the State's commitment in AB 32, and aligns with statewide goals to reduce GHG emissions, the CAP is consistent with AB 32. While the Port's CAP includes a long-term 2035 goal, it does not include post-2020 reduction quantification. Therefore, the CAP cannot be used as a qualified plan for reduction of GHG emissions pursuant to Section 15183.5 of the CEQA Guidelines for projects with a post-2020 buildout date.

Plans, policies, and regulations adopted for the purpose of reducing GHG emissions were developed with the intent of reducing cumulative emissions related, primarily, to long-term operational emissions. As described previously, the project would not result in a considerable increase in GHG emissions as a result of construction activities, which would temporarily generate GHG emissions below the 900 $MTCO_2e$ threshold. The proposed project would not increase operational shipbuilding/repair capacity at the project site and would, therefore, not result in a long-term increase in GHG emissions. In fact, the repair and replacement of the dry dock and other infrastructure would increase efficiency by reducing transit distances and fuel consumption, thus lowering operational GHG emissions at the project site. Other CAP GHG reduction measures, such as reducing building energy use, relying more on alternative energy generation, as well as reductions in water use and waste generation, are not applicable to the currently proposed project. The current project would therefore be consistent with GHG reduction goals and efficiency requirements of the District's CAP, as well as statewide planning efforts, and would not result in a permanent increase in GHG emissions. Thus, the project would not conflict with any applicable plan, policy, or regulation adopting for the purpose of reducing emissions of GHGs. This impact would be less than significant, and no mitigation is required.

Required Mitigation Measures

The project would not result in significant impacts related to greenhouse gas emissions. Mitigation measures are not required.

4.9 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. Hazards and Hazardous Materials.				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	☒

4.9.1 Environmental Setting

HISTORICAL ACTIVITIES

The project site is within the NASSCO leasehold, which consists of a full-service ship construction, modification, repair, and maintenance facility that spans 126 acres of tidelands property on the San Diego Bay waterfront. NASSCO has conducted shipyard operations at this site since 1960. NASSCO's shipyard facilities have included concrete platens used for steel fabrication, a graving dock, shipbuilding ways, and berths on piers or land to accommodate the berthing of ships.

SURROUNDING LAND USES AND ACTIVITIES

BAE Systems operates a shipyard facility located immediately northwest of the project site, which is used to modernize, repair, and overhaul marine vessels. The BAE Systems shipyard facility includes administrative offices, production shops, training areas, parking and staging areas, floating drydocks, concrete platforms, piers, marine railways, and related utilities and infrastructure. Hazardous materials are stored and used within the BAE Systems leasehold as part of their operations. The BAE Systems facilities also generate hazardous waste classified as ignitable waste, methyl ethyl ketone, and spent nonhalogenated solvents.

Industrial land uses north of the project site across Harbor Drive and the railroad ROW include a metal fabrication shop; gas station; recycling services centers; meat wholesaler; paint stores; and automobile service, repair, and storage facilities. Naval Base San Diego, which conducts waterfront operations and fleet support of the U.S. Navy, is located immediately east and southeast of the project site.

EXISTING ONSITE STORAGE, USE, AND DISPOSAL OF HAZARDOUS MATERIALS

As established by RCRA, the U.S. EPA administers a program to regulate the generation, transport, treatment, storage, and disposal of hazardous waste. Existing operations with the NASSCO shipyard involve the routine use and storage of hazardous materials and generation of hazardous waste. Waste generated at the facility includes spent abrasive, paint, rust, petroleum products, marine growth, sanitary waste, and general refuse. According to the Department of Toxic Substances Control (DTSC) Hazardous Waste Tracking System, NASSCO generated approximately 106.5 tons of waste subject to RCRA regulations in 2020, including ignitable waste, corrosives, benzene, and methyl ethyl ketone (DTSC 2021a).

HAZARDOUS MATERIALS DATABASE RESULTS

The State Water Resources Control Board (SWRCB) GeoTracker database contains records for sites that require cleanup, including leaking underground storage tank (LUST) sites, cleanup program sites, military cleanup sites, and other sites with potential for soil and groundwater contamination. The GeoTracker database identifies six cleanup program sites associated with the NASSCO leasehold. The cleanup for five of these sites has been completed and the cases for these five sites have been closed with dates ranging from 1986 to 2018 (SWRCB 2021). The active cleanup program site, a shipyard sediment site, is undergoing verification monitoring as of July 9, 2018. Year 5 remedial performance monitoring sampling was completed at the site in July 2021 and a Year 5 Post-Remedial Report was prepared in February 2022. The cleanup program site encompasses the entire 56 water acres of the NASSCO and BAE Systems leaseholds and is a result of discharges of metals and other pollutant wastes that caused the accumulation of pollutants in bay bottom marine sediments. Additional information about the cleanup program site is provided in the Historical Contamination section below.

DTSC EnviroStor database tracks cleanup, permitting, enforcement and investigation efforts at hazardous waste facilities and sites with known contamination or sites where there may be reasons to investigate further. The EnviroStor database identifies one hazardous waste site associated with the NASSCO shipyard. In 1999, NASSCO signed a Consent Agreement for Corrective Action with DTSC for hazardous waste identified in the vicinity of the NASSCO Building 6 Sump. As of 2016, approximately 20 tons of mixed asphalt and concrete and 66.8 tons of soil contaminated with metals, volatile organic compounds, semivolatile organic compounds, and petroleum hydrocarbons were removed from the site. DTSC concurred that the site cleanup goals were met and the site is undergoing monitoring (DTSC 2021b).

Within a 0.5-mile radius of the project site, there are several LUST cleanup sites, cleanup program sites, and DTSC cleanup sites associated with nearby industrial properties. The open sites and sites needing evaluation are listed in Table 4.9-1 below.

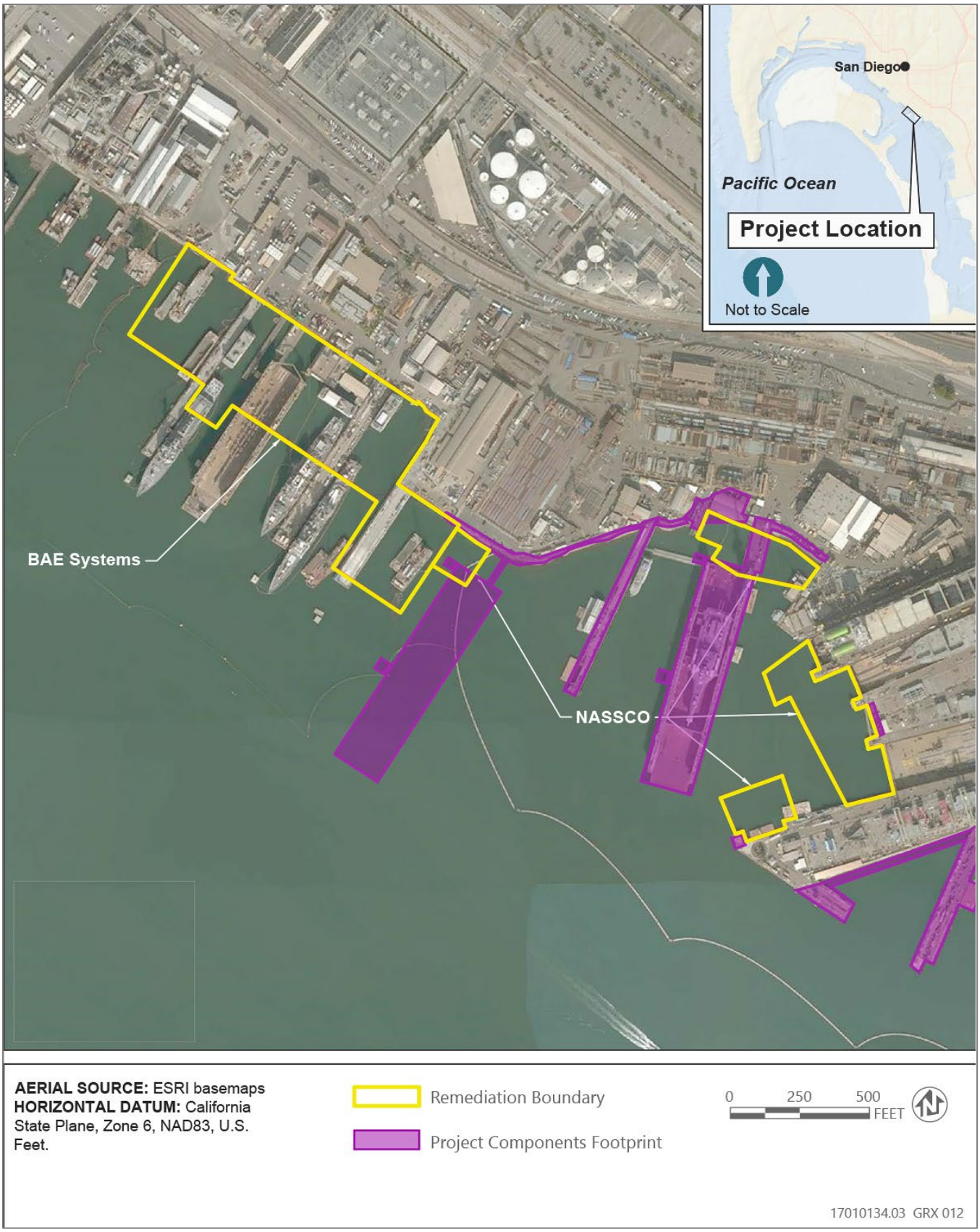
HISTORICAL CONTAMINATION

In 2012, the San Diego RWQCB issued Cleanup and Abatement Order (CAO) R9-2012-0024 for sediment contamination within the NASSCO and BAE Systems leaseholds. The contamination boundary of the CAO is collectively referred to as the shipyard sediment site and is depicted on Figure 4.9-1. The shipyard sediment site was divided into the North Shipyard (the property leased by BAE Systems) and the South Shipyard (the property leased by NASSCO). The CAO established cleanup levels for primary contaminants of concern (COC) of metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), butyl tin species, polychlorinated biphenyls (PCBs), polychlorinated terphenyls (PCT), polynuclear aromatic hydrocarbons (PAH), and total petroleum hydrocarbons (TPH).

Table 4.9-1 Hazardous Waste Sites within a 0.5-Mile Radius of the Project Site (Open or Needing Evaluation)

Site Name	Address	Site Type	Status	Potential Contaminants of Concern	Potential Media of Concern
Carlson & Beauloye	2141 Newton Ave, San Diego, CA 92113	Cleanup Program Site	Open – Site Assessment as of 8/1/2018	None Specified	None Specified
Chevron Harbor Terminal – Lower Tank Farm	2295 Belt St, San Diego, CA 92113	DTSC Cleanup Site - Evaluation	Refer: 1248 Local Agency as of 9/13/2001	None Specified	None Specified
Chevron USA Inc.	2351 Harbor Dr, San Diego, CA 92113	Cleanup Program Site	Open – Site Assessment as of 6/16/1993	Gasoline	Other Groundwater (uses other than drinking water)
Chevron USA Inc.	2351 Harbor Dr, San Diego, CA 92113	LUST Cleanup Site	Open – Verification Monitoring as of 1/1/2011	Diesel, Gasoline	Other Groundwater (uses other than drinking water)
CP Kelco	2025 E. Harbor Dr, San Diego, CA 92113	DTSC Cleanup Site - Evaluation	Refer: 1248 Local Agency as of 4/12/2021	None Specified	None Specified
Kelco	2145 E. Belt St, San Diego, CA 92113	DTSC Cleanup Site - Evaluation	Refer: 1248 Local Agency as of 1/23/2001	None Specified	None Specified
NutraSweet Kelco Co.	2145 E. Belt St, San Diego, CA 92113	DTSC Cleanup Site – Tiered Permit	Inactive – Needs Evaluation	None Specified	None Specified
OFL 2292 LLC	2292 National Ave, San Diego, CA 92113	Cleanup Program Site	Open – Site Assessment as of 4/26/2019	None Specified	None Specified
Pacific Treatment Corp.	2146 Main St, San Diego, CA 92113	DTSC Cleanup Site - Corrective Action	Inactive – Needs Evaluation	None Specified	None Specified
Sampson Street Site	Sampson Street	Cleanup Program Site	Open – Inactive as of 1/14/2019	Tetrachloroethylene (PCE), Trichloroethylene (TCE)	Indoor Air, Soil Vapor
SDG&E and BAE Systems Northern Sediment Delineation Investigation	2145 East Belt St, San Diego, CA 92113	Cleanup Program Site	Open – Site Assessment	Other Metal, Polychlorinated Biphenyls (PCB)	Sediments, Soil, Surface Water, Under Investigation
SDG&E Environmental Department	1348 Sampson St, San Diego, CA 92113	Cleanup Program Site	Open – Site Assessment as of 11/30/2006	None Specified	None Specified
SDG&E Silvergate Substation	1348 Sampson St, San Diego, CA 92113	LUST Cleanup Site	Open – Assessment & Interim Remedial Action as of 11/5/2018	Gasoline, Other Solvent or Non-Petroleum Hydrocarbon	Soil, Surface Water
Arc Castle Engineering	3106 Main St, San Diego, CA 92113	DTSC Cleanup Site - Evaluation	Refer: 1248 Local Agency as of 4/22/2004	None Specified	None Specified

Source: SWRCB 2021; DTSC 2021b



Source: Anchor QEA, LLC 2014

Figure 4.9-1 Shipyard Sediment Site Remediation

The project site lies within the South Shipyard boundary. Remedial activities under the CAO for the South Shipyard were initiated in September 2013 and completed in March 2014. The Final Cleanup and Abatement Completion Report San Diego Shipyard Sediment Site – South Shipyard (Anchor QEA, LLC 2014) indicated that approximately 28,660 cubic yards (cy) of contaminated sediments were dredged from the South Shipyard sediment site. Impacted sediment that could not be removed due to risk of undermining slopes or existing pier structures was covered with a sand or gravelly sand cover. Approximately 19,760 tons of sand material were placed as cover. The South Shipyard site was moved into post-remedial monitoring to evaluate the effectiveness of the remedial action. In compliance with the CAO, remedial actions were completed at the site in early 2016. The CAO did not address sediments with concentrations in excess of the cleanup levels in areas that were located under existing in-water infrastructure. Although the RWQCB concurred that the cleanup was performed to their satisfaction, it allowed for sediments with concentrations in excess of the cleanup levels to be left in-place and covered.

The CAO R9-2012-0024 stipulated post-remedial monitoring would be conducted 2 years (2018) and 5 years (2021) after the completion of the remediation to confirm remedial goals continue to be achieved. With respect to the remedial actions required by the CAO, the Work Plan for the San Diego Shipyards Post-Remedial Monitoring (PRMP) required remedial performance monitoring (composite chemistry, discrete sample chemistry analysis for benthic exposure, sediment toxicity testing, and bioaccumulation testing) in Years 2 and 5 (and possibly Year 10, if deemed warranted), and benthic community recovery monitoring in Years 3 and 4 (Exponent 2012). The PRMP is intended to verify that the remedial actions are effective in reducing and maintaining chemical concentrations in sediments to an acceptable level, as determined by the RWQCB. NASSCO provided notice of its proposed field work related to Year 5 post-remedial monitoring to the RWQCB on June 15, 2021. The RWQCB will review the Year 5 post-remedial monitoring report prepared by NASSCO for consistency with the PRMP, the CAO, and implementation and continued effectiveness of the remedial actions.

Schools and Airports

The closest school is the Logan Memorial Educational Campus at 2875 Oceanview Avenue, approximately 0.4 mile north of the project site. The closest public airport is the San Diego International Airport, approximately 3.3 miles northwest of the project site. In addition, the North Island Naval Air Station is a naval air station approximately 2.8 miles northwest of the project site.

Wildland Fire Hazard

The project site is over water, lacks vegetation, and is within a developed, urban area that is not susceptible to wildland fire. As discussed further in Section 4.20, the project site is designated by the California Department of Forestry and Fire Protection (CAL FIRE) as a non-Very High Fire Hazard Severity Zone (VHFHSZ) (CAL FIRE 2009).

4.9.2 Regulatory Setting

FEDERAL

Federal Toxic Substances Control Act/Resource Conservation and Recovery Act/Hazardous and Solid Waste Act Amendments

The federal Toxic Substances Control Act (1976) and the RCRA of 1976 established a program, which is administered by the U.S. EPA, to regulate the generation, transport, treatment, storage, and disposal of hazardous waste. Under RCRA regulations, hazardous wastes must be tracked from the time of generation to the point of disposal. The RCRA program also establishes standards for hazardous waste treatment, storage, and disposal units, which are intended to have hazardous wastes managed in a manner that minimizes present and future threats to the environment and human health. At a minimum, each generator of hazardous waste must register and obtain a hazardous waste activity identification number. If hazardous wastes are stored for more than 90 days or treated or disposed of at a facility, any treatment, storage, or disposal unit must be permitted under the RCRA. The RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the "cradle to grave" system of regulating hazardous materials.

Department of Transportation Hazardous Materials Regulations (49 CFR 100-185)

U.S. Department of Transportation (DOT) Hazardous Materials Regulations (49 CFR 100–185) cover all aspects of hazardous materials packaging, handling, and transportation. Parts 107 (Hazard Materials Program), 130 (Oil Spill Prevention and Response), 172 (Emergency Response), 173 (Packaging Requirements), 177 (Highway Transportation), 178 (Packaging Specifications), and 180 (Packaging Maintenance) would all apply to goods movement to and from the project site.

Enforcement of these DOT regulations is shared by each of the following administrations under delegations from the Secretary of the DOT:

- Research and Special Programs Administration is responsible for container manufacturers, reconditioners, and retesters and shares authority over shippers of hazardous materials.
- Federal Highway Administration (FHWA) enforces all regulations pertaining to motor carriers.
- Federal Railroad Administration enforces all regulations pertaining to rail carriers.
- Federal Aviation Administration (FAA) enforces all regulations pertaining to air carriers.
- U.S. Coast Guard (USCG) enforces all regulations pertaining to shipments by water.

Spill Prevention Control and Countermeasure Plans (40 CFR 112.7)

Spill Prevention Control and Countermeasure (SPCC) plans are required for facilities in which construction and removal operations involve oil in the vicinity of navigable waters or shorelines. SPCC plans ensure that facilities implement containment and other countermeasures that would prevent oil spills from reaching navigable waters. SPCC plans are regulations administered by the U.S. EPA. Preparation of an SPCC Plan is required for projects that meet three criteria: (1) the facility must be non-transportation-related, or, for construction, the construction operations involve storing, using, transferring, or otherwise handling oil; (2) the project must have an aggregate aboveground storage capacity greater than 1,320 gallons or completely buried storage capacity greater than 42,000 gallons; and (3) there must be a reasonable expectation of a discharge into or upon navigable waters of the United States or adjoining shorelines. For construction projects, for criterion (1), 40 CFR 112 describes the requirements for implementing SPCC plans. The following three areas should clearly be addressed in a SPCC plan:

- Operating procedures that prevent oil spills;
- Control measures installed to prevent a spill from reaching navigable waters; and
- Countermeasures to contain, clean up, and mitigate the effects of an oil spill that reaches navigable waters.

U.S. Coast Guard 33 CFR and 46 CFR

USCG, through Title 33 (Navigation and Navigable Waters) and Title 46 (Shipping) of the CFR, is the federal agency responsible for vessel inspection, marine terminal operations safety, coordination of federal responses to marine emergencies, enforcement of marine pollution statutes, marine safety (such as navigation aids), and operation of the National Response Center for spill response, and is the lead agency for offshore spill response. USCG implemented a revised vessel-boarding program in 1994 designed to identify and eliminate substandard ships from U.S. waters. The program pursues this goal by systematically targeting the relative risk of vessels and increasing the boarding frequency on high risk (potentially substandard) vessels. The relative risk of each vessel is determined through the use of a matrix that factors the flag of the vessel, owner, operator, classification society, vessel particulars, and violation history. Vessels are assigned a boarding priority from I to IV, with priority I vessels being the potentially highest risk and priority IV having relatively low risk.

Emergency Planning and Community Right-To-Know Act (42 U.S.C. 11001 et seq.)

The Emergency Planning and Community Right-to-Know Act was enacted by Congress as the national legislation on community safety in 1986, as Title III of the Superfund Amendments and Reauthorization Act. This law was designated to help local communities protect public health, safety, and the environment from chemical hazards. To implement this act, Congress required each state to appoint a State Emergency Response Commission. The State Emergency

Response Commissions are required to divide their states into Emergency Planning Districts and to name a Local Emergency Planning Committee for each district. The act provides requirements for emergency release notification, chemical inventory reporting, and toxic release inventories for facilities that handle chemicals.

Occupational Safety and Health Act of 1970

The Occupational Safety and Health Act (OSHA) establishes the framework for safe and healthful working conditions for working men and women by authorizing enforcement of the standards developed under the act. The act also provides for training, outreach, education, and assistance related to establishing a safe working environment. Regulations defining safe standards have been developed for general industry, construction, maritime, recordkeeping, and agriculture. A major component of the act is the requirement that employers implement the OSHA Hazard Communication Standard to provide information to employees about the existence and potential risks of exposures to hazardous substances in the workplace. As part of the Hazard Communication Standard, employers must:

- Obtain material safety data sheets from chemical manufacturers that identify the types and handling requirements of hazardous materials used in given areas;
- Make the material safety data sheets available to their employees;
- Label chemical containers in the workplace;
- Develop and maintain a written hazard communication program; and
- Develop and implement programs to train employees about hazardous materials.
- OSHA standards specific to hazardous materials are listed in 29 CFR 1910 Subpart H. Safety and health regulations pertaining to construction are listed in 29 CFR 1926 Subpart H.

STATE

California Health and Safety Code (Hazardous Waste Control Act)

DTSC, a department of the California Environmental Protection Agency (Cal/EPA), is the primary agency in California for regulating hazardous waste, cleaning up existing contamination, and finding ways to reduce the amount of hazardous waste produced in California. DTSC regulates hazardous waste primarily under the authority of the federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5, also known as the Hazardous Waste Control Act). Division 20, Chapter 6.5, of the California Health and Safety Code identifies hazardous waste control regulations pertaining to transportation, treatment, recycling, disposal, enforcement, and the permitting of hazardous waste. Division 20, Chapter 6.10, identifies regulations applicable to the cleanup of hazardous materials releases. Title 22, Division 4.5, contains environmental health standards for the management of hazardous waste, as well as standards for the identification of hazardous waste (Chapter 11), and standards that are applicable to transporters of hazardous waste (Chapter 13).

Environmental Health Standards for the Management of Hazardous Waste (California Code of Regulations Title 22, Division 4.5, Section 66001 et seq.)

The Environmental Health Standards for the Management of Hazardous Waste (22 CCR 66001 et seq.) establish requirements for the management and disposal of hazardous waste in accordance with the provisions of the state Hazardous Waste Control Act and federal RCRA.

California Code of Regulations, Title 8 – Industrial Relations

Title 8 of the California Code of Regulations, Section 1532.1 is a rule developed by the federal OSHA in 1993 and adopted by the state of California. Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The federal OSHA and the California Division of Occupational Safety and Health (Cal/OSHA) are responsible for ensuring worker safety in the workplace. Cal/OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. These standards would be applicable to both construction and operation of the proposed project. Title 8 includes

regulations pertaining to hazard control (including administrative and engineering controls), hazardous chemical labeling and training requirements, hazardous exposure prevention, hazardous material management, and hazardous waste operations.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (California Health and Safety Code, Chapter 6.11, Sections 25404-25404.9)

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the environmental and emergency response programs and provides authority to the Certified Unified Program Agency (CUPA). The CUPA for San Diego County is the San Diego County Department of Environmental Health's Hazardous Materials Division (HMD), which has the responsibility and authority for implementing and enforcing the requirements listed in Chapter 6.5 (commencing with Section 25100), Chapter 6.67 (commencing with Section 25270), Chapter 6.7 (commencing with Section 25280), Chapter 6.95 (commencing with Section 25500), and Sections 25404.1 and 25404.2, including the following:

- Aboveground Petroleum Storage Act Requirements for SPCC Plans. Facilities with a single tank or cumulative aboveground storage capacities of 1,320 gallons or greater of petroleum-based liquid product (e.g., gasoline, diesel, lubricants) must develop an SPCC plan. An SPCC plan must be prepared in accordance with the oil pollution prevention guidelines in 40 CFR 112. This plan must describe the procedures, methods, and equipment needed at the facility to prevent discharges of petroleum from reaching navigable waters. A registered professional engineer must certify the SPCC plan, and a complete copy of the plan must be maintained on site.
- California Accidental Release Prevention Program. This program requires any business that handles more than threshold quantities of an extremely hazardous substance to develop a Risk Management Plan. The Risk Management Plan is implemented by the business to prevent or mitigate releases of regulated substances that could have offsite consequences through hazard identification, planning, source reduction, maintenance, training, and engineering controls.
- Hazardous Materials Business Plan/Hazardous Materials Inventory Statements. Hazardous Materials Business Plans contain basic information regarding the location, type, quantity, and health risks of hazardous materials and/or waste. Each business must prepare a Hazardous Material Business Plan if that business uses, handles, or stores a hazardous material and/or waste or an extremely hazardous material in quantities greater than or equal to the following:
  - 55 gallons for a liquid;
  - 500 pounds for a solid;
  - 200 cubic feet for any compressed gas; or
  - Threshold planning quantities of an extremely hazardous substance.
- Hazardous Waste Generator Program.
  - This program regulates businesses that generate any amount of a hazardous waste. Proper handling, recycling, treating, storing, and disposing of hazardous waste are key elements to this program.
- Tiered Permitting Program.
  - This program regulates the onsite treatment of hazardous waste.
- Underground Storage Tank Program.
  - This program regulates the construction, operation, repair, and removal of underground storage tanks that store hazardous materials and/or waste.

California Labor Code (Division 5, Parts 1 and 7)

California Labor Code regulations ensure appropriate training regarding the use and handling of hazardous materials and the operation of equipment and machines that use, store, transport, or dispose of hazardous materials. Division 5, Part 1, Chapter 2.5, ensures that employees who handle hazardous materials are appropriately trained and informed about the materials. Division 5, Part 7, ensures that employees who work with volatile flammable liquids are outfitted with appropriate safety gear and clothing.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (embodied in the California Water Code) of 1969 (Porter-Cologne Act) is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the state must adopt water quality policies, plans, and objectives that protect its waters for the use and enjoyment of the people. Under the California Water Code, the State of California is divided into nine regions governed by RWQCBs that, under the guidance and review of the SWRCB, implement and enforce provisions of the California Water Code and the CWA. The project site is in Region 9, the San Diego Region, and governed by the San Diego RWQCB (see also Section 4.10, Hydrology and Water Quality).

Chapter 5, Enforcement and Implementation, Section 13304 Cleanup and Abatement, of the California Water Code outlines the RWQCB or SWRCB's authority to order cleanup and abatement efforts to an entity that has discharged waste or has allowed the discharge of waste to waters of the state, or threatens to create a condition of pollution (California Water Code, Chapter 5, Section 13304).

A cleanup and abatement order issued by the SWRCB or RWQCB may require the cleanup of waste or abatement of the effects of waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts. California Water Code Section 13267, Investigations, inspections, outlines the RWQCB's authority to issue an investigative order. The RWQCB, in establishing or reviewing any water quality control plan or waste discharge requirements, or in connection with any action related to a plan or discharge requirements, may investigate the quality of waters within the region. The RWQCB can require that responsible parties investigate the discharge or threatened discharge of toxic pollutants.

State Water Resources Control Board Resolution Number 92-49 and 68-16

SWRCB Resolution Number 92-49 – Policies and Procedures for the Investigation and Cleanup and Abatement of Discharges Under Section 13304 was adopted by the SWRCB in 1992. The resolution contains policies and procedures for the RWQCBs to follow for the oversight and regulation of investigations and cleanup and abatement activities for all types of discharges as described in Section 13304 of the California Water Code (described above). Resolution No. 92-49 also provides the requirements of establishing and maintaining a site's containment zone.

Water Quality Control Plans

The preparation and adoption of water quality control plans (basin plans) is required by the California Water Code (Section 13240) as prescribed by the CWA. Section 303 of the CWA requires states to adopt water quality standards that "consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses." According to Section 13050 of the California Water Code, basin plans consist of a designation or establishment of beneficial uses to be protected, water quality objectives to protect those uses, and a program of implementation needed for achieving the objectives for the waters within a specified area. Because beneficial uses, together with their corresponding water quality objectives, can be defined per federal regulations as water quality standards, basin plans are regulatory references for meeting the state and federal requirements for water quality control.

The Water Quality Control Plan for the San Diego Basin (Basin Plan), which was adopted by the San Diego RWQCB in 1994 and updated in 2016, designates the Beneficial Uses and Water Quality Objectives for water bodies under its jurisdiction (San Diego RWQCB 1994).

LOCAL

RWQCB Municipal Stormwater Permit (Order No. R9-2013-0001)

The Municipal Stormwater Permit (Order No. R9-2013-0001 as amended by Order Nos. R9-2015-001 and R9-2015-0100) is a National Pollutant Discharge Elimination System (NPDES) Permit issued that requires the owners and operators of Municipal Separate Storm Sewer Systems (MS4s) within the San Diego region to implement management programs to limit discharges of pollutants and non-stormwater discharges to and from their MS4 from all phases of development. The Municipal Stormwater Permit requires the District and other "copermittees" to develop watershed-based Water Quality Improvement Plans. The Municipal Stormwater Permit emphasizes watershed program planning and program outcomes. The intent of the permit is to enable each jurisdiction to focus its resources and efforts to:

- Reduce pollutants in stormwater discharges from its MS4,
- Effectively prohibit non-stormwater discharges to its MS4, and
- Achieve the interim and final Water Quality Improvement Plan numeric goals.

San Diego County Code, Title 6, Division 8

San Diego County Code of Regulatory Ordinances under Title 6, Division 8, Chapters 8 through 11 establish the HMD as the local CUPA. The HMD is responsible for the protection of public health, safety, and the environment and inspects businesses or facilities that handle or store hazardous materials, generate hazardous waste, generate medical waste, and own or operate underground storage tanks. HMD also administers the California Accidental Release Prevention Program and the Aboveground Petroleum Storage Act Program, and provides specialized instruction to small businesses through its Pollution Prevention Specialist. HMD has the authority under state law to inspect facilities with hazardous materials or hazardous waste and, in cases where a facility is in non-compliance with the applicable state law or regulations, take enforcement action.

Projects are required to notify HMD regarding the use, handling, release (spills), storage, and/or disposal of hazardous materials and hazardous waste in accordance with existing state law and County ordinance. The notification is the initial step in the HMD permitting process, which requires businesses that handle or store hazardous materials, are part of the California Accidental Release Prevention Program, generate or treat hazardous wastes, generate or treat medical waste, store at least 1,320 gallons of aboveground petroleum, or own and/or operate underground storage tanks to obtain and maintain a Unified Program Facility Permit. The online notification must be done using the State of California Environmental Reporting System by the applicant/permittee requesting a permit and submitted within 30 days.

San Diego Unified Port District, Article 10

The District's Article 10, the Port Stormwater Management and Discharge Control Ordinance, prohibits the deposit or discharge of any chemicals or waste to the tidelands or San Diego Bay and makes it unlawful to discharge pollutants directly into non-stormwater or indirectly into the stormwater conveyance system.

4.9.3 Discussion

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-than-significant impact. Construction of the project would involve the use of hazardous materials such as fuels, lubricants, and solvents for construction equipment operation and maintenance. These materials would be properly stored, handled, used, and disposed of in accordance with applicable regulations and laws described in Section 4.9.2, which include RCRA; U.S. DOT Hazardous Materials Regulations; California Health and Safety Code; and San Diego County Code, Title 6, Division 8. In addition, OSHA provides specific standards for maintaining safe and healthy working conditions pertaining to hazardous materials; listed in 29 CFR 1910 Subpart H. Project construction would

also require the disposal of creosote-treated wood waste, which is regulated by Division 20, Chapter 6.5, and Title 22, Division 4.5 of the California Health and Safety Code (refer to Section 4.9.3[b] for additional information). A licensed contractor would be responsible for the removal, transportation, and disposal of the removed piles in accordance with these regulations. Any accidental release of hazardous materials due to spills or leaks would be cleaned up in the normal course of business, consistent with the above-mentioned regulations. Compliance with the above-listed regulations would ensure the safe transport, use, and disposal of hazardous materials, such that construction-related hazardous materials impacts would be less than significant.

Following completion of construction, the project would not increase the project site's operational capacity and would, therefore, not increase the use of hazardous materials on the site. The transport, use, and disposal of any hazardous materials would continue to occur in compliance with the above-mentioned regulations. As such, operational impacts related to the routine transport, use, or disposal of hazardous materials would be less than significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Less than significant with mitigation incorporated. As described above, project construction would involve the temporary use and disposal of hazardous materials and wastes, including fuels, lubricants, and solvents. These materials would be properly stored, handled, used, and disposed of in accordance with applicable regulations and laws. Although the project would comply with applicable regulations and laws, hazardous materials could be accidentally released into the San Diego Bay, which could result in a potentially significant impact to the public and wildlife (**Impact-HAZ-1**). Mitigation measures **MM-HAZ-1 through MM-HAZ-9** would be implemented, which include procedures for prevention and containment of accidental leaks and spills, routine inspection and instrumentation of equipment, worker training, and visual hazardous materials monitoring. Compliance with regulations and implementation of measures **MM-HAZ-1 through MM-HAZ-9** would ensure that project construction would not create a hazard to the public or environment and **Impact-HAZ-1** would be reduced to less than significant.

Removal of the existing Repair Complex Wharf is anticipated to generate approximately 100 creosote-treated timber piles. Creosote is a tar-based substance that was used to preserve wood against rot but was found to be carcinogenic to humans and toxic to marine life through bioaccumulation. As such, the removal and disposal of the existing piles would have a temporary potential to create a hazard to construction workers and environment during construction, which would be a potentially significant impact. The handling, transportation, and disposal of creosote-treated wood is regulated by Division 20, Chapter 6.5, and Title 22, Division 4.5 of the California Health and Safety Code. In addition, OSHA provides specific standards for maintaining safe and healthy working conditions pertaining to hazardous materials; listed in 29 CFR 1910 Subpart H. A licensed contractor would be responsible for the removal, transportation, and disposal of the removed piles in accordance with these regulations. The contractor would first remove the piles from their existing positions in the San Diego Bay floor via crane. The removed materials would then be temporarily placed in a container located on the barge. The timber piles would be managed and manifested as hazardous waste and transported for disposal at a landfill that accepts hazardous waste. Compliance with these regulations would ensure the safe management and proper disposal of creosote-treated wood and that any related hazardous materials impacts would be less than significant. Following the removal and disposal of the existing piles, new concrete or steel fender piles that would not contain a creosote coating would be installed in place of the existing wood piles. Therefore, in the long-term, the project would be beneficial because it would reduce the risk of exposure by humans and marine life to the toxic creosote coating.

In addition, as discussed in Section 4.9.1, the San Diego RWQCB issued CAO No. R9-2012-0024 for the cleanup of marine sediments within the NASSCO leasehold. As described in the CAO, the COCs include metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), butyl tin species, PCBs, PCTs, PAHs, and TPH. Remedial actions were completed in early 2016, including the removal of sediment and placement of clean cover material. The site is currently undergoing remedial monitoring to ensure that the goals in the CAO are being met (SWRCB 2021). As discussed above, the PRMP required remedial performance monitoring in Years 2 and 5 (and

possibly Year 10, if deemed warranted), and benthic community recovery monitoring in Years 3 and 4. This monitoring is intended to verify that the remedial action required pursuant to the CAO is effective. It should be noted that, while remedial actions were implemented, remedial actions were not implemented across the entire NASSCO leasehold, which is encompassed by the CAO. Because the project site is within an area of identified, known contamination, as evidenced by the CAO and associated investigations, in-water construction activities could involve the disturbance of cover material resulting in the exposure of underlying contaminated sediment to the environment which would be a significant impact (Impact-HAZ-2). The CAO and associated remedial documents identified contaminants of concern (COCs) and specified COC levels that were required to be achieved through remedial action. To address the potential for releasing contaminated sediment to the environment, MM-HAZ-10 and MM-HAZ-11 would be implemented, which would require implementation of a sediment management program and post-waterside construction remediation. In addition, MM-WQ-1 and MM-WQ-2 would require implementation of silt curtains to contain spread of sediment and nest practices for construction activities that would disturb the bay floor. With implementation of mitigation measures MM-WQ-1 and MM-WQ-2 described in Section 4.10 and MM-HAZ-10 and MM-HAZ-11, the project would not create a significant hazard to the public or environment from upset or accident conditions involving the release of impaired sediments into the environment, and Impact-HAZ-2 would be reduced to less than significant.

The project would not result in an expansion of the existing use of the site, an increase in shipbuilding and repair operations, or additional employees, other than those needed during construction. During operations, NASSCO would continue to comply with applicable regulations and laws that govern the use of hazardous materials and generation of hazardous waste, as described in Section 4.9.2. Therefore, project operations would not create a significant hazard to the public or environment from upset or accident conditions involving the release of impaired sediments into the environment, and impacts associated with operations would be less than significant.

As discussed in Section 4.9.1, there are several hazardous waste sites associated with nearby industrial properties within a 0.5-mile radius of the project site that are open or need further evaluation. However, the project would not require the disturbance of landside soils because no landside construction is proposed; therefore, the project would have no potential of exposing and releasing contaminated soils into the environment.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No impact. There are no existing or proposed schools within one-quarter mile of the project site. The closest school is the Logan Memorial Educational Campus at 2875 Oceanview Avenue, approximately 0.4 mile north of the project site. As such, the project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Therefore, no impact would occur.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less than significant with mitigation incorporated. The California Environmental Protection Agency lists the following data resources that provide information regarding facilities or sites identified in California Government Code 65962.5 (commonly referred to as the "Cortese List"):

- List of Hazardous Waste and Substances sites from the DTSC EnviroStor database,
- List of LUST sites from the SWRCB GeoTracker database,
- List of solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit,
- List of "active" Cease and Desist Actions (CDO) and CAO from the SWRCB, and
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by DTSC.

As listed in Table 4.9-1, there are several landside hazardous materials sites that are open or needing evaluation associated with nearby industrial properties within a 0.5-mile radius of the project site. However, the project would not require the disturbance of landside soils because no landside construction is proposed; therefore, the project is not anticipated to create a significant hazard to the public or environment from disturbing potentially contaminated soils on landside sites.

As discussed in Section 4.9.3(b), the project site is identified on the list of "active" CDO and CAO from the RWQCB as CAO R9-2012-0024. Remedial actions were completed at the project site; however, in-water construction activities could involve the disturbance of cover material which may lead to encountering and releasing contaminants associated with a hazardous materials site that is listed on a database complied pursuant to Government Code Section 65962.5 (**Impact-HAZ-3**). To address this potentially significant impact, **MM-HAZ-10** and **MM-HAZ-11** would be implemented. **MM-HAZ-10** would require implementation of a sediment management program and **MM-HAZ-11** would require post-waterside construction remediation. In addition, **MM-WQ-1 and MM-WQ-2** would require implementation of silt curtains to contain spread of sediment and best management practices for construction activities that would disturb the bay floor. With implementation of mitigation measures **MM-WQ-1 and MM-WQ-2** described in Section 4.10 and **MM-HAZ-10** and **MM-HAZ-11**, the project would not create a significant hazard to the public or environment regarding the impaired sediments, and **Impact-HAZ-3** would be less than significant with mitigation incorporated.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No impact. No public airports or private airstrips are within 2 miles of the project site. The closest public airport is the San Diego International Airport, approximately 3.3 miles northwest of the project site. In addition, the North Island Naval Air Station is approximately 2.8 miles northwest of the project site. According to the San Diego County Regional Airport Authority airport land use compatibility plans (ALUCP), the project site is not within the 60- or 65-decibel (dB) community noise equivalent level (CNEL) noise contours or within the boundaries of established safety zones for these airports (SDCRAA 2014: Exhibit 2-1, SDCRAA 2020: Exhibit 4). Therefore, the project would not result in a safety hazard or excessive noise for people working in the project area. No impact would occur. Refer to Section 4.11.2(b) for additional information regarding airport land use compatibility.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No impact. The San Diego County Office of Emergency Services adopted its Emergency Operations Plan (EOP) in September 2018. Highways in proximity to the project site include I-5, I-15, and SR 75, which are identified in the EOP as primary evacuation routes in San Diego County (County of San Diego 2018). Construction activities would be contained within the NASSCO leasehold and would occur over water. Therefore, emergency access to and from the project site along Harbor Drive and on designated evacuation routes would be maintained during project construction. Because project implementation would not expand the existing use of the site or expand existing shipyard operations, the project would not result in permanent changes to emergency access following construction. Thus, the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. No impacts would occur.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No impact. The project site is in a developed urban area on and adjacent to the San Diego Bay. The project site is over water, lacks vegetation, and is not in an area susceptible to wildland fire. As discussed further in Section 4.20, the project site is designated by CAL FIRE as a non-VHFHSZ (CAL FIRE 2009). Therefore, the project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fire. No impact would occur.

Required Mitigation Measures

With implementation of the following mitigation measures, impacts related to hazards and hazardous materials would be less than significant:

MM-HAZ-1: Secondary Containment Structures. The project applicant shall require its contractor to ensure that oils and fuels are contained in secondary containment structures during any demolition or construction activities so that spills and leaks are contained and prevented from entering the San Diego Bay. This measure shall be denoted on the construction plans and/or construction contract and proof of such denotation shall be submitted to the District's Director of Development Services Department.

MM-HAZ-2: Hazards-related Worker Training. Prior to commencing any demolition or construction activities, the project applicant shall require its contractor to provide training to construction workers on specific task areas, including potential hazards resulting from accidental oil and/or fuel spills, and proper equipment operation. This measure shall be denoted on the construction plans and/or construction contract and proof of such denotation shall be submitted to the District's Director of Development Services Department.

MM-HAZ-3: Equipment Inspection. Prior to commencing any demolition or construction activities, the contactor and equipment operators shall conduct equipment inspections prior to use to identify and address wear, faulty parts, and leaks. This measure shall be denoted on the construction plans and/or construction contract and proof of such denotation shall be submitted to the District's Director of Development Services Department.

MM-HAZ-4: Proper Equipment Instrumentation. Prior to commencing any demolition or construction activities, the project applicant shall require its contractor to identify required instrumentation for each piece of equipment to avoid spillage of material from the barge. This measure shall be denoted on the construction plans and/or construction contract and proof of such denotation shall be submitted to the District's Director of Development Services Department.

MM-HAZ-5: Hazardous Materials Monitoring. Prior to commencing any demolition or construction activities, the project applicant shall require its contractor to assign construction personnel to visually monitor for oil and fuel spills during construction. If oil spilled oil or fuel is detected, all equipment shall be shut down and the source of the spill shall be identified, contained, and reported. This measure shall be denoted on the construction plans and/or construction contract and proof of such denotation shall be submitted to the District's Director of Development Services Department.

MM-HAZ-6: Oil/Spills Kits. Prior to commencing any demolition or construction activities, the project applicant shall require its contractor to inform construction workers as to where oil/fuel spill kits are located, how to deploy the oil-absorbent pads, and proper disposal guidelines. The barge shall have a full complement of oil/fuel kits on-board to allow for quick and timely implementation of spill containment. This measure shall be denoted on the construction plans and/or construction contract and proof of such denotation shall be submitted to the District's Director of Development Services Department.

MM-HAZ-7: Barge Loading Procedures. Prior to commencing any demolition or construction activities, the project applicant shall require its contractor to identify barge load limits and loading procedures and shall mark the appropriate draft level on the materials barge hull. This measure shall be denoted on the construction plans and/or construction contract and proof of such denotation shall be submitted to the District's Director of Development Services Department.

MM-HAZ-8: Removed Pile Placement. When placing pulled and removed piles and debris in the barge, the project applicant shall require its contractor to employ a flattop barge with containment walls and "skip tubs" to prevent any sediment, wood, or metal debris from falling into the water. The contractor shall locate the barge as close to shore as possible when transferring materials and/or debris on and off of the work barge. If necessary, traps shall be utilized to prevent debris from falling into the water. This measure shall be denoted on the construction plans and/or construction contract and proof of such denotation shall be submitted to the District's Director of Development Services Department.

MM-HAZ-9: Removed Material Clean-up. The project applicant shall require its contractor to clean up marine growth from removed material before disposal. The project applicant shall also require its contractor to clean up debris generated from construction activities. The contractor shall restore any piers utilized for materials staging to pre-construction conditions. This measure shall be denoted on the construction plans and/or construction contract and proof of such denotation shall be submitted to the District's Director of Development Services Department.

MM-HAZ-10: Implement a (Waterside) Sediment Management Program. The project applicant shall retain a licensed Professional Engineer with substantial experience (i.e., more than 5 years) in marine sediment contamination, sediment sampling, and contamination remediation to oversee the implementation of a Sediment Management Program. The Sediment Management Program will be implemented prior to and throughout the duration of waterside construction activities for the proposed project. The Sediment Management Program shall include the following elements, each of which have specific timing mechanisms as identified in the description of each element below:

A. *Sampling Analysis Plan* (SAP): Prior to in-water demolition or construction that may potentially disturb sediment, a licensed Professional Engineer shall (1) delineate the area of potential disturbance (Disturbance Area); (2) develop an SAP; and (3) perform sediment sampling. The SAP shall set forth the methodology to be used, the locations where sampling would occur, analysis of the contaminants of concern (COC), and proper decontamination and disposal procedures. The sediment samples shall be tested for the presence of the COCs identified in the CAO R9-2012-0024.

   The sampling area and sampling methodology shall identify sample locations determined to be appropriate, at the discretion of the District and [Regional Water Quality Control Board] RWQCB (or other applicable agencies), to adequately characterize any Disturbance Area associated with project elements. All sediment sampling and analysis must occur prior to sediment-disturbing construction activity and shall be performed in accordance with the requirements of the SAP. The SAP must be submitted to the RWQCB for review and approval, and to the District for concurrence.

   The results of all sediment sampling shall be documented in a report and submitted to the RWQCB for their review and approval prior to any marine-side sediment-disturbing activities.

B. *Marine Sediment Contamination Characterization Report (Sediment Characterization Report)*: Prior to in-water construction, the licensed Professional Engineer shall prepare a Sediment Characterization Report delineating the vertical and lateral extent and concentration of the project site's potential COCs in areas where pile driving or removal and other sediment-disturbing activities are proposed as part of this project. The Sediment Characterization Report shall be developed taking into account the site assessment reports, final cleanup reports, and post-remediation monitoring reports associated with the San Diego Shipyard Sediment Cleanup – South Shipyard, and sediment sampling performed per the SAP. The project applicant shall submit the Sediment Characterization Report to the RWQCB (and any other appropriate regulatory agencies) for approval as representative of sediment conditions in Disturbance Areas.

C. *Contaminated Sediment Management Plan (Sediment Management Plan)*: If contaminated sediment is identified in the Sediment Characterization Report in any of the proposed project Disturbance Area, the project applicant shall prepare a Sediment Management Plan for the District's and RWQCB's approval. Once approved, the Sediment Management Plan shall be implemented by the project applicant and be subject to oversight by the appropriate overseeing regulatory agencies, including the District. The Sediment Management Plan shall describe in detail the methods to be employed to prevent waterside construction activity from adversely affecting or exposing the gravelly-sand or sand-covered contaminated sediment, or disturbing contaminated sediment, as identified in the Sediment Characterization Report, and the monitoring that will occur postconstruction.

D. *In-Water Activity Specific Procedures (Pile Installation or Removal)*: Pile installation or removal shall be conducted in a manner that implements applicable permit requirements, including the [Clean Water Act] CWA Section 404 permit and CWA Section 401 Water Quality Certification. Impact hammer pile driving, internal jetting, or spudding may be required based on the type of pile installation, or removal, that occurs.

Pile installation or removal shall be conducted in a manner that implements applicable permit requirements, including the [Clean Water Act] CWA Section 404 permit and CWA Section 401 Water Quality Certification. Impact hammer pile driving, internal jetting, or spudding may be required based on the type of pile installation, or removal, that occurs.

Internal jetting shall not be allowed unless the project applicant can demonstrate, to the District's satisfaction, there are no feasible alternatives to the use of internal jetting.

Spudding shall not be allowed unless the project applicant can demonstrate, to the District's satisfaction, there are no feasible alternatives to the use of spudding. If no alternatives to spudding are feasible, when spuds are lifted during in-water construction, they shall be lifted slowly—at least a quarter of the speed that spuds are lifted during normal operation. Before the spud reaches the subsurface of the Bay floor during removal, the operator shall conduct spud extraction in 2-minute intervals (repeated 2-minute extraction followed by 2-minute pause) to reduce the disturbance of Bay sediment.

E. *Post-Construction Sampling and Analysis*: At the conclusion of construction activities within a Disturbance Area, the project applicant shall conduct post-construction sediment sampling that adequately characterizes potential contamination resulting from construction activities (and dredging activities if the in-water construction occurred within a dredging area) to determine if in-water construction or disturbance activities resulted in COCs in excess of the levels above the levels set forth in CAO R9-2012-0024. The project applicant shall prepare, for submittal to and approval by the District and RWQCB, a Post-Construction Sampling Plan that shall outline the methodology to be used, the locations where sampling would occur, and the COCs to be analyzed consistent with CAO R9-2012-0024.

MM-HAZ-11: Implement Post-Waterside Construction Remediation. If, after the completion of any in-water construction work, consistent with the requirements of mitigation measure MM-HAZ-10, site sampling shows that concentrations of COCs exceed those set forth in CAO R9-2012-0024 (or other levels as prescribed by the RWQCB), the project applicant shall propose remediation consistent with CAO R9-2012-0024 (or other levels as prescribed by the RWQCB), subject to approval by the RWQCB, and any other agencies with jurisdiction over the site contamination, and concurrence by the District. The project applicant's remediation approaches may include, but are not limited to, dredging, placement of sand cover, or Enhanced Monitored Natural Recovery sand containing active carbon. If remediation is required, the remediation shall be conducted with oversight from the appropriate local, state, or federal regulatory agency. In addition, documentation evidencing the remediation work and completion thereof shall be submitted to the District. The project applicant shall monitor the remediation for its effectiveness, consistent with the standards set forth by CAO R9-2012-0024 (or other levels as prescribed by the RWQCB), for a period consistent with guidance from the regulatory agency with jurisdiction. A monitoring report shall be submitted to the District and the RWQCB for their review on a monthly basis, or at a frequency determined appropriate by the relevant agency overseeing the remediation activities.

If, after the completion of any in-water construction work within a Disturbance Area, consistent with the requirements of mitigation measure MM-HAZ-10, concentrations of COCs in the area of potential contamination do not exceed those levels set forth in CAO R9-2012-0024 (or other levels as prescribed by the RWQCB), no further mitigation is required.

4.10 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Hydrology and Water Quality.				
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial on- or offsite erosion or siltation;	☐	☐	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☒	☐	☐

4.10.1 Environmental Setting

REGIONAL AND SURROUNDING AREA CONDITIONS

Surface Water Hydrology

The project site is within the jurisdiction of the San Diego RWQCB. The San Diego Region is divided into 11 hydrologic units (HUs) for administrative purposes. Each of the HUs flow from elevated regions in the east to lagoons, estuaries, or bays in the west and exhibit similar water quality characteristics and issues. The project site is within the San Diego Bay Watershed, which is within the Pueblo San Diego HU. The Pueblo San Diego HU is the smallest HU in San Diego County and covers approximately 60 square miles of predominantly urban landscape in the cities of San Diego, La

Mesa, Lemon Grove, and National City. Approximately 75 percent of the watershed is developed. Major water features in the Pueblo San Diego HU include Chollas Creek, Paleta Creek, and San Diego Bay (Project Clean Water 2021). The Pueblo San Diego HU has no central stream system and instead consists primarily of a group of relatively small local creeks and pipe conveyances, many of which are concrete-lined and drain directly into San Diego Bay. The Pueblo San Diego HU contains three hydrologic areas: Point Loma (908.1), San Diego Mesa (908.2), and National City (908.3). The project site is in the San Diego Mesa hydrologic area, as are the San Diego Bay and Chollas Creek. The project site is adjacent to and within the San Diego Bay and northwest of Chollas Creek.

Surface Water Quality

San Diego Bay is the receiving water body for the project site, which occurs indirectly through the City's municipal storm drain system. Water quality in the San Diego Bay is influenced by processes and activities that take place within the Pueblo San Diego HU. The creeks in the watershed are highly affected by urban runoff, such as contaminants from roadways, industry, and other urban sources. Contaminants found in San Diego Bay include chlorinated hydrocarbons, toxic components of petroleum hydrocarbons, PAHs, PCBs, heavy metals, and organotins (i.e., organic compounds with one or more tin atoms) such as tributyltin. The most significant sources of pollutants affecting the beneficial uses of San Diego Bay are urban and agricultural runoff, resource extraction, septic systems, and marinas and boating activities (Project Clean Water 2021).

Tidal exchange in San Diego Bay controls the flushing of contaminants, salt and heat balance, and residence time of water. The ebb and flow of tides mix ocean and San Diego Bay waters. Tides produce currents, which induce changes in salinity, and alternately expose and wet portions of the shoreline. Tidal flushing and mixing are important for dispersing pollutants, maintaining water quality, and moderating water temperature that has been affected by exchange with the atmosphere or heating. Tidal flushing and currents affect water quality in north-central San Diego Bay. Water quality also is influenced locally by freshwater inflows.

Beneficial Uses

The San Diego RWQCB is responsible for designating beneficial uses for water bodies in the San Diego region; establishing water quality objectives; and developing implementation plans to protect designated beneficial uses through the Water Quality Control Plan for the San Diego Basin (San Diego RWQCB 1994). Beneficial uses for the nearest inland surface water, Chollas Creek, include contact (potential use) and non-contact water recreation, warm freshwater habitat, and wildlife habitat. Beneficial uses for the nearest coastal water, the San Diego Bay, include industrial uses, navigation, contact and non-contact recreation, commercial and sport fishing, preservation of biological habitats of special significance, estuarine habitat, wildlife habitat, preservation of rare and endangered species, marine habitat, fish migration, fish spawning, and shellfish harvesting (San Diego RWQCB 1994).

Total Maximum Daily Loads

CWA Section 303(d) requires the identification of water bodies that do not meet, or are not expected to meet, water quality standards (i.e., impaired water bodies). The affected water body, and associated pollutant or stressor, is then prioritized in the 303(d) List. California's current 303(d) List is the 2014-2016 List of Impaired Waters, which was approved by the U.S. EPA on April 6, 2018. The CWA further requires the development of a total maximum daily load (TMDL) for each listing. A TMDL is the maximum daily amount of a pollutant that a water body can receive and still safely meet water quality standards.

As shown in Table 4.10-1, water bodies with 303(d)-listed impairments with potential to be affected by the proposed project include Chollas Creek, San Diego Bay Shoreline near Chollas Creek, San Diego Bay (encompasses the project site), San Diego Bay shoreline between Sampson Street and 28th Street (encompasses the project site), and the San Diego Bay shoreline near Coronado Bridge (SWRCB 2017).

Table 4.10-1 303(d)-Listed Impairments for Water Bodies and Adjacent Shorelines within the Project Vicinity

Reach	303(d)-Listed Impairments	Source	Estimated TMDL Completion
Chollas Creek	Bifenthrin	Unknown	2005
	Chlorpyrifos	Unknown	2005
	Cypermethrin	Unknown	2005
	Malathion	Unknown	2005
	Nitrogen	Unknown	2005
	Phosphorus	Unknown	2005
	Trash	Unknown	2005
	Copper	Unknown	2008
	Diazinon	Unknown	2003
	Indicator Bacteria	Unknown	2011
	Lead	Unknown	2008
	Zinc	Unknown	2008
San Diego Bay Shoreline, near Chollas Creek	Benthic Community Effects	Unknown	2010
	Sediment Toxicity	Unknown	2010
San Diego Bay	PCBs	Contaminated sediments, dredging, historic land management activities, illegal dumping, spills, urban runoff/storm sewers	2019
	PAHs	Unknown	2025
	Mercury	Atmospheric deposition, contaminated sediments, historic land management activities, urban runoff	2027
San Diego Bay Shoreline, near Coronado Bridge	Benthic Community Effects	Unknown	2019
	Sediment Toxicity	Unknown	2019
San Diego Bay Shoreline, between Sampson and 28th Streets	Copper	Unknown	2015
	Mercury	Major Industrial Point Source	2013
	PAHs	Unknown	2013
	PCBs	Major industrial point source, urban runoff/storm sewers, unknown point and nonpoint sources	2013
	Zinc	Unknown	2013

TMDL = total maximum daily load; PCBs = polychlorinated biphenyls; PAHs= Polycyclic aromatic hydrocarbons

Source: SWRCB 2017

EXISTING SITE CONDITIONS

Site Hydrology and Water Quality

The landside portions of the NASSCO facility are highly impervious, consisting of paved roadways, facilities, office buildings, and equipment staging and storing areas. NASSCO operates under an individual NPDES Permit (Order R9-2016-0116) and maintains a facility BMP Plan Manual. As described in Order R9-2016-0116, NASSCO operates and maintains a fully-contained Storm Water Diversion System (SWDS) that is designed to capture stormwater runoff from industrial areas and prevent the discharge of industrial stormwater to the San Diego Bay. The SWDS has a capacity to retain an excess of 33,858,000 gallons, which is enough capacity to capture a 100-year storm event. Stormwater runoff from industrial high risk areas (i.e., areas where wastes or pollutants of significant quantities are

produced from ship construction, modification, repair, and maintenance activities) are treated in an ion exchange treatment system designed to remove pollutants. Once treated, all stormwater captured within the facility is discharged to the San Diego Metropolitan Sewer System.

Sediment Contamination

As discussed in Section 4.9, Hazards and Hazardous Materials, the San Diego RWQCB issued CAO R9-2012-0024 for sediment contamination within the General Dynamics NASSCO and BAE Systems leaseholds, which was collectively referred to as the shipyard sediment site. The shipyard sediment site was divided into the North Shipyard (the property leased by BAE Systems) and the South Shipyard (the property leased by NASSCO). As such, the project site is within the South Shipyard cleanup boundary. The CAO established cleanup levels for primary COCs of metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), butyl tin species, PCBs, PCTs, PAHs, and TPHs.

In 2013, the San Diego RWQCB issued Order R9-2013-0093 for the waterside portions of the shipyard sediment site related to sediment remediation requirements of CAO R9-2012-0024. Order R9-2013-0093 imposed requirements that regulate discharges of waste associated with dredging activities required by CAO R9-2012-0024. Contaminated marine bay sediments adjacent to the BAE Systems and NASSCO shipyards in San Diego Bay were removed under Order R9-2013-0093 using environmental dredging techniques performed specifically for the removal of contaminated sediment while minimizing the spread of contaminants to the surrounding environment during dredging operations. The dredged sediment was off-loaded from haul barges to a landside staging area (sediment staging area or sediment management area), dewatered and solidified (onshore or on a barge), sampled for waste characterization, and transported by trucks to the appropriate landfill disposal facility. As discussed in Section 4.9, Hazards and Hazardous Material, approximately 28,660 cy of contaminated sediments were dredged from the South Shipyard sediment site and approximately 19,760 tons of sand material was placed as a cover (Anchor QEA, LLC 2014). Remedial activities for the South Shipyard site were completed in March 2014 and the site is currently under post-remediation monitoring to evaluate the effectiveness of the cleanup.

Hazardous Material Structures in Water

The wooden components in the existing Repair Complex Wharf have been treated with creosote. Creosote is a common tar-based wood preservative that was found to be carcinogenic to humans and toxic to marine life through bioaccumulation. The primary chemicals of concern in creosote include PAHs, phenols, and creosols.

Groundwater

Groundwater at the project site is directly tied to the San Diego Bay and has a high salt content making it unsuitable for consumption.

Inundation

As shown on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) No. 06073C1884H and 06073C1892H, the project site is within a Special Flood Hazard Area labeled Flood Zone AE. Flood Zone AE is an area subject to flooding during the 100-year storm event (1 percent annual chance of flooding where base flood elevations and flood hazard factors are determined) (FEMA 2019).

The project site is within a tsunami hazard area, as delineated on the Tsunami Inundation Map for Emergency Planning for the National City Quadrangle published by CGS, the University of Southern California (USC), and the California Emergency Management Agency (CalEMA), which is now known as the California Governor's Office of Emergency Services (2009). Because the project site is situated on and adjacent to the San Diego Bay, it could also be susceptible to seiche.

4.10.2 Regulatory Setting

FEDERAL

Clean Water Act (33 U.S.C. 1251–1387)

The primary goals of the CWA are to restore and maintain the chemical, physical, and biological integrity of the nation's waters and to make all surface waters fishable and swimmable. The U.S. EPA is the lead federal agency responsible for water quality management. The CWA of 1972 (33 U.S.C. 1251–1387) is the primary federal law that governs and authorizes water quality control activities by the U.S. EPA as well as the states. The federal CWA of 1977 (33 U.S.C. 1251 et seq.), which amended the federal Water Pollution Control Act of 1972, established the basic structure for regulating discharges of pollutants into the waters of the United States (not including groundwater). Under the CWA, it is unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a National Pollutant Discharge Elimination System (NPDES) permit is obtained and implemented within compliance. In addition, the CWA requires the states to adopt water quality standards for receiving water bodies and to have those standards approved by EPA. Water quality standards consist of designated beneficial uses for a particular receiving water body (e.g., wildlife habitat, agricultural supply, fishing), along with water quality criteria necessary to support those uses. The proposed project would be required to comply with the CWA, as discussed in the subsections below.

Section 401: Water Quality Certification

Under Section 401 of the CWA, an applicant for a Section 404 permit to discharge dredged or fill material into waters of the United States must first obtain a certificate from the appropriate state agency stating that the fill is consistent with the state's water quality standards and criteria. In California, the authority to either grant water quality certification or waive the requirement is delegated by the SWRCB to the nine RWQCBs. In addition, an applicant under Section 10 of the Rivers and Harbor Act must also obtain a Section 401 Water Quality Certification. The proposed project would require a Section 401 Water Quality Certification from the SWRCB for project activities permitted under the CWA Section 404 Permit and Rivers and Harbor Act Section 10 Permit.

Section 402: National Pollutant Discharge Elimination System Permits

Section 402(p) of the CWA was amended in 1987 to require the U.S. EPA to establish regulations for permitting of municipal and industrial (including active construction sites) stormwater discharges under the NPDES permit program. U.S. EPA published final regulations for industrial and municipal stormwater discharges on November 16, 1990. The NPDES program requires all industrial facilities and municipalities of a certain size that discharge pollutants into waters of the United States to obtain a permit. Stormwater discharges in California are commonly regulated through general and individual NPDES permits, which are adopted by the SWRCB or RWQCBs and are administered by the RWQCBs. U.S. EPA requires NPDES permits to be revised to incorporate waste-load allocations for TMDLs when the TMDLs are approved (40 CFR 122).

NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, or other activities.

The proposed project would be required to comply with the Waste Discharge Requirements for General Dynamics National Steel and Shipbuilding Company Discharge to San Diego Bay (Order R9-2016-0116), which serves as the NPDES permit for the NASSCO facility, as described in the Local Regulations section below.

Section 404: Permits for Dredged or Fill Material

Under Section 404, the USACE and U.S. EPA regulate the discharge of dredged and fill materials into the waters of the United States. These waters are primarily defined as navigable waterways or water features (including wetlands) that have a significant nexus to navigable waters. Project sponsors must obtain authorization from USACE for all discharges of dredged or fill materials into waters of the United States before proceeding with a proposed activity.

Individual Section 404 permits may only be issued for a least environmentally damaging practicable alternative. Compliance with CWA Section 404 requires compliance with several other environmental laws and regulations. USACE cannot issue an individual permit or verify the use of a general permit until the requirements of the National Environmental Policy Act of 1969, Endangered Species Act, Coastal Zone Management Act, and National Historic Preservation Act have been met. Additionally, no permit can be issued or verified until a water quality certification, or waiver of certification, has been issued pursuant to CWA Section 401. The proposed project would be required to obtain and comply with a Section 404 Permit from USACE for in-water project activities that would result in dredge/fill in the San Diego Bay.

Section 10, Rivers and Harbors Act of 1899

The Rivers and Harbors Act is a primary federal law regulating activities that may affect navigation on the nation's waterways. Section 10 of the Rivers and Harbors Act grants USACE control over obstructions to navigable waters of the United States and gives USACE exclusive authority to approve construction of smaller structures, such as wharves, booms, and bulkheads, as well as to approve dredging and filling operations. The proposed project would require a Section 10 Permit from USACE for project elements that involve the addition of new and/or replacement structures in the water.

STATE

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (embodied in the California Water Code) of 1969 (Porter-Cologne Act) is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the State must adopt water quality policies, plans, and objectives that protect its waters for the use and enjoyment of the people. Under the California Water Code, the State of California is divided into nine regions governed by RWQCBs that, under the guidance and review of the SWRCB, implement and enforce provisions of the California Water Code and the CWA. The project site is in Region 9, the San Diego Region, and governed by the San Diego RWQCB.

The Porter-Cologne Act also requires waste dischargers to notify the RWQCBs of their activities through the filing of Reports of Waste Discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, NPDES permits, Section 401 water quality certifications, or other approvals.

Section 13050 of the California Water Code defines what is considered pollution, contamination, or nuisance. Briefly defined, pollution means an alteration of water quality such that it unreasonably affects the beneficial uses of water. Contamination means an impairment of water quality to the degree that it creates a hazard to public health. Nuisance is defined as anything that is injurious to health, is offensive to the senses, or is an obstruction to property use, and which affects a considerable number of people.

Section 13304 outlines the RWQCB's or SWRCB's authority to order cleanup and abatement efforts to an entity that has discharged waste or has allowed the discharge of waste to waters of the state, or threatens to create a condition of pollution (Water Code Chapter 5, Section 13304). A cleanup and abatement order issued by the SWRCB or RWQCB may require the cleanup of waste or abatement of the effects of waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts. Water Code Section 13267 outlines the RWQCB's authority to issue an investigative order. The RWQCB, in establishing or reviewing any water quality control plan or waste discharge requirements, or in connection with any action related to a plan or discharge requirements, may investigate the quality of waters within the region. The RWQCB can require that responsible parties investigate the discharge or threatened discharge of toxic pollutants.

The proposed project would be required to comply with the Porter-Cologne Water Quality Control Act through compliance with the San Diego Region Basin Plan and Waste Discharge Requirements for General Dynamics National Steel and Shipbuilding Company Discharge to San Diego Bay (Order R9-2016-0116).

LOCAL

Water Quality Control Plan (Basin Plan)

The preparation and adoption of water quality control plans (Basin Plans) is required by the California Water Code (Section 13240) as prescribed by the CWA. Section 303 of the CWA requires states to adopt water quality standards that "consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses." According to Section 13050 of the California Water Code, Basin Plans consist of a designation or establishment of beneficial uses to be protected, water quality objectives to protect those uses, and a program of implementation needed for achieving the objectives for the waters within a specified area. Because beneficial uses, together with their corresponding water quality objectives, can be defined per federal regulations as water quality standards, the Basin Plans are regulatory references for meeting the state and federal requirements for water quality control. The project site is within the San Diego RWQCB's jurisdiction and would be required to comply with the Basin Plan.

Municipal Stormwater Permit (Order R9-2013-001 as amended by Orders R9-2015-001 and R9-2015-0100)

The Municipal Stormwater Permit (Order R9-2013-0001 as amended by Orders R9-2015-0001 and R9-2015-0100) is a NPDES permit that requires the owners and operators of MS4s within the San Diego Region to implement management programs to limit discharges of pollutants and non-stormwater discharges to and from their MS4 during all phases of development. The Municipal Stormwater Permit requires the District and other "copermittees" to develop watershed based Water Quality Improvement Plans (WQIP). The intent of the Municipal Stormwater Permit is to enable each jurisdiction to focus its resources and efforts to:

- Reduce pollutants in stormwater discharges from its MS4,
- Effectively prohibit non-stormwater discharges to its MS4, and
- Achieve the interim and final WQIP numeric goals.

The proposed project would be required to comply with the Municipal Stormwater Permit requirements as well as any specific WQIP requirements and BMPs identified by the District to be implemented in compliance with the Municipal Stormwater Permit.

Jurisdictional Runoff Management Program

Under the Municipal Stormwater Permit (Order No R9-2013-0001), each jurisdiction is required to prepare a Jurisdictional Runoff Management Program (JRMP). Each JRMP includes a component that addresses issues related to construction activities and a component that addresses issues related to existing development. Additionally, each copermittee is required to prepare and submit an annual report that describes the implementation of programs and strategies to reduce the discharge of pollutants of concern to the MS4 and receiving waters to the maximum extent practicable.

The District's JRMP is an informational document that provides an overall account of the program to be conducted by the District during the 5-year life of the Municipal Stormwater Permit (San Diego Unified Port District 2021b). The District's JRMP has been developed to meet the conditions of the Municipal Stormwater Permit and to assist the District in achieving the goals identified in the WQIP. Port-specific WQIP-based strategies have been incorporated into the JRMP. The JRMP's focus is on controlling stormwater discharges to the MS4, with the overall goal of achieving improvements in receiving water quality. The District has developed a list of BMPs that are applicable to all persons, activities, and operations taking place on District tidelands. The JRMP utilizes District-specific jurisdictional activities as well as watershed-based strategies. Enforcement of the JRMP helps to prevent stormwater pollutants from entering into the local storm drains and, ultimately, San Diego Bay.

As part of the District's JRMP, a BMP Design Manual was developed to provide guidelines for incorporating post-construction BMPs into new and priority redevelopment projects. The BMP Design Manual identifies the required source-control and site-design BMPs to eliminate or reduce pollutants in stormwater runoff. For priority development

projects (PDP), the BMP Design Manual also describes pollutant-control BMPs that must be incorporated into the site design and, where applicable, addresses potential hydromodification impacts from changes in flow and sediment supply. The BMP Design Manual is applicable for both tenant- and District-sponsored major maintenance or capital improvement projects, as required by the Municipal Stormwater Permit.

The District has developed a list of pollution prevention BMPs outlined in the JRMP that are applicable to industrial and commercial facilities on District tidelands as required by the Municipal Stormwater Permit. Because pollution prevention BMPs eliminate pollutants at their source, they are a preferred means of preventing discharge of priority pollutants into the receiving waters. The list of pollution prevention BMPs includes the following:

- Keep waste containers covered or lids closed (trash).
- Minimize outdoor storage (trash, metals).
- Capture, contain, and/or treat wash water (bacteria, metals).
- Conduct employee training (bacteria, trash, metals).

In addition, Table 7-4 of the JRMP provides an extensive list of minimum BMPs for commercial and industrial facilities (San Diego Unified Port District 2021b). Categories of BMPs include general operations and housekeeping, non-stormwater management, waste handling and recycling, outdoor material storage, outdoor drainage from indoor activity, outdoor parking, vehicles and equipment, education and training, overwater activity, and outdoor activity and operation. The project would be required to follow all specific actions or BMPs set forth in the JRMP.

Waste Discharge Requirements for General Dynamics National Steel and Shipbuilding Company Discharge to San Diego Bay (Order R9-2016-0116)

Order R9-2016-0116 serves as waste discharge requirements (WDR) pursuant to Division 7 of the California Water Code and Section 402 of the CWA and implementing regulations adopted by the U.S. EPA. The order serves as a NPDES permit authorizing NASSCO to discharge into waters of the United States at specified discharge locations subject to the WDRs. The order outlines discharge prohibitions, effluent limitations and discharge specifications, receiving water limitations, and provisions (e.g., Federal and San Diego RWQCB standards, monitoring and reporting program requirements, and BMPs). As part of Order R9-2016-0116, the project site is subject to an operational SWPPP designed to reduce or prevent the discharge of pollutants from industrial activities.

4.10.3 Discussion

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less than significant with mitigation incorporated. NASSCO operates under an individual NPDES Permit (Order R9-2016-0116), maintains a facility BMP Plan Manual, and has a fully contained stormwater diversion system where discharging to the receiving water does not occur. As described in Order R9-2016-0116, the NASSCO facility includes areas where pollutants of significant quantities from ship construction, modification, repair, and maintenance activities are generated (including abrasive blast grit material, primer, paint, paint chips, solvents, oils, fuels, sludges, detergents, cleansers, hazardous substances, toxic pollutants, nonconventional pollutants, materials of petroleum origin, or other substances of water quality significance). As part of Order R9-2016-0116, the project site is subject to an operational SWPPP designed to reduce or prevent the discharge of pollutants from industrial activities.

The project proposes components that would involve in-water construction and disturbance to the bay floor. Disturbance of the bay floor would cause sediment to temporarily be resuspended, thereby increasing turbidity and potentially lowering levels of dissolved oxygen, increasing salinity, increasing concentrations of suspended solids, and possibly releasing chemicals present in the sediment into the water column (**Impact-WQ-1**). The degree of turbidity resulting from the suspended sediments would vary substantially with the quantity and duration of the construction activity and would also depend on the methods used, the quality of equipment, and the care of the operator. Higher turbidity is expected to be confined to the specific area of pile installation. Substantially depressed oxygen levels

resulting from high turbidity (i.e., below 5 milligrams per liter [mg/L]) can cause respiratory stress to aquatic life, and levels below 3 mg/L can cause mortality.

Most project components (i.e., floating dry dock replacement and modification, Repair Complex Wharf improvements, and quay wall revetment repairs [berths 2-5]) would be constructed between January 2023 to July 2025; however as-needed quay wall repairs may extend to December 2027 and structural pile repair and replacement may extend to January 2034. Therefore, site-specific turbidity levels may be above ambient levels within a portion of the project site for an extended period, which may result in a potentially significant impact (**Impact-WQ-1**). Construction methods with potential to result in turbidity include pile driving or internal jetting. As specified in **MM-HAZ-10**, internal jetting would not be allowed unless the project proponent can demonstrate, to the District's satisfaction, that there are no feasible alternatives to the use of internal jetting.

As discussed in Section 4.10, Hydrology and Water Quality, mitigation measure **MM-WQ-1** would require the deployment of silt curtains around pile removal and pile driving areas to minimize turbidity. Silt curtains would limit the spread of the turbidity plume outside the specific work area. With implementation of **MM-WQ-1**, increased turbidity levels would be generally confined to within the area of silt curtain containment. After initial high turbidity levels within the specific work area, sediments would disperse, and background levels would be restored within hours of disturbance. In addition, tidal currents would slowly dissipate the oxygen-poor water and replenish ambient oxygen levels within one to several tidal exchanges. Therefore, suspended solids and depressed oxygen levels in the water column of the specific work area would only be expected to result in temporary and limited effects on water quality.

Furthermore, NASSCO would be required to develop and implement a turbidity monitoring plan to the satisfaction of the District and the San Diego RWQCB (**MM-WQ-1**) and implement best management practices during sediment disturbances (**MM-WQ-2**). During pile removal and pile driving activities, NASSCO would be required to conduct turbidity monitoring up- and down-current of the silt curtain to ensure that turbidity does not exceed the water quality objectives established in the turbidity monitoring plan in consultation with the RWCQB. If turbidity levels down current of the silt current exceed the performance standard, construction activities would be modified, reduced, or halted until the performance standard is achieved. Therefore, with the incorporation of **MM-BIO-4, MM-WQ-1**, and **MM-WQ-2**, **Impact-WQ-1** would be reduced to a level below significance.

As discussed in Section 4.9, Hazards and Hazardous Materials, construction activities have the potential to result in the release of hazardous wastes and materials into the San Diego Bay, which would also potentially result in a water quality-related impact (**Impact-WQ-2**). Project construction would involve the use and disposal of hazardous waste, including fuels, lubricants, solvents, and creosote-treated wood. These materials would be properly stored, handled, used, and disposed of in accordance with applicable regulations and laws listed in Section 4.9.3(a) and by **MM-HAZ-1 through MM-HAZ-9** and would require specific measures to avoid potentially adverse impacts on water quality, including secondary containment of hazardous materials (e.g., oils and fuels), equipment inspection to avoid leaks, spill kits to prevent spills from entering the bay, barge loading procedures to avoid overloading barges, and use of a flattop barge with containment walls to prevent debris from entering the water. In addition, best management practices for work that would potentially disturb the bay floor would be required (**MM-WQ-2**). With implementation of these mitigation measures, **Impact-WQ-2** would be reduced to less than significant.

As also discussed in Section 4.9, the San Diego RWQCB issued CAO R9-2012-0024 for sediment contamination within the NASSCO and BAE Systems leaseholds. The COCs for the cleanup site sediments include copper, mercury, HPAHs, PCBs, tributyltin, arsenic, cadmium, lead, and zinc. Contaminated marine bay sediments were removed from the contamination site under Order R9-2013-0093 using environmental dredging techniques. However, sand or gravelly sand covers were placed in areas within the NASSCO leasehold where dredging activities would have threatened the stability of the slopes or in-water structures (refer to Section 4.9 for additional information). As such, the contamination present in those sediments was not removed, but was covered to prevent mixing of contaminants with the water column or clean sediment.

The proposed pile removal and replacement has potential to disturb contaminated sea-floor sediments associated with CAO R9-2012-0024, which may result in a potentially significant impact water quality impact (**Impact-WQ-3**). As described in Section 4.9.3(b), mitigation measures **MM-HAZ-10** and **MM-HAZ-11** would include implementation of a

sediment management program and post-waterside construction remediation. With implementation of mitigation measures MM-HAZ-10 and MM-HAZ-11, Impact-WQ-3 would be reduced to less than significant.

Project implementation would not result in a change in the type or quantity of pollutants that would be generated during operations. Stormwater runoff from the NASSCO facility, including the new overwater structures, would be captured and contained in the existing SWDS system for subsequent discharge to the San Diego Metropolitan Sanitary Sewer System. NASSCO would be required to maintain all existing operational and maintenance BMPs and comply with Order R9-2016-0116, which regulates polluted runoff, for the new overwater structures.

In summary, the project would not substantially degrade surface or groundwater quality or violate water quality standards or waste discharge requirements through compliance with permit conditions and through the implementation of mitigation measures MM-HAZ-1 through MM-HAZ-11, MM-BIO-4, MM-WQ-1, and MM-WQ-2. Therefore, impacts would be reduced to less than significant with mitigation incorporated.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less-than-significant impact. Construction activities would occur within the NASSCO leasehold located on and adjacent to the San Diego Bay. The project would not result in a net increase in impervious surfaces, such that the surface area for percolation of stormwater would be reduced. All stormwater runoff from the NASSCO facility is designed to be captured and contained for subsequent discharge to the San Diego Metropolitan Sanitary Sewer System. Therefore, groundwater recharge from stormwater should not occur at the project site. Furthermore, groundwater at the project site is saline from saltwater intrusion and is not used as a groundwater supply source.

The project would not require landside excavation and would not have the potential to encounter groundwater such that dewatering would be required. Furthermore, as discussed in more detail in Section 4.19, Utilities and Service Systems, construction-related water use would represent a small demand on local and regional water supplies that could be accommodated by the existing water service provider. The project would not generate a permanent increase in water demand compared to existing conditions. Consequently, the project would not substantially decrease groundwater supplies or interfere with groundwater recharge. Impacts would be less than significant.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial on- or offsite erosion or siltation;

Less-than-significant impact. The NASSCO facility is entirely paved with no areas of exposed soil. Construction activities would occur over water and would not involve grading or excavation activities that have potential to disturb landside soils. Stormwater runoff from the NASSCO facility would continue to be captured and contained for subsequent discharge to the San Diego Metropolitan Sanitary Sewer System. NASSCO would be required to maintain all existing operational and maintenance BMPs for stormwater runoff. Therefore, the project is not anticipated to result in on- or off-site erosion or siltation. Impacts would be less than significant.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

Less-than-significant impact. The project would result in a net increase in overwater coverage of 10,210 square feet for permanent structures (i.e., floating dry dock, mooring dolphins, approach pier fender system, and Repair Complex Wharf) and 300 square feet for temporary structures (i.e., catwalk and removable brow). Stormwater runoff from the NASSCO facility, including the new overwater structures, would be captured and contained in the existing SWDS for subsequent, controlled discharge to the San Diego Metropolitan Sanitary Sewer System. NASSCO would be required to maintain all existing operational and maintenance BMPs for stormwater runoff for the new overwater structures.

Project implementation would not affect the amount of surface runoff at the project site. Therefore, the project is not anticipated to result in on- or off-site flooding. Impacts would be less than significant.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less-than-significant impact. NASSCO operates under an individual NPDES Permit (Order R9-2016-0116), maintains a facility BMP Plan Manual, and has a fully contained stormwater diversion system where discharging to the San Diego Bay does not occur. As described in Order R9-2016-0116, the NASSCO facility includes areas where pollutants from ship construction, modification, repair, and maintenance activities are generated (including abrasive blast grit material, primer, paint, paint chips, solvents, oils, fuels, sludges, detergents, cleansers, hazardous substances, toxic pollutants, nonconventional pollutants, materials of petroleum origin, or other substances of water quality significance). As part of Order R9-2016-0116, the project site is subject to an operational SWPPP designed to reduce or prevent the discharge of pollutants from industrial activities.

The project would result in a net increase in overwater coverage of 10,210 square feet for permanent structures (i.e., floating dry dock, mooring dolphins, approach pier fender system, and Repair Complex Wharf) and 300 square feet for temporary structures (i.e., catwalk and removable brow). NASSCO would be required to maintain all existing operational and maintenance BMPs and comply with the RWQCB's Order R9-2016-0116, which regulates polluted runoff, for the new overwater structures. NASSCO's existing NPDES permit would be updated to reflect the increase in overwater coverage. As discussed above, NASSCO operates and maintains a fully-contained SWDS that is designed to capture stormwater runoff from industrial areas and prevent the discharge of industrial stormwater to the San Diego Bay. The SWDS has a capacity to retain an excess of 33,858,000 gallons, which is enough capacity to capture a 100-year storm event, including when accounting for the additional surface areas proposed by the project. Stormwater runoff from industrial high risk areas (i.e., areas where wastes or pollutants of significant quantities from ship construction, modification, repair, and maintenance activities) are treated in an ion exchange treatment system designed to remove pollutants. Once treated, all stormwater captured from the NASSCO facility, including the new overwater structures, would be discharged from the existing SWDS system to the San Diego Metropolitan Sewer System.

Project implementation would not result in a change in the type or quantity of pollutants that would be generated and would not result in a substantial increase in stormwater runoff during operations. Stormwater runoff from the NASSCO facility would continue to be captured and contained for subsequent discharge to the San Diego Metropolitan Sanitary Sewer System. The sanitary sewer system would have adequate capacity for any negligible increases in stormwater from the proposed increase in overwater coverage.

Based on the above discussion, the project would contribute only minimal additional runoff water and would not contribute additional sources of polluted runoff. Therefore, impacts would be less than significant.

iv) Impede or redirect flood flows?

Less-than-significant impact. As shown on FEMA FIRM No. 06073C1884H and 06073C1892H, the project site is within Flood Zone AE, which is an area subject to flooding during the 100-year storm event (1 percent annual chance of flooding where base flood elevations and flood hazard factors are determined). FEMA defines base flood elevation as the elevation that floodwaters are expected to rise during a flood event with a one percent chance of occurring in any given year. The base flood elevation within the project site is 11 feet (FEMA 2019).

During project construction, all proposed construction elements would be over water and would not have potential to impede or redirect flood flows. The temporary presence of the construction-related equipment would not represent a permanent change to the floodplain and would not impede or redirect flood flows.

The project would include the repair and replacement of in-water structures. All permanent structures proposed within Flood Zone AE must be designed to ensure that the floor elevation is raised at least one foot above the floodplain elevation and meets the structural requirements of the FEMA National Flood Insurance Program to avoid any damage to persons or structures from a 100-year flood. Review of all permanent structure design plans designed

by a professional engineer by the District's Engineering Department is a standard requirement as part of the project review process. As this process is mandatory, no mitigation is needed.

The District's Sea Level Rise Vulnerability Assessment and Coastal Resiliency Report (2019) includes a sea level rise (SLR) vulnerability assessment for Planning District 4 (Tenth Avenue Marine Terminal Planning District). Based on the assessment, this planning district is projected to withstand potential SLR inundation and temporary flooding from SLR during a 100-year storm event at 1.6 feet of projected SLR (anticipated in the year 2050). The higher elevation and existing shoreline armoring are expected to protect many of the land uses in the planning district from substantial projected SLR impacts. Several project components, including areas where quay wall revetment and pile repairs or replacement would occur, may be affected by mean SLR during the useful design life (i.e., 30 years) of the various project elements. However, these project elements are intended to protect the shoreline and improve SLR resiliency through addressing existing revetment failures and structural pile deficiencies. In addition, these project elements would not substantially increase in-water fill volumes and, therefore, would not have potential to impede or redirect flood flows. Furthermore, this type of inundation would occur with or without the proposed project. Consequently, the project is not anticipated to exacerbate existing or projected damage to the environment due to SLR.

Based on the above discussion, the project would not exacerbate the flooding potential of the project site or the effects of flooding on the existing environment. Therefore, impacts would be less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less-than-significant impact. As discussed in Section 4.10.3(c)(iv), the project site is within Flood Zone AE and is subject to flooding during the 100-year storm event (FEMA 2019). In addition, the project site is within a tsunami hazard area, as delineated on the Tsunami Inundation Map for Emergency Planning for the National City Quadrangle published by CalEMA, CGS, and USC (2009). Because the project site is situated on and adjacent to the San Diego Bay, it could also be susceptible to seiche.

The project would include the repair and replacement of in-water structures. All project elements would be over or within water and BMPs would be in place to divert runoff from the project site toward proper drainage locations. In addition, the project is subject to RWQCB's Order R9-2016-0116 and NASSCO's own BMP manual, which includes BMPs and requirements to ensure hazardous materials are contained. Therefore, the project would not have potential to risk release of pollutants during a flood hazard event such as a tsunami or seiche. Impacts would be less than significant.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than significant with mitigation incorporated. As discussed in Section 4.10.3(a) above, NASSCO, and any of its contractors, would be required to comply with permit conditions imposed by USACE, the San Diego RWQCB, and other regulatory agencies during construction. Applicable permits include the CWA Section 401 Water Quality Certification and Section 404 permit, as well as NASSCO's individual NPDES permit (Order R9-2016-0116). Mitigation Measures **MM-HAZ-1 through MM-HAZ-11**, **MM-BIO-4**, **MM-WQ-1,** and **MM-WQ-2** would be implemented to reduce potential impacts on water quality from temporary increases in turbidity (**Impact-WQ-1**), the accidental release of potentially hazardous materials and wastes (**Impact-WQ-2**), disturbance of contaminated sediments associated with known contaminated sites (**Impact-WQ-3**). During project operation, stormwater runoff from the NASSCO facility would continue to be captured, treated, and contained for subsequent discharge to the San Diego Metropolitan Sanitary Sewer System. NASSCO would be required to maintain all existing operational and maintenance BMPs and comply with Order R9-2016-0116, which regulates polluted runoff. Furthermore, as discussed in Section 4.10.3(b), the project would not have potential to decrease groundwater supplies, impair groundwater quality, or affect groundwater recharge. Therefore, the project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Impacts would be less than significant with mitigation incorporated.

Required Mitigation Measures

With implementation of MM-WQ-1 and MM-WQ-2 described below; MM-BIO-4 described in Section 4.4, Biological Resources; and MM-HAZ-1 through MM-HAZ-11 described in Section 4.9, Hazards and Hazardous Materials, impacts related to hydrology and water quality would be less than significant.

MM-WQ-1: Monitor Turbidity and Constituents of Concern During Construction-Related Sediment Disturbance. Prior construction activities in water that would disturb the bay floor, the project proponent shall retain a water quality monitor, approved by the District, who shall prepare a water quality monitoring plan and shall conduct water quality monitoring to demonstrate to the satisfaction of the District and the RWQCB that construction activities do not violate the Basin Plan or applicable water quality objectives. Approval of the plan by the District and appropriate regulatory agencies is required before field activities can be initiated. The plan shall incorporate: (1) all permit-specific regulatory monitoring and reporting requirements and (2) a detailed description of the proposed water quality monitoring program. The plan will clearly identify the project boundaries, and chemical constituents of concern and water quality thresholds; and provide a detailed description of the water quality monitoring to be conducted prior to, during, and after construction activities to ensure compliance with this mitigation measure. The monitoring plan will be robust enough to ensure that any exceedances of water quality objectives are identified. Depending upon the scope of the project and the potential for the release of project-derived contaminants, the water quality monitoring shall include visual inspections of turbidity and debris as well as water-column monitoring using appropriate and calibrated water quality monitoring field equipment to measure, at a minimum: turbidity, dissolved oxygen, pH, temperature, and salinity. If water column monitoring indicates exceedances of water quality thresholds (e.g., turbidity or dissolved oxygen), then water column samples shall be collected and analyzed for project-specific chemicals of concern. The project proponent shall use a State of California Environmental Laboratory Accreditation Program (ELAP)–certified laboratory for all analytical testing except in those instances where measurements such as water temperature and pH can be determined immediately in the field and not jeopardize the samples by exceeding transportation time to the lab for analysis.

The designated water quality monitor shall stop work to ensure that turbidity does not extend outside of the immediate construction area. If turbidity is 20 percent higher outside the work area versus inside the work area, the water quality monitor may direct the temporary halt of construction activities. Depending upon the requirements in the permit, the project proponent may be required to alert the regulatory agencies if a water quality violation is observed. In addition, the project proponent shall coordinate water quality monitoring efforts and shall provide copies of all monthly water quality monitoring data to the RWQCB and District throughout the duration of project construction, as outlined in the reporting schedule of the agency-approved monitoring plan or project-specific permits.

MM-WQ-2: Implement Best Management Practices During Construction-Related Sediment Disturbance. During construction activities, BMPs shall be implemented by the project proponent and shall include the following:

The project proponent shall not stockpile material on the bottom of the San Diego Bay floor and shall not sweep or level the bottom surface with the bucket.

- The project proponent shall use and maintain silt curtains for sediment disturbing construction activities that encircle the area of construction activities and shall minimize the times in which these curtains are temporarily opened (allowing only necessary openings for operation of the curtain), to contain suspended sediments. The floating silt curtain shall consist of connected lengths of fabric. A continuous length of floating silt curtain shall be arranged to fully surround the construction equipment. The silt curtain shall be supported by a floating boom in open water areas (such as along the bayward side of the dredging areas). Along pier edges, the project proponent shall have the option of connecting the silt curtain directly to the structure. The project proponent shall continuously monitor the silt curtain for damage, dislocation, or gaps and immediately fix any locations where it is no longer continuous or where it has loosened from its supports. The bottom of the silt curtain shall be weighted with ballast weights or rods affixed to the base of the fabric that do not touch the Bay floor at the lowest tide even with curtain float/swing. Where the District determines it is feasible and applicable, the floating silt curtains shall be anchored and deployed from the surface of the water to just above the substrate allowing

for tidal action. If deemed necessary by the District once project construction details and plans are available, silt curtains with tidal flaps shall be installed to facilitate curtain deployment in areas of higher flow. Based on a determination by the District and the Federal and/or State permitting agencies (as applicable), air curtains may be used in conjunction with silt curtains to contain resuspended sediment and allow barges containing dredge material or empty barges to transit into and out of the work area, without the need to open and close silt curtains.

- Based on a determination of the District and applicable Federal and/or State permitting agency (as applicable), air curtains in conjunction with silt curtains may be used to contain resuspended sediment, and allow barges containing dredge material or empty barges to transit into and out of the work area without the need to open and close silt curtain gates.
- In-Water Activity–Specific Procedures (Pile Installation or Removal). The project proponent shall conduct pile installation or removal in a manner that implements applicable permit requirements, including the CWA Section 404 permit and CWA Section 401 Water Quality Certification. The following additional measures shall be required based on the type of pile installation, or removal, that occurs.
  - Impact Hammer Pile Driving or Jetting

    Turbidity curtains shall be installed by the proponent consistent with the District's Best Management Practices and Environmental Standards for Overwater Structural Repair and Maintenance Activities for Existing Port Facilities Conducted by the San Diego Unified Port District (District 2019).
  - Spudding

    Spuds lifted during in-water construction shall be lifted slowly—at least a quarter of the speed that spuds are lifted during normal operation. Before the spud reaches the subsurface of the Bay floor during removal, the operator shall conduct spud extraction in 2-minute intervals (repeated 2-minute extraction followed by 2-minute pause) to reduce the disturbance of Bay sediment.

4.11 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Land Use and Planning.				
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

4.11.1 Environmental Setting

The project site is located at the NASSCO shipyard on and adjacent to the San Diego Bay. The NASSCO shipyard is situated in a highly developed urban area surrounded by heavy industrial land uses to the northwest; military land uses to the east and southeast; the San Diego Bay to the south and west; and military, light industrial, and commercial and office land uses separated by a transportation corridor to the north.

4.11.2 Regulatory Setting

STATE

Coastal Zone Management Act and California Coastal Act

The Coastal Zone Management Act of 1972 ensures that development projects in coastal areas are designed and sited in a manner that is consistent with coastal zone land uses, maximizes public health and safety, and ensures that biological resources within the coastal zone are protected. The California Coastal Act of 1976 governs land use planning for the entire coastal zone of California. The California Coastal Act includes policies for public access to the coast, recreation, marine environment, land resources, development, and SLR. The CCC enforces the Coastal Zone Management Act by certifying that a proposed project is consistent with the California Coastal Act. Pursuant to the California Coastal Act and the CCC Sea Level Rise Policy Guidance document (2018), projects in the California Coastal Zone must address SLR and resiliency of the project and coastal resources. The project site is within the California Coastal Zone and is subject to the Coastal Zone Management Act and California Coastal Act.

Sections of the California Coastal Act that area applicable to the project include the following:

- Section 30230. Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significant. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.
- Section 30231. The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

- Section 30232. Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.
- Section 30233. (a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following: (1) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

  (b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable longshore current systems.

  (c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California," shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.

  (d) Erosion control and flood control facilities constructed on watercourses can impede the movement of sediment and nutrients that would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for these purposes are the method of placement, time of year of placement, and sensitivity of the placement area.
- Section 30235. Revetments breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fishkills should be phased out or upgraded where feasible.
- Section 30240. (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.
- Section 30250. (a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.
- Section 30251. The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation

and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

- Section 30253. New development shall do all of the following:

  (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

  (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

  (c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development.

  (d) Minimize energy consumption and vehicle miles traveled.

- Section 30255. Coastal-developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent developments shall not be sited in a wetland. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support.

- Section 30706. In addition to the other provisions of this chapter, the policies contained in this section shall govern filling seaward of the mean high tide line within the jurisdiction of ports:

  (a) The water area to be filled shall be the minimum necessary to achieve the purpose of the fill.

  (b) The nature, location, and extent of any fill, including the disposal of dredge spoils within an area designated for fill, shall minimize harmful effects to coastal resources, such as water quality, fish or wildlife resources, recreational resources, or sand transport systems, and shall minimize reductions of the volume, surface area, or circulation of water.

  (c) The fill is constructed in accordance with sound safety standards which will afford reasonable protection to persons and property against the hazards of unstable geologic or soil conditions or of flood or storm waters.

  (d) The fill is consistent with navigational safety.

- Section 30708. All port-related developments shall be located, designed, and constructed so as to:

  (a) Minimize substantial adverse environmental impacts.

  (b) Minimize potential traffic conflicts between vessels.

  (c) Give the highest priority to the use of existing land space within harbors for port purposes, including, but not limited to, navigational facilities, shipping industries, and necessary support and access facilities.

  (d) Provide for other beneficial uses consistent with the public trust, including, but not limited to, recreation and wildlife habitat uses, to the extent feasible.

Public Trust Doctrine

Through the Public Trust Doctrine, the SLC oversees all tide and submerged lands, navigable rivers, sloughs, and other public lands or waters. The doctrine restricts the type of land uses allowed on these lands, which include waterborne commerce, navigation, fisheries, open space, water-oriented recreation, ecological habitat protection, or other recognized Public Trust purposes. The project site includes land subject to the Public Trust Doctrine.

LOCAL

San Diego Unified Port District Port Master Plan

The San Diego Unified Port District Act (Port Act), adopted in 1962, gives the District authority for the development, operation, maintenance, control, regulation, and management of the tidelands and lands underlying the inland

navigable waters of San Diego Bay. The District PMP is the guiding land use policy document for all areas under the District's jurisdiction. The PMP was developed consistent with the Public Trust Doctrine and in accordance with the provisions of the California Coastal Act. Under the PMP, the District has permitting authority and the ability to issue coastal development permits.

- The project site is within Planning District 4 (Tenth Avenue Marine Terminal) of the PMP, which consists of the following water and land uses: industrial and deep-water berthing, institutional/ roadway, marine terminal, maritime services and industrial, and recreation open space. Planning District 4 is the only area in the entire San Diego region with an established waterfront industrial shipping operation. The project site is in the Harbor Drive Industrial Subdistrict of Planning District 4, which is dedicated for shipbuilding and ship repair for the defense and maritime industries. PMP land and water use designations within the project site include Marine Related Industrial and Specialized Berthing, which are described in more detail as follows (San Diego Unified Port District 2020a):
- Marine Related Industrial: Landside designation for sites within close proximity to water bodies due to functional dependencies on the industrial activity for direct access or for linkages to waterborne products, processes, raw materials, or large volumes of water. The primary users of marine-related industrial areas are dependent upon large ships, deep water, and specialized loading and unloading facilities, typically associated with shipbuilding and repair, processing plants, and marine terminal operations.
- Specialized Berthing: Waterside designation devoted to marine commercial and industrial uses including ship building and repair, water taxi, excursion and ferry craft, commercial fishing boat berthing as a priority use, cruise ship berthing, maritime museum exhibits and historic craft replicas, water intake and discharge, industrial and commercial launching, vessel loading and unloading, marine contractors, rigged vessels, barges, tugs/tow boats, breakwater, launch ramps and lifts, seawall margin wharves, and any other facility supporting the marine craft engaged in commercial and industrial uses.

Goals in the Port Master Plan that are applicable to the project include the following:

- Goal I: Provide for the present use and enjoyment of the bay and tidelands in such a way as to maintain options and opportunities for future use and enjoyment.
- Goal II: The Port District, as trustee for the people of the State of California, will administer the Tidelands so as to provide the greatest economic, social, and aesthetic benefits to present and future generations.
- Goal III: The Port District will assume leadership and initiative in determining and regulating the use of the bay and tidelands.
  - Encourage industry and employment generating activities which will enhance the diversity and stability of the economic base.
  - Encourage private enterprise to operate those necessary activities with both high and low margins of economic return.
- Goal IV: The Port District, in recognition of the possibility that its actions may inadvertently tend to subsidize or enhance certain other activities, will emphasize the general welfare of statewide considerations over more local ones and public benefits over private ones.
  - Develop the multiple purpose use of the tidelands for the benefit of all the people while giving due consideration to the facts and circumstances related to the development of tideland and port facilities.
  - Foster and encourage the development of commerce, navigation, fisheries, and recreation by the expenditure of public monies for the preservation of lands in their natural state, the reclamation of tidelands, the construction of facilities, and the promotion of its use.
  - Encourage non-exclusory uses on tidelands.
- Goal V: The Port District will take particular interest in and exercise extra caution in those uses or modifications of the Bay and Tidelands, which constitute irreversible action of loss of control.

- Bay fills, dredging and the granting of long-term leases will be taken only when substantial public benefit is derived.

- Goal VII: The Port District will remain sensitive to needs, and cooperate with adjacent communities and other appropriate governmental agencies in Bay and Tideland development.
  - The Port District will attempt to avoid disproportionate impact on adjacent jurisdictions both in benefits and any possible liabilities, which might accrue through bay and tideland activities.
- Goal VIII: The Port District will enhance and maintain the bay and tidelands as an attractive physical and biological entity.
  - Each activity, development and construction should be designed to best facilitate its particular function, which function should be integrated with and related to the site and surroundings of that activity.
  - Views should be enhanced through view corridors, the preservation of panoramas, accentuation of vistas, and shielding of the incongruous and inconsistent.
  - Establish guidelines and standards facilitating the retention and development of an aesthetically pleasing tideland environment free of noxious odors, excessive noise, and hazards to the health and welfare of the people of California.
- Goal X: The quality of water in San Diego Bay will be maintained at such a level as will permit human water contact activities.
  - Insure through lease agreements that Port District tenants do not contribute to water pollution.
  - Cooperate with the Regional Water Quality Control Board, the County Health Department, and other public agencies in a continual program of monitoring water quality and identifying the source of any pollutant.
  - Adopt ordinances, and take other legal and remedial action to eliminate sources of pollution.
- Goal XI: The Port will protect, preserve, and enhance natural resources, including natural plant and animal life in the Bay as a desirable amenity, an ecological necessity, and a valuable and usable resource.
  - Identify existing and potential assets.
  - Keep appraised of the growing body of knowledge on ecological balance and interrelationships.
  - Administer the natural resources so that impacts upon natural resource values remain compatible with the preservation requirements of the public trust.

The Port Master Plan specifies that industrial activities on tidelands should meet the following objectives and criteria, which are applicable to the project:

- Be located in convenient proximity to other industrial areas and to living areas from which there are interconnecting transit and thoroughfare routes.
- Provide sites that are economical to develop and adequate for main buildings, accessory storage, off-street loading, off-street parking, and buffer strips.
- Be designed to meet performance standards adequate to avoid nuisances, thereby insuring compatibility with surrounding uses.
- Be limited to industrial uses which have a definite need for the availability of utilities, direct access to railroads and major thoroughfares, and the proximity of either airport or water frontage.
- Provide substantial benefits to both local economic needs and to the regional hinterland.

Values and standards in the Port Master Plan Update that are applicable to the project include the following:

- B. Promote clean air, healthy communities, and environmental justice. Seek to achieve environmental justice which shall be defined as: working to reduce the cumulative health burdens on neighboring communities and

ensure fair treatment of people of all races, cultures, and incomes in developing, adopting, implementing, and enforcing environmental laws, regulations, and policies.

- C. Ensure job creation, prudent economic policies, and financial sustainability. Balance economics, available resources and the public good. As the shepherd of public lands and water within the Tidelands, the Port shall require a strategy that outlines investment and costs that consider economic feasibility, long-term financial sustainability and viability for the Port District, broader State and community needs and impacts, while promoting public access, use, and enjoyment of the Bay. Utilize balanced and equitable investments in the tidelands and public realm in infrastructure improvements to create a value proposition for existing and future economic development, business attraction, growth, and public enjoyment of the Bay. Continue to increase revenues and support existing and future entrepreneurial opportunities in concert with Port operations such as, Cruise, Cargo, and Real Estate opportunities considering a progressive economic and business growth strategy.
- D. Preserve the working Port as a dynamic and thriving element of the region's economy and cultural history. The Port's working waterfront serves an essential role in the region as an economic engine and a job generator. The Bay's history as a commercial center and cultural exchange, facilitated by commerce, are historically important and are reflected in the modern industrial facilities located on the Bay's working waterfront. Protecting the Bay as a shared waterway to promote commerce, navigation, fisheries, national defense, and recreation were foundational to the creation of the Port and will continue to underscore future investment in water-dependent industrial facilities.
- E. Incorporate state of the art sustainability practices. Consider the long-term impacts of sea level rise and climate change to both land and water resources. Implement principles of resiliency and seek to become a national leader in thought and implementation of these practices. Implement energy conservation and sustainability practices and reduce dependency on carbon-based energy. Promote the health and sustainability of natural resources, and the growth and proliferation of natural ecosystems. Create a sustainable fiscal budget and update it regularly.

Planning principles in the Port Master Plan Update that are applicable to the project include the following:

- 1. Honor the water. Future decisions shall consider the health of the entire Bay eco-system as a single, multi-faceted entity. Create a water use plan comparable to a land use plan recognizing the value of land assets as a function of their adjacency to different types of water. Use this plan to maximize deep water and dredged resources, recreational opportunities, and natural resource protection. Encourage a variety of activities and entrepreneurial opportunities. Optimize infrastructure for water-dependent uses, organize water transportation routes, guide future decisions regarding infrastructure needs and upland uses adjacent to the Working Port, and integrate natural resources, climate change and water quality policies.
- 3. Celebrate nature and ecology. Establish an Environmental Stewardship Strategy. Celebrate the whole Bay as an inter-related marine, estuarine, and bay ecosystem that is valued, managed, protected, and enhanced for its overall impact on biology, economic prosperity, public use, and enjoyment. Promote the careful integration of water, natural resources, open space, and buildings.

San Diego International Airport Land Use Compatibility Plan

The San Diego International Airport ALUCP is a guiding document for development of the airport and surrounding areas in a manner that protects public health, safety, and welfare. As designated in the ALUCP, the project site is within the airport influence area for the San Diego International Airport (SDCRAA 2014: Exhibit 1-1). The project site is in Review Area 2, which is the boundary for which airspace protection and overflight policies and standards apply. The project site is also within the FAA airspace protection boundary pursuant to Federal Aviation Regulations, Part 77 (SDCRAA 2014: Exhibit 4-1).

San Diego Bay Integrated Natural Resources Management Plan

The San Diego Bay Integrated Natural Resources Management Plan (INRMP) is a long-term strategy, sponsored by the U.S. Navy and the District, that is intended to provide direction for the good stewardship of natural resources, while also supporting the ability of the U.S. Navy and District to meet their missions and continue functioning within the San Diego Bay (U.S. Department of the Navy et al. 2013). The stated goal of the INRMP is "to ensure the long-

term health, restoration, and protection of San Diego Bay's ecosystem in concert with the bay's economic, Naval, navigational, recreational, and fisheries needs." Table 1-5 of the INRMP summarizes the INRMP objectives. The INRMP objectives that are applicable to the project include the following:

- Objective 4.3.7: Artificial Shoreline Structures. Through engineering solutions, minimize the use of shoreline stabilization structures that impact or replace natural intertidal habitats, and maximize the value and function that necessary artificial structures contribute to the bay ecosystem.
- Objective 5.1.2: Sustainable Resource Use and Development. Sustain natural resources and Port and Navy institutional missions into the future without decline to natural resource assets or compromising the ability to grow those assets, by enabling innovation in planning, design, project management, and implementation.
- Objective 5.2.1: Dredge and Fill Projects. Conduct necessary dredging and dredge disposal in an environmentally and economically sound manner.
- Objective 5.2.2: Ship and Boat Maintenance. Manage the maintenance of boats and ships in San Diego Bay in a manner that achieves significantly improved water and sediment quality, healthier marine organisms, and economic good sense.
- Objective 5.2.3: Shoreline Construction. Seek improved habitat value of developed shorelines and marine structures and their functional contribution to the ecosystem.
- Objective 5.2.4: Water Surface Use and Shoreline Disturbance. Properly balance the various surface uses of the bay as a navigable waterway and associated shorelines with conservation priorities for waterbirds and shorebirds.
- Objective 5.3.2.1: Industrial. Reduce and minimize stormwater pollutants harmful to the bay's ecosystem from entering the bay from watershed users.
- Objective 5.4.1: Remediation of Contaminated Sediments. Ensure that San Diego Bay finfish and shellfish are safe to eat, that the food web is not adversely altered and that risks are minimized to recreational and commercial water contact users from the effects of contaminated sediment.
- Objective 5.4.2: Oil Spill Prevention and Clean Up. Prevent spills of oil and other hazardous substances, and ensure the effectiveness of prevention and response planning.
- Objective 5.5: Cumulative Effects. Minimize adverse cumulative effects on habitats and species of the bay ecosystem.

4.11.3 Discussion

a) Physically divide an established community?

No impact. The project involves the repair and replacement of a floating dry dock and associated infrastructure to support ongoing operations within the NASSCO shipyard. All construction activities would be contained within the NASSCO leasehold. Project construction would not expand the physical landside boundaries of the shipyard or expand into any adjacent communities. The project would not result in the construction of any physical barriers or require any road closures that would disrupt access within the surrounding community. No impact would occur.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less-than-significant impact. The project's consistency with applicable land use plans, policies, and regulations is discussed in the following sections.

Coastal Zone Management Act, California Coastal Act, Public Trust Doctrine, and San Diego Unified Port District Port Master Plan

The project involves the repair and replacement of a floating dry dock and associated infrastructure to support ongoing operations within the NASSCO leasehold. The project would not require any change to existing Marine Related Industrial and Specialized Berthing designations for the project site. Rather, the project would improve the safety and structural integrity of existing dry dock facilities and associated infrastructure to support the existing water-dependent maritime industrial operations at the project site. These improvements would ensure the continued use of the project site for its designated uses. All project improvements would be contained within the NASSCO leasehold and would not involve acquisition of adjacent parcels; however, the installation of the west offshore mooring dolphin would occur within CCC jurisdiction and would require approval from the CCC.

The project would ensure continued public and economic benefits through maintaining NASSCO employment opportunities and revenue, as well as national defense services (i.e., ship building and repair services for the U.S. Navy). The project site includes water-dependent maritime industrial operations and is not accessible to the public. The project would not affect coastal access because it would not decrease the availability of existing parking or alter existing public views, public waterfront access, or water-oriented recreational activities. Furthermore, the project would include measures to reduce impacts on biological resources and water quality (see Section 4.4, Biological Resources, and Section 4.10, Hydrology and Water Quality, for more information). Therefore, the project would be consistent with the goals, policies, and objectives outlined in the PMP, which were developed in accordance with the requirements of the Coastal Zone Management Act, California Coastal Act, and Public Trust Doctrine.

Table 4.11-1 includes a discussion of the project's consistency with CCC Sea Level Rise Policy Guidance (2018).

Table 4.11-1 California Coastal Commission Sea Level Rise Policy Guidance (2018)

Steps for Addressing Sea Level Rise	Project Discussion
1. Establish the projected sea level rise (SLR) range for the proposed project	The expected project life is anticipated to be 30 years. Construction of the various project components would be completed in 2023 to 2034. Therefore, the range of SLR projections applicable to the project would be 2050 to 2070. Because the project components include in-water structures to support maritime infrastructure, the extreme risk aversion scenario was used. Under this scenario, the projected SLR at the project site is anticipated to be 2.7 to 5.2 feet.
2. Determine how SLR impacts may constrain the project site	Impacts associated with SLR generally include erosion, inundation, flooding, wave impacts, and saltwater intrusion. The project site would be susceptible to inundation and storm surge under the scenarios described in Step 1 above. However, the various project components that would be constructed or repaired include in-water structures that are already exposed to these hazards. The project would not exacerbate projected damage due to SLR; rather, the project includes improvements to reinforce the existing shoreline through (1) installation of a sheet-piled bulkhead at the proposed Repair Complex Wharf; (2) repairs to revetment showing signs of wear, fracture, and collapse; and (3) repairs to existing structural piles or in-kind replacement of structural piles showing deterioration, cracking, corrosion, and wear. These project components are intended to improve resiliency to SLR within the project site.
3. Determine how the project may impact coastal resources over time, considering SLR	The project site is developed with marine-related, water-dependent industrial uses. The project site lacks many coastal resources, including public access and recreation, agricultural resources, natural landforms, scenic resources, and archaeological and paleontological resources. However, the project site includes water quality and natural resources. As discussed in Sections 3.4, Biological Resources, and Section 4.10, Hydrology and Water Quality, the project would include measures to reduce impacts on these resources. The project would not exacerbate the potential for impacts on water quality and natural resources from projected SLR. The project includes improvements to existing infrastructure and any potential impacts from SLR would occur even if the project was not implemented.
4. Identify project alternatives to both avoid resource impacts and minimize risks to the project	Implementation of the project would not exacerbate existing or projected damage to the environment, including damage to existing structures and sensitive resources, due to projected SLR. Mitigation is not required.
5. Finalize project design and submit permit application	As a standard practice, this step will be completed after the CEQA process is complete.

SLR = Sea Level Rise

Source: California Coastal Commission 2018

As discussed in Section 4.10, Hydrology and Water Quality, a SLR vulnerability assessment was completed for the Tenth Avenue Marine Terminal Planning District (San Diego Unified Port District 2019). Based on the assessment, this planning district is projected to withstand potential SLR inundation and temporary flooding from SLR during a 100-year storm event at 1.6 feet of projected SLR (anticipated in the year 2050). The higher elevation and existing shoreline armoring are expected to protect many of the land uses in the panning district from substantial projected SLR impacts. However, the coastal dependent uses in the planning district are sensitive to potential inundation. Several project components, including areas where quay wall revetment and pile repairs or replacement would occur, may be affected by mean SLR during the useful design life (i.e., 30 years) of the various project elements. However, these project elements are intended to protect the shoreline and improve SLR resiliency through addressing existing revetment failures and structural pile deficiencies. In addition, these project elements would not substantially increase in-water fill volumes and, therefore, would not have potential to impede or redirect flood flows. Furthermore, this type of inundation would occur with or without the proposed project. Consequently, the project is not anticipated to exacerbate existing or projected damage to the environment due to SLR. Therefore, the project would be consistent with CCC Sea Level Rise Policy Guidance (2018).

San Diego International Airport Land Use Compatibility Plan

In accordance with Federal Aviation Regulations, Part 77, the FAA would be notified at least 45 days prior to construction because project construction would introduce temporary objects (e.g., construction equipment, drilling rigs, and lights) in proximity to the airport. The proposed project is required to obtain all necessary FAA determinations prior to construction, and comply with any conditions provided in the determination, if any. Furthermore, the project would not result in any changes in existing land uses and does not propose increases in height limits for any existing structures. Therefore, the project would be consistent with the ALUCP and would not pose an obstruction or hazard to air navigation.

Natural Resources Management Plans

There are no habitat conservation plans or natural community conservation plans that apply to the project site. As discussed in Section 4.4, Biological Resources, the project would include mitigation measures to reduce impacts on marine habitats and species during construction activities. In addition, as discussed in Section 4.10, Hydrology and Water Quality, the project would include BMPs to protect water quality during construction activities, in compliance with NASSCO's individual NPDES permit requirements. Furthermore, NASSCO would be required to maintain all existing operational and maintenance BMPs, including a fully contained stormwater diversion system where discharging to the receiving water does not occur. Because the project includes measures to reduce impacts on the San Diego Bay's natural resources and would enable NASSCO to safely continue shipbuilding and repair operations, the project would be consistent with the goal and objectives of the San Diego Bay INRMP, as summarized in Section 4.11.2. Therefore, the project would not conflict with natural resources management plans.

Summary

As discussed above, the project would not result in any changes in existing land uses. Rather, the project would result in on-site improvements that would ensure the continued use of the project site for its designated uses. NASSCO would be required to obtain all necessary approvals from agencies governing land use of the project site, including the SLC, CCC, District, and FAA. Therefore, the project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Impacts would be less than significant.

Required Mitigation Measures

The project would not result in significant impacts associated with land use and planning. Mitigation measures are not required.

4.12 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Mineral Resources.				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

4.12.1 Environmental Setting

The Surface Mining and Reclamation Act directs the State Geologist to identify and map the non-fuel mineral resources of the State to show where economically significant mineral deposits occur and where they are likely to occur based upon the best available scientific data. Areas known as Mineral Resource Zones (MRZs) are classified based on geologic factors, without regard to existing land use and land ownership. The areas are categorized into four general classifications (MRZ-1 through MRZ-4). Of the four MRZ classifications, the MRZ-2 classification is recognized in land use planning because the likelihood for occurrence of significant mineral deposits is high, and the classification may be a factor in the discovery and development of mineral deposits that would potentially be economically beneficial to the local, state, and/or national economy.

The project site is classified as MRZ-1, which indicates no significant mineral deposits are located at the project site (City of San Diego 2008b: Figure CE-6). The project site is not designated as a locally important mineral resource recovery site in the City of San Diego General Plan Conservation Element (City of San Diego 2008b: Figure CE-6).

4.12.2 Discussion

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. According to City of San Diego's General Plan Conservation Element, the project site is in an area designated as MRZ-1, indicating that no significant mineral deposits are present (City of San Diego 2008b: Figure CE-6). Furthermore, the project site is in a highly developed and urbanized area with marine-related industrial land uses that are incompatible with and preclude mineral extraction. Therefore, the project would not result in the loss of availability of locally important mineral resources and no impact would occur.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. The project site is not designated as a locally important mineral resource recovery site in the City of San Diego General Plan Conservation Element (City of San Diego 2008b: Figure CE-6). Thus, the project would not result in a loss of availability of locally important mineral resources. No impact would occur.

Required Mitigation Measures

The project would not result in significant impacts associated with mineral resources. Mitigation measures are not required.

4.13 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII.Noise.				
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

4.13.1 Environmental Setting

NOISE FUNDAMENTALS

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. Sound is the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a human ear. Noise is defined as loud, unexpected, annoying, or unwanted sound. As sound travels through the atmosphere from the source to the receiver, noise levels attenuate (i.e., decrease) depending on a variety of factors, including geometric spreading (i.e., spherical or cylindrical spreading), ground absorption (i.e., hard versus soft sites), atmospheric conditions (e.g., wind direction and speed, air temperature, humidity, turbulence), and shielding by natural or human-made features. Geometric spreading is the way in which sound intensity decreases further away from the source, and it occurs because the area that the sound energy covers becomes larger with increasing distance.

The amplitude of pressure waves generated by a sound source determines the loudness of that source, also called the sound pressure level (SPL). SPL is most commonly described by using decibels (dB) because this logarithmic unit best corresponds to the way the human ear interprets sound pressures. However, the decibel scale does not adequately characterize how humans perceive noise because the human ear is not equally sensitive to loudness at all frequencies (i.e., pitch) in the audible spectrum. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an "A-weighted" sound level (expressed in units of A-weighted decibels or dBA) can be computed based on this information. All sound levels discussed in this section are expressed in A-weighted decibels.

Because decibels are logarithmic units, SPLs expressed in dB cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In typical noisy environments, changes in noise of 1–2 dB are generally not perceptible. However, it is widely accepted that people can begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally

perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness (Caltrans 2013a:2-10).

Various noise descriptors have been developed to describe time-varying noise levels. The noise descriptors used in this chapter include:

- Equivalent Continuous Sound Level (L_{eq}): L_{eq} represents an average of the sound energy occurring over a specified period. In effect, L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound level that occurs during the same period (Caltrans 2013a:2-48). For instance, the 1-hour equivalent sound level, also referred to as the hourly L_{eq}, is the energy average of sound levels occurring during a 1-hour period.
- Maximum Sound Level (L_{max}): L_{max} is the highest instantaneous sound level measured during a specified period (Caltrans 2013a:2-48; FTA 2018:207–208).
- CNEL: the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to sound levels occurring during the nighttime hours between 10 p.m. and 7 a.m. and a 5-dB penalty applied to the sound levels occurring during evening hours between 7 p.m. and 10 p.m. (Caltrans 2013a:2-48).

GROUND VIBRATION

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Groundborne vibration is vibration of and through the ground. Sources of groundborne vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, (e.g., operating factory machinery) or transient in nature (e.g., explosions). Regardless of land use, building damage could occur from continuous vibration. Land uses that are considered sensitive from human annoyance to vibration include residential uses, hospitals, nursing facilities, intermediate care facilities, child educational facilities, libraries, museums, and childcare facilities.

Groundborne vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV and RMS vibration velocities are normally described in inches per second (in/sec) but can also be expressed in decibel notation (VdB), which is used mainly in evaluating human response to vibration.

EXISTING NOISE ENVIRONMENT

The predominant noise sources influencing noise levels in the vicinity of the project site include vehicle traffic on Harbor Drive, I-5, I-15, and SR-75; train activity on the BNSF rail line and San Diego Metropolitan Transit System (MTS) Blue Line; aircraft activity associated with San Diego International Airport and Naval Air Station North Island; marine traffic in San Diego Bay; and industrial land use activities. Harbor Drive, which is a major north-south transportation corridor in the area, borders the NASSCO shipyard to the north. The BNSF rail line is located immediately north of Harbor Drive, approximately 750 feet from the nearest project site boundary. The San Diego MTS Blue Line is directly north of the BNSF rail line. Railway noise includes that generated by daily passenger (Amtrak) and commuter (Coaster) trains, as well as BNSF freight trains and MTS Blue Line trolleys.

The project site is located in a highly industrialized area along the San Diego Bay, with heavy industry land uses to the northwest; military land uses to the east and southeast; and military, light industry, and commercial and office land uses to the north. Noise sources associated with industrial land uses typically include heavy machinery and equipment (e.g., air compressors, generators), as well as various types of vehicles (e.g., delivery trucks, passenger vehicles).

Regarding other transportation noise sources, I-5 is located north of the BNSF rail line, approximately 2,030 feet from the nearest project site boundary, and intersects I-15 northeast of the project site. I-15 is located approximately 2,450 feet from the nearest project site boundary, and SR-75, which crosses the bay onto Coronado Island west of the project site, is approximately 2,300 feet from the nearest project site boundary. The runways of the San Diego

International Airport and Naval Air Station North Island are both located approximately 3.3 miles from the project site. Because these noise sources are all distant from the project site (over 1,000 feet away), they contribute less to existing on-site noise levels compared to other sources. However, these noise sources are important to provide context for understanding the noise environment in the areas surrounding project site.

In January 2019, ambient noise measurements were collected in the vicinity of the project site for the adjacent BAE Systems Waterfront Improvement Project. Existing noise levels in areas located north of Harbor Drive range from 61 to 69 dB CNEL, and the existing noise level across the bay on Coronado Island, north of SR-75, ranges from 63 to 66 dB CNEL (San Diego Unified Port District 2020b).

NOISE-SENSITIVE RECEPTORS

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels, and because of the potential for nighttime noise to result in sleep disruption. Noise-sensitive receptors are also considered vibration-sensitive receptors. Commercial and industrial buildings where vibration could interfere with operations within the building, including levels that may be well below those associated with human annoyance, are also considered vibration-sensitive receptors.

The nearest sensitive receptors within the City of San Diego include residences in the Barrio Logan neighborhood on the north side of Harbor Drive and the BNSF rail line. The closest residence is located approximately 1,180 feet north of the nearest project site boundary. The nearest residences within the City of Coronado are located across the San Diego Bay approximately 1.4 miles from the project site and are not discussed further due to their distance from the project site.

4.13.2 Regulatory Setting

STATE

California Department of Transportation Noise and Vibration Standards

In 2013, the California Department of Transportation (Caltrans) published the Transportation and Construction Vibration Manual (Caltrans 2013b). The manual provides general guidance on vibration issues associated with construction and operation of projects in relation to human perception and structural damage. Table 4.13-1 presents recommendations for levels of vibration that could result in damage to structures exposed to groundborne vibration.

Table 4.13-1 Caltrans Recommendations Regarding Levels of Vibration Exposure

Maximum PPV (in/sec)		Type of Building and Condition
Transient Sources	Continuous/Frequent Intermittent Sources	
0.12	0.08	Extremely fragile historic buildings, ruins, ancient monuments
0.2	0.1	Fragile buildings
0.5	0.25	Historic and some old buildings
0.5	0.3	Older residential structures
1.0	0.5	New residential structures
2.0	0.5	Modern industrial/commercial buildings

Notes: PPV= peak particle velocity; in/sec = inches per second.

Source: Caltrans 2013b:38

For evaluating impacts to occupied buildings (i.e., human annoyance) from pile driving, FTA has established criteria based on the frequency of vibration activities (FTA 2018). Considering the number of daily pile strikes (i.e., up to 10,000), the following criteria, are applicable to pile driving activities

- 65 VdB at buildings where vibration could interfere with interior operations
- 72 VdB at buildings where people normally sleep
- 75 VdB at institutional land uses with primarily daytime uses.

LOCAL

Because of the distance from the project site to the nearest sensitive receptors in the City of Coronado (1.4 miles away), regulations applicable to the City of Coronado are not discussed below. The local regulatory setting focuses on applicable regulations and standards for the City of San Diego. The project would only result in temporary noise from project construction; thus, the City of San Diego's construction standards stated in the municipal code are the only applicable standards.

City of San Diego Municipal Code – Noise Abatement and Control Ordinance

Section 59.5.0401 of the City's Noise Abatement and Control Ordinance (Sound Level Limits) states that:

> It shall be unlawful for any person to cause noise by any means to the extent that the one-hour average sound level exceeds the applicable limit given in the following table [shown as Table 4.13-2], at any location in the City of San Diego on or beyond the boundaries of the property on which the noise is produced. The noise subject to these limits is that part of the total noise at the specified location that is due solely to the action of said person.

Table 4.13-2 City of San Diego Noise Abatement and Control Ordinance Limits

Land Use	Time of Day	Sound Level dB L_{eq}[1]
Single Family Residential	7 a.m. to 7 p.m.	50
	7 p.m. to 10 p.m.	45
	10 p.m. to 7 a.m.	40
Multi-Family Residential	7 a.m. to 7 p.m.	55
	7 p.m. to 10 p.m.	50
	10 p.m. to 7 a.m.	45
All other Residential	7 a.m. to 7 p.m.	60
	7 p.m. to 10 p.m.	55
	10 p.m. to 7 a.m.	50
Commercial	7 a.m. to 7 p.m.	65
	7 p.m. to 10 p.m.	60
	10 p.m. to 7 a.m.	60
Industrial or Agricultural	Anytime	75

Notes: dB = decibel; L_{eq} = equivalent continuous sound level

[1]The sound level limit at a location on a boundary between two zoning districts is the arithmetic mean of the respective limits for the two districts.

Source: City of San Diego 2019

Section 59.5.0404 of the City's Noise Abatement and Control Ordinance (Construction Noise) states that:

> (a) It shall be unlawful for any person, between the hours of 7 p.m. of any day and 7 a.m. of the following day, or on legal holidays as specified in Section 21.0104 of the San Diego Municipal Code, with exception of Columbus Day and Washington's Birthday, or on Sundays, to erect, construct, demolish, excavate for, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise unless a permit has been applied for and granted beforehand by the Noise Abatement and Control Administrator. In granting such permit, the Administrator shall consider whether the construction noise in the vicinity of the proposed work site would be less objectionable at night than during the daytime because of different population densities or different neighboring activities; whether obstruction and interference with traffic particularly on streets of major importance, would be less objectionable at night than during the daytime; whether the type of work to be performed emits noises at such a low level as to not cause significant disturbances in the vicinity of the work site; the character and nature of the neighborhood of the proposed work site; whether great economic hardship would occur if the work were spread over a longer time; whether proposed night work is in the general public interest; and he shall prescribe such conditions, working times, types of construction equipment to be used, and permissible noise levels as he deems to be required in the public interest.
>
> (b) Except as provided in subsection C. hereof, it shall be unlawful for any person, including the City of San Diego, to conduct any construction activity so as to cause, at or beyond the property lines of any property zoned residential, an average sound level greater than 75 decibels during the 12-hour period from 7 a.m. to 7 p.m.
>
> (c) The provisions of subsection b of this section shall not apply to construction equipment used in connection with emergency work, provided the Administrator is notified within 48 hours after commencement of work.

4.13.3 Discussion

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?

Less-than-significant impact. Noise levels associated with project construction and operation are discussed separately, below. This section focuses on potential noise impacts on surrounding people and properties; potential effects of noise on wildlife are addressed in Section 4.4, Biological Resources.

TEMPORARY CONSTRUCTION NOISE

Construction activities associated with the project would result in a temporary increase in noise. Project construction would include five main components: floating dry dock replacement and modification (January 2023 to September 2024), Repair Complex Wharf improvements (September 2024 to July 2025), quay wall revetment repairs (January 2024 to February 2024), additional as-needed quay wall revetment repairs (January 2025 to December 2027), and structural pile repair and replacement (January 2024 to January 2034). Construction noise would fluctuate throughout the duration of project construction depending on the type of construction activities occurring and equipment used on any given day; the distances from construction activity to noise-sensitive receptors; any noise-attenuating features, such as topography, vegetation, and existing structures; and existing ambient noise levels. Although specific equipment used would vary for the different components of construction, project construction would generally involve the use of heavy construction equipment such as cranes, excavators, jackhammers, impact and vibratory pile drivers, dump trucks, shears, air compressors, concrete trucks and pumps, welding units, generators, and haul trucks. These pieces of equipment generate noise levels that range from 73 to 95 dB at 50 feet (FHWA 2006:3). No blasting would occur as part of the project.

Construction activities would occur 24 hours per day and seven days per week. However, construction work during evening and nighttime hours (between 7:00 p.m. and 7:00 a.m.) would be limited to project deliveries, formwork, welding, and other activities that would generate lower noise levels. No pile driving would be conducted during the evening or nighttime hours (7:00 p.m. to 7:00 a.m.). The applicable City noise standard for daytime (7:00 a.m. to 7:00 p.m.) construction noise is a 12-hour L_{eq} of 75 dB, which is the L_{eq} over a 12-hour period. Noise modeling used a worst-case hour, which is a conservative approach because the resulting noise levels are higher than construction averaged over 12 hours.

Noise standards for evening and nighttime hours established in Section 59.5.0401 of the City of San Diego Municipal Code vary depending on the type of land use and time of day. The nearest sensitive receptors to the project site are single-family residences located in Subdistrict B of the Barrio Logan Planning District, a residential zone that also allows for heavy industrial land uses (i.e., those permitted in IH-2-1 zones). This residential zone is adjacent to industrially zoned areas. Therefore, in accordance with San Diego Code Section 59.5.0401(b), the applicable City noise standard for these receptors is the arithmetic mean of the specified standards for industrial and single-family residential land uses. The applicable noise standards are the following:

- Daytime hours (7:00 a.m. to 7:00 p.m.): 75 dB L_{eq}, 12-hour
- Evening hours (7:00 p.m. to 10:00 p.m.): 60 dB L_{eq}
- Nighttime hours (10:00 p.m. to 7:00 a.m.): 57.5 dB L_{eq}

For construction that would only occur during daytime hours, noise modeling conservatively assumed simultaneous operation of four pieces of heavy equipment (a crane, excavator, pile driver, and flatbed truck) in close proximity to each other. For construction that would occur during evening and nighttime hours, noise modeling assumed simultaneous operation of a flatbed truck, a pump, and a welder in close proximity to each other. Based on the modeling conducted using FTA guidance (FTA 2018), the nearest residence to the project site boundary would be exposed to construction noise levels of 62 dB L_{eq} during daytime hours and 54 dB L_{eq} during evening and nighttime hours. Therefore, daytime construction would not exceed the applicable daytime noise standard of 75 dB L_{eq}, and evening and nighttime construction would not exceed the applicable evening and nighttime noise standards of 60 and 57.5 dB L_{eq}, respectively. Detailed calculations are provided in Appendix G.

The noise level at more distant receptors would be lower because noise attenuates with distance. Therefore, none of the applicable City standards during daytime, evening, or nighttime hours would be exceeded at any sensitive receptors due to the operation of noise-generating construction equipment. In addition, these construction noise estimates are conservatively high because they do not account for any additional attenuation that would be provided by existing buildings, structures, or vegetation that exist along the sound path between construction sites and receptors.

LONG-TERM, OPERATIONAL NOISE

Implementation of the project would not expand the existing use of the project site or expand existing shipyard operations, including any increase in capacity to service or build more ships. The same operations and maintenance activities would be undertaken in the same general locations and using the same types of equipment as are currently used. Shipyard operations would not introduce any new long-term sources of noise. In addition, the project would not appreciably increase the number of employees or visitors to the project site and, thus, there would be no measurable increase in traffic noise levels. For these reasons, long-term operational noise levels are not anticipated to change from current conditions. Additionally, no sensitive receptors are located in the vicinity of the project site.

SUMMARY

While project construction would result in temporary increases in noise levels, both daytime and nighttime construction associated with the project would not result in noise levels that exceed City standards at any sensitive receptors. Additionally, shipyard operations would not result in any long-term noise impacts from facility operations and maintenance. Therefore, this impact would be less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less-than-significant impact. Shipyard operations would not introduce any new long-term sources of vibration. Therefore, this analysis focuses on vibration generated by construction activities. Vibration assessments are generally separated into two distinct analyses, one that is concerned about the receiving land uses perception and associated level of annoyance to vibration-inducting activities, and the second which is concerned with the possibility of vibration-inducing activities to cause structural damage to nearby structures. Vibration-decibels, or VdB, is the unit of measurement most applicable to assessing annoyance and peak-particle velocity, or in/sec PPV, is the unit of measurement most applicable to assessing the potential for structural damage. Both assessments are conducted below.

Project construction would involve the use of ground vibration–intensive activities, such as impact and vibratory pile driving (i.e., although not representative of a typical day, the analysis conservatively assumes up to 10,000 pile strikes could occur on the most intensive construction day). Activities involving pile driving typically generate the highest vibration levels compared to other construction methods and are, therefore, of greatest concern when evaluating construction-related vibration impacts. Impact pile driving generates a vibration level of 1.52 in/sec PPV and 112 VdB at 25 feet when the equipment is being used at its upper range. Vibratory (i.e., sonic) pile driving generates a vibration level of 0.73 in/sec PPV and 105 VdB at 25 feet when the equipment is being used at its upper range (FTA 2018:184).

Regarding disturbance to vibration-sensitive uses, the buildings closest to the construction site are modern industrial buildings, none of which contain institutional uses or sensitive operations (e.g., medical laboratories). Residential uses are located over 1,000 feet from potential pile driving activities. Considering the reference levels for pile driving and the applicable threshold of 72 VdB (level for frequent events at places where people sleep), disturbance could be considered substantial within 540 feet from pile driving activities. No vibration-sensitive uses exist within this distance from potential pile driving locations.

Regarding structural damage, t applicable threshold for the prevention of structural damage at modern industrial/commercial buildings is 0.5 in/sec PPV (Caltrans 2013b). Assuming normal propagation conditions, vibration generated by impact and vibratory pile driving could exceed the threshold for structural damage within 53 and 32 feet of pile driving activity, respectively. No buildings or structures would be located within 53 feet of impact pile driving or 32 feet of vibratory pile driving. Refer to Appendix G for detailed vibration modeling calculations, which are based on FTA guidance (FTA 2018). Therefore, project construction would not result in disturbance to vibration-sensitive uses or structural damage to nearby structures from vibration-generating construction activities. This impact would be less than significant, and no mitigation is required.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No impact. The San Diego International Airport and Naval Air Station North Island are the closest public and private airports, and their runways are both located approximately 3.3 miles from the project site. Although the project is located within the airport influence area for the San Diego International Airport, the project site is over 1.5 miles from the airport's 60 dB CNEL noise contour (San Diego International Airport 2014). An Airport Land Use Compatibility Plan (ALUCP) is currently being prepared for the Naval Air Station North Island and the noise contours prepared for the ALUCP EIR indicate that the project site is over 1.5 miles from the airport's 65 dB CNEL noise contour (County of San Diego 2019). The project is not located within two miles of a public private airstrip. The project would not include any new land use development where people would reside. Operation of the project would not expose existing employees to increased aircraft noise or require an increased number of employees. Therefore, the project would have no impact regarding the exposure of people residing or working in the project area to excessive aircraft-related noise levels, and no mitigation is required.

4.14 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Population and Housing.				
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

4.14.1 Environmental Setting

The project site is within Planning District 4 (Tenth Avenue Marine Terminal) of the PMP. According to the PMP, there are approximately 50,000 jobs within this planning district (San Diego Unified Port District 2020a). There are no residential land uses within the District's jurisdiction, including the project site. The nearest residences to the project site are within the adjacent Barrio Logan community plan area. The nearest residence is approximately 1,180 feet northeast of the project site and is separated from the project site by Harbor Drive, railroad ROW, and a recycling center.

4.14.2 Discussion

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less-than-significant impact. The growth inducing potential of a project would typically be considered significant if it fosters growth or a concentration of population in excess of what is assumed in applicable land use plans. Significant growth impacts could also occur if a project provides infrastructure or service capacity to accommodate levels of growth beyond levels currently permitted by local or regional plans or policies.

The project involves the repair and replacement of a floating dry dock and associated infrastructure to support ongoing operations within the NASSCO leasehold. The project does not propose new homes or businesses that would directly induce population growth. In addition, the project does not include the expansion of existing infrastructure, including changes to existing shipyard operations, that would indirectly induce population growth. Approximately 10 workers would be present on the project site each day during the construction period. Construction workers are anticipated to commute from within the surrounding area and would likely not require temporary local housing. Therefore, there would be a negligible temporary increase in local and regional population during construction. Thus, the project would not induce substantial unplanned population growth and impacts would be less than significant.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No impact. The land use designation for the project site is Marine Related Industrial (Land) and Specialized Berthing (Water). Residential housing is not an allowable use within Harbor Drive Industrial Subdistrict and no housing currently exists on the project site. Therefore, the project would not displace people or housing and would not require the construction of replacement housing. No impact would occur.

Required Mitigation Measures

The project would not result in significant impacts associated with population and housing. Mitigation measures are not required.

4.15 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Public Services.				
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

4.15.1 Environmental Setting

The City of San Diego's Fire-Rescue Department (SDFRD) provides fire, emergency medical, lifeguard and emergency management services, including 9-1-1 services, fire inspections, permits, and community education. In addition, the San Diego Harbor Police Department provides marine crime and firefighting services. The closest fire station is SDFRD Fire Station 7 at 944 Cesar E. Chavez Parkway, approximately 0.7 mile northwest of the project site. The Port of San Diego Harbor Police Department (HPD) and the City of San Diego Police Department (SDPD) provide law enforcement services to the project site. The closest police station is the SDPD Central Division Station at 2501 Imperial Avenue, approximately 1.0 mile north of the project site.

The project site is located within the San Diego Unified School District (SDUSD). The closest SDUSD school is the Logan Memorial Educational Campus at 2875 Oceanview Avenue, approximately 0.4 mile north of the project site. As identified in Section 4.16, Recreation, the closest parks to the project site include Chicano Park, Memorial Community Park, and Dorothy Petway Neighborhood Park. Other nearby public facilities include the San Diego Public Library at 567 S 28th Street, approximately 0.6 mile north of the project site.

4.15.2 Discussion

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?

Less-than-significant impact. The project involves the repair and replacement of a floating dry dock and associated infrastructure to support ongoing operations within the NASSCO leasehold. As discussed in Section 4.14 above, approximately 10 workers would be present on the project site each day during the construction period. Project construction would result in a negligible temporary increase in local population and would not contribute to permanent population growth. Therefore, project construction would not affect performance objectives for SDFRD or the HPD.

Project construction would be contained within the NASSCO leasehold and would not require any road closures. In addition, project construction would result in a negligible temporary increase in vehicle trips on surrounding roadways associated with worker commutes and haul trips (refer to Section 4.17, "Transportation," for more information). Therefore, project construction would not contribute to substantial congestion on surrounding roadways that would affect response times for SDFRD or the HPD.

The project would not result in an expansion of the existing use of the site, an increase in shipbuilding and repair operations, or additional employees, other than those needed during construction. Therefore, project operations would not affect response times for SDFRD or the HPD. Based on the above discussion, the project would not require the provision of new or physically altered fire protection facilities. Therefore, impacts would be less than significant.

Police protection?

Less-than-significant impact. Refer to the discussion for fire protection above. Project construction would not result in permanent population growth that would affect service ratios for SDPD or the HPD. In addition, project construction would not contribute to substantial congestion on surrounding roadways or otherwise hinder police response such that response times for the HPD or SDPD would be affected. The project would not result in an expansion of the existing use of the site, an increase in shipbuilding and repair operations, or additional employees, other than those needed during construction. Therefore, project operations would not affect response times for SDPD or the HPD. Based on the above discussion, the project would not require the provision of new or physically altered police protection facilities. Impacts would be less than significant.

Schools?

No impact. As discussed in Section 4.14, Population and Housing, the project would not result in permanent population growth. The project would not result in an expansion of the existing use of the site, an increase in shipbuilding and repair operations, or additional employees, other than those needed during construction. Jobs generated during construction would be drawn from the local workforce that is already served by existing school facilities. Therefore, the project would not increase the demand for school facilities or increase existing student to teacher ratios. Furthermore, project activities would be contained within the NASSCO leasehold and would not encroach onto any school property. Therefore, the project would not require the provision of new or physically altered schools. No impact would occur.

Parks?

No impact. Refer to Section 4.16, Recreation, for additional information. The project would not result in permanent population growth that would generate additional demand for parks. In addition, project activities would be contained within the NASSCO leasehold and would not encroach onto any park property. Therefore, the project would not require the provision of new or physically altered parks and recreation facilities. No impact would occur.

Other public facilities?

No impact. As discussed in Section 4.14, Population and Housing, the project would not result in permanent population growth. Therefore, the project would not increase the demand for existing public facilities. Furthermore, project activities would be contained within the NASSCO leasehold and would not encroach onto any public facility property. Therefore, the project would not require the provision of new or physically altered public facilities. No impact would occur.

Required Mitigation Measures

The project would not result in significant impacts associated with public services. Mitigation measures are not required.

4.16 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Recreation.				
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

4.16.1 Environmental Setting

- The project site is within the NASSCO shipyard in a developed industrial area. The nearest public parks and recreational facilities to the project site include the following:
- Chicano Park is located at 1982 National Avenue, approximately 0.6 mile northwest of the project site. The 0.5-acre park is operated by the City of San Diego Parks and Recreation Department and includes a playground, tot lot, restrooms, and basketball courts.
- Cesar Chavez Park is located at 1449 Cesar E. Chavez Parkway, approximately 0.6 mile northwest of the project site. The 4-acre park is operated by the District and includes a recreational pier, picnic and playground areas, a soccer field, and green open space.
- Memorial Community Park is located at 2947 Ocean View Boulevard, approximately 0.7 mile northeast of the project site. The 18-acre park is operated by the City of San Diego Parks and Recreation Department and includes a playground, tot lot, concession stand, baseball/softball fields, and restrooms.
- Dorothy Petway Neighborhood Park is located at 1367 Rigel Street, approximately 1.3 miles east of the project site. The 2.7-acre park is operated by the City of San Diego Parks and Recreation Department and includes a playground, tot lot, and restrooms.

4.16.2 Discussion

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less-than-significant impact. An increase in the use of existing parks and recreational facilities typically results from an increase in the number of housing units or residences in the surrounding area. The project would not involve the construction of housing units or residences. As discussed in Section 4.14, Population and Housing, approximately 10 workers would be present on the project site each day during the construction period, which would contribute to a negligible temporary increase in population. The demand for short-term construction jobs would be met by the local work force, and it is anticipated that no outside labor would be needed. The project would not result in an expansion of the existing use of the site, an increase in shipbuilding and repair operations, or additional employees, other than those needed during construction. Consequently, the project would not contribute to a permanent increase in

population that would increase the use of existing parks or recreational facilities. Furthermore, project activities would be contained within the NASSCO leasehold and would not require closure of any parks or recreational facilities. Therefore, impacts would be less than significant.

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

No impact. The project involves the repair and replacement of a floating dry dock and associated infrastructure to support ongoing operations within the NASSCO leasehold. The project would not involve the construction or expansion of recreational facilities, such that adverse physical effect on the environment would occur. Therefore, impacts would be less than significant.

Required Mitigation Measures

The project would not result in significant impacts associated with recreation. Mitigation measures are not required.

4.17 TRANSPORTATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. Transportation.				
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐
e) Result in an insufficient parking supply that would lead to a decrease in public coastal access?	☐	☐	☒	☐

4.17.1 Environmental Setting

The transportation impact analysis presented in this section is based primarily on the *NASSCO Floating Dry Dock and Waterfront Improvement Project Transportation Impact Study* (TIS) prepared by Intersecting Metrics (2021, Appendix H). The TIS, which is included as Appendix H, provides additional data and information related to the transportation analysis.

ROADWAY NETWORK

Access to the project site is provided via the surrounding roadway network which includes I-5, SR 75, I-15, East Harbor Drive at the intersection of 28th Street and via East Belt Street to the northwest, and Ward Road to the southeast.

State Highways

The following state highways are operated and maintained by Caltrans and provide regional access to the project site:

- **I-5** is a north-south freeway that traverses the United States from the Mexican to the Canadian border through the states of California, Oregon, and Washington. Within California, I-5 connects the major metropolitan areas of San Diego, Los Angeles, Sacramento, and the eastern portion of the San Francisco Bay Area. Near the project site, I-5 can be accessed by way of South 28th Street and South 29th Street via Boston Avenue to the north.
- **SR 75** begins as Palm Avenue at I-5 south of the project site, enters the city of Imperial Beach before becoming Silver Strand Boulevard and crossing into Coronado. SR 75 continues onto Coronado Island and across the San Diego-Coronado Bridge to the north of the project site where it reconnects with I-5.
- **I-15** is a north-south freeway that spans the United States from Southern California to the Canadian border crossing through the states of Nevada, Arizona, Utah, Idaho, and Montana. Within California, I-15 runs north-south between the City of San Diego and Riverside County and southwest-northeast through San Bernadino County. Near the project site, I-15 can be accessed via South 32nd Street.

Roadways

The following roadways provide access to the project site:

- East Harbor Drive is a bi-directional four-lane roadway east of the project site. The roadway runs parallel to two separate rail lines; the MTS light rail transit system and a heavy rail freight line. Near the project site, on-street parking is generally permitted on both sides of the roadway. Sidewalks are present on the west side of the roadway but absent from the eastern side. Bike lanes are present on both sides of the roadway within the vicinity of the project site.
- Belt Street is a bi-directional two-lane roadway which provides direct access to the project site via Sampson Street. East Belt Street is fronted by parking lots and heavy industrial businesses. Parking is not generally permitted on either side of the roadway. Discontinuous sidewalks are present along the roadway, and bicycle facilities are not present.
- Ward Road is a bi-directional two-lane roadway within Naval Base San Diego. Ward Road connects with Belt Street and East Harbor drive southeast of the project site. Although, Ward Road does not allow for public use, the roadway could potentially provide access for construction or emergency vehicles.

BICYCLE AND PEDESTRIAN FACILITIES

The bicycle and pedestrian transportation system in the City of San Diego is composed of local and regional bike lanes, bike paths, and bike routes. Bicycle facilities are classified as follows:

- Class I—off-street bike paths;
- Class II—on-street bike lanes marked by pavement striping;
- Class III—on-street bike routes that share the road with motorized vehicles;
- Bicycle Boulevard—local roads or residential streets that have been enhanced with traffic calming and other treatments to facilitate bicycle travel; and
- Cycle Track—bikeways located in roadway right-of-way but separated from vehicle lanes by physical barriers or buffers.

Pedestrian facilities (sidewalks) are present along all nearby streets in the vicinity of the project site, except for along the eastern side of East Harbor Drive where sidewalks are not present. Intermittent Class II bicycle facilities (i.e., on-street bike lanes) are present along East Harbor Drive.

TRANSIT SYSTEM

Two rail lines serving the MTS San Diego Trolley and freight are located northeast of the NASSCO shipyard. The Harborside Station located at East Harbor Drive and South 28th Street is approximately 800 feet northeast of the project site and is served by the Blue Line Trolley. The Blue Line Trolley runs from the Mexican border to Downtown San Diego and has seven to eight-minute headways during the weekday peak periods. The Mid-Coast Trolley Extension project is anticipated to open in late 2021 extending the Blue Line Trolley north from Downtown San Diego to the University Community area.

4.17.2 Regulatory Setting

STATE

Senate Bill 743

SB 743, passed in 2013, required the Governor's Office of Planning and Research (OPR) to develop new State CEQA guidelines that address transportation metrics under CEQA. As stated in the legislation, upon adoption of the new guidelines, "automobile delay, as described solely by level of service (LOS) or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any."

In December of 2018, OPR published the most recent version of the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory) which provides guidance for VMT analysis. The Office of Administrative Law approved the updated State CEQA Guidelines and lead agencies had an opt-in period until July 1, 2020 to implement the updated guidelines as they related to VMT. As of July 1, 2020, implementation of Section 15064.3 of the updated CEQA Guidelines apply statewide.

The District has not yet formally adopted any thresholds or guidance related to VMT analysis. Therefore, in the absence of adopted VMT guidelines and thresholds of significance, the VMT analysis here-in relies on the guidance provided in CEQA Guidelines Section 15064.3 and the OPR Technical Advisory (OPR 2018).

The OPR Technical Advisory states that lead agencies may screen out VMT using project size, maps, transit availability, and provision of affordable housing. Many agencies use these screening thresholds to identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study. These screening thresholds are identified below:

- *Small Project* – Projects that generate or attract fewer than 110 trips per day generally may be assumed to result in a less-than-significant transportation impact.
- *Map-Based Screening for Residential and Office Projects* – Residential and office projects located in areas with low VMT, and that incorporate similar features (i.e., density, mix of uses, transit accessibility), will tend to exhibit similarly low VMT. Maps created with VMT data, for example from a travel survey or a travel demand model, can illustrate areas that are currently below threshold VMT. Because new development in such locations would likely result in a similar level of VMT, such maps can be used to screen out residential and office projects from needing to prepare a detailed VMT analysis.
- *Presumption of Less Than Significant Impact Near Transit Stations* – Lead agencies generally should presume that certain projects (including residential, retail, and office projects, as well as projects that are a mix of these uses) proposed within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor will have a less-than-significant impact on VMT.
- *Presumption of Less Than Significant Impact for Affordable Residential Development* – Adding affordable housing to infill locations generally improves jobs-housing match in turn shortening commutes and reducing VMT. Further, low-wage workers in particular would be more likely to choose a residential location close to their workplace if one is available. In areas where existing jobs-housing match is closer to optimal, low-income housing nevertheless generates less VMT than market-rate housing. Therefore, a project consisting of a high percentage of affordable housing may be a basis for the lead agency to find a less-than-significant impact on VMT.

Parking and Public Access

The California Coastal Act, specifically Section 30252, requires new development within the Coastal Zone to maintain and enhance public access to the coast by providing adequate parking facilities or providing substitute means of serving the development with public transportation. In accordance with the California Coastal Act, a significant parking and public access impact would occur if the proposed project would result in an insufficient parking supply

that, when considered with other modes of travel (e.g., bicycling, walking, transit use), would reduce the general public's access to the waterfront, as well as coastal commercial and recreational resources. To determine whether the proposed project would result in an insufficient parking supply, thereby inhibiting public coastal access, the analysis relies on the standards in the District's *Tidelands Parking Guidelines*.

4.17.3 Discussion

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less-than-significant impact. Railroad right-of-way consisting of two rail lines, one serving the MTS San Diego Trolley and the other a freight heavy rail are located just northeast of the project site. Harborside Station which serves the Blue Line Trolley is located approximately 200 feet from the NASSCO shipyard and approximately 800 feet from the delineated project site. Additionally, MTS Bus service is available along Main Street located northeast of East Harbor Drive. The nearest bus stops are located along Main Street at 28th, 27th, and 26th Street.

The number of employees that access the NASSCO facilities during operational activities is not anticipated to change with implementation of the project. Therefore, the project would not result in an increase in demand for transit facilities.

Pedestrian facilities, including sidewalks and a pedestrian rail crossing at South 28th Street, are present in the vicinity of the project site and provide access to the Harborside Station. Additionally, intermittent Class II bicycle lanes are located along East Harbor Drive in the vicinity of the project stie.

As discussed in Section 2.3, "Project Site and Location," the project site is within the Harbor Drive Industrial Subarea of Planning District 4 of the certified PMP (San Diego Unified Port District 2020a). SANDAG is currently building the Bayshore Bikeway, 24 miles of continuous bicycle facilities around the San Diego Bay, which includes a Barrio Logan Segment in the vicinity of the project site. The Barrio Logan Segment will be located north of the project site along Harbor Drive from Park Boulevard to 32nd Street. Construction of the Barrio Logan Segment is anticipated to begin in 2022. Additionally, the PMP supports the build out of the Bayshore Bikeway project within the Harbor Drive Industrial area where the project is located (San Diego Unified Port District 2020a:79).

All proposed project improvements are located within the NASSCO shipyard; and thus, would not alter the surrounding roadway network. Therefore, the project would not conflict with future bicycle or pedestrian improvements. Additionally, the project would not alter daily operations; and thus, would not increase the demand for additional bicycle or pedestrian facilities.

For the reasons detailed above, the project would not result in an increase in demand for transit, bicycle, or pedestrian facilities, disrupt any such existing or planned service or facilities, or conflict with a program, plan, ordinance, or policy addressing these facilities. Therefore, the project would result in a less than significant impact and no mitigation is required.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles travelled?

Less-than-significant impact. State CEQA Guidelines Section 15064.3 was added on December 28, 2018, to address the determination of significance for transportation impacts, which requires VMT as the basis of transportation analysis instead of congestion (such as LOS). The change in the focus of transportation analysis is intended to shift the focus from congestion to, among other things, reduction in greenhouse gas emissions, the development of multimodal transportation networks, and encouraging a diversity of land uses. State CEQA Guidelines Section 15064.3(b) identifies criteria for analyzing the transportation impacts of a project.

Section 15064.3(b)(1) addresses land use projects and describes that projects with specified proximity to "major" or "high quality" transit should be presumed to cause a less than significant transportation impact. As defined in PRC Section 21064.3, a "major transit stop" means a site containing an existing rail transit station, a ferry terminal served

by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. PRC Section 21155(b) defines a high-quality transit corridor as a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours. Additionally, Section 15064.3(b)(1) also describes that projects resulting in a decrease VMT in the project area as compared to existing conditions should also be presumed to have a less than significant effect.

Section 15064.3(b)(2) addresses transportation projects. The project would not include transportation improvements; and thus, would not be considered a transportation project. Therefore, this section does not apply.

Section 15064.3(b)(3) (Qualitative Analysis) explains that there may be conditions under which a qualitative rather than quantitative analysis of VMT is appropriate. This section states that if existing models or methods are not available to estimate the VMT for the particular project being considered, a lead agency may qualitatively analyze VMT generated by a project. Additionally, this section notes that for many projects, a qualitative analysis of construction traffic may be appropriate.

Section 15064.3(b)(4), Methodology, explains that the lead agency has discretion to choose the most appropriate methodology to evaluate VMT subject to other applicable standards such as CEQA Guidelines Section 15151 (standards of adequacy for EIR analyses).

The Technical Advisory, published by OPR in December 2018, provides advice and recommendations related to transportation analysis under SB 743, which agencies and other entities may use at their discretion. The Technical Advisory provides guidance related to screening thresholds for small projects to indicate when detailed analysis is needed or if a project can be presumed to result in a less than significant VMT impact. The Technical Advisory notes that projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact, absent substantial evidence indicating otherwise (OPR 2018). Therefore, using OPR guidance, projects that would generate fewer than 110 trips per day would be presumed to result in a less-than-significant VMT impact.

The Technical Advisory notes that projects proposed within 0.5 mile of an existing major transit stop or an existing stop along a high-quality transit corridor generally may be assumed to cause a less-than-significant transportation impact unless project-specific or location-specific information indicates that the project would still generate significant levels of VMT. PRC Section 21064.3 defines a major transit stop as a site containing an existing rail transit station, a ferry terminal served by either bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. PRC Section 21155 defines a high-quality transit corridor as a fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

Construction

As detailed in Section 2.5.3., "Construction Equipment and Workers," over the duration of construction, approximately 10 construction workers would access the construction site each day. Additionally, construction activities are anticipated to generate approximately two contractor vehicle truck trips per day to transport miscellaneous material and equipment. The majority of contractor equipment, materials, and personnel will be mobilized and demobilized from the project site via barge or water access.

Project construction activities would be temporary and intermittent in nature; and thus, would not result in long-term increases in vehicular trips. Additionally, the VMT of construction workers is not newly generated; instead, it is redistributed throughout the regional roadway network based on the different work sites in which workers travel to each day. Therefore, construction workers are not generating new VMT each day, only redistributing it. Therefore, construction activities are not expected to significantly increase VMT in the region.

Operations

The project includes replacement or repair to the floating dry dock, Repair Complex Wharf, quay wall revetment, and structural piles. The repairs and improvements will not expand or add any new facilities or infrastructure within the

project site. Therefore, the project is not anticipated to change the number of employees that access the NASSCO facilities on a daily basis, nor are they anticipated to increase the number of deliveries, vendors, or other services to the facility. Because no new vehicle trips will be generated during operation of the project, the project will generate fewer than 110 new daily trips; thus, meeting the screening criteria for small projects outlined in the Technical Advisory and being presumed to result in a less-than-significant VMT impact.

Additionally, the project would be located approximately 800 feet from the Harborside Station, a stop along the Blue Line Trolley. The Blue Line Trolley, which provides service between the Mexican border and Downtown San Diego, has headways of seven to eight-minute during the morning and afternoon peak commute periods. Therefore, the Harborside Station is considered a major transit stop as defined by PRC Section 21064.3. Thus, using guidance provided in the OPR Technical Advisory, because the project is located within 0.5 mile of an existing major transit stop it is presumed to result in a less-than-significant VMT impact.

Summary

For the reasons detailed above, the project would not conflict or be inconsistent with CEQA Guidelines section 15064.3(b); and thus, would result in a less than significant impact to VMT and no mitigation is required.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less-than-significant impact.

Construction

Existing designated areas at or near the construction site would be utilized for staging or laydown and contractors would park within the limits of the project site in designated equipment and material staging areas. If needed, the contractor would use high occupancy vehicles to transport the approximately 10 construction workers from the contractor's facility to the project site and back daily. Contractors would park within the limits of the project site in designated equipment and material staging areas. Vehicles would access the project site from East Harbor Drive.

Operations

All improvements and repairs associated with the project would occur to existing facilities within the NASSCO shipyard; and thus, would not alter the physical transportation network external to the project site. Therefore, the project would not require the construction, re-design, or alteration of any public roadways. Additionally, implementation of the project would not change operational activity or the types of vehicles accessing the project site. Thus, the operation of the project would not result in hazards because of design features or incompatible vehicular uses.

Summary

For the reasons detailed above, the project would not substantially increase transportation-related hazards; and thus, would result in a less than significant impact and no mitigation is required.

d) Result in inadequate emergency access?

Less-than-significant impact. The project would not require the construction, re-design, or alteration of any public roadways and construction activities would occur primarily within the NASSCO facility. Emergency access would be subject to review by the District and responsible emergency service agencies; thus, ensuring the project would be designed to meet all applicable emergency access and design standards. NASSCO BMP #102: Emergency Response requires anyone who works at the NASSCO facility to be aware of how to respond to emergencies, the location of the nearest fire extinguisher, and their evacuation or muster location (NASSCO 2016). Additionally, NASSCO has an onsite fire and emergency response team to respond to medical emergencies. Additionally, the southernmost site access point at the intersection of East Harbor Drive, Belt Street, and Ward Road provides as secondary ingress/egress point and access for emergency services if needed. Therefore, the project would not result in inadequate emergency access; and thus, would result in a less than significant impact and no mitigation is required.

e) Result in an insufficient parking supply that would lead to a decrease in public coastal access?

Less-than-significant impact.

Construction

During the entirety of project construction, approximately 10 construction workers would access the project site on a daily basis. Therefore, the parking demand associated with construction activity would be a maximum of 10 parking spaces. Contractors would be required to park within the limits of the project site in designated equipment and material staging areas and would not displace existing NASSCO or other public parking. Parking for construction workers would either use high occupancy vehicles to transport workers to and from the construction site from the contractor's office(s) on a daily basis, or would be provided parking in the immediate vicinity of the construction site within NASSCO's leasehold. Additionally, no parking lots would be used for construction staging or laydown.

Operations

As discussed above, the project would not result in any changes to operations. For this reason, the number of daily employees accessing the site is expected to remain the same; therefore, no additional parking demand is anticipated during operation of the project. Additionally, the nature of the area provides waterfront industrial land for marine-oriented businesses. As described in the PMP, the project site is located in the Harbor Drive Industrial Subarea which is encompassed entirely by NASSCO (San Diego Unified Port District 2020a:17). The NASSCO shipyard is located on private land that is not accessible to the public; therefore, public coastal access in relation to parking supply would not be affected.

Summary

The operational nature of the NASSCO shipyard would not change due to the project, and the number of employees is expected to remain the same. Additionally, the project site is not accessible to the public; therefore, public coastal access in relation to parking supply would not be affected during operation. During project constructions at most, 10 parking spaces would be required to accommodate construction workers. Additionally, parking lots would not be used for construction staging or laydown, and parking requirements related to contractor parking would not displace NASSCO or public parking. For these reasons, the project would not result in insufficient parking supply that would lead to a decrease in public coastal access; and thus, would result in a less than significant impact, and no mitigation is required.

Required Mitigation Measures

The project would not result in significant impacts associated with transportation; thus, mitigation measures are not required.

4.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Tribal Cultural Resources.				
Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)?	☐ Yes			☒ No
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☐	☐	☒

4.18.1 Environmental Setting

AB 52, signed by the California Governor in September of 2014, established a new class of resources under CEQA: "tribal cultural resources," defined in PRC Section 21074. Pursuant to PRC Sections 21080.3.1, 21080.3.2, and 21082.3, lead agencies undertaking CEQA review must, upon written request of a California Native American Tribe, begin consultation before the release of an EIR, negative declaration, or mitigated negative declaration. No California Native American tribes have requested notification for environmental review projects under CEQA within the District's jurisdiction.

A records search at SCIC was conducted for the project site and quarter-mile radius to determine if tribal cultural resources are present within the project site. No tribal cultural resources that are listed in or eligible for listing in the CRHR were identified during the records search. Additionally, a Sacred Lands File Search of the project site and vicinity was obtained from NAHC. No Sacred Lands were identified by the NAHC.

4.18.2 Discussion

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

No impact. The SCIC records search resulted in the identification of no tribal cultural resources that are listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources, within the project site including the construction staging area. Therefore, no impact would occur.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

No impact. Under Public Resources Code Section 21080.3.1, a lead agency shall begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of a proposed project if the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of projects in the geographic area that is traditionally and culturally affiliated with the tribe. No California Native American tribes have requested to be informed of projects by the District; therefore, there is no trigger to begin consultation under AB 52, resulting in no resources identified as tribal cultural resources under Public Resources Code Section 21074. Therefore, no impact would occur.

Required Mitigation Measures

The project would not result in significant impacts associated with tribal cultural resources. Mitigation measures are not required.

4.19 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. Utilities and Service Systems.				
Would the project:				
a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

4.19.1 Environmental Setting

The utility providers that serve the project site are summarized in the following sections.

WATER

Water service is provided to the project site by the City of San Diego Public Utilities Department. Based on the City 2015 Urban Water Management Plan, the potable water demand forecast for the City's service area is 180,540 acre-feet per year (AFY) in 2020 and 246,801 AFY in 2040 (City of San Diego 2016: Table 4-3).

WASTEWATER

Wastewater treatment service is provided to the project site by the City of San Diego Public Utilities Department Wastewater Branch. Based on the City 2015 Urban Water Management Plan, the City collects, treats, and disposes of approximately 180 million gallons per day (mgd) of wastewater. Wastewater from the City is treated by the North City Water Reclamation Plant, South Bay Water Reclamation Plant, and Point Loma Wastewater Treatment Plant. The

Point Loma plant currently treats the wastewater generated by the project site and has a treatment capacity of 240 mgd and a peak wet weather capacity of 432 mgd (City of San Diego 2016).

STORMWATER DRAINAGE

Stormwater runoff from the project site is captured and contained for subsequent discharges to the San Diego Metropolitan Sanitary Sewer System.

ELECTRIC POWER AND NATURAL GAS

SDG&E provides electricity and natural gas services to the project site. SDG&E serves approximately 3.6 million people over an area that spans approximately 4,100 square miles in San Diego and southern Orange counties (SDG&E 2021).

SOLID WASTE

The City of San Diego Environmental Services Department is responsible for the collection and disposal of refuse, recyclables, household hazardous waste, and green waste in the City of San Diego. The department operates one full-service landfill and organic recycling facility, the Miramar Landfill, which is located at 5180 Convoy Street in the City of San Diego. The Miramar Landfill receives approximately 870,000 tons of trash per year and is anticipated to reach capacity by 2025 (City of San Diego 2021).

NASSCO has previously used landfills within the County of San Diego for solid waste disposal, including the Sycamore and Otay Landfills operated by Republic Services. According to the California Department of Resources Recycling and Recovery (CalRecycle) Solid Waste Information System database, the Sycamore Landfill had a remaining capacity of 113,972,637 cubic yards as of December 2016 with an estimated closure date of December 2042. The Otay Landfill had a remaining capacity of 21,194,008 cubic yards as of May 2016 and estimated closure date of February 2030 (CalRecycle 2021).

4.19.2 Discussion

a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?

Less-than-significant impact. The project would require existing utility lines to be replaced and reconfigured to support the existing demands of dockside operations. The utilities consist of fresh water, salt water, compressed air, compressed gases, and electrical, which are routed from existing distribution systems throughout the project site. Project implementation would not result in a change in demand on municipal systems.

The project's effects on water, wastewater treatment or stormwater drainage, electric power, natural gas, and telecommunication facilities are described in the following sections.

Water

Construction activities would require the consumption of water for suppressing fugitive dust emissions, preparing and placing concrete, and other general uses. Construction-related water use would represent a small demand on local and regional water supplies that could be accommodated by the existing provider. The project would not generate a permanent increase in water demand compared to existing conditions. Moreover, the project does not propose or require any new or expanded water facilities or infrastructure, other than the replacement and reconfiguration of existing water lines that connect to the project components that are being replaced.

Wastewater

As discussed above under Section 4.14, Population and Housing, the project would not result in an increase in population. The temporary jobs generated during project construction would be drawn from the local workforce that is currently served by existing wastewater treatment facilities, and no permanent jobs would be created. Project-generated wastewater requiring treatment would be limited to onsite construction personnel and activities. These activities, primarily limited to a modest increase in restroom use, would not generate a significant amount of new wastewater. The minimal wastewater generated from project construction would not exceed the requirements of any wastewater treatment facilities. In addition, the project would not generate a permanent increase in demand for wastewater treatment compared to existing conditions. As such, no new or expanded wastewater facilities or infrastructure would be required and none are proposed.

Stormwater Drainage

As discussed in Section 4.10, Hydrology and Water Quality, the project would result in a net increase in overwater coverage of 10,210 square feet for permanent structures (i.e., floating dry dock, mooring dolphins, approach pier fender system, and Repair Complex Wharf) and 300 square feet for temporary structures (i.e., catwalk and removable brow). Stormwater runoff from the NASSCO facility, including the new overwater structures, would be captured and contained in the existing SWDS system for subsequent, controlled discharge to the San Diego Metropolitan Sanitary Sewer System. The SWDS has a capacity to retain an excess of 33,858,000 gallons, which is enough capacity to capture a 100-year storm event, including when accounting for the additional surface areas proposed by the project. NASSCO would be required to maintain all existing operational and maintenance BMPs and comply with the RWQCB's Order R9-2016-0116, which regulates polluted runoff, for the new overwater structures. NASSCO's existing NPDES permit would be updated to reflect the increase in overwater coverage. As such, no new or expanded stormwater drainage facilities would be required and none are proposed.

Electric Power and Natural Gas

As discussed in Section 4.6, Energy, construction activities would require the consumption of diesel fuel associated with the operation of heavy-duty construction equipment, material deliveries, and debris hauling; gasoline associated with worker commute trips; and minor amounts of electricity associated with operation of electric-powered construction equipment. Construction-related energy use would represent a small demand on local and regional fuel and electricity supplies that could be accommodated by existing facilities and infrastructure. No changes in operational energy use would occur. Therefore, the project would not result in any new or expanded energy facilities or infrastructure.

Telecommunication Facilities

The project would not increase the demand for telecommunications from existing conditions or require the construction of additional telecommunication facilities.

Summary

Based on the above discussion, the project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities. Therefore, impacts from construction and operation would be less than significant.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less-than-significant impact. Refer to Section 4.19.2(a) above. Construction-related water use would represent a small demand on local and regional water supplies that could be accommodated by the existing provider. As there is no landside construction, including any grading activities, there would not be a need for regular watering to control onsite dust. Moreover, the project would not generate a permanent increase in water demand compared to existing conditions. Therefore, there would be sufficient water supplies available to serve project construction and operation and reasonably foreseeable future development during normal, dry, and multiple dry years. Impacts would be less than significant.

c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?

Less-than-significant impact. Refer to Section 4.19.2(a) above. The minimal wastewater generated from project construction would not exceed the requirements of any wastewater treatment facilities. In addition, the project would not generate a permanent increase in demand for wastewater treatment compared to existing conditions. Therefore, the wastewater treatment provider would have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. Impacts would be less than significant.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less-than-significant impact. The project would require removal or demolition of existing structures and disposal of the subsequent debris. Although details are not known at this time, the existing floating dry dock would be sold or disposed of outside of California and the United States, with Mexico being the most likely recipient. Non-hazardous construction trash and debris would be sent to approved recycling facilities in accordance with the City's Recycling Ordinance and C&D Debris Deposit Ordinance, which requires recycling of a minimum of 65 percent of the construction waste. Remaining non-hazardous construction trash and debris would be handled through NASSCO's current trash hauler, Republic Services, and disposed at local landfills located outside the coastal zone. These landfills are anticipated to include Republic Services Sycamore and Otay Landfills in San Diego County, California.

Project construction is not anticipated to generate hazardous waste. However, if generated, RCRA and non-RCRA hazardous waste would be removed by NASSCO's current hazardous waste haulers, Univar Solutions or US Ecology. All hazardous waste would be transported under a waste manifest to an authorized hazardous waste Treatment, Storage, and Disposal Facility. These facilities may include US Ecology/Univar Solutions Clearfield Plant in Clearfield, Utah; Clean Harbors Buttonwillow LLC in Buttonwillow, California; or US Ecology Nevada in Beatty, Nevada.

Removal of the existing Repair Complex Wharf is anticipated to generate approximately 100 creosote-treated timber piles. In conformance with California Department of Toxic Substances Control standards, the timber piles would be managed and manifested as hazardous waste and transported to a Class I hazardous waste landfill for disposal. If other hazardous waste is generated, RCRA and non-RCRA hazardous waste would be removed by NASSCO's current hazardous waste haulers, Univar Solutions or US Ecology. All hazardous waste would be transported under a waste manifest to an authorized hazardous waste Treatment, Storage, and Disposal Facility.

No changes in operational generation of solid waste are anticipated. Operational solid waste generation would continue to comply with applicable statutes and regulations defined in Section 4.19.2(e) below, including AB 939 and AB 341 to support statewide goals of diverting solid waste from landfills. It is anticipated that local recycling facilities and landfills have adequate capacity to accommodate the solid waste that would be temporarily generated from construction activities. Therefore, impacts would be less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less-than-significant impact. Refer to Section 4.19.2(d) above. The following statutes and regulations related to solid waste are applicable to local jurisdictions and solid waste collectors:

- AB 939 (1989) California Integrated Waste Management Act: Requires all California cities, counties, and approved regional solid waste management agencies to divert 25 percent of their solid waste by 1995 and 50 percent by 2000. AB 939 established the California Integrated Waste Management Board, which later became CalRecycle.
- AB 341 (2012) Mandatory Recycling: Increases California's waste diversion goal from 50 percent to 75 percent by 2020. AB 341 also includes mandatory commercial recycling to reduce greenhouse gas emissions. All commercial businesses that generate more than four cubic yards or more of solid waste per week are required to have a recycling program in place.

- AB 1594 (2014) Green Material Disposal: Effective January 1, 2020, jurisdictions can no longer count green material used as alternative daily cover (ADC) at landfills toward their recycling goals. Jurisdictions are required to develop plans to divert green material from landfills.
- Senate Bill (SB) 1383 (2016) Short-Lived Climate Pollutants – Organic Waste Methane Emissions Reductions: Requires a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. SB 1383 also requires at least 20 percent of currently disposed edible food be recovered for human consumption by 2025. Jurisdictions, haulers, and generators are required to implement programs to comply with the law by January 1, 2022.
- City of San Diego Recycling Ordinance: Provides recycling requirements for City-serviced multi-family residences, privately serviced businesses, commercial/institutional facilities, apartments, condominiums and permitted special events.
- City of San Diego C&D Debris Deposit Ordinance: Requires construction, demolition, and remodeling projects needing building, combination (i.e., permits for structural modifications to existing structures), and demolition permits pay a refundable deposit and divert at least 65 percent of their debris by recycling, reusing, or donating usable materials.
- City of San Diego Zero Waste Plan (City of San Diego 2015): Part of the City's approved Climate Action Plan, which sets goals of achieving 75 percent diversion of solid waste by 2020, 90 percent diversion of solid waste by 2035, and zero solid waste by 2040.

The project would not conflict or cause a local jurisdiction or service provider to conflict with any federal, state, or local solid waste regulations, including AB 939 (California Integrated Waste Management Act), AB 341 (Mandatory Recycling), AB 1594 (Green Material Disposal), or SB 1383 (Short-Lived Climate Pollutants: Organic). Moreover, waste generated from construction activities would be required to comply with the City Recycling Ordinance and the City's C&D Debris Deposit Ordinance. No changes in operational generation of solid waste are anticipated.

In addition, hazardous wastes would be separated, classified, and disposed of at an appropriate landfill that accepts hazardous waste. The disposal of hazardous wastes would be conducted in accordance with applicable regulations and laws, including the Federal Toxic Substances Control Act, RCRA and Hazardous Solid Waste Act Amendments, Environmental Health Standards for the Management of Hazardous Waste (CCR Title 22, Division 4.5, Section 66001 et seq.), California Labor Code (Division 5, Parts 1 and 7), and San Diego County Code (Title 6, Division 8) (see Section 4.9, Hazards and Hazardous Waste, for additional information). No changes in operational generation of hazardous wastes are anticipated.

Based on the discussion above, project construction and operation would comply with all federal, state, and local management regulations related to solid waste. Impacts would be less than significant.

Required Mitigation Measures

The project would not result in significant impacts associated with utilities and service systems. Mitigation measures are not required.

4.20 WILDFIRE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Wildfire.				
Is the project located in or near state responsibility areas or lands classified as very high fire hazard severity zones?				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:		☐ Yes		☒ No
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

4.20.1 Environmental Setting

The project site is within a local responsibility area and is designated by CAL FIRE as a non-VHFHSZ (CAL FIRE 2009). The nearest lands classified as a state responsibility area are approximately 7.8 miles southeast of the project site and the nearest lands classified as VHFHSZ are approximately 1.9 miles north of the project site (CAL FIRE 2007; CAL FIRE 2009). Therefore, the project site is not located in or near a state responsibility area or lands classified as VHFHSZ; no further discussion related to wildfire is required.

4.20.2 Discussion

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No impact. As discussed in Section 4.20.1, the project site is not located in or near a state responsibility area or lands classified as VHFHSZ; therefore, no impact would occur.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No impact. As discussed in Section 4.20.1, the project site is not located in or near a state responsibility area or lands classified as VHFHSZ; therefore, no impact would occur.

c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No impact. As discussed in Section 4.20.1, the project site is not located in or near a state responsibility area or lands classified as VHFHSZ; therefore, no impact would occur.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No impact. As discussed in Section 4.20.1, the project site is not located in or near a state responsibility area or lands classified as VHFHSZ; therefore, no impact would occur.

Required Mitigation Measures

The project would not result in significant impacts associated with risk of wildfire. Mitigation measures are not required.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Mandatory Findings of Significance.				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

4.21.1 Environmental Setting

State CEQA Guidelines Section 15064(h)(2) states that:

> A lead agency may determine in an initial study that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. When a project might contribute to a significant cumulative impact, but the contribution will be rendered less than cumulatively considerable through mitigation measures set forth in a mitigated negative declaration, the initial study shall briefly indicate and explain how the contribution has been rendered less than cumulatively considerable.

State CEQA Guidelines Section 15130(b) identifies the following three elements that are necessary for an adequate cumulative analysis:

- A list of past, present, and probable future projects producing related or cumulative impacts, including those projects outside the control of the lead agency, or a summary of projections contained in an adopted general plan or related planning document that describes or evaluates conditions contributing to the cumulative effect.
- A summary of expected environmental effects to be produced by those projects. The summary shall include specific reference to additional information stating where the information is available.
- A reasonable analysis of the cumulative impacts of the relevant projects and an examination of reasonable options for mitigating or avoiding any significant cumulative effects.

A list of past, present, and probable future projects is provided in Table 4.21-1. Past projects include all historic development that has combined to create the existing environmental condition; however recently completed projects (last 5 years) within District jurisdiction that are now operational are included for reference in Table 4-4. Present projects are defined as those that are under construction but not yet operational. Probable future projects are defined as those for which a development application has been submitted or credible information is available to demonstrate that project development is the probable outcome. Projects were identified based on publicly accessible information on the District website and communications with District staff members.

Projects were selected based on their location within the cumulative study area for the project and the potential to cause impacts related to the impacts of the project. The geographic scope of the cumulative impact analysis area varies based on the environmental topic. The study area for each environmental topic is described under the environmental topic headings below.

Table 4.21-1 Cumulative Projects List

Project Number	Name	Location	Description	Status
1	Dole Fresh Fruit Refrigerated Rack Project	850 Water Street, within the District's Tenth Avenue Marine Terminal	Involved the installation of five new refrigerated racks with an additional 94 electrical outlets, to increase outlets from 669 to 763. Improvements increased storage capacity within the existing footprint to accommodate up to three new larger ocean-going vessels.	Completed.
2	San Diego Continuing Education – Cesar Chavez Campus	Intersection of National Avenue and Cesar E. Chavez Parkway	New Cesar E. Chavez Campus is a 67,924-square-foot school facility with 22 classrooms to serve 720 students. The facility includes a multi-purpose room and administrative offices.	Completed.
3	BAE Systems-Pier 1 North Drydock, Associated Real Estate Agreements and Removal of Cooling Tunnels Project	2205 East Belt Street	Replacement of a wet berth with a new floating drydock and removal of subsurface cooling tunnels. Dredging activities were estimated to result in approximately 395,000 cubic yards of sediment.	Completed.
4	Shipyard Sediment Remediation Project	San Diego Bay between Sampson Street extension to the north and Schley Street to the south from the shoreline to the U.S. Pierhead Line to the west and a portion of British Aerospace Systems facility, San Diego, CA 92113	Consisted of the dredging of sediment adjacent to shipyards in the San Diego Bay, the dewatering and solidification of the dredged material on-shore, treatment of decanted water, and the transport of the removed material to an appropriate landfill for disposal.	Completed.
5	Naval Base Point Loma Fuel Pier (P151) Replacement and Dredging	Naval Station Point Loma and Alternative Bait Barge locations within state lands, San Diego, CA	Temporary Space and Naval Warfare Systems Center (SSC) marine mammal facilities at Naval Main and Anti-Submarine Warfare Command (NMAWC) and relocation of the program to NMAWC; demolished existing Naval Base Point Loma Fuel Pier in phases so as to leave pier operational throughout project; constructed 71,180-square-foot double-deck replacement pier and performed associated dredging; returned SSC marine mammal program to original location.	Completed.

Project Number	Name	Location	Description	Status
6	Pier 12 Replacement and Dredging at Naval Base San Diego	Pier 12 at Naval Base San Diego	Demolition of an inadequate existing pier (Pier 12); dredging in berthing and approach areas for a new pier; dredged material disposal at an approved ocean disposal site and permitted upland landfill; construction of a new pier and associated pier utilities, including upgrades to the electrical infrastructure at the adjacent Pier 13; and reuse of demolition concrete to create fish enhancement structures (artificial reefs). The purpose of the project was to address the current and impending shortfall at Naval Base San Diego of pier infrastructure necessary to support modern Navy ship classes with deep draft-power intensive or power intensive requirements.	Completed.
7	Shelter Island Boat Launch Facility Improvements Project	2210 Shelter Island Drive, San Diego, CA 92106	Repair, maintenance, and replacement of the boat launch ramp, jetties (including public walkways), gangways, and floating docks, as well as minor improvements to the kayak launching area, restrooms, and parking.	Completed.
8	Cold Ironing Phase 2 at B Street and Broadway Pier	B Street Pier and Broadway Pier, 1140 and 1000 North Harbor Drive	Infrastructure components to provide shore power to existing terminal operations at the B Street and Broadway Piers (three berths) to reduce air pollutant emissions and greenhouse gas emissions while cruise ships are berthed. Initially, shore power will be available to one ship at a time; in subsequent years, two ships will be able to use shore power at the same time.	Currently in design and slated for future construction.
9	San Diego Bay and Imperial Beach Oceanfront Fireworks Display Events	Throughout District tidelands	Addition of an Ordinance to the Port District Code that established a program to regulate fireworks. Specifically, the program governs the existing and proposed new fireworks display events requiring a discretionary action by the District or operated by the District's tenants that occur within the San Diego Bay and Imperial Beach Oceanfront. Four new fireworks display events were anticipated to require a future discretionary action by the District, including three displays along the Chula Vista Bayfront and one display along the National City Bayfront.	EIR was certified and Ordinance was adopted on May 25, 2017.
10	Pier 8 Replacement Naval Base San Diego	Pier 8 at Naval Base San Diego	Demolition of the inadequate existing Pier 8, construction of a replacement Pier 8, and provision of associated pier utilities. The purpose of the proposed action is to address the current and impending shortfall at Naval Base San Diego of pier infrastructure necessary to support modern Navy ship classes with deep-draft and power-intensive requirements.	Under construction.
11	Tenth Avenue Marine Terminal Redevelopment Plan and Demolition and Initial Rail Component Project	686 Switzer Street	Program- and project-level EIR analysis. The program component looks at Maximum Practical Capacity of three distinct cargo nodes (e.g., Refrigerated Container, Neo-bulk/Break Bulk, Dry Bulk) to the horizon year of 2035. Long-term infrastructure investments may include up to five gantry cranes, additional and consolidated dry bulk storage	Under construction.

Project Number	Name	Location	Description	Status
			capacity, enhancements to the existing conveyor system, demolition of molasses tanks and Warehouse C, additional open storage space, and on-dock intermodal rail facilities. Project-level improvements would be completed by June 30, 2020, and involve demolition of two transit sheds, installation of a small gear-shack with restrooms and outdoor storage space, and on terminal rail upgrades. Project improvements do not involve any in-water work; all program- and project-level improvements would be landside.	
12	Portside Pier Restaurant Redevelopment Project	1360 North Harbor Drive	Redevelopment of an existing waterfront restaurant with a new facility, including new pilings, piers, decking, and structure. Development involves demolition of an existing restaurant and supporting structure (including 66 piles) and redevelopment with a new, two-story restaurant and supporting structure (on 53 piles). The new facility would be approximately 33,577 square feet and include three distinct dining establishments, a coffee and gelato shop, an expanded dock-and-dine for short-term boat berthing, and a public viewing deck. The project would involve an approximately 8,722-square-foot increase in building floor area and a 4,480-square-foot net increase in water coverage. Restaurant seating would be increased by 464 seats. A new public viewing deck with approximately 108 seats is proposed and the replacement dock and dine boat dock would allow an increase in boat slips from 2 to 12; however, 4 would be constructed initially.	Completed July 2020.
13	B Street Pier Cruise Ship Terminal Maintenance Projects	B Street Pier, 1140 North Harbor Drive	Projects on B Street Pier required to address routine maintenance requirements to improve safety, security, integrity, aesthetics, and comfort of this facility. Roof replacement, roll-up and rolling gate doors installation, fire system upgrades, ceiling and hangers cleaning and painting, mobile gangway and platform painting, and installation of photovoltaic system.	Completed.
14	B Street Mooring Dolphin Project	B Street Pier, 1140 North Harbor Drive	Proposal to install moorings off the end of B Street Pier to allow for larger cruise ship docking.	Draft EIR was circulated February 2013. The Final EIR has not yet been certified. Project on hold.
15	Fifth Avenue Landing Redevelopment	Southerly paper end of Fifth Avenue, between the back of the Convention Center and South Embarcadero Park, San Diego, CA 92101	Proposed development would include: two hotel structures; one 44-story, approximately 498-foottall, 850-room hotel tower; and one 5-story, approximately 82-foot-tall, 565-bed, lower-cost, visitor-serving hotel; a 263-space parking structure; retail; meeting space; ancillary guest amenities; an optional bridge connecting the hotel to the Convention Center; approximately 85,490 square feet of public access areas, with approximately 3,190 square feet at ground level and 82,300 square feet	The Board rejected the project in December 2020.

Project Number	Name	Location	Description	Status
			on a podium level; and expansion of the marina by an additional 57,696 square feet of dock space. The project would maintain the existing 35-footwide bayfront promenade.	
16	Port Master Plan Update (PMPU)	Throughout District tidelands	Major update of the Port Master Plan that is anticipated to include new topical sections, or elements, to provide Baywide guidance related to Land and Water Use, Coastal Access and Recreation, Mobility, Natural Resources, Safety and Resiliency, and Economic Development.	The Draft Program EIR was released for public review in November 2021 and the Final Program EIR is currently in progress.
17	Metro Center Project	West side of National Avenue between Commercial and 16th Streets	Consists of 160,600 square feet of regional shopping center uses, 163,300 square feet of retail space, and a 152,000-square-foot lumber store.	Foreseeable project, not entitled.
18	Mitsubishi Cement Corporation	850 B. Water Street, within District's Tenth Avenue Marine Terminal	Involves improvements to Warehouse C at the Tenth Avenue Marine Terminal to import up to 500,000 metric tons of cement per year with an estimated 20,000 annual customer truck trips, for an average of less than 55 trucks per day during operations, with a maximum 192 trucks visiting the site per day.	Foreseeable project, not entitled. Final Subsequent EIR released November 2020. Consideration of the Final EIR continued.
19	Harbor Island West Marina Redevelopment	2040 Harbor Island Drive, San Diego, CA 92101	Involves demolition of 23,000 square feet of existing building and construction of 15,000 square feet of new office, deli, and retail, as well as reconfiguration of an existing marina. The project would construct a new 12-foot-wide public promenade and reduce the number of boat slips from 620 to 603.	Foreseeable project, not entitled. Draft Mitigated Negative Declaration (MND) released December 2019.
20	Lockheed Martin Harbor Island Facilities Demolition and Sediment Remediation Project	1160 Harbor Island Drive, San Diego, CA 92101	Involves demolition of 5,500 square feet of building and removal of a pier and trolley rail.	Final EIR certified December 2020. Under construction.
21	National City Bayfront Projects and Plan Amendments	Generally north of Sweetwater Channel, south of Civic Center Drive, east of National City Marine Terminal, and west of Paradise Marsh and Interstate 5, National City, CA 91950	Includes several landside and waterside improvements, including a recreational vehicle park, modular cabins, dry boat storage, hotels, an expanded marina, a rail connector track and storage track, road closures, Segment 5 of the Bayshore Bikeway, restaurants, and retail development. The project also includes corresponding amendments to the District's Port Master Plan and the City of National City's General Plan, Local Coastal Program, Harbor District Specific Area Plan, Land Use Code, and Bicycle Master Plan.	Foreseeable project, not entitled. Draft EIR released in September 2021.
22	Central Embarcadero Redevelopment	Generally south of the USS Midway Museum and Harbor Drive, west of the Manchester Grand Hyatt and Kettner Boulevard, and north and east of San Diego Bay, San Diego, CA 92101	Includes redevelopment of approximately 40 acres of land and 30 acres of water. Project design is conceptual at this time, but currently includes an observation tower, boat slips, an aquarium, public park space, hotels, retail, office space, an educational center, and parking.	Foreseeable project, not entitled. The project is in the planning stages.

Project Number	Name	Location	Description	Status
23	HII San Diego Shipyard Inc. Marginal Wharf Repair and As-Needed Pile Replacement Project	1995 Bay Front Street, San Diego, California	Involves two components consisting of demolition, reconstruction, and reconfiguration of piers and wharves. Component 1 is the replacement of three wharves that have severely deteriorated. Component 2 includes the demolition of one pier and the as-needed pile replacement of the remaining five piers.	MND adopted on April 9, 2019. Under construction. Additional project components currently being analyzed through an addendum to the 2019 MND.
24	Redevelopment of the Elbow Parcel on East Harbor Island	7-acre parcel of land north of the East Basin Industrial Subarea in the current PMP known as the Elbow Parcel	Involves an approximately 500-room hotel with other amenities including swimming pools, spas, gym, retail shops, open space event lawn, and a viewing deck.	Foreseeable project, not entitled. Environmental addendum in progress and construction anticipated in 2023.
25	Bayside Performance Park Enhancement Project	Embarcadero Marina Park South (EMPS)	Involves the replacement and enhancement of structures in EMPS and new facilities including the Bayside Performance Park, a new performance and event venue to hold up to 10,000 attendees and various other park improvements.	EIR certified on January 9, 2018. Construction completed.
26	3121 Boston Avenue Duplex – Project 409094	3121 Boston Avenue	Includes a 2,535-square-foot residential duplex on a 7,704 square-foot site that contains an existing 1,892-square-foot residential duplex.	Unknown. The CDP was issued in September 2015.
27	Workshop for Warriors CDP/SDP – Project 528711	2984, 2970, 2960, 2948, 2940 Main Street	Includes an 89,000-square-foot warehouse/ trade school/ roof deck and parking, within 1.28 acres.	Unknown.
28	Boston Commons – Project 176117	2893 Boston Avenue	Involves five affordable residential units for rent on a 0.24-acre site.	Unknown.
29	The Barrio Flats NDP/CDP – Project 541700	2257–2275 Logan Avenue	Involves the demolition of existing buildings and construction of a new 38,375-square-foot, four story, mixed-use building that would include: 24 residential units, 10 hotel rooms, and 5 retail spaces. The existing building on the 0.41-acre site would remain.	Final MND released July 2019. The SDP/CDP was issued in October 2019.
30	U-Stor-It – CDP – Project 586276	2209 National Avenue	Involves the demolition of an existing commercial building within the 0.807-acre site, for the development of a new three-story 68,878-square-foot self-storage building over two levels, and 90,297 square feet of underground basement.	Unknown. The CDP was issued in November 2018.
31	Family Counseling Center CDP – Project 490726	2130, 2134, and 2142 National Avenue	Involves the demolition of two single dwelling units and one commercial building located on three contiguous lots consisting of 0.34 acre. Includes the construction of a two-story family counseling center facility totaling 8,129 square feet.	Unknown. The CDP was issued in December 2016.
32	2142 Logan Avenue SDP/CDP – Project 585277	2142 Logan Avenue	Involves a mixed-use building to include 11 artist studios, retail sales, offices, and gallery spaces within the 0.10-acre site.	Final ND released December 2018. The SDP/CDP was issued in March 2019.
33	BAE Systems Waterfront Improvement Project	2205 E Belt Street	Involves the maintenance, repair, and replacement project for waterfront infrastructure associated with mooring and operational facilities on approximately 35.9 acres within the BAE Systems San Diego Ship Repair Yard	Final EIR certified February 2022.

4.21.2 Discussion

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

Less than significant with mitigation incorporated. As discussed in Sections 4.1, 4.9, 4.10, and 4.13, project construction would result in a health risk exceeding an established threshold, potential releases of hazardous materials into the environment, and degradation of water quality, which would be a potentially significant impact. With implementation of BMPs and mitigation measures **MM-AQ-1, MM-BIO-4, MM-HAZ-1 through MM-HAZ-11**, and **MM-WQ-1** and **MM-WQ-2**, the project would not substantially degrade the quality of the environment.

As discussed in Section 4.4, Biological Resources, project construction has potential to result in direct and indirect effects on eelgrass habitat and aquatic wildlife if they were to be present in the project site, which would be a potentially significant impact. With implementation of **MM-BIO-1 through MM-BIO-6**, the project would not substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or substantially reduce the number or restrict the range of an endangered, rare, or threatened species.

As described in Section 4.5, Cultural Resources, and Section 4.18, Tribal Cultural Resources, no cultural resources were identified within the project site. In addition, it is not anticipated that intact cultural or paleontological resources are present where ground-disturbing activities would occur because ground disturbance would be limited to artificial fill. Therefore, the project would not eliminate important examples of the major periods of California history or prehistory.

Following construction, the project site would be returned to a similar condition as the existing setting. The project would not introduce new activities during operations that would have potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory.

Required Mitigation Measures

With implementation of **MM-BIO-1 through MM-BIO-6** described in Section 4.4, **MM-HAZ-1 through MM-HAZ-11** described in Section 4.9, and **MM-WQ-1** and **MM-WQ-2** described in Section 4.10, the project would not result in significant impacts.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less than significant with mitigation incorporated. Because the project would have no impact on agriculture and forest resources, mineral resources, and tribal cultural resources, and wildfire, it would have no potential to contribute to significant cumulative impacts related to those resource areas. The project would have less than significant impacts on aesthetics, cultural resources, energy, greenhouse gas emissions, land use and planning, noise, population and housing, public services, recreation, transportation, tribal cultural resources, and utilities and service systems. With mitigation, the project would have a less than significant impact on air quality, biological resources, geology and soils, hazards and hazardous materials, and hydrology and water quality. The project would not result in any significant and unavoidable impacts. Analysis of the project's cumulative effects is provided below for each environmental topic

addressed in Sections 4.1 to 4.20 of the checklist that has potential to result in impacts that are less than significant or less than significant with mitigation.

Aesthetics

As described in Section 4.1, the project would have a less than significant impact related to scenic vistas, scenic resources within a state scenic highway, conflicts with zoning and other regulations governing scenic quality, and light and glare.

The cumulative study area for aesthetics includes the project site and surrounding areas with views to and from the project site. The cumulative study area is characterized as highly developed and industrial, with existing views dominated by shipbuilding facilities and associated infrastructure. Existing light sources include those typical of an urban industrial setting, including exterior security lighting, street and vehicle lighting, and spillover lighting from buildings.

Based on the analysis in Section 4.1, aesthetics impacts would not be cumulatively considerable because (1) the temporary presence of construction equipment would not produce a noticeable change to the existing visual character of the project site and surrounding area, which is predominately industrial; (2) project elements would not dominate the existing viewshed and would not have potential to block views from scenic vistas or damage resources within a state scenic highway; (3) project improvements would not require changes to existing PMP designations for the project site and would not conflict with other regulations governing scenic quality; and (4) light sources required for temporary construction activities would be directed on-site and would be of similar intensity as existing light sources. Furthermore, the project would not expand existing operations within the NASSCO leasehold. As such, views to and from the project site would remain similar to existing conditions for the duration of project construction and operation. Therefore, the project would not contribute to a cumulative effect on aesthetics and no further analysis is required.

Air Quality

As described in Section 4.3, the project would have less than significant impacts related to conflicts with the applicable air quality plan, increases in criteria pollutants, exposure of sensitive receptors to substantial pollutant concentrations, and emissions of odors.

The cumulative study area for air quality is the SDAB, which is designated as a nonattainment area with respect to the NAAQS and CAAQS for ozone, and the CAAQS for $PM_{2.5}$ and PM_{10}. Air pollutant emissions associated with project construction are addressed as a cumulative impact in Section 4.3. Based on the analysis in Section 4.3, air quality impacts would not be cumulatively considerable because the short-term construction of the project would not generate emissions of criteria air pollutants or precursors that would exceed SDAPCD's established trigger levels, which were developed as a metric to indicate whether a project's emissions would cumulatively contribute to the nonattainment designations in the SDAB. In addition, because the use of off-road construction equipment with Tier 4 engines would be required pursuant to **MM-AQ-1**, the project would not expose sensitive receptors to quantities of pollutants greater than significance thresholds, nor would a significant risk of adverse health impacts result from exposure. As such, impacts related to the exposure of sensitive receptors to substantial pollutant concentrations would not be cumulatively considerable. Furthermore, impacts related to odors would not be cumulatively considerable because odors would dissipate rapidly from the source with an increase in distance. Therefore, the project would not contribute to a cumulative effect on air quality and no further analysis is required.

Biological Resources

As described in Section 4.4, the project would have no impact related to conflicts with habitat conservation plans; therefore, no cumulative analysis is required for this topic area. The project would have a less than significant impact related to the movement of wildlife species. With mitigation, the project would have less than significant impacts related to adverse effects on special-status species, sensitive habitats, and state or federally protected wetlands, as well as conflicts with local policies or ordinances protecting biological resources.

The cumulative study area for biological resources includes all areas within the project site where in-water construction activities would occur. A total of 14 special-status wildlife species associated with marine environments may be present in the project site based on geographic range and suitable habitat. Approximately 5,150 square feet of eelgrass habitat, which is considered a sensitive habitat, is present in the cumulative study area. The project site contains a portion of San Diego Bay, which is considered a water of the United States.

As discussed in Section 4.4, project construction would involve in-water activities that would generate loud noise and vibration and increase turbidity. In addition, new overwater structures would increase shading. The project has potential to result in direct and indirect effects on eelgrass habitat and aquatic wildlife if they were to be present in the project site. BMPs would be implemented to comply with regulations and permit conditions imposed by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and other regulatory agencies. However, the project could still result in the harassment or behavioral disruption of aquatic species, loss of eelgrass habitat, and disturbance of sediments and increased turbidity in the San Diego Bay. Therefore, the project has potential to result in cumulatively considerable impacts related to biological resources. Mitigation measures MM-BIO-1 through MM-BIO-6, as described in Section 4.4, would be implemented to ensure that potential impacts associated with biological resources would be less than significant.

Past projects have contributed to the lack of suitable natural habitat and limited biological resources within the cumulative study area, as identified in the environmental setting in Section 4.4.1. Several of the present and reasonably foreseeable projects listed in Table 4.21-1 would require in-water work in the San Diego Bay. These projects would also have the potential to result in the harassment or behavioral disruption of aquatic species, loss of eelgrass habitat, and disturbance of sediments and increased turbidity in the San Diego Bay. Because some of the projects listed in Table 4.21-1 would require extensive in-water work, such as those requiring pier replacement, these projects could contribute to the exacerbation of impacts on biological resources within the San Diego Bay. However, all present and reasonably foreseeable cumulative projects would be required to obtain and comply with all applicable permits and regulations governing the protection of biological resources. Where applicable, mitigation measures would be implemented to reduce significant effects.

Based on the above discussion, the project, in combination with past, present, and probable future projects, could contribute to cumulative effects related to biological resources. However, these effects would be reduced through compliance with applicable regulations and permit conditions, as well as implementation of mitigation measures, as required. As such, implementation of these projects combined would not be expected to result in substantial adverse effects on special-status species, sensitive habitats, and state or federally protected wetlands, as well as conflicts with local policies or ordinances protecting biological resources. Therefore, cumulative impacts related to biological resources would be less than significant.

Cultural Resources

As described in Section 4.5, the project would have no impact related to historical and archaeological resources; therefore, no cumulative analysis is required for these topic areas. The project would have a less than significant impact related to human remains.

The cumulative study area for human remains includes all areas within the project site where ground disturbing activities would occur. There are no known cemeteries or burials within the cumulative study area.

As discussed in Section 4.5, the discovery of human remains is regulated under California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097. Because the project would comply with these statutes regarding the discovery, treatment, and disposition of human remains, impacts related to human remains would not be cumulatively considerable. Therefore, the project would not contribute to a cumulative effect on cultural resources and no further analysis is required.

Energy

As described in Section 4.6, the project would have less than significant impacts related to the wasteful, inefficient, or unnecessary consumption of energy resources and conflicts with renewable energy or energy efficiency plans. The cumulative study area for energy includes the SDG&E service area, which is the energy provider for the project site.

Impacts related to energy consumption would not be cumulatively considerable because the project would comply with all applicable regulations aimed at increasing energy efficiency and renewable energy development. Therefore, the project would not contribute to a cumulative effect on energy and no further analysis is required.

Geology and Soils

As described in Section 4.7, the project would have no impact related to landslides, soil erosion, soils supporting septic tanks or alternative waste water disposal systems, and paleontological resources; therefore, no cumulative analysis is required for these topic areas. The project would have a less than significant impact related to rupture of earthquake faults, seismic ground shaking, and expansive soils. Impacts related to seismic-related ground failure and unstable geologic units would be less than significant with mitigation.

Impacts related to geology and soils would not be cumulatively considerable because the geographic context for geology and soils impacts is generally site-specific, rather than cumulative in nature. Each development site has unique geologic considerations that would be subject to uniform site development and construction standards. Therefore, the cumulative study area for geology and soils includes all areas within the project site where ground disturbing activities would occur. The cumulative study area is susceptible to seismic ground shaking due to the proximity of active faults.

As discussed in Section 4.7, the project would be designed and constructed in accordance with recommendations from the *Geotechnical Investigation* (TerraCosta Consulting Group 2020) and any supplemental geotechnical investigations as required by MM-GEO-1. Because all structures would be engineered to specifications based on site-specific geotechnical conditions, the project would not contribute to a cumulative effect on geology and soils and no further analysis is required.

Greenhouse Gas Emissions

As described in Section 4.8, the project would have a less than significant impact related to the generation of GHG emissions and conflicts with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. The issue of global warming and climate change is inherently a cumulative issue because the GHG emissions associated with an individual project cannot be shown to have a material effect on global climate. Thus, the quantity of GHG emissions associated with project construction is addressed as a cumulative impact in Section 4.8. Because amortized GHG emissions associated with project construction would be below CAPCOA's threshold of 900 $MTCO_2e$ per year, impacts related to GHG emissions would not be cumulatively considerable. Therefore, the project would not contribute to a cumulative effect on GHG emissions, and no further analysis is required.

Hazards and Hazardous Materials

As described in Section 4.9, the project would have no impact related to handling hazardous materials or wastes within proximity to schools, airport safety hazards and noise, emergency response or evacuation plans, and wildland fires; therefore, no cumulative analysis is required for these topic areas. The project would have a less than significant impact related to the routine transport, use, or disposal of hazardous materials. With mitigation, the project would have less than significant impacts related to reasonably foreseeable accidental releases of hazardous materials and hazardous materials sites on the Cortese list.

Because project construction would occur over water, the cumulative study area for hazards and hazardous materials is the San Diego Bay. The RWQCB has issued several CAOs and Investigative Orders for the characterization and remediation of contaminated sediment throughout the cumulative study area, including CAO No. R9-2012-0024 for sediment contamination within the NASSCO and BAE Systems leaseholds.

As discussed in Section 4.9, project construction would involve the use of hazardous materials and generation of hazardous wastes. The project would comply with all applicable regulations and laws pertaining to the storage, handling, use and disposal of hazardous materials. However, the potential exists for hazardous materials to be accidentally released into the San Diego Bay, which could cause hazards to the public and wildlife. In addition, the project would involve the disturbance of cover materials associated with CAO No. R9-2012-0024 that may expose underlying contaminated sediments to the environment. Therefore, the project has potential to result in cumulatively

considerable impacts related to hazards and hazardous materials. Mitigation measures MM-HAZ-1 through MM-HAZ-11, as described in Section 4.9, would be implemented to ensure that potential impacts associated with hazards and hazardous materials would be less than significant.

Past projects have contributed to the release of hazardous wastes and materials into the San Diego Bay, as identified in the environmental setting in Section 4.9.1. Several of the present and reasonably foreseeable projects listed in Table 4.21-1 would require in-water work in the San Diego Bay. These projects have the potential to result in the accidental release of hazardous materials into the San Diego Bay or disturb existing contaminated sediment and release it to the environment. Because some of the projects listed in Table 4.21-1 would require extensive in-water work, such as those requiring pier replacement, these projects could contribute to the exacerbation of hazardous conditions in the San Diego Bay. However, all present and reasonably foreseeable cumulative projects would be required to comply with applicable federal, state, and local regulations; obtain the requisite permits for in-water construction; and comply with the stipulations of the applicable CAOs issued by the RWQCB. Where applicable, mitigation measures would be implemented to reduce significant effects.

Based on the above discussion, the project, in combination with past, present, and probable future projects, could contribute to cumulative effects related to hazards and hazardous materials. However, these effects would be reduced through compliance with applicable regulations and permit conditions, as well as implementation of mitigation measures, as required. As such, implementation of these projects combined would not be expected to pose a substantial hazard to the public or environment from the routine transport, use, or disposal of hazardous materials; reasonably foreseeable accidental releases of hazardous materials; and hazardous materials sites on the Cortese list. Therefore, cumulative impacts related to hazards and hazardous materials would be less than significant.

Hydrology and Water Quality

As described in Section 4.10, the project would have less than significant impacts related to groundwater supplies and recharge, alteration of drainage patterns, and project inundation. With mitigation, the project would have less than significant impacts related to violation of water quality standards and degradation of surface water quality, as well as conflicts with water quality control plans or sustainable groundwater management plans.

The cumulative study area for hydrology and water quality is the San Diego Bay, which is the receiving water body for the project site. Major contaminants found in San Diego Bay include chlorinated hydrocarbons, toxic components of petroleum hydrocarbons, PAHs, PCBs, heavy metals, and organotins (i.e., organic compounds with one or more tin atoms) such as tributyltin. Groundwater within the cumulative study area is saline from saltwater intrusion. The cumulative study area is subject to flooding during the 100-year storm event.

Impacts related to groundwater would not be cumulatively considerable because (1) groundwater at the project site is not used as a groundwater supply source or for recharge and (2) the project would not require dewatering. In addition, impacts related to drainage patterns would not be cumulatively considerable because all stormwater runoff from the NASSCO facility would continue to be captured and contained for subsequent discharge to the San Diego Metropolitan Sanitary Sewer System; NASSCO would be required to maintain all existing operational and maintenance BMPs for stormwater runoff as required by NASSCO's individual NPDES Permit (Order R9-2016-0116). Furthermore, impacts related to inundation would not be cumulatively considerable because all permanent in-water structures would be designed in accordance with the structural requirements of FEMA. Therefore, the project would not contribute to a cumulative effect on groundwater, drainage patterns, and inundation; no further analysis is required for these topic areas.

As discussed in Section 4.10, construction activities would generate trash and other debris that have potential to degrade water quality if these materials were to enter the San Diego Bay. Project construction would include methods with potential to result in increased turbidity levels. Therefore, the project has potential to result in cumulatively considerable impacts related to water quality. The contractor would be required to comply with permit conditions imposed by USACE, the San Diego RWQCB, and other regulatory agencies during construction, including the CWA Section 401 Water Quality Certification and Section 404 permit, as well as the NPDES Construction General Permit and NASSCO's individual NPDES permit (Order R9-2016-0116). Any potentially hazardous materials would be properly stored, handled, used, and disposed of in accordance with applicable regulations and laws. In addition, mitigation

measures MM-HAZ-1 through MM-HAZ-11, MM-BIO-4, and MM-WQ-1 and MM-WQ-2 would be implemented to reduce water quality impacts from potential upset conditions involving hazardous materials, releases of impaired sediments into the environment, and generation of turbidity plumes.

Past projects have contributed pollutants to the San Diego Bay, as evidenced by the CWA Section 303(d) List of Water Quality Limited Segments Requiring Total Maximum Daily Loads. The entire San Diego Bay is a listed impaired water body for PCBs, PAHs, and mercury. Portions of the Bay shoreline are listed as impaired for benthic community effects, sediment toxicity, heavy metals, PAHs, and PCBs. This is primarily due to historic uses of the Bay and the surrounding area, as well as current uses.

Current and probable future projects listed in Table 4.21-1 may involve activities that could exacerbate existing impacts on the water quality of the San Diego Bay, including disturbing contaminated sediment that is released into the water column. Current and probable future projects could also contribute pollutants such as oil and grease, suspended solids, metals, gasoline, pesticides, and pathogens into the stormwater conveyance system and receiving waters. Current and probable future projects would be subject to CWA regulations that require compliance with water quality standards, including state and local water quality regulations and stormwater management plans. In addition, projects affecting waters of the United States would also need to comply with CWA Section 404 and 401 regulations, requiring implementation of additional BMPs to protect water quality during construction. Where applicable, mitigation measures would be implemented to reduce significant effects.

Based on the above discussion, the project, in combination with past, present, and probable future projects, could contribute to cumulative effects on water quality. However, these effects would be reduced through compliance with applicable regulations and permits, as well as implementation of mitigation measures, as required. As such, implementation of these projects combined would not be expected to violate water quality standards, substantially degrade water quality, or conflict with water quality control plans. Therefore, cumulative impacts related to hydrology and water quality would be less than significant.

Land Use and Planning

As described in Section 4.11, the project would have no impact related to dividing an established community; therefore, no cumulative analysis is required for this topic area. The project would have a less than significant impact related to conflicts with land use plans, policies, and regulations.

The cumulative study area for land use includes the project site and the areas included in the Marine Related Industrial (Land) and Specialized Berthing (Water) land use designations of the PMP.

Impacts related to land use and planning would not be cumulatively considerable because (1) the project would not result in any changes in existing land uses and (2) NASSCO would be required to obtain all necessary approvals from agencies governing land use of the project site, including the SLC, CCC, District, and FAA. Rather, the project would result in operational improvements that would ensure the continued use of the project site for its designated uses. Therefore, the project would not contribute to a cumulative effect on land use and planning and no further analysis is required.

Noise

As described in Section 4.13, the project would have no impact related to excessive noise exposure from airports or private airstrips. The project would have less than significant impacts related to the generation of a substantial increase in ambient noise levels in excess of applicable standards and the generation of excessive groundborne vibration or noise levels.

The cumulative study area for noise includes the project site and adjacent land uses, including nearby noise-sensitive receptors. The cumulative study area is in a highly industrialized area with ambient noise levels influenced by adjacent transportation corridors and industrial land uses.

Based on the analysis in Section 4.13, noise impacts would not be cumulatively considerable because (1) no noise-sensitive receptors would be subject to noise levels in excess of City standards or excessive groundborne vibration and (2) no buildings or structures would be close enough to experience structural damage from groundborne

vibration resulting from construction activities. Furthermore, the project would not result in the expansion of existing operations and would not contribute to any long-term noise impacts. Therefore, the project would not contribute to a cumulative effect on noise and no further analysis is required.

Population and Housing

As described in Section 4.14, the project would have no impact related to displacement of people or housing; therefore, no cumulative analysis is required for this topic area. The project would have a less than significant impact related to inducing unplanned population growth.

The cumulative study area for population and housing includes the project site and the boundaries of Planning District 4 (Tenth Avenue Marine Terminal) of the PMP. According to the PMP, there are approximately 50,000 jobs within Planning District 4 (San Diego Unified Port District 2020a). There are no residential land uses within the District's jurisdiction.

Impacts related to population and housing would not be cumulatively considerable because the project would not induce unplanned population growth. Approximately 10 workers would be present on the project site each day during the construction period and are expected to commute from the surrounding area. The number of jobs created for project construction would represent a negligible and temporary increase in employment within Planning District 4. Furthermore, the project does not propose new homes or businesses and would not expand existing infrastructure, including existing shipyard operations. Therefore, the project would not contribute to a cumulative effect on population and housing and no further analysis is required.

Public Services

As described in Section 4.15, the project would have no impact on schools, parks, and other public facilities; therefore, no cumulative analysis is required for these topic areas. The project would have less than significant impacts on fire and police protection.

The cumulative study area for public services includes the project site and areas within a 0.5-mile radius of the project site. Fire and police departments in proximity to the project site are identified in Section 4.15.

Impacts related to public services would not be cumulatively considerable because the project would not (1) contribute to congestion on surrounding roadways that would affect response times for emergency services providers and (2) would not result in population growth that would increase the demand for public services. Therefore, the project would not contribute to a cumulative effect on public services and no further analysis is required.

Recreation

As described in Section 4.16, the project would have no impact related to the construction or expansion of recreational facilities; therefore, no cumulative analysis is required for this topic area. The project would have a less than significant impact on increasing the use of parks and recreational facilities.

The cumulative study area for recreation includes the project site and areas within a 0.5-mile radius of the project site. Parks in proximity to the project site are identified in Section 4.16.

Impacts related to recreation would not be cumulatively considerable because the project would not contribute to a permanent increase in population that would increase the use of existing parks or recreational facilities. Therefore, the project would not contribute to a cumulative effect on recreation and no further analysis is required.

Transportation

As described in Section 4.17, the project would have a less than significant impact related to conflicts with programs, plans, ordinances, or policies addressing the circulation system; conflicts with CEQA Guidelines section 15064.3, subdivision (b); hazards from geometric design features or incompatible uses; inadequate emergency access; and insufficient parking that would decrease public coastal access.

The cumulative study area for transportation includes the project site and areas within a 0.5-mile radius of the project site. Existing roadways, bicycle and pedestrian facilities, and public transit services within the cumulative study area are identified in Section 4.17.

Impacts related to the circulation system would not be cumulatively considerable because all project improvements would be within the NASSCO shipyard and would not disrupt or increase the demand for existing transportation facilities. In addition, the project would not generate new vehicle trips, other than temporary and minor increases in vehicle trips associated with project construction. With implementation of a Traffic Control Plan during construction activities, the project would not result in any transportation-related hazards. Furthermore, the project would not result in inadequate emergency access or reduce parking spaces utilized for public coastal access. Therefore, the project would not contribute to a cumulative effect on transportation and no further analysis is required.

Utilities and Service Systems

As described in Section 4.19, the project would have a less than significant impact on water, wastewater treatment and stormwater drainage, electric power, natural gas, telecommunications, and solid waste facilities.

The cumulative study area for utilities and service systems includes the service areas for the utility providers serving the project site. These utility providers include the City of San Diego Public Utilities Department for water and wastewater treatment, San Diego Gas & Electric for electricity and natural gas, the City of San Diego Environmental Services for solid waste, as well as local landfills operated by Republic Services (contractor) in San Diego County (e.g., Sycamore and Otay Landfills).

Impacts related to utilities and service systems would not be cumulatively considerable because the project would not result in a permanent increase in demand for water, wastewater treatment, electric power, natural gas, telecommunications, and solid waste disposal services. Construction activities would require negligible and temporary increases in demand for water, wastewater treatment, and energy. The project's demand could be accommodated by the service providers in combination with the providers' existing and reasonably foreseeable commitments. No new or expanded facilities or infrastructure would be required. Therefore, the project would not contribute to a cumulative effect on utilities and service systems and no further analysis is required.

Required Mitigation Measures

With implementation of **MM-BIO-1 through MM-BIO-6** described in Section 4.4, **MM-HAZ-1 through MM-HAZ-11** described in Section 4.9, and **MM-WQ-1 and MM-WQ-2** described in Section 4.10, the project would not result in significant impacts.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Less than significant with mitigation incorporated. As discussed in Sections 4.3, 4.9, 4.10, and 4.13, project construction would result in air quality health risk that exceeds an established threshold, potential releases of hazardous materials into the environment, and degradation of water quality. With implementation of BMPs and mitigation measures **MM-AQ-1, MM-BIO-4, MM-HAZ-1 through MM-HAZ-11,** and **MM-WQ-1 and MM-WQ-2**, these environmental effects would not cause substantial adverse effects on human beings. Following construction, the project site would be returned to a similar condition as the existing setting. The project would not introduce new activities during operations that would have potential to cause substantial adverse effects on human beings.

Required Mitigation Measures

With implementation of **MM-BIO-4** described in Section 4.4, **MM-HAZ-1 through MM-HAZ-11** described in Section 4.9, and **MM-WQ-1 and MM-WQ-2** described in Section 4.10, the project would not result in significant impacts.

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Appendix D

Air Quality, Greenhouse Gas, Energy, and Health Risk Assessment Modeling

Mass Emissions Calculations and Summary Sheets

Construction Schedule

Phase #	Construction Phase	Start Date	End Date	Working Days	Days by Year 2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1a	Floating Dry Dock Replacement and Modification - Lot 20	1/1/2024	10/15/2024	288	288										
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	10/16/2024	9/17/2025	336	76	260									
2	Repair Complex Wharf Improvements	9/17/2025	7/10/2026	296		105	191								
3	Quay Wall Revetment Repairs (Berths 2-5)	1/15/2025	2/8/2025	24		24									
4	As-needed Quay Wall Revetment Repairs	1/15/2026	12/15/2028	38			12.7	12.7	12.7						
5	Structural Pile Repair and Replacement	1/15/2025	1/15/2034	250		25	25	25	25	25	25	25	25	25	25
6	Mobilization/Demobilization	1/1/2024	1/15/2034	22	2	2	2	2	2	2	2	2	2	2	2

Construction is assumed to be 7 days per week

1 day of mobilization for each element and when various as-needed work starts (1 day) and ends (another day)

Marine equipment works for 8 weeks for Phases 1, 2, and 3. Marine equipment works for 4 and 38 total days for 38 days over 3 years for as needed Quay work and 25 days per year for pile replacement. Mobilization/Demobilization is 2 days per year: 1 in and 1 out.

40 marine days for phases 1 - 3

Table Summaries for EIR

AQ Tables for EIR - by phase and by year

Maximum Daily by Phase		Maximum Pounds Per Day By Phase						
		ROG	NOX	CO	PM10	PM2.5	SOx	MAX YEAR
1a	Floating Dry Dock Replacement and Modification - Lot 20	9.1	49.7	37.9	2.4	2.0	0.0	2024
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	9.1	49.7	37.9	2.4	2.0	0.0	2024
2	Repair Complex Wharf Improvements	9.1	48.4	37.6	2.4	1.9	0.0	2025
3	Quay Wall Revetment Repairs (Berths 2-5)	9.1	50.3	38.3	2.7	2.1	0.1	2025
4	As-needed Quay Wall Revetment Repairs	9.0	49.2	38.0	2.7	2.0	0.1	2026
5	Structural Pile Repair and Replacement	9.1	48.5	37.6	2.4	2.0	0.0	2025
6	Mobilization/Demobilization	5.9	7.6	16.1	0.6	0.5	0.0	2024
Maximum Daily by Year								
	2024	15.0	57.3	54.0	3.0	2.4	0.0	
	2025	33.1	154.8	129.5	8.1	6.4	0.2	
	2026	32.9	151.5	128.6	7.9	6.3	0.2	
	2027	23.8	102.8	91.3	5.6	4.3	0.1	
	2028	23.7	100.9	91.2	5.5	4.3	0.1	
	2029	14.8	53.1	53.2	2.8	2.3	0.0	
	2030	14.7	52.4	53.1	2.8	2.3	0.0	
	2031	14.7	51.9	53.0	2.8	2.3	0.0	
	2032	14.7	51.4	52.9	2.8	2.2	0.0	
	2033	14.6	50.8	52.9	2.7	2.2	0.0	
	2034	14.6	50.4	52.8	2.7	2.2	0.0	
Max Daily Overall		33.1	154.8	129.5	8.1	6.4	0.2	
Threshold		75	250	550	100	55	250	

AQ Tons by year

	Total Tons by Year					
	ROG	NOX	CO	PM10	PM2.5	SOx
2024	0.62	4.23	3.49	0.22	0.17	0.01
2025	0.88	5.48	4.56	0.29	0.22	0.01
2026	0.47	2.87	2.47	0.15	0.11	0.01
2027	0.17	0.90	0.72	0.05	0.04	0.00
2028	0.17	0.88	0.72	0.05	0.04	0.00
2029	0.12	0.58	0.48	0.03	0.02	0.00
2030	0.12	0.57	0.48	0.03	0.02	0.00
2031	0.12	0.56	0.48	0.03	0.02	0.00
2032	0.12	0.55	0.48	0.03	0.02	0.00
2033	0.12	0.55	0.48	0.03	0.02	0.00
2034	0.12	0.54	0.48	0.03	0.02	0.00
Total	3.02	17.71	14.83	0.92	0.71	0.03

GHG Tables for EIR - by phase and by year

GHGs by Phae		CO2e
1a	Floating Dry Dock Replacement and Modification - Lot 20	723
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	908
2	Repair Complex Wharf Improvements	817
3	Quay Wall Revetment Repairs (Berths 2-5)	149
4	As-needed Quay Wall Revetment Repairs	184
5	Structural Pile Repair and Replacement	1,054
6	Mobilization/Demobilization	9
GHGs by Year		
	2024	973
	2025	1,228
	2026	672
	2027	168
	2028	167
	2029	106
	2030	106
	2031	106
	2032	106
	2033	106
	2034	106
	Total	3,843
	Amortized (30 years)	128
	Averaged (over entire duration)	349

GHGs by Source

	CO2e
Offroad	2,431
Workers	140
Haul Trucks	128
Site Trucks	90
Marine	1,055
Total	3,843

Annual Total Emissions

	Tons Per Year						Metric Tons Per Year			
Year	ROG	NOX	CO	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
2024	0.6	4.2	3.5	0.2	0.2	0.008	964	0.13	0.02	973
2025	0.9	5.5	4.6	0.3	0.2	0.010	1215	0.21	0.02	1228
2026	0.5	2.9	2.5	0.2	0.1	0.005	665	0.12	0.01	672
2027	0.2	0.9	0.7	0.0	0.0	0.001	165	0.05	0.00	168
2028	0.2	0.9	0.7	0.0	0.0	0.001	165	0.05	0.00	167
2029	0.1	0.6	0.5	0.0	0.0	0.001	105	0.03	0.00	106
2030	0.1	0.6	0.5	0.0	0.0	0.001	105	0.03	0.00	106
2031	0.1	0.6	0.5	0.0	0.0	0.001	105	0.03	0.00	106
2032	0.1	0.6	0.5	0.0	0.0	0.001	104	0.03	0.00	106
2033	0.1	0.5	0.5	0.0	0.0	0.001	104	0.03	0.00	106
2034	0.1	0.5	0.5	0.0	0.0	0.001	104	0.03	0.00	106
Total	**3.0**	**17.7**	**14.8**	**0.9**	**0.7**	**0.0**	**3802**	**0.8**	**0.1**	**3843**

Diesel PM Tons				
OFFROAD	SITE TRUCKS	MARINE	TRUCKS	TOTAL
0.101	0.0008	0.046	0.0004	0.149
0.105	0.0009	0.084	0.0008	0.191
0.053	0.0004	0.045	0.0004	0.099
0.008	0.0001	0.022	0.0002	0.031
0.008	0.0001	0.022	0.0002	0.030
0.005	0.0000	0.015	0.0000	0.020
0.005	0.0000	0.015	0.0000	0.019
0.005	0.0000	0.015	0.0000	0.019
0.004	0.0000	0.015	0.0000	0.019
0.004	0.0000	0.015	0.0000	0.018
0.003	0.0000	0.015	0.0000	0.018
0.302	**0.0024**	**0.3075**	**0.0022**	**0.614**

no worker DPM assumed

Annual by Source		Emisssions (in tons per year)										Emissions (in MT per year)					DPM
		ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	CO2	CH4	N2O	CO2e	Fuel Gallons	Tons
OFFROAD	2024	0.2901	2.6695	2.2918	0.1015	0.0000	0.0934	0.0000	0.0075	789	0.0320	0.0064	715	0.0290	0.0058	718	70,066	1.01E-01
	2025	0.3149	2.7757	2.5574	0.1055	0.0000	0.0970	0.0000	0.0085	897	0.0364	0.0073	814	0.0330	0.0066	817	79,709	1.05E-01
	2026	0.1675	1.4191	1.3876	0.0534	0.0000	0.0492	0.0000	0.0047	496	0.0201	0.0040	450	0.0182	0.0036	451	44,029	5.34E-02
	2027	0.0270	0.2217	0.2287	0.0083	0.0000	0.0077	0.0000	0.0008	82	0.0033	0.0007	74	0.0030	0.0006	74	7,258	8.32E-03
	2028	0.0262	0.2059	0.2290	0.0077	0.0000	0.0071	0.0000	0.0008	82	0.0033	0.0007	74	0.0030	0.0006	74	7,267	7.70E-03
	2029	0.0173	0.1323	0.1511	0.0050	0.0000	0.0046	0.0000	0.0005	54	0.0022	0.0004	49	0.0020	0.0004	49	4,821	4.95E-03
	2030	0.0167	0.1243	0.1510	0.0046	0.0000	0.0043	0.0000	0.0005	54	0.0022	0.0004	49	0.0020	0.0004	49	4,821	4.63E-03
	2031	0.0165	0.1187	0.1505	0.0045	0.0000	0.0041	0.0000	0.0005	54	0.0022	0.0004	49	0.0020	0.0004	49	4,821	4.50E-03
	2032	0.0160	0.1122	0.1497	0.0041	0.0000	0.0038	0.0000	0.0005	54	0.0022	0.0004	49	0.0020	0.0004	49	4,821	4.11E-03
	2033	0.0157	0.1056	0.1492	0.0038	0.0000	0.0035	0.0000	0.0005	54	0.0022	0.0004	49	0.0020	0.0004	49	4,821	3.79E-03
	2034	0.0154	0.1005	0.1488	0.0035	0.0000	0.0032	0.0000	0.0005	54	0.0022	0.0004	49	0.0020	0.0004	49	4,821	3.49E-03
WORKERS	2024	0.0178	0.0150	0.1908	0.0003	0.0457	0.0003	0.0113	0.0005	47	0.0017	0.0014	43	0.0015	0.0013	43	4,995	
	2025	0.0192	0.0157	0.2036	0.0003	0.0519	0.0003	0.0129	0.0005	52	0.0018	0.0015	47	0.0016	0.0014	48	5,530	
	2026	0.0101	0.0080	0.1055	0.0002	0.0287	0.0002	0.0071	0.0003	28	0.0009	0.0008	25	0.0008	0.0007	26	2,976	
	2027	0.0016	0.0012	0.0166	0.0000	0.0047	0.0000	0.0012	0.0000	5	0.0001	0.0001	4	0.0001	0.0001	4	482	
	2028	0.0015	0.0011	0.0157	0.0000	0.0047	0.0000	0.0012	0.0000	4	0.0001	0.0001	4	0.0001	0.0001	4	471	
	2029	0.0010	0.0007	0.0099	0.0000	0.0032	0.0000	0.0008	0.0000	3	0.0001	0.0001	3	0.0001	0.0001	3	307	
	2030	0.0009	0.0007	0.0094	0.0000	0.0032	0.0000	0.0008	0.0000	3	0.0001	0.0001	3	0.0001	0.0001	3	300	
	2031	0.0009	0.0006	0.0089	0.0000	0.0032	0.0000	0.0008	0.0000	3	0.0001	0.0001	3	0.0001	0.0001	3	294	
	2032	0.0008	0.0006	0.0085	0.0000	0.0032	0.0000	0.0008	0.0000	3	0.0001	0.0001	2	0.0001	0.0001	2	289	
	2033	0.0008	0.0005	0.0082	0.0000	0.0032	0.0000	0.0008	0.0000	3	0.0001	0.0001	2	0.0001	0.0001	2	285	
	2034	0.0008	0.0005	0.0079	0.0000	0.0032	0.0000	0.0008	0.0000	3	0.0001	0.0001	2	0.0001	0.0001	2	281	
HAUL TRUCKS	2024	0.0006	0.0373	0.0134	0.0004	0.0067	0.0004	0.0018	0.0002	27	0.0014	0.0043	24	0.0013	0.0039	25	2,499	4.31E-04
	2025	0.0010	0.0641	0.0239	0.0008	0.0121	0.0007	0.0032	0.0004	47	0.0024	0.0075	43	0.0022	0.0068	45	4,410	7.59E-04
	2026	0.0006	0.0338	0.0129	0.0004	0.0066	0.0004	0.0018	0.0002	25	0.0012	0.0040	23	0.0011	0.0037	24	2,374	4.12E-04
	2027	0.0003	0.0153	0.0060	0.0002	0.0031	0.0002	0.0008	0.0001	12	0.0005	0.0019	11	0.0005	0.0017	11	1,089	1.91E-04
	2028	0.0002	0.0146	0.0059	0.0002	0.0031	0.0002	0.0008	0.0001	11	0.0005	0.0018	10	0.0005	0.0016	11	1,061	1.88E-04
	2029	0.0000	0.0028	0.0012	0.0000	0.0006	0.0000	0.0002	0.0000	2	0.0001	0.0004	2	0.0001	0.0003	2	207	3.73E-05
	2030	0.0000	0.0027	0.0011	0.0000	0.0006	0.0000	0.0002	0.0000	2	0.0001	0.0003	2	0.0001	0.0003	2	201	3.67E-05
	2031	0.0000	0.0026	0.0011	0.0000	0.0006	0.0000	0.0002	0.0000	2	0.0001	0.0003	2	0.0001	0.0003	2	195	3.62E-05
	2032	0.0000	0.0025	0.0010	0.0000	0.0006	0.0000	0.0002	0.0000	2	0.0001	0.0003	2	0.0001	0.0003	2	190	3.56E-05
	2033	0.0000	0.0024	0.0010	0.0000	0.0006	0.0000	0.0002	0.0000	2	0.0001	0.0003	2	0.0001	0.0003	2	184	3.50E-05
	2034	0.0000	0.0024	0.0010	0.0000	0.0006	0.0000	0.0002	0.0000	2	0.0001	0.0003	2	0.0001	0.0003	2	180	3.44E-05
SITE TRUCKS	2024	0.0048	0.1450	0.0157	0.0008	0.0036	0.0008	0.0010	0.0003	28.4758	0.0003	0.0045	26	0.0003	0.0041	27	2,481	8.30E-04
	2025	0.0051	0.1557	0.0174	0.0009	0.0041	0.0008	0.0012	0.0003	31.9951	0.0003	0.0050	29	0.0003	0.0046	30	2,789	8.62E-04
	2026	0.0027	0.0811	0.0094	0.0004	0.0023	0.0004	0.0006	0.0002	17.4595	0.0002	0.0028	16	0.0002	0.0025	17	1,522	4.33E-04
	2027	0.0004	0.0128	0.0015	0.0001	0.0004	0.0001	0.0001	0.0000	2.8475	0.0000	0.0004	3	0.0000	0.0004	3	248	6.70E-05
	2028	0.0004	0.0122	0.0015	0.0001	0.0004	0.0001	0.0001	0.0000	2.8201	0.0000	0.0004	3	0.0000	0.0004	3	246	6.26E-05
	2029	0.0003	0.0077	0.0010	0.0000	0.0002	0.0000	0.0001	0.0000	1.8537	0.0000	0.0003	2	0.0000	0.0003	2	162	3.83E-05
	2030	0.0002	0.0074	0.0010	0.0000	0.0002	0.0000	0.0001	0.0000	1.8361	0.0000	0.0003	2	0.0000	0.0003	2	160	3.50E-05
	2031	0.0002	0.0071	0.0009	0.0000	0.0002	0.0000	0.0001	0.0000	1.8193	0.0000	0.0003	2	0.0000	0.0003	2	159	3.19E-05
	2032	0.0002	0.0068	0.0009	0.0000	0.0002	0.0000	0.0001	0.0000	1.8026	0.0000	0.0003	2	0.0000	0.0003	2	158	2.86E-05
	2033	0.0002	0.0065	0.0009	0.0000	0.0002	0.0000	0.0001	0.0000	1.7857	0.0000	0.0003	2	0.0000	0.0003	2	156	2.50E-05
	2034	0.0002	0.0062	0.0009	0.0000	0.0002	0.0000	0.0001	0.0000	1.7693	0.0000	0.0003	2	0.0000	0.0003	2	155	2.16E-05
MARINE	2024	0.3029	1.3663	0.9782	0.0620	0.0000	0.0561	0.0000	0.0000	172.1017	0.1080	0.0028	156.1281	0.0979	0.0026	159.3430	14,923	4.65E-02
	2025	0.5442	2.4702	1.7600	0.1119	0.0000	0.1014	0.0000	0.0001	311.2529	0.1953	0.0051	282.3638	0.1771	0.0047	288.1785	27,007	8.41E-02
	2026	0.2942	1.3267	0.9502	0.0602	0.0000	0.0545	0.0000	0.0000	167.1066	0.1048	0.0028	151.5965	0.0951	0.0025	154.7181	14,489	4.51E-02
	2027	0.1457	0.6473	0.4691	0.0295	0.0000	0.0267	0.0000	0.0000	81.4751	0.0511	0.0013	73.9130	0.0464	0.0012	75.4347	7,053	2.20E-02
	2028	0.1457	0.6473	0.4691	0.0295	0.0000	0.0267	0.0000	0.0000	81.4751	0.0511	0.0013	73.9130	0.0464	0.0012	75.4347	7,053	2.20E-02
	2029	0.0987	0.4322	0.3167	0.0197	0.0000	0.0179	0.0000	0.0000	54.3585	0.0341	0.0009	49.3132	0.0309	0.0008	50.3283	4,698	1.46E-02
	2030	0.0987	0.4322	0.3167	0.0197	0.0000	0.0179	0.0000	0.0000	54.3585	0.0341	0.0009	49.3132	0.0309	0.0008	50.3283	4,698	1.46E-02
	2031	0.0987	0.4322	0.3167	0.0197	0.0000	0.0179	0.0000	0.0000	54.3585	0.0341	0.0009	49.3132	0.0309	0.0008	50.3283	4,698	1.46E-02
	2032	0.0987	0.4322	0.3167	0.0197	0.0000	0.0179	0.0000	0.0000	54.3585	0.0341	0.0009	49.3132	0.0309	0.0008	50.3283	4,698	1.46E-02
	2033	0.0987	0.4322	0.3167	0.0197	0.0000	0.0179	0.0000	0.0000	54.3585	0.0341	0.0009	49.3132	0.0309	0.0008	50.3283	4,698	1.46E-02
	2034	0.0987	0.4322	0.3167	0.0197	0.0000	0.0179	0.0000	0.0000	54.3585	0.0341	0.0009	49.3132	0.0309	0.0008	50.3283	4,698	1.46E-02

GHGs by Phase

#	Phase	Total	offroad	workers	trucks	site trucks	marine
1a	Floating Dry Dock Replacement and Modification - Lot 20	723	568	34	20	21	79
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	908	663	39	23	25	159
2	Repair Complex Wharf Improvements	817	584	33	20	22	159
3	Quay Wall Revetment Repairs (Berths 2-5)	149	47	3	18	2	79
4	As-needed Quay Wall Revetment Repairs	184	75	4	26	3	75
5	Structural Pile Repair and Replacement	1,054	494	26	21	18	496
6	Mobilization/Demobilization	9	0	0	0	0	9
Total		**3,843**	**2,431**	**140**	**128**	**90**	**1,055**

Energy

	Diesel %	Gas %	Total Gallons	Diesel	Gas
OFFROAD	100%		237,257	237,257	
WORKERS		100%	16,208		16,208
HAUL TRUCKS	100%		12,592	12,592	
SITE TRUCKS	100%		8,236	8,236	
MARINE	100%		98,713	98,713	
			373,007	356,798	16,208

20,828

DAILY SUM (For Max Daily Sheet)

TOTAL FROM ALL SOURCES			Daily Emissions (lb/day)											
#	phase	year	ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	PM10 Total	PM2.5 Total
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	9.15	49.72	37.86	2.10	0.31	1.91	0.08	0.05	9,176	2.88	0.16	2.41	1.99
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	9.15	49.72	37.86	2.10	0.31	1.91	0.08	0.05	9,176	2.88	0.16	2.41	1.99
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	9.07	48.40	37.55	2.05	0.31	1.87	0.08	0.05	9,165	2.88	0.16	2.36	1.95
2	Repair Complex Wharf Improvements	2025	9.07	48.40	37.55	2.05	0.31	1.87	0.08	0.05	9,165	2.88	0.16	2.36	1.95
2	Repair Complex Wharf Improvements	2026	9.00	47.35	37.27	2.01	0.31	1.83	0.08	0.05	9,154	2.88	0.16	2.32	1.91
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	9.10	50.29	38.25	2.08	0.66	1.89	0.17	0.06	10,557	2.95	0.38	2.74	2.06
4	As-needed Quay Wall Revetment Repairs	2026	9.03	49.16	37.96	2.03	0.66	1.85	0.17	0.06	10,515	2.95	0.38	2.70	2.02
4	As-needed Quay Wall Revetment Repairs	2027	9.00	48.41	37.91	2.01	0.66	1.83	0.17	0.06	10,476	2.94	0.37	2.67	2.00
4	As-needed Quay Wall Revetment Repairs	2028	8.95	47.45	37.86	1.97	0.66	1.80	0.17	0.06	10,435	2.94	0.36	2.64	1.97
5	Structural Pile Repair and Replacement	2025	9.07	48.47	37.58	2.05	0.32	1.87	0.08	0.05	9,217	2.88	0.17	2.37	1.95
5	Structural Pile Repair and Replacement	2026	9.01	47.41	37.29	2.01	0.32	1.83	0.08	0.05	9,205	2.88	0.17	2.33	1.91
5	Structural Pile Repair and Replacement	2027	8.97	46.73	37.25	1.99	0.32	1.81	0.08	0.05	9,197	2.88	0.17	2.31	1.89
5	Structural Pile Repair and Replacement	2028	8.92	45.84	37.22	1.95	0.32	1.78	0.08	0.05	9,190	2.88	0.16	2.27	1.86
5	Structural Pile Repair and Replacement	2029	8.91	45.45	37.10	1.94	0.32	1.76	0.08	0.05	9,177	2.88	0.16	2.26	1.84
5	Structural Pile Repair and Replacement	2030	8.86	44.77	37.05	1.91	0.32	1.74	0.08	0.05	9,166	2.88	0.16	2.23	1.82
5	Structural Pile Repair and Replacement	2031	8.84	44.29	36.97	1.90	0.32	1.73	0.08	0.05	9,154	2.88	0.16	2.22	1.81
5	Structural Pile Repair and Replacement	2032	8.80	43.73	36.87	1.87	0.32	1.70	0.08	0.05	9,144	2.87	0.16	2.19	1.78
5	Structural Pile Repair and Replacement	2033	8.76	43.17	36.80	1.84	0.32	1.68	0.08	0.05	9,136	2.87	0.16	2.16	1.76
5	Structural Pile Repair and Replacement	2034	8.74	42.73	36.73	1.82	0.32	1.65	0.08	0.05	9,127	2.87	0.16	2.14	1.74
6	Mobilization/Demobilization	2024	5.86	7.63	16.11	0.55	0.03	0.45	0.01	0.00	865	0.52	0.01	0.58	0.46
6	Mobilization/Demobilization	2025	5.86	7.63	16.11	0.55	0.03	0.45	0.01	0.00	864	0.52	0.01	0.58	0.46
6	Mobilization/Demobilization	2026	5.86	7.63	16.10	0.55	0.03	0.45	0.01	0.00	863	0.52	0.01	0.58	0.46
6	Mobilization/Demobilization	2027	5.86	7.63	16.10	0.55	0.03	0.45	0.01	0.00	863	0.52	0.01	0.58	0.46
6	Mobilization/Demobilization	2028	5.86	7.63	16.09	0.55	0.03	0.45	0.01	0.00	862	0.52	0.01	0.58	0.46
6	Mobilization/Demobilization	2029	5.85	7.63	16.09	0.55	0.03	0.45	0.01	0.00	862	0.52	0.01	0.58	0.46
6	Mobilization/Demobilization	2030	5.85	7.63	16.08	0.55	0.03	0.45	0.01	0.00	861	0.52	0.01	0.58	0.46
6	Mobilization/Demobilization	2031	5.85	7.63	16.08	0.55	0.03	0.45	0.01	0.00	861	0.52	0.01	0.58	0.46
6	Mobilization/Demobilization	2032	5.85	7.63	16.08	0.55	0.03	0.45	0.01	0.00	860	0.52	0.01	0.58	0.46
6	Mobilization/Demobilization	2033	5.85	7.63	16.07	0.55	0.03	0.45	0.01	0.00	860	0.52	0.01	0.58	0.46
6	Mobilization/Demobilization	2034	5.85	7.63	16.07	0.55	0.03	0.45	0.01	0.00	860	0.52	0.01	0.58	0.46

OFFROAD

#	phase	year	Daily Emissions (lb/day)											
			ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	PM10 Total	PM2.5 Total
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	1.59	14.67	12.59	0.56	0.00	0.51	0.00	0.04	4,333	0.18	0.04	0.56	0.51
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	1.59	14.67	12.59	0.56	0.00	0.51	0.00	0.04	4,333	0.18	0.04	0.56	0.51
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	1.52	13.41	12.35	0.51	0.00	0.47	0.00	0.04	4,334	0.18	0.04	0.51	0.47
2	Repair Complex Wharf Improvements	2025	1.52	13.41	12.35	0.51	0.00	0.47	0.00	0.04	4,334	0.18	0.04	0.51	0.47
2	Repair Complex Wharf Improvements	2026	1.46	12.41	12.14	0.47	0.00	0.43	0.00	0.04	4,334	0.18	0.04	0.47	0.43
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	1.52	13.41	12.35	0.51	0.00	0.47	0.00	0.04	4,334	0.18	0.04	0.51	0.47
4	As-needed Quay Wall Revetment Repairs	2026	1.46	12.41	12.14	0.47	0.00	0.43	0.00	0.04	4,334	0.18	0.04	0.47	0.43
4	As-needed Quay Wall Revetment Repairs	2027	1.43	11.77	12.14	0.44	0.00	0.41	0.00	0.04	4,337	0.18	0.04	0.44	0.41
4	As-needed Quay Wall Revetment Repairs	2028	1.39	10.93	12.16	0.41	0.00	0.38	0.00	0.04	4,343	0.18	0.04	0.41	0.38
5	Structural Pile Repair and Replacement	2025	1.52	13.41	12.35	0.51	0.00	0.47	0.00	0.04	4,334	0.18	0.04	0.51	0.47
5	Structural Pile Repair and Replacement	2026	1.46	12.41	12.14	0.47	0.00	0.43	0.00	0.04	4,334	0.18	0.04	0.47	0.43
5	Structural Pile Repair and Replacement	2027	1.43	11.77	12.14	0.44	0.00	0.41	0.00	0.04	4,337	0.18	0.04	0.44	0.41
5	Structural Pile Repair and Replacement	2028	1.39	10.93	12.16	0.41	0.00	0.38	0.00	0.04	4,343	0.18	0.04	0.41	0.38
5	Structural Pile Repair and Replacement	2029	1.38	10.59	12.09	0.40	0.00	0.36	0.00	0.04	4,341	0.18	0.04	0.40	0.36
5	Structural Pile Repair and Replacement	2030	1.34	9.94	12.08	0.37	0.00	0.34	0.00	0.04	4,341	0.18	0.04	0.37	0.34
5	Structural Pile Repair and Replacement	2031	1.32	9.50	12.04	0.36	0.00	0.33	0.00	0.04	4,341	0.18	0.04	0.36	0.33
5	Structural Pile Repair and Replacement	2032	1.28	8.98	11.98	0.33	0.00	0.30	0.00	0.04	4,341	0.18	0.04	0.33	0.30
5	Structural Pile Repair and Replacement	2033	1.25	8.45	11.94	0.30	0.00	0.28	0.00	0.04	4,341	0.18	0.04	0.30	0.28
5	Structural Pile Repair and Replacement	2034	1.23	8.04	11.90	0.28	0.00	0.26	0.00	0.04	4,341	0.18	0.04	0.28	0.26
6	Mobilization/Demobilization	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00

HAUL TRUCKS

#	phase	year	Daily Emissions (lb/day)												
			ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	PM10 Total	PM2.5 Total
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	0.00	0.20	0.07	0.00	0.04	0.00	0.01	0.00	147	0.01	0.02	0.04	0.01
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	0.00	0.20	0.07	0.00	0.04	0.00	0.01	0.00	147	0.01	0.02	0.04	0.01
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	0.00	0.20	0.07	0.00	0.04	0.00	0.01	0.00	144	0.01	0.02	0.04	0.01
2	Repair Complex Wharf Improvements	2025	0.00	0.20	0.07	0.00	0.04	0.00	0.01	0.00	144	0.01	0.02	0.04	0.01
2	Repair Complex Wharf Improvements	2026	0.00	0.19	0.07	0.00	0.04	0.00	0.01	0.00	141	0.01	0.02	0.04	0.01
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	0.03	2.09	0.78	0.02	0.39	0.02	0.10	0.01	1,536	0.08	0.24	0.42	0.13
4	As-needed Quay Wall Revetment Repairs	2026	0.03	2.00	0.77	0.02	0.39	0.02	0.10	0.01	1,502	0.07	0.24	0.42	0.13
4	As-needed Quay Wall Revetment Repairs	2027	0.03	1.92	0.75	0.02	0.39	0.02	0.10	0.01	1,466	0.07	0.23	0.42	0.13
4	As-needed Quay Wall Revetment Repairs	2028	0.03	1.85	0.74	0.02	0.39	0.02	0.10	0.01	1,427	0.07	0.23	0.42	0.13
5	Structural Pile Repair and Replacement	2025	0.00	0.27	0.10	0.00	0.05	0.00	0.01	0.00	196	0.01	0.03	0.05	0.02
5	Structural Pile Repair and Replacement	2026	0.00	0.26	0.10	0.00	0.05	0.00	0.01	0.00	192	0.01	0.03	0.05	0.02
5	Structural Pile Repair and Replacement	2027	0.00	0.25	0.10	0.00	0.05	0.00	0.01	0.00	187	0.01	0.03	0.05	0.02
5	Structural Pile Repair and Replacement	2028	0.00	0.24	0.09	0.00	0.05	0.00	0.01	0.00	182	0.01	0.03	0.05	0.02
5	Structural Pile Repair and Replacement	2029	0.00	0.23	0.09	0.00	0.05	0.00	0.01	0.00	177	0.01	0.03	0.05	0.02
5	Structural Pile Repair and Replacement	2030	0.00	0.22	0.09	0.00	0.05	0.00	0.01	0.00	172	0.01	0.03	0.05	0.02
5	Structural Pile Repair and Replacement	2031	0.00	0.21	0.09	0.00	0.05	0.00	0.01	0.00	167	0.01	0.03	0.05	0.02
5	Structural Pile Repair and Replacement	2032	0.00	0.20	0.08	0.00	0.05	0.00	0.01	0.00	162	0.01	0.03	0.05	0.02
5	Structural Pile Repair and Replacement	2033	0.00	0.20	0.08	0.00	0.05	0.00	0.01	0.00	157	0.01	0.03	0.05	0.02
5	Structural Pile Repair and Replacement	2034	0.00	0.19	0.08	0.00	0.05	0.00	0.01	0.00	153	0.00	0.02	0.05	0.02
6	Mobilization/Demobilization	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00

SITE TRUCKS

#	phase	year	Daily Emissions (lb/day)											
			ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	PM10 Total	PM2.5 Total
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	0.03	0.80	0.09	0.00	0.02	0.00	0.01	0.00	156	0.00	0.02	0.02	0.01
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	0.03	0.80	0.09	0.00	0.02	0.00	0.01	0.00	156	0.00	0.02	0.02	0.01
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	0.02	0.75	0.08	0.00	0.02	0.00	0.01	0.00	155	0.00	0.02	0.02	0.01
2	Repair Complex Wharf Improvements	2025	0.02	0.75	0.08	0.00	0.02	0.00	0.01	0.00	155	0.00	0.02	0.02	0.01
2	Repair Complex Wharf Improvements	2026	0.02	0.71	0.08	0.00	0.02	0.00	0.01	0.00	153	0.00	0.02	0.02	0.01
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	0.02	0.75	0.08	0.00	0.02	0.00	0.01	0.00	155	0.00	0.02	0.02	0.01
4	As-needed Quay Wall Revetment Repairs	2026	0.02	0.71	0.08	0.00	0.02	0.00	0.01	0.00	153	0.00	0.02	0.02	0.01
4	As-needed Quay Wall Revetment Repairs	2027	0.02	0.68	0.08	0.00	0.02	0.00	0.01	0.00	151	0.00	0.02	0.02	0.01
4	As-needed Quay Wall Revetment Repairs	2028	0.02	0.65	0.08	0.00	0.02	0.00	0.01	0.00	150	0.00	0.02	0.02	0.01
5	Structural Pile Repair and Replacement	2025	0.02	0.75	0.08	0.00	0.02	0.00	0.01	0.00	155	0.00	0.02	0.02	0.01
5	Structural Pile Repair and Replacement	2026	0.02	0.71	0.08	0.00	0.02	0.00	0.01	0.00	153	0.00	0.02	0.02	0.01
5	Structural Pile Repair and Replacement	2027	0.02	0.68	0.08	0.00	0.02	0.00	0.01	0.00	151	0.00	0.02	0.02	0.01
5	Structural Pile Repair and Replacement	2028	0.02	0.65	0.08	0.00	0.02	0.00	0.01	0.00	150	0.00	0.02	0.02	0.01
5	Structural Pile Repair and Replacement	2029	0.02	0.62	0.08	0.00	0.02	0.00	0.01	0.00	148	0.00	0.02	0.02	0.01
5	Structural Pile Repair and Replacement	2030	0.02	0.59	0.08	0.00	0.02	0.00	0.01	0.00	147	0.00	0.02	0.02	0.01
5	Structural Pile Repair and Replacement	2031	0.02	0.57	0.07	0.00	0.02	0.00	0.01	0.00	146	0.00	0.02	0.02	0.01
5	Structural Pile Repair and Replacement	2032	0.02	0.54	0.07	0.00	0.02	0.00	0.01	0.00	144	0.00	0.02	0.02	0.01
5	Structural Pile Repair and Replacement	2033	0.02	0.52	0.07	0.00	0.02	0.00	0.01	0.00	143	0.00	0.02	0.02	0.01
5	Structural Pile Repair and Replacement	2034	0.02	0.50	0.07	0.00	0.02	0.00	0.01	0.00	142	0.00	0.02	0.02	0.01
6	Mobilization/Demobilization	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00

WORKERS

#	phase	year	Daily Emissions (lb/day)												
			ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	PM10 Total	PM2.5 Total
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	0.10	0.08	1.05	0.00	0.25	0.00	0.06	0.00	258	0.01	0.01	0.25	0.06
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	0.10	0.08	1.05	0.00	0.25	0.00	0.06	0.00	258	0.01	0.01	0.25	0.06
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	0.09	0.08	0.98	0.00	0.25	0.00	0.06	0.00	251	0.01	0.01	0.25	0.06
2	Repair Complex Wharf Improvements	2025	0.09	0.08	0.98	0.00	0.25	0.00	0.06	0.00	251	0.01	0.01	0.25	0.06
2	Repair Complex Wharf Improvements	2026	0.09	0.07	0.92	0.00	0.25	0.00	0.06	0.00	245	0.01	0.01	0.25	0.06
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	0.09	0.08	0.98	0.00	0.25	0.00	0.06	0.00	251	0.01	0.01	0.25	0.06
4	As-needed Quay Wall Revetment Repairs	2026	0.09	0.07	0.92	0.00	0.25	0.00	0.06	0.00	245	0.01	0.01	0.25	0.06
4	As-needed Quay Wall Revetment Repairs	2027	0.08	0.07	0.87	0.00	0.25	0.00	0.06	0.00	239	0.01	0.01	0.25	0.06
4	As-needed Quay Wall Revetment Repairs	2028	0.08	0.06	0.83	0.00	0.25	0.00	0.06	0.00	234	0.01	0.01	0.25	0.06
5	Structural Pile Repair and Replacement	2025	0.09	0.08	0.98	0.00	0.25	0.00	0.06	0.00	251	0.01	0.01	0.25	0.06
5	Structural Pile Repair and Replacement	2026	0.09	0.07	0.92	0.00	0.25	0.00	0.06	0.00	245	0.01	0.01	0.25	0.06
5	Structural Pile Repair and Replacement	2027	0.08	0.07	0.87	0.00	0.25	0.00	0.06	0.00	239	0.01	0.01	0.25	0.06
5	Structural Pile Repair and Replacement	2028	0.08	0.06	0.83	0.00	0.25	0.00	0.06	0.00	234	0.01	0.01	0.25	0.06
5	Structural Pile Repair and Replacement	2029	0.08	0.06	0.79	0.00	0.25	0.00	0.06	0.00	229	0.01	0.01	0.25	0.06
5	Structural Pile Repair and Replacement	2030	0.07	0.05	0.75	0.00	0.25	0.00	0.06	0.00	224	0.01	0.01	0.25	0.06
5	Structural Pile Repair and Replacement	2031	0.07	0.05	0.71	0.00	0.25	0.00	0.06	0.00	220	0.01	0.01	0.25	0.06
5	Structural Pile Repair and Replacement	2032	0.07	0.05	0.68	0.00	0.25	0.00	0.06	0.00	216	0.01	0.01	0.25	0.06
5	Structural Pile Repair and Replacement	2033	0.06	0.04	0.65	0.00	0.25	0.00	0.06	0.00	213	0.01	0.01	0.25	0.06
5	Structural Pile Repair and Replacement	2034	0.06	0.04	0.62	0.00	0.25	0.00	0.06	0.00	210	0.00	0.00	0.25	0.06
6	Mobilization/Demobilization	2024	0.01	0.01	0.10	0.00	0.03	0.00	0.01	0.00	26	0.00	0.00	0.03	0.01
6	Mobilization/Demobilization	2025	0.01	0.01	0.10	0.00	0.03	0.00	0.01	0.00	25	0.00	0.00	0.03	0.01
6	Mobilization/Demobilization	2026	0.01	0.01	0.09	0.00	0.03	0.00	0.01	0.00	24	0.00	0.00	0.03	0.01
6	Mobilization/Demobilization	2027	0.01	0.01	0.09	0.00	0.03	0.00	0.01	0.00	24	0.00	0.00	0.03	0.01
6	Mobilization/Demobilization	2028	0.01	0.01	0.08	0.00	0.03	0.00	0.01	0.00	23	0.00	0.00	0.03	0.01
6	Mobilization/Demobilization	2029	0.01	0.01	0.08	0.00	0.03	0.00	0.01	0.00	23	0.00	0.00	0.03	0.01
6	Mobilization/Demobilization	2030	0.01	0.01	0.07	0.00	0.03	0.00	0.01	0.00	22	0.00	0.00	0.03	0.01
6	Mobilization/Demobilization	2031	0.01	0.00	0.07	0.00	0.03	0.00	0.01	0.00	22	0.00	0.00	0.03	0.01
6	Mobilization/Demobilization	2032	0.01	0.00	0.07	0.00	0.03	0.00	0.01	0.00	22	0.00	0.00	0.03	0.01
6	Mobilization/Demobilization	2033	0.01	0.00	0.07	0.00	0.03	0.00	0.01	0.00	21	0.00	0.00	0.03	0.01
6	Mobilization/Demobilization	2034	0.01	0.00	0.06	0.00	0.03	0.00	0.01	0.00	21	0.00	0.00	0.03	0.01

MARINE

#	phase	year	Daily Emissions (lb/day)												
			ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	PM10 Total	PM2.5 Total
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
2	Repair Complex Wharf Improvements	2025	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
2	Repair Complex Wharf Improvements	2026	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
4	As-needed Quay Wall Revetment Repairs	2026	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
4	As-needed Quay Wall Revetment Repairs	2027	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
4	As-needed Quay Wall Revetment Repairs	2028	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
5	Structural Pile Repair and Replacement	2025	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
5	Structural Pile Repair and Replacement	2026	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
5	Structural Pile Repair and Replacement	2027	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
5	Structural Pile Repair and Replacement	2028	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
5	Structural Pile Repair and Replacement	2029	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
5	Structural Pile Repair and Replacement	2030	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
5	Structural Pile Repair and Replacement	2031	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
5	Structural Pile Repair and Replacement	2032	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
5	Structural Pile Repair and Replacement	2033	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
5	Structural Pile Repair and Replacement	2034	7.43	33.97	24.06	1.54	0.00	1.39	0.00	0.00	4,282	2.69	0.07	1.54	1.39
6	Mobilization/Demobilization	2024	5.85	7.62	16.01	0.55	0.00	0.45	0.00	0.00	839	0.52	0.01	0.55	0.45
6	Mobilization/Demobilization	2025	5.85	7.62	16.01	0.55	0.00	0.45	0.00	0.00	839	0.52	0.01	0.55	0.45
6	Mobilization/Demobilization	2026	5.85	7.62	16.01	0.55	0.00	0.45	0.00	0.00	839	0.52	0.01	0.55	0.45
6	Mobilization/Demobilization	2027	5.85	7.62	16.01	0.55	0.00	0.45	0.00	0.00	839	0.52	0.01	0.55	0.45
6	Mobilization/Demobilization	2028	5.85	7.62	16.01	0.55	0.00	0.45	0.00	0.00	839	0.52	0.01	0.55	0.45
6	Mobilization/Demobilization	2029	5.85	7.62	16.01	0.55	0.00	0.45	0.00	0.00	839	0.52	0.01	0.55	0.45
6	Mobilization/Demobilization	2030	5.85	7.62	16.01	0.55	0.00	0.45	0.00	0.00	839	0.52	0.01	0.55	0.45
6	Mobilization/Demobilization	2031	5.85	7.62	16.01	0.55	0.00	0.45	0.00	0.00	839	0.52	0.01	0.55	0.45
6	Mobilization/Demobilization	2032	5.85	7.62	16.01	0.55	0.00	0.45	0.00	0.00	839	0.52	0.01	0.55	0.45
6	Mobilization/Demobilization	2033	5.85	7.62	16.01	0.55	0.00	0.45	0.00	0.00	839	0.52	0.01	0.55	0.45
6	Mobilization/Demobilization	2034	5.85	7.62	16.01	0.55	0.00	0.45	0.00	0.00	839	0.52	0.01	0.55	0.45

MAX DAY SHEET

1 = PHASE ACTIVE ON THAT DAY

		Workdays/Week
Project Start Date:	1/1/2024	7
Project End Date:	1/15/2034	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	1/1/2024	1/2/2024	1/3/2024	1/4/2024	1/5/2024	1/6/2024	1/7/2024	1/8/2024	1/9/2024	1/10/2024	1/11/2024	1/12/2024	1/13/2024	1/14/2024	1/15/2024	1/16/2024	1/17/2024
				2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
				1	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4
	Phase Name	Start Date	End Date	# of Workdays	Sun	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	1/1/2024	10/15/2024	288	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	10/16/2024	12/31/2024	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	1/1/2025	9/17/2025	260	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	9/17/2025	12/31/2025	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	1/1/2026	7/10/2026	191	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	1/15/2025	2/8/2025	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1/15/2026	12/31/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1/1/2027	12/31/2027	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1/1/2028	12/15/2028	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1/15/2025	12/31/2025	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1/1/2026	12/31/2026	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1/1/2027	12/31/2027	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1/1/2028	12/31/2028	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1/1/2029	12/31/2029	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1/1/2030	12/31/2030	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1/1/2031	12/31/2031	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1/1/2032	12/31/2032	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1/1/2033	12/31/2033	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1/1/2034	12/31/2034	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1/1/2024	12/31/2024	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	1/1/2025	12/31/2025	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1/1/2026	12/31/2026	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1/1/2027	12/31/2027	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1/1/2028	12/31/2028	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1/1/2029	12/31/2029	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1/1/2030	12/31/2030	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1/1/2031	12/31/2031	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1/1/2032	12/31/2032	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1/1/2033	12/31/2033	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1/1/2034	12/31/2034	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**	**Daily Emissions**																
ROG	ROG	33.1	1/15/2025	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
NOX	NOX	154.8	1/15/2025	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
CO	CO	129.5	1/15/2025	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
SOx	SOx	0.2	1/15/2025	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	PM10 ex	6.7	1/15/2025	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM10 Fugitive	PM10 d	1.3	1/15/2025	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	PM10 total	8.1	1/15/2025	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
PM2.5 Exhaust	PM2.5 ex	6.1	1/15/2025	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM2.5 Fugitive	PM2.5 d	0.3	1/15/2025	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	PM2.5 total	6.4	1/15/2025	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	1/18/2024	1/19/2024	1/20/2024	1/21/2024	1/22/2024	1/23/2024	1/24/2024	1/25/2024	1/26/2024	1/27/2024	1/28/2024	1/29/2024	1/30/2024	1/31/2024	2/1/2024	2/2/2024	2/3/2024	2/4/2024	2/5/2024	2/6/2024	2/7/2024	2/8/2024	2/9/2024	2/10/2024
		2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
NOX	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
CO	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
PM2.5 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	2/11/2024	2/12/2024	2/13/2024	2/14/2024	2/15/2024	2/16/2024	2/17/2024	2/18/2024	2/19/2024	2/20/2024	2/21/2024	2/22/2024	2/23/2024	2/24/2024	2/25/2024	2/26/2024	2/27/2024	2/28/2024	2/29/2024	3/1/2024	3/2/2024	3/3/2024	3/4/2024	3/5/2024
		2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
	Phase Name	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
NOX	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
CO	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
PM2.5 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	3/6/2024	3/7/2024	3/8/2024	3/9/2024	3/10/2024	3/11/2024	3/12/2024	3/13/2024	3/14/2024	3/15/2024	3/16/2024	3/17/2024	3/18/2024	3/19/2024	3/20/2024	3/21/2024	3/22/2024	3/23/2024	3/24/2024	3/25/2024	3/26/2024	3/27/2024	3/28/2024	3/29/2024
		2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
	Phase Name	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
NOX	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
CO	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
PM2.5 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	3/30/2024	3/31/2024	4/1/2024	4/2/2024	4/3/2024	4/4/2024	4/5/2024	4/6/2024	4/7/2024	4/8/2024	4/9/2024	4/10/2024	4/11/2024	4/12/2024	4/13/2024	4/14/2024	4/15/2024	4/16/2024	4/17/2024	4/18/2024	4/19/2024	4/20/2024	4/21/2024	4/22/2024
		2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
NOX	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
CO	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
PM2.5 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	4/23/2024	4/24/2024	4/25/2024	4/26/2024	4/27/2024	4/28/2024	4/29/2024	4/30/2024	5/1/2024	5/2/2024	5/3/2024	5/4/2024	5/5/2024	5/6/2024	5/7/2024	5/8/2024	5/9/2024	5/10/2024	5/11/2024	5/12/2024	5/13/2024	5/14/2024	5/15/2024	5/16/2024
		2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
NOX	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
CO	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
PM2.5 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	5/17/2024	5/18/2024	5/19/2024	5/20/2024	5/21/2024	5/22/2024	5/23/2024	5/24/2024	5/25/2024	5/26/2024	5/27/2024	5/28/2024	5/29/2024	5/30/2024	5/31/2024	6/1/2024	6/2/2024	6/3/2024	6/4/2024	6/5/2024	6/6/2024	6/7/2024	6/8/2024	6/9/2024
		2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
NOX	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
CO	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
PM2.5 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	6/10/2024	6/11/2024	6/12/2024	6/13/2024	6/14/2024	6/15/2024	6/16/2024	6/17/2024	6/18/2024	6/19/2024	6/20/2024	6/21/2024	6/22/2024	6/23/2024	6/24/2024	6/25/2024	6/26/2024	6/27/2024	6/28/2024	6/29/2024	6/30/2024	7/1/2024	7/2/2024	7/3/2024
		2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
NOX	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
CO	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
PM2.5 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	7/4/2024	7/5/2024	7/6/2024	7/7/2024	7/8/2024	7/9/2024	7/10/2024	7/11/2024	7/12/2024	7/13/2024	7/14/2024	7/15/2024	7/16/2024	7/17/2024	7/18/2024	7/19/2024	7/20/2024	7/21/2024	7/22/2024	7/23/2024	7/24/2024	7/25/2024	7/26/2024	7/27/2024
		2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
NOX	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
CO	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
PM2.5 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	7/28/2024	7/29/2024	7/30/2024	7/31/2024	8/1/2024	8/2/2024	8/3/2024	8/4/2024	8/5/2024	8/6/2024	8/7/2024	8/8/2024	8/9/2024	8/10/2024	8/11/2024	8/12/2024	8/13/2024	8/14/2024	8/15/2024	8/16/2024	8/17/2024	8/18/2024	8/19/2024	8/20/2024
		2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3
	Phase Name	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																									
ROG	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
NOX	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
CO	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
PM2.5 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	8/21/2024	8/22/2024	8/23/2024	8/24/2024	8/25/2024	8/26/2024	8/27/2024	8/28/2024	8/29/2024	8/30/2024	8/31/2024	9/1/2024	9/2/2024	9/3/2024	9/4/2024	9/5/2024	9/6/2024	9/7/2024	9/8/2024	9/9/2024	9/10/2024	9/11/2024	9/12/2024	9/13/2024
		2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
	Phase Name	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
NOX	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
CO	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
PM2.5 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	9/14/2024	9/15/2024	9/16/2024	9/17/2024	9/18/2024	9/19/2024	9/20/2024	9/21/2024	9/22/2024	9/23/2024	9/24/2024	9/25/2024	9/26/2024	9/27/2024	9/28/2024	9/29/2024	9/30/2024	10/1/2024	10/2/2024	10/3/2024	10/4/2024	10/5/2024	10/6/2024	10/7/2024
	Phase Name	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
		7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2
	Phase Name	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																									
ROG	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
NOX	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
CO	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
PM2.5 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	10/8/2024	10/9/2024	10/10/2024	10/11/2024	10/12/2024	10/13/2024	10/14/2024	10/15/2024	10/16/2024	10/17/2024	10/18/2024	10/19/2024	10/20/2024	10/21/2024	10/22/2024	10/23/2024	10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024	10/31/2024
		2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
NOX	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
CO	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
PM2.5 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024	11/7/2024	11/8/2024	11/9/2024	11/10/2024	11/11/2024	11/12/2024	11/13/2024	11/14/2024	11/15/2024	11/16/2024	11/17/2024	11/18/2024	11/19/2024	11/20/2024	11/21/2024	11/22/2024	11/23/2024	11/24/2024
		2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
NOX	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
CO	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
PM2.5 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	11/25/2024	11/26/2024	11/27/2024	11/28/2024	11/29/2024	11/30/2024	12/1/2024	12/2/2024	12/3/2024	12/4/2024	12/5/2024	12/6/2024	12/7/2024	12/8/2024	12/9/2024	12/10/2024	12/11/2024	12/12/2024	12/13/2024	12/14/2024	12/15/2024	12/16/2024	12/17/2024	12/18/2024
		2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
NOX	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
CO	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
PM2.5 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	12/19/2024	12/20/2024	12/21/2024	12/22/2024	12/23/2024	12/24/2024	12/25/2024	12/26/2024	12/27/2024	12/28/2024	12/29/2024	12/30/2024	12/31/2024	1/1/2025	1/2/2025	1/3/2025	1/4/2025	1/5/2025	1/6/2025	1/7/2025	1/8/2025	1/9/2025	1/10/2025	1/11/2025
	Phase Name	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
NOX	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0
CO	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
PM2.5 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	1/12/2025	1/13/2025	1/14/2025	1/15/2025	1/16/2025	1/17/2025	1/18/2025	1/19/2025	1/20/2025	1/21/2025	1/22/2025	1/23/2025	1/24/2025	1/25/2025	1/26/2025	1/27/2025	1/28/2025	1/29/2025	1/30/2025	1/31/2025	2/1/2025	2/2/2025	2/3/2025	2/4/2025
		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
	Phase Name	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.9	14.9	14.9	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1
NOX	56.0	56.0	56.0	154.8	154.8	154.8	154.8	154.8	154.8	154.8	154.8	154.8	154.8	154.8	154.8	154.8	154.8	154.8	154.8	154.8	154.8	154.8	154.8	154.8
CO	53.7	53.7	53.7	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5
SOx	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM10 Exhaust	2.6	2.6	2.6	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
PM10 Fugitive	0.3	0.3	0.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
PM10 Total	2.9	2.9	2.9	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
PM2.5 Exhaust	2.3	2.3	2.3	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
PM2.5 Fugitive	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	2.4	2.4	2.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	2/5/2025	2/6/2025	2/7/2025	2/8/2025	2/9/2025	2/10/2025	2/11/2025	2/12/2025	2/13/2025	2/14/2025	2/15/2025	2/16/2025	2/17/2025	2/18/2025	2/19/2025	2/20/2025	2/21/2025	2/22/2025	2/23/2025	2/24/2025	2/25/2025	2/26/2025	2/27/2025	2/28/2025
		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
	Phase Name	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	33.1	33.1	33.1	33.1	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
NOX	154.8	154.8	154.8	154.8	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5
CO	129.5	129.5	129.5	129.5	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	6.7	6.7	6.7	6.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
PM10 Fugitive	1.3	1.3	1.3	1.3	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
PM10 Total	8.1	8.1	8.1	8.1	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
PM2.5 Exhaust	6.1	6.1	6.1	6.1	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM2.5 Total	6.4	6.4	6.4	6.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	3/1/2025	3/2/2025	3/3/2025	3/4/2025	3/5/2025	3/6/2025	3/7/2025	3/8/2025	3/9/2025	3/10/2025	3/11/2025	3/12/2025	3/13/2025	3/14/2025	3/15/2025	3/16/2025	3/17/2025	3/18/2025	3/19/2025	3/20/2025	3/21/2025	3/22/2025	3/23/2025	3/24/2025
		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
NOX	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
PM10 Fugitive	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
PM10 Total	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
PM2.5 Exhaust	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
PM2.5 Fugitive	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	3/25/2025	3/26/2025	3/27/2025	3/28/2025	3/29/2025	3/30/2025	3/31/2025	4/1/2025	4/2/2025	4/3/2025	4/4/2025	4/5/2025	4/6/2025	4/7/2025	4/8/2025	4/9/2025	4/10/2025	4/11/2025	4/12/2025	4/13/2025	4/14/2025	4/15/2025	4/16/2025	4/17/2025
		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
NOX	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
PM10 Fugitive	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
PM10 Total	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
PM2.5 Exhaust	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
PM2.5 Fugitive	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	4/18/2025	4/19/2025	4/20/2025	4/21/2025	4/22/2025	4/23/2025	4/24/2025	4/25/2025	4/26/2025	4/27/2025	4/28/2025	4/29/2025	4/30/2025	5/1/2025	5/2/2025	5/3/2025	5/4/2025	5/5/2025	5/6/2025	5/7/2025	5/8/2025	5/9/2025	5/10/2025	5/11/2025
		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
NOX	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
PM10 Fugitive	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
PM10 Total	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
PM2.5 Exhaust	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
PM2.5 Fugitive	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	5/12/2025	5/13/2025	5/14/2025	5/15/2025	5/16/2025	5/17/2025	5/18/2025	5/19/2025	5/20/2025	5/21/2025	5/22/2025	5/23/2025	5/24/2025	5/25/2025	5/26/2025	5/27/2025	5/28/2025	5/29/2025	5/30/2025	5/31/2025	6/1/2025	6/2/2025	6/3/2025	6/4/2025
		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
NOX	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
PM10 Fugitive	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
PM10 Total	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
PM2.5 Exhaust	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
PM2.5 Fugitive	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	6/5/2025	6/6/2025	6/7/2025	6/8/2025	6/9/2025	6/10/2025	6/11/2025	6/12/2025	6/13/2025	6/14/2025	6/15/2025	6/16/2025	6/17/2025	6/18/2025	6/19/2025	6/20/2025	6/21/2025	6/22/2025	6/23/2025	6/24/2025	6/25/2025	6/26/2025	6/27/2025	6/28/2025
	Phase Name	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
NOX	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
PM10 Fugitive	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
PM10 Total	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
PM2.5 Exhaust	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
PM2.5 Fugitive	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	6/29/2025	6/30/2025	7/1/2025	7/2/2025	7/3/2025	7/4/2025	7/5/2025	7/6/2025	7/7/2025	7/8/2025	7/9/2025	7/10/2025	7/11/2025	7/12/2025	7/13/2025	7/14/2025	7/15/2025	7/16/2025	7/17/2025	7/18/2025	7/19/2025	7/20/2025	7/21/2025	7/22/2025
		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
	Phase Name	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
NOX	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
PM10 Fugitive	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
PM10 Total	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
PM2.5 Exhaust	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
PM2.5 Fugitive	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	7/23/2025	7/24/2025	7/25/2025	7/26/2025	7/27/2025	7/28/2025	7/29/2025	7/30/2025	7/31/2025	8/1/2025	8/2/2025	8/3/2025	8/4/2025	8/5/2025	8/6/2025	8/7/2025	8/8/2025	8/9/2025	8/10/2025	8/11/2025	8/12/2025	8/13/2025	8/14/2025	8/15/2025
		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
	Phase Name	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
NOX	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
PM10 Fugitive	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
PM10 Total	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
PM2.5 Exhaust	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
PM2.5 Fugitive	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	8/16/2025	8/17/2025	8/18/2025	8/19/2025	8/20/2025	8/21/2025	8/22/2025	8/23/2025	8/24/2025	8/25/2025	8/26/2025	8/27/2025	8/28/2025	8/29/2025	8/30/2025	8/31/2025	9/1/2025	9/2/2025	9/3/2025	9/4/2025	9/5/2025	9/6/2025	9/7/2025	9/8/2025
		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
NOX	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
PM10 Fugitive	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
PM10 Total	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
PM2.5 Exhaust	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
PM2.5 Fugitive	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	9/9/2025	9/10/2025	9/11/2025	9/12/2025	9/13/2025	9/14/2025	9/15/2025	9/16/2025	9/17/2025	9/18/2025	9/19/2025	9/20/2025	9/21/2025	9/22/2025	9/23/2025	9/24/2025	9/25/2025	9/26/2025	9/27/2025	9/28/2025	9/29/2025	9/30/2025	10/1/2025	10/2/2025
		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	33.1	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
NOX	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	152.9	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	128.8	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	6.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
PM10 Fugitive	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
PM10 Total	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	7.7	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
PM2.5 Exhaust	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	6.1	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
PM2.5 Fugitive	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	6.3	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	10/3/2025	10/4/2025	10/5/2025	10/6/2025	10/7/2025	10/8/2025	10/9/2025	10/10/2025	10/11/2025	10/12/2025	10/13/2025	10/14/2025	10/15/2025	10/16/2025	10/17/2025	10/18/2025	10/19/2025	10/20/2025	10/21/2025	10/22/2025	10/23/2025	10/24/2025	10/25/2025	10/26/2025
		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
NOX	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
PM10 Fugitive	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
PM10 Total	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
PM2.5 Exhaust	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
PM2.5 Fugitive	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	10/27/2025	10/28/2025	10/29/2025	10/30/2025	10/31/2025	11/1/2025	11/2/2025	11/3/2025	11/4/2025	11/5/2025	11/6/2025	11/7/2025	11/8/2025	11/9/2025	11/10/2025	11/11/2025	11/12/2025	11/13/2025	11/14/2025	11/15/2025	11/16/2025	11/17/2025	11/18/2025	11/19/2025
		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
NOX	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
PM10 Fugitive	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
PM10 Total	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
PM2.5 Exhaust	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
PM2.5 Fugitive	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	11/20/2025	11/21/2025	11/22/2025	11/23/2025	11/24/2025	11/25/2025	11/26/2025	11/27/2025	11/28/2025	11/29/2025	11/30/2025	12/1/2025	12/2/2025	12/3/2025	12/4/2025	12/5/2025	12/6/2025	12/7/2025	12/8/2025	12/9/2025	12/10/2025	12/11/2025	12/12/2025	12/13/2025
		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
NOX	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
PM10 Fugitive	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
PM10 Total	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
PM2.5 Exhaust	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
PM2.5 Fugitive	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	12/14/2025	12/15/2025	12/16/2025	12/17/2025	12/18/2025	12/19/2025	12/20/2025	12/21/2025	12/22/2025	12/23/2025	12/24/2025	12/25/2025	12/26/2025	12/27/2025	12/28/2025	12/29/2025	12/30/2025	12/31/2025	1/1/2026	1/2/2026	1/3/2026	1/4/2026	1/5/2026	1/6/2026
		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2026	2026	2026	2026	2026	2026
	Phase Name	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.9	23.9	23.9	23.9	23.9	23.9
NOX	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	102.4	102.4	102.4	102.4	102.4	102.4
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	90.7	90.7	90.7	90.7	90.7	90.7
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.6	4.6	4.6	4.6	4.6	4.6
PM10 Fugitive	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
PM10 Total	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.2	5.2	5.2	5.2	5.2	5.2
PM2.5 Exhaust	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	1/7/2026	1/8/2026	1/9/2026	1/10/2026	1/11/2026	1/12/2026	1/13/2026	1/14/2026	1/15/2026	1/16/2026	1/17/2026	1/18/2026	1/19/2026	1/20/2026	1/21/2026	1/22/2026	1/23/2026	1/24/2026	1/25/2026	1/26/2026	1/27/2026	1/28/2026	1/29/2026
		2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
		4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5
	Phase Name	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																							
ROG	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9
NOX	102.4	102.4	102.4	102.4	102.4	102.4	102.4	102.4	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5
CO	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM10 Exhaust	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
PM10 Fugitive	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
PM10 Total	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
PM2.5 Fugitive	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	1/30/2026	1/31/2026	2/1/2026	2/2/2026	2/3/2026	2/4/2026	2/5/2026	2/6/2026	2/7/2026	2/8/2026	2/9/2026	2/10/2026	2/11/2026	2/12/2026	2/13/2026	2/14/2026	2/15/2026	2/16/2026	2/17/2026	2/18/2026	2/19/2026	2/20/2026	2/21/2026	2/22/2026
		2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9
NOX	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5
CO	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6
SOx	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM10 Exhaust	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
PM10 Fugitive	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
PM10 Total	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
PM2.5 Exhaust	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	2/23/2026	2/24/2026	2/25/2026	2/26/2026	2/27/2026	2/28/2026	3/1/2026	3/2/2026	3/3/2026	3/4/2026	3/5/2026	3/6/2026	3/7/2026	3/8/2026	3/9/2026	3/10/2026	3/11/2026	3/12/2026	3/13/2026	3/14/2026	3/15/2026	3/16/2026	3/17/2026	3/18/2026
		2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9
NOX	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5
CO	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6
SOx	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM10 Exhaust	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
PM10 Fugitive	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
PM10 Total	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
PM2.5 Exhaust	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	3/19/2026	3/20/2026	3/21/2026	3/22/2026	3/23/2026	3/24/2026	3/25/2026	3/26/2026	3/27/2026	3/28/2026	3/29/2026	3/30/2026	3/31/2026	4/1/2026	4/2/2026	4/3/2026	4/4/2026	4/5/2026	4/6/2026	4/7/2026	4/8/2026	4/9/2026	4/10/2026	4/11/2026
		2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9
NOX	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5
CO	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6
SOx	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM10 Exhaust	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
PM10 Fugitive	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
PM10 Total	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
PM2.5 Exhaust	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	4/12/2026	4/13/2026	4/14/2026	4/15/2026	4/16/2026	4/17/2026	4/18/2026	4/19/2026	4/20/2026	4/21/2026	4/22/2026	4/23/2026	4/24/2026	4/25/2026	4/26/2026	4/27/2026	4/28/2026	4/29/2026	4/30/2026	5/1/2026	5/2/2026	5/3/2026	5/4/2026	5/5/2026
		2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3
	Phase Name	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																									
ROG	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9
NOX	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5
CO	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6
SOx	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM10 Exhaust	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
PM10 Fugitive	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
PM10 Total	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
PM2.5 Exhaust	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	5/6/2026	5/7/2026	5/8/2026	5/9/2026	5/10/2026	5/11/2026	5/12/2026	5/13/2026	5/14/2026	5/15/2026	5/16/2026	5/17/2026	5/18/2026	5/19/2026	5/20/2026	5/21/2026	5/22/2026	5/23/2026	5/24/2026	5/25/2026	5/26/2026	5/27/2026	5/28/2026	5/29/2026
		2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
	Phase Name	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9
NOX	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5
CO	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6
SOx	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM10 Exhaust	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
PM10 Fugitive	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
PM10 Total	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
PM2.5 Exhaust	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	5/30/2026	5/31/2026	6/1/2026	6/2/2026	6/3/2026	6/4/2026	6/5/2026	6/6/2026	6/7/2026	6/8/2026	6/9/2026	6/10/2026	6/11/2026	6/12/2026	6/13/2026	6/14/2026	6/15/2026	6/16/2026	6/17/2026	6/18/2026	6/19/2026	6/20/2026	6/21/2026	6/22/2026
		2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9
NOX	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5
CO	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6
SOx	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PM10 Exhaust	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
PM10 Fugitive	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
PM10 Total	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
PM2.5 Exhaust	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	6/23/2026	6/24/2026	6/25/2026	6/26/2026	6/27/2026	6/28/2026	6/29/2026	6/30/2026	7/1/2026	7/2/2026	7/3/2026	7/4/2026	7/5/2026	7/6/2026	7/7/2026	7/8/2026	7/9/2026	7/10/2026	7/11/2026	7/12/2026	7/13/2026	7/14/2026	7/15/2026	7/16/2026
		2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	23.9	23.9	23.9	23.9	23.9	23.9
NOX	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	104.2	104.2	104.2	104.2	104.2	104.2
CO	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	128.6	91.4	91.4	91.4	91.4	91.4	91.4
SOx	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	4.6	4.6	4.6	4.6	4.6	4.6
PM10 Fugitive	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	7/17/2026	7/18/2026	7/19/2026	7/20/2026	7/21/2026	7/22/2026	7/23/2026	7/24/2026	7/25/2026	7/26/2026	7/27/2026	7/28/2026	7/29/2026	7/30/2026	7/31/2026	8/1/2026	8/2/2026	8/3/2026	8/4/2026	8/5/2026	8/6/2026	8/7/2026	8/8/2026	8/9/2026
		2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9
NOX	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2
CO	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	8/10/2026	8/11/2026	8/12/2026	8/13/2026	8/14/2026	8/15/2026	8/16/2026	8/17/2026	8/18/2026	8/19/2026	8/20/2026	8/21/2026	8/22/2026	8/23/2026	8/24/2026	8/25/2026	8/26/2026	8/27/2026	8/28/2026	8/29/2026	8/30/2026	8/31/2026	9/1/2026	9/2/2026
		2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9
NOX	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2
CO	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	9/3/2026	9/4/2026	9/5/2026	9/6/2026	9/7/2026	9/8/2026	9/9/2026	9/10/2026	9/11/2026	9/12/2026	9/13/2026	9/14/2026	9/15/2026	9/16/2026	9/17/2026	9/18/2026	9/19/2026	9/20/2026	9/21/2026	9/22/2026	9/23/2026	9/24/2026	9/25/2026	9/26/2026
		2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9
NOX	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2
CO	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	9/27/2026	9/28/2026	9/29/2026	9/30/2026	10/1/2026	10/2/2026	10/3/2026	10/4/2026	10/5/2026	10/6/2026	10/7/2026	10/8/2026	10/9/2026	10/10/2026	10/11/2026	10/12/2026	10/13/2026	10/14/2026	10/15/2026	10/16/2026	10/17/2026	10/18/2026	10/19/2026	10/20/2026
		2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3
	Phase Name	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9
NOX	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2
CO	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	10/21/2026	10/22/2026	10/23/2026	10/24/2026	10/25/2026	10/26/2026	10/27/2026	10/28/2026	10/29/2026	10/30/2026	10/31/2026	11/1/2026	11/2/2026	11/3/2026	11/4/2026	11/5/2026	11/6/2026	11/7/2026	11/8/2026	11/9/2026	11/10/2026	11/11/2026	11/12/2026	11/13/2026
		2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
	Phase Name	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9
NOX	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2
CO	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	11/14/2026	11/15/2026	11/16/2026	11/17/2026	11/18/2026	11/19/2026	11/20/2026	11/21/2026	11/22/2026	11/23/2026	11/24/2026	11/25/2026	11/26/2026	11/27/2026	11/28/2026	11/29/2026	11/30/2026	12/1/2026	12/2/2026	12/3/2026	12/4/2026	12/5/2026	12/6/2026	12/7/2026
		2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9
NOX	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2
CO	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	12/8/2026	12/9/2026	12/10/2026	12/11/2026	12/12/2026	12/13/2026	12/14/2026	12/15/2026	12/16/2026	12/17/2026	12/18/2026	12/19/2026	12/20/2026	12/21/2026	12/22/2026	12/23/2026	12/24/2026	12/25/2026	12/26/2026	12/27/2026	12/28/2026	12/29/2026	12/30/2026	12/31/2026
		2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9
NOX	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2
CO	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	1/1/2027	1/2/2027	1/3/2027	1/4/2027	1/5/2027	1/6/2027	1/7/2027	1/8/2027	1/9/2027	1/10/2027	1/11/2027	1/12/2027	1/13/2027	1/14/2027	1/15/2027	1/16/2027	1/17/2027	1/18/2027	1/19/2027	1/20/2027	1/21/2027	1/22/2027	1/23/2027	1/24/2027
		2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
NOX	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8
CO	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	1/25/2027	1/26/2027	1/27/2027	1/28/2027	1/29/2027	1/30/2027	1/31/2027	2/1/2027	2/2/2027	2/3/2027	2/4/2027	2/5/2027	2/6/2027	2/7/2027	2/8/2027	2/9/2027	2/10/2027	2/11/2027	2/12/2027	2/13/2027	2/14/2027	2/15/2027	2/16/2027	2/17/2027
		2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
NOX	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8
CO	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	2/18/2027	2/19/2027	2/20/2027	2/21/2027	2/22/2027	2/23/2027	2/24/2027	2/25/2027	2/26/2027	2/27/2027	2/28/2027	3/1/2027	3/2/2027	3/3/2027	3/4/2027	3/5/2027	3/6/2027	3/7/2027	3/8/2027	3/9/2027	3/10/2027	3/11/2027	3/12/2027	3/13/2027
		2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
NOX	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8
CO	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	3/14/2027	3/15/2027	3/16/2027	3/17/2027	3/18/2027	3/19/2027	3/20/2027	3/21/2027	3/22/2027	3/23/2027	3/24/2027	3/25/2027	3/26/2027	3/27/2027	3/28/2027	3/29/2027	3/30/2027	3/31/2027	4/1/2027	4/2/2027	4/3/2027	4/4/2027	4/5/2027	4/6/2027
		2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027
	Phase Name	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
NOX	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8
CO	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	4/7/2027	4/8/2027	4/9/2027	4/10/2027	4/11/2027	4/12/2027	4/13/2027	4/14/2027	4/15/2027	4/16/2027	4/17/2027	4/18/2027	4/19/2027	4/20/2027	4/21/2027	4/22/2027	4/23/2027	4/24/2027	4/25/2027	4/26/2027	4/27/2027	4/28/2027	4/29/2027	4/30/2027
		2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027
	Phase Name	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
NOX	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8
CO	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	5/1/2027	5/2/2027	5/3/2027	5/4/2027	5/5/2027	5/6/2027	5/7/2027	5/8/2027	5/9/2027	5/10/2027	5/11/2027	5/12/2027	5/13/2027	5/14/2027	5/15/2027	5/16/2027	5/17/2027	5/18/2027	5/19/2027	5/20/2027	5/21/2027	5/22/2027	5/23/2027	5/24/2027
	Phase Name	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
NOX	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8
CO	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	5/25/2027	5/26/2027	5/27/2027	5/28/2027	5/29/2027	5/30/2027	5/31/2027	6/1/2027	6/2/2027	6/3/2027	6/4/2027	6/5/2027	6/6/2027	6/7/2027	6/8/2027	6/9/2027	6/10/2027	6/11/2027	6/12/2027	6/13/2027	6/14/2027	6/15/2027	6/16/2027	6/17/2027
		2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
NOX	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8
CO	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	6/18/2027	6/19/2027	6/20/2027	6/21/2027	6/22/2027	6/23/2027	6/24/2027	6/25/2027	6/26/2027	6/27/2027	6/28/2027	6/29/2027	6/30/2027	7/1/2027	7/2/2027	7/3/2027	7/4/2027	7/5/2027	7/6/2027	7/7/2027	7/8/2027	7/9/2027	7/10/2027	7/11/2027
		2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
NOX	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8
CO	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	7/12/2027	7/13/2027	7/14/2027	7/15/2027	7/16/2027	7/17/2027	7/18/2027	7/19/2027	7/20/2027	7/21/2027	7/22/2027	7/23/2027	7/24/2027	7/25/2027	7/26/2027	7/27/2027	7/28/2027	7/29/2027	7/30/2027	7/31/2027	8/1/2027	8/2/2027	8/3/2027	8/4/2027
		2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027
		2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4
	Phase Name	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
NOX	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8
CO	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	8/5/2027	8/6/2027	8/7/2027	8/8/2027	8/9/2027	8/10/2027	8/11/2027	8/12/2027	8/13/2027	8/14/2027	8/15/2027	8/16/2027	8/17/2027	8/18/2027	8/19/2027	8/20/2027	8/21/2027	8/22/2027	8/23/2027	8/24/2027	8/25/2027	8/26/2027	8/27/2027	8/28/2027
		2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
NOX	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8
CO	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	8/29/2027	8/30/2027	8/31/2027	9/1/2027	9/2/2027	9/3/2027	9/4/2027	9/5/2027	9/6/2027	9/7/2027	9/8/2027	9/9/2027	9/10/2027	9/11/2027	9/12/2027	9/13/2027	9/14/2027	9/15/2027	9/16/2027	9/17/2027	9/18/2027	9/19/2027	9/20/2027	9/21/2027
		2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027
	Phase Name	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
NOX	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8
CO	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	9/22/2027	9/23/2027	9/24/2027	9/25/2027	9/26/2027	9/27/2027	9/28/2027	9/29/2027	9/30/2027	10/1/2027	10/2/2027	10/3/2027	10/4/2027	10/5/2027	10/6/2027	10/7/2027	10/8/2027	10/9/2027	10/10/2027	10/11/2027	10/12/2027	10/13/2027	10/14/2027	10/15/2027
		2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027
	Phase Name	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
NOX	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8
CO	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	10/16/2027	10/17/2027	10/18/2027	10/19/2027	10/20/2027	10/21/2027	10/22/2027	10/23/2027	10/24/2027	10/25/2027	10/26/2027	10/27/2027	10/28/2027	10/29/2027	10/30/2027	10/31/2027	11/1/2027	11/2/2027	11/3/2027	11/4/2027	11/5/2027	11/6/2027	11/7/2027	11/8/2027
		2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
NOX	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8
CO	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	11/9/2027	11/10/2027	11/11/2027	11/12/2027	11/13/2027	11/14/2027	11/15/2027	11/16/2027	11/17/2027	11/18/2027	11/19/2027	11/20/2027	11/21/2027	11/22/2027	11/23/2027	11/24/2027	11/25/2027	11/26/2027	11/27/2027	11/28/2027	11/29/2027	11/30/2027	12/1/2027	12/2/2027
		2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
NOX	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8
CO	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	12/3/2027	12/4/2027	12/5/2027	12/6/2027	12/7/2027	12/8/2027	12/9/2027	12/10/2027	12/11/2027	12/12/2027	12/13/2027	12/14/2027	12/15/2027	12/16/2027	12/17/2027	12/18/2027	12/19/2027	12/20/2027	12/21/2027	12/22/2027	12/23/2027	12/24/2027	12/25/2027	12/26/2027
		2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027
		6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1
	Phase Name	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
NOX	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8
CO	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	12/27/2027	12/28/2027	12/29/2027	12/30/2027	12/31/2027	1/1/2028	1/2/2028	1/3/2028	1/4/2028	1/5/2028	1/6/2028	1/7/2028	1/8/2028	1/9/2028	1/10/2028	1/11/2028	1/12/2028	1/13/2028	1/14/2028	1/15/2028	1/16/2028	1/17/2028	1/18/2028	1/19/2028
		2027	2027	2027	2027	2027	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.8	23.8	23.8	23.8	23.8	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
NOX	102.8	102.8	102.8	102.8	102.8	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9
CO	91.3	91.3	91.3	91.3	91.3	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.6	5.6	5.6	5.6	5.6	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
PM2.5 Exhaust	4.1	4.1	4.1	4.1	4.1	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	1/20/2028	1/21/2028	1/22/2028	1/23/2028	1/24/2028	1/25/2028	1/26/2028	1/27/2028	1/28/2028	1/29/2028	1/30/2028	1/31/2028	2/1/2028	2/2/2028	2/3/2028	2/4/2028	2/5/2028	2/6/2028	2/7/2028	2/8/2028	2/9/2028	2/10/2028	2/11/2028	2/12/2028
	Phase Name	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028
		5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
	Phase Name	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
NOX	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
PM2.5 Exhaust	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	2/13/2028	2/14/2028	2/15/2028	2/16/2028	2/17/2028	2/18/2028	2/19/2028	2/20/2028	2/21/2028	2/22/2028	2/23/2028	2/24/2028	2/25/2028	2/26/2028	2/27/2028	2/28/2028	2/29/2028	3/1/2028	3/2/2028	3/3/2028	3/4/2028	3/5/2028	3/6/2028	3/7/2028
		2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028
		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3
	Phase Name	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
NOX	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
PM2.5 Exhaust	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	3/8/2028	3/9/2028	3/10/2028	3/11/2028	3/12/2028	3/13/2028	3/14/2028	3/15/2028	3/16/2028	3/17/2028	3/18/2028	3/19/2028	3/20/2028	3/21/2028	3/22/2028	3/23/2028	3/24/2028	3/25/2028	3/26/2028	3/27/2028	3/28/2028	3/29/2028	3/30/2028	3/31/2028
		2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028
	Phase Name	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
NOX	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
PM2.5 Exhaust	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	4/1/2028	4/2/2028	4/3/2028	4/4/2028	4/5/2028	4/6/2028	4/7/2028	4/8/2028	4/9/2028	4/10/2028	4/11/2028	4/12/2028	4/13/2028	4/14/2028	4/15/2028	4/16/2028	4/17/2028	4/18/2028	4/19/2028	4/20/2028	4/21/2028	4/22/2028	4/23/2028	4/24/2028
		2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
NOX	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
PM2.5 Exhaust	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	4/25/2028	4/26/2028	4/27/2028	4/28/2028	4/29/2028	4/30/2028	5/1/2028	5/2/2028	5/3/2028	5/4/2028	5/5/2028	5/6/2028	5/7/2028	5/8/2028	5/9/2028	5/10/2028	5/11/2028	5/12/2028	5/13/2028	5/14/2028	5/15/2028	5/16/2028	5/17/2028	5/18/2028
		2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
NOX	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
PM2.5 Exhaust	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	5/19/2028	5/20/2028	5/21/2028	5/22/2028	5/23/2028	5/24/2028	5/25/2028	5/26/2028	5/27/2028	5/28/2028	5/29/2028	5/30/2028	5/31/2028	6/1/2028	6/2/2028	6/3/2028	6/4/2028	6/5/2028	6/6/2028	6/7/2028	6/8/2028	6/9/2028	6/10/2028	6/11/2028
		2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
NOX	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
PM2.5 Exhaust	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	6/12/2028	6/13/2028	6/14/2028	6/15/2028	6/16/2028	6/17/2028	6/18/2028	6/19/2028	6/20/2028	6/21/2028	6/22/2028	6/23/2028	6/24/2028	6/25/2028	6/26/2028	6/27/2028	6/28/2028	6/29/2028	6/30/2028	7/1/2028	7/2/2028	7/3/2028	7/4/2028	7/5/2028
		2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
NOX	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
PM2.5 Exhaust	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	7/6/2028	7/7/2028	7/8/2028	7/9/2028	7/10/2028	7/11/2028	7/12/2028	7/13/2028	7/14/2028	7/15/2028	7/16/2028	7/17/2028	7/18/2028	7/19/2028	7/20/2028	7/21/2028	7/22/2028	7/23/2028	7/24/2028	7/25/2028	7/26/2028	7/27/2028	7/28/2028	7/29/2028
		2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
NOX	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
PM2.5 Exhaust	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	7/30/2028	7/31/2028	8/1/2028	8/2/2028	8/3/2028	8/4/2028	8/5/2028	8/6/2028	8/7/2028	8/8/2028	8/9/2028	8/10/2028	8/11/2028	8/12/2028	8/13/2028	8/14/2028	8/15/2028	8/16/2028	8/17/2028	8/18/2028	8/19/2028	8/20/2028	8/21/2028	8/22/2028
		2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028
	Phase Name	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
NOX	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
PM2.5 Exhaust	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	8/23/2028	8/24/2028	8/25/2028	8/26/2028	8/27/2028	8/28/2028	8/29/2028	8/30/2028	8/31/2028	9/1/2028	9/2/2028	9/3/2028	9/4/2028	9/5/2028	9/6/2028	9/7/2028	9/8/2028	9/9/2028	9/10/2028	9/11/2028	9/12/2028	9/13/2028	9/14/2028	9/15/2028
		2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028
	Phase Name	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
NOX	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
PM2.5 Exhaust	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	9/16/2028	9/17/2028	9/18/2028	9/19/2028	9/20/2028	9/21/2028	9/22/2028	9/23/2028	9/24/2028	9/25/2028	9/26/2028	9/27/2028	9/28/2028	9/29/2028	9/30/2028	10/1/2028	10/2/2028	10/3/2028	10/4/2028	10/5/2028	10/6/2028	10/7/2028	10/8/2028	10/9/2028
		2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
NOX	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
PM2.5 Exhaust	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	10/10/2028	10/11/2028	10/12/2028	10/13/2028	10/14/2028	10/15/2028	10/16/2028	10/17/2028	10/18/2028	10/19/2028	10/20/2028	10/21/2028	10/22/2028	10/23/2028	10/24/2028	10/25/2028	10/26/2028	10/27/2028	10/28/2028	10/29/2028	10/30/2028	10/31/2028	11/1/2028	11/2/2028
		2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
NOX	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
PM2.5 Exhaust	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	11/3/2028	11/4/2028	11/5/2028	11/6/2028	11/7/2028	11/8/2028	11/9/2028	11/10/2028	11/11/2028	11/12/2028	11/13/2028	11/14/2028	11/15/2028	11/16/2028	11/17/2028	11/18/2028	11/19/2028	11/20/2028	11/21/2028	11/22/2028	11/23/2028	11/24/2028	11/25/2028	11/26/2028
		2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
NOX	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PM10 Total	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
PM2.5 Exhaust	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	11/27/2028	11/28/2028	11/29/2028	11/30/2028	12/1/2028	12/2/2028	12/3/2028	12/4/2028	12/5/2028	12/6/2028	12/7/2028	12/8/2028	12/9/2028	12/10/2028	12/11/2028	12/12/2028	12/13/2028	12/14/2028	12/15/2028	12/16/2028	12/17/2028	12/18/2028	12/19/2028	12/20/2028
		2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	14.8	14.8	14.8	14.8	14.8
NOX	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	100.9	53.5	53.5	53.5	53.5	53.5
CO	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	53.3	53.3	53.3	53.3	53.3
SOx	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.3	0.3	0.3	0.3	0.3
PM10 Total	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	12/21/2028	12/22/2028	12/23/2028	12/24/2028	12/25/2028	12/26/2028	12/27/2028	12/28/2028	12/29/2028	12/30/2028	12/31/2028	1/1/2029	1/2/2029	1/3/2029	1/4/2029	1/5/2029	1/6/2029	1/7/2029	1/8/2029	1/9/2029	1/10/2029	1/11/2029	1/12/2029	1/13/2029
		2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
NOX	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
CO	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	1/14/2029	1/15/2029	1/16/2029	1/17/2029	1/18/2029	1/19/2029	1/20/2029	1/21/2029	1/22/2029	1/23/2029	1/24/2029	1/25/2029	1/26/2029	1/27/2029	1/28/2029	1/29/2029	1/30/2029	1/31/2029	2/1/2029	2/2/2029	2/3/2029	2/4/2029	2/5/2029	2/6/2029
		2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029
		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3
	Phase Name	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
NOX	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
CO	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	2/7/2029	2/8/2029	2/9/2029	2/10/2029	2/11/2029	2/12/2029	2/13/2029	2/14/2029	2/15/2029	2/16/2029	2/17/2029	2/18/2029	2/19/2029	2/20/2029	2/21/2029	2/22/2029	2/23/2029	2/24/2029	2/25/2029	2/26/2029	2/27/2029	2/28/2029	3/1/2029	3/2/2029
		2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029
	Phase Name	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
NOX	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
CO	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	3/3/2029	3/4/2029	3/5/2029	3/6/2029	3/7/2029	3/8/2029	3/9/2029	3/10/2029	3/11/2029	3/12/2029	3/13/2029	3/14/2029	3/15/2029	3/16/2029	3/17/2029	3/18/2029	3/19/2029	3/20/2029	3/21/2029	3/22/2029	3/23/2029	3/24/2029	3/25/2029	3/26/2029
		2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
NOX	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
CO	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	3/27/2029	3/28/2029	3/29/2029	3/30/2029	3/31/2029	4/1/2029	4/2/2029	4/3/2029	4/4/2029	4/5/2029	4/6/2029	4/7/2029	4/8/2029	4/9/2029	4/10/2029	4/11/2029	4/12/2029	4/13/2029	4/14/2029	4/15/2029	4/16/2029	4/17/2029	4/18/2029	4/19/2029
		2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
NOX	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
CO	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	4/20/2029	4/21/2029	4/22/2029	4/23/2029	4/24/2029	4/25/2029	4/26/2029	4/27/2029	4/28/2029	4/29/2029	4/30/2029	5/1/2029	5/2/2029	5/3/2029	5/4/2029	5/5/2029	5/6/2029	5/7/2029	5/8/2029	5/9/2029	5/10/2029	5/11/2029	5/12/2029	5/13/2029
		2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
NOX	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
CO	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	5/14/2029	5/15/2029	5/16/2029	5/17/2029	5/18/2029	5/19/2029	5/20/2029	5/21/2029	5/22/2029	5/23/2029	5/24/2029	5/25/2029	5/26/2029	5/27/2029	5/28/2029	5/29/2029	5/30/2029	5/31/2029	6/1/2029	6/2/2029	6/3/2029	6/4/2029	6/5/2029	6/6/2029
		2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
NOX	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
CO	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	6/7/2029	6/8/2029	6/9/2029	6/10/2029	6/11/2029	6/12/2029	6/13/2029	6/14/2029	6/15/2029	6/16/2029	6/17/2029	6/18/2029	6/19/2029	6/20/2029	6/21/2029	6/22/2029	6/23/2029	6/24/2029	6/25/2029	6/26/2029	6/27/2029	6/28/2029	6/29/2029	6/30/2029
		2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
NOX	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
CO	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	7/1/2029	7/2/2029	7/3/2029	7/4/2029	7/5/2029	7/6/2029	7/7/2029	7/8/2029	7/9/2029	7/10/2029	7/11/2029	7/12/2029	7/13/2029	7/14/2029	7/15/2029	7/16/2029	7/17/2029	7/18/2029	7/19/2029	7/20/2029	7/21/2029	7/22/2029	7/23/2029	7/24/2029
		2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029
	Phase Name	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
NOX	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
CO	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	7/25/2029	7/26/2029	7/27/2029	7/28/2029	7/29/2029	7/30/2029	7/31/2029	8/1/2029	8/2/2029	8/3/2029	8/4/2029	8/5/2029	8/6/2029	8/7/2029	8/8/2029	8/9/2029	8/10/2029	8/11/2029	8/12/2029	8/13/2029	8/14/2029	8/15/2029	8/16/2029	8/17/2029
		2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029
	Phase Name	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
NOX	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
CO	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	8/18/2029	8/19/2029	8/20/2029	8/21/2029	8/22/2029	8/23/2029	8/24/2029	8/25/2029	8/26/2029	8/27/2029	8/28/2029	8/29/2029	8/30/2029	8/31/2029	9/1/2029	9/2/2029	9/3/2029	9/4/2029	9/5/2029	9/6/2029	9/7/2029	9/8/2029	9/9/2029	9/10/2029
		2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
NOX	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
CO	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	9/11/2029	9/12/2029	9/13/2029	9/14/2029	9/15/2029	9/16/2029	9/17/2029	9/18/2029	9/19/2029	9/20/2029	9/21/2029	9/22/2029	9/23/2029	9/24/2029	9/25/2029	9/26/2029	9/27/2029	9/28/2029	9/29/2029	9/30/2029	10/1/2029	10/2/2029	10/3/2029	10/4/2029
		2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
NOX	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
CO	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	10/5/2029	10/6/2029	10/7/2029	10/8/2029	10/9/2029	10/10/2029	10/11/2029	10/12/2029	10/13/2029	10/14/2029	10/15/2029	10/16/2029	10/17/2029	10/18/2029	10/19/2029	10/20/2029	10/21/2029	10/22/2029	10/23/2029	10/24/2029	10/25/2029	10/26/2029	10/27/2029	10/28/2029
		2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
NOX	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
CO	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	10/29/2029	10/30/2029	10/31/2029	11/1/2029	11/2/2029	11/3/2029	11/4/2029	11/5/2029	11/6/2029	11/7/2029	11/8/2029	11/9/2029	11/10/2029	11/11/2029	11/12/2029	11/13/2029	11/14/2029	11/15/2029	11/16/2029	11/17/2029	11/18/2029	11/19/2029	11/20/2029	11/21/2029
		2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
NOX	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
CO	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	11/22/2029	11/23/2029	11/24/2029	11/25/2029	11/26/2029	11/27/2029	11/28/2029	11/29/2029	11/30/2029	12/1/2029	12/2/2029	12/3/2029	12/4/2029	12/5/2029	12/6/2029	12/7/2029	12/8/2029	12/9/2029	12/10/2029	12/11/2029	12/12/2029	12/13/2029	12/14/2029	12/15/2029
		2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
NOX	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
CO	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	12/16/2029	12/17/2029	12/18/2029	12/19/2029	12/20/2029	12/21/2029	12/22/2029	12/23/2029	12/24/2029	12/25/2029	12/26/2029	12/27/2029	12/28/2029	12/29/2029	12/30/2029	12/31/2029	1/1/2030	1/2/2030	1/3/2030	1/4/2030	1/5/2030	1/6/2030	1/7/2030	1/8/2030
		2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2029	2030	2030	2030	2030	2030	2030	2030	2030
	Phase Name	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4
CO	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	1/9/2030	1/10/2030	1/11/2030	1/12/2030	1/13/2030	1/14/2030	1/15/2030	1/16/2030	1/17/2030	1/18/2030	1/19/2030	1/20/2030	1/21/2030	1/22/2030	1/23/2030	1/24/2030	1/25/2030	1/26/2030	1/27/2030	1/28/2030	1/29/2030	1/30/2030	1/31/2030	2/1/2030
		2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030
		4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6
	Phase Name	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4
CO	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	2/2/2030	2/3/2030	2/4/2030	2/5/2030	2/6/2030	2/7/2030	2/8/2030	2/9/2030	2/10/2030	2/11/2030	2/12/2030	2/13/2030	2/14/2030	2/15/2030	2/16/2030	2/17/2030	2/18/2030	2/19/2030	2/20/2030	2/21/2030	2/22/2030	2/23/2030	2/24/2030	2/25/2030
		2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4
CO	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	2/26/2030	2/27/2030	2/28/2030	3/1/2030	3/2/2030	3/3/2030	3/4/2030	3/5/2030	3/6/2030	3/7/2030	3/8/2030	3/9/2030	3/10/2030	3/11/2030	3/12/2030	3/13/2030	3/14/2030	3/15/2030	3/16/2030	3/17/2030	3/18/2030	3/19/2030	3/20/2030	3/21/2030
		2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4
CO	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	3/22/2030	3/23/2030	3/24/2030	3/25/2030	3/26/2030	3/27/2030	3/28/2030	3/29/2030	3/30/2030	3/31/2030	4/1/2030	4/2/2030	4/3/2030	4/4/2030	4/5/2030	4/6/2030	4/7/2030	4/8/2030	4/9/2030	4/10/2030	4/11/2030	4/12/2030	4/13/2030	4/14/2030
		2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4
CO	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	4/15/2030	4/16/2030	4/17/2030	4/18/2030	4/19/2030	4/20/2030	4/21/2030	4/22/2030	4/23/2030	4/24/2030	4/25/2030	4/26/2030	4/27/2030	4/28/2030	4/29/2030	4/30/2030	5/1/2030	5/2/2030	5/3/2030	5/4/2030	5/5/2030	5/6/2030	5/7/2030	5/8/2030
		2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4
CO	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	5/9/2030	5/10/2030	5/11/2030	5/12/2030	5/13/2030	5/14/2030	5/15/2030	5/16/2030	5/17/2030	5/18/2030	5/19/2030	5/20/2030	5/21/2030	5/22/2030	5/23/2030	5/24/2030	5/25/2030	5/26/2030	5/27/2030	5/28/2030	5/29/2030	5/30/2030	5/31/2030	6/1/2030
		2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030
		5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
	Phase Name	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4
CO	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	6/2/2030	6/3/2030	6/4/2030	6/5/2030	6/6/2030	6/7/2030	6/8/2030	6/9/2030	6/10/2030	6/11/2030	6/12/2030	6/13/2030	6/14/2030	6/15/2030	6/16/2030	6/17/2030	6/18/2030	6/19/2030	6/20/2030	6/21/2030	6/22/2030	6/23/2030	6/24/2030	6/25/2030
		2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030
	Phase Name	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4
CO	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	6/26/2030	6/27/2030	6/28/2030	6/29/2030	6/30/2030	7/1/2030	7/2/2030	7/3/2030	7/4/2030	7/5/2030	7/6/2030	7/7/2030	7/8/2030	7/9/2030	7/10/2030	7/11/2030	7/12/2030	7/13/2030	7/14/2030	7/15/2030	7/16/2030	7/17/2030	7/18/2030	7/19/2030
		2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030
	Phase Name	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4
CO	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	7/20/2030	7/21/2030	7/22/2030	7/23/2030	7/24/2030	7/25/2030	7/26/2030	7/27/2030	7/28/2030	7/29/2030	7/30/2030	7/31/2030	8/1/2030	8/2/2030	8/3/2030	8/4/2030	8/5/2030	8/6/2030	8/7/2030	8/8/2030	8/9/2030	8/10/2030	8/11/2030	8/12/2030
		2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030
		7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2
	Phase Name	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4
CO	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	8/13/2030	8/14/2030	8/15/2030	8/16/2030	8/17/2030	8/18/2030	8/19/2030	8/20/2030	8/21/2030	8/22/2030	8/23/2030	8/24/2030	8/25/2030	8/26/2030	8/27/2030	8/28/2030	8/29/2030	8/30/2030	8/31/2030	9/1/2030	9/2/2030	9/3/2030	9/4/2030	9/5/2030
		2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4
CO	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	9/6/2030	9/7/2030	9/8/2030	9/9/2030	9/10/2030	9/11/2030	9/12/2030	9/13/2030	9/14/2030	9/15/2030	9/16/2030	9/17/2030	9/18/2030	9/19/2030	9/20/2030	9/21/2030	9/22/2030	9/23/2030	9/24/2030	9/25/2030	9/26/2030	9/27/2030	9/28/2030	9/29/2030
		2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4
CO	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	9/30/2030	10/1/2030	10/2/2030	10/3/2030	10/4/2030	10/5/2030	10/6/2030	10/7/2030	10/8/2030	10/9/2030	10/10/2030	10/11/2030	10/12/2030	10/13/2030	10/14/2030	10/15/2030	10/16/2030	10/17/2030	10/18/2030	10/19/2030	10/20/2030	10/21/2030	10/22/2030	10/23/2030
		2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030
		2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4
	Phase Name	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4
CO	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	10/24/2030	10/25/2030	10/26/2030	10/27/2030	10/28/2030	10/29/2030	10/30/2030	10/31/2030	11/1/2030	11/2/2030	11/3/2030	11/4/2030	11/5/2030	11/6/2030	11/7/2030	11/8/2030	11/9/2030	11/10/2030	11/11/2030	11/12/2030	11/13/2030	11/14/2030	11/15/2030	11/16/2030
		2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4
CO	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	11/17/2030	11/18/2030	11/19/2030	11/20/2030	11/21/2030	11/22/2030	11/23/2030	11/24/2030	11/25/2030	11/26/2030	11/27/2030	11/28/2030	11/29/2030	11/30/2030	12/1/2030	12/2/2030	12/3/2030	12/4/2030	12/5/2030	12/6/2030	12/7/2030	12/8/2030	12/9/2030	12/10/2030
	Phase Name	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030
		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3
	Phase Name	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4
CO	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	12/11/2030	12/12/2030	12/13/2030	12/14/2030	12/15/2030	12/16/2030	12/17/2030	12/18/2030	12/19/2030	12/20/2030	12/21/2030	12/22/2030	12/23/2030	12/24/2030	12/25/2030	12/26/2030	12/27/2030	12/28/2030	12/29/2030	12/30/2030	12/31/2030	1/1/2031	1/2/2031	1/3/2031
		2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2030	2031	2031	2031
	Phase Name	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	51.9	51.9	51.9
CO	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.0	53.0	53.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	1/4/2031	1/5/2031	1/6/2031	1/7/2031	1/8/2031	1/9/2031	1/10/2031	1/11/2031	1/12/2031	1/13/2031	1/14/2031	1/15/2031	1/16/2031	1/17/2031	1/18/2031	1/19/2031	1/20/2031	1/21/2031	1/22/2031	1/23/2031	1/24/2031	1/25/2031	1/26/2031	1/27/2031
		2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
CO	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	1/28/2031	1/29/2031	1/30/2031	1/31/2031	2/1/2031	2/2/2031	2/3/2031	2/4/2031	2/5/2031	2/6/2031	2/7/2031	2/8/2031	2/9/2031	2/10/2031	2/11/2031	2/12/2031	2/13/2031	2/14/2031	2/15/2031	2/16/2031	2/17/2031	2/18/2031	2/19/2031	2/20/2031
		2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
CO	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	2/21/2031	2/22/2031	2/23/2031	2/24/2031	2/25/2031	2/26/2031	2/27/2031	2/28/2031	3/1/2031	3/2/2031	3/3/2031	3/4/2031	3/5/2031	3/6/2031	3/7/2031	3/8/2031	3/9/2031	3/10/2031	3/11/2031	3/12/2031	3/13/2031	3/14/2031	3/15/2031	3/16/2031
		2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
CO	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	3/17/2031	3/18/2031	3/19/2031	3/20/2031	3/21/2031	3/22/2031	3/23/2031	3/24/2031	3/25/2031	3/26/2031	3/27/2031	3/28/2031	3/29/2031	3/30/2031	3/31/2031	4/1/2031	4/2/2031	4/3/2031	4/4/2031	4/5/2031	4/6/2031	4/7/2031	4/8/2031	4/9/2031
		2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
CO	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	4/10/2031	4/11/2031	4/12/2031	4/13/2031	4/14/2031	4/15/2031	4/16/2031	4/17/2031	4/18/2031	4/19/2031	4/20/2031	4/21/2031	4/22/2031	4/23/2031	4/24/2031	4/25/2031	4/26/2031	4/27/2031	4/28/2031	4/29/2031	4/30/2031	5/1/2031	5/2/2031	5/3/2031
		2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
CO	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	5/4/2031	5/5/2031	5/6/2031	5/7/2031	5/8/2031	5/9/2031	5/10/2031	5/11/2031	5/12/2031	5/13/2031	5/14/2031	5/15/2031	5/16/2031	5/17/2031	5/18/2031	5/19/2031	5/20/2031	5/21/2031	5/22/2031	5/23/2031	5/24/2031	5/25/2031	5/26/2031	5/27/2031
		2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031
	Phase Name	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
CO	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	5/28/2031	5/29/2031	5/30/2031	5/31/2031	6/1/2031	6/2/2031	6/3/2031	6/4/2031	6/5/2031	6/6/2031	6/7/2031	6/8/2031	6/9/2031	6/10/2031	6/11/2031	6/12/2031	6/13/2031	6/14/2031	6/15/2031	6/16/2031	6/17/2031	6/18/2031	6/19/2031	6/20/2031
		2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031
	Phase Name	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
CO	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	6/21/2031	6/22/2031	6/23/2031	6/24/2031	6/25/2031	6/26/2031	6/27/2031	6/28/2031	6/29/2031	6/30/2031	7/1/2031	7/2/2031	7/3/2031	7/4/2031	7/5/2031	7/6/2031	7/7/2031	7/8/2031	7/9/2031	7/10/2031	7/11/2031	7/12/2031	7/13/2031	7/14/2031
		2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
CO	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	7/15/2031	7/16/2031	7/17/2031	7/18/2031	7/19/2031	7/20/2031	7/21/2031	7/22/2031	7/23/2031	7/24/2031	7/25/2031	7/26/2031	7/27/2031	7/28/2031	7/29/2031	7/30/2031	7/31/2031	8/1/2031	8/2/2031	8/3/2031	8/4/2031	8/5/2031	8/6/2031	8/7/2031
		2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
CO	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	8/8/2031	8/9/2031	8/10/2031	8/11/2031	8/12/2031	8/13/2031	8/14/2031	8/15/2031	8/16/2031	8/17/2031	8/18/2031	8/19/2031	8/20/2031	8/21/2031	8/22/2031	8/23/2031	8/24/2031	8/25/2031	8/26/2031	8/27/2031	8/28/2031	8/29/2031	8/30/2031	8/31/2031
		2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
CO	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	9/1/2031	9/2/2031	9/3/2031	9/4/2031	9/5/2031	9/6/2031	9/7/2031	9/8/2031	9/9/2031	9/10/2031	9/11/2031	9/12/2031	9/13/2031	9/14/2031	9/15/2031	9/16/2031	9/17/2031	9/18/2031	9/19/2031	9/20/2031	9/21/2031	9/22/2031	9/23/2031	9/24/2031
		2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
CO	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	9/25/2031	9/26/2031	9/27/2031	9/28/2031	9/29/2031	9/30/2031	10/1/2031	10/2/2031	10/3/2031	10/4/2031	10/5/2031	10/6/2031	10/7/2031	10/8/2031	10/9/2031	10/10/2031	10/11/2031	10/12/2031	10/13/2031	10/14/2031	10/15/2031	10/16/2031	10/17/2031	10/18/2031
		2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
CO	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	10/19/2031	10/20/2031	10/21/2031	10/22/2031	10/23/2031	10/24/2031	10/25/2031	10/26/2031	10/27/2031	10/28/2031	10/29/2031	10/30/2031	10/31/2031	11/1/2031	11/2/2031	11/3/2031	11/4/2031	11/5/2031	11/6/2031	11/7/2031	11/8/2031	11/9/2031	11/10/2031	11/11/2031
		2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031
	Phase Name	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
CO	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	11/12/2031	11/13/2031	11/14/2031	11/15/2031	11/16/2031	11/17/2031	11/18/2031	11/19/2031	11/20/2031	11/21/2031	11/22/2031	11/23/2031	11/24/2031	11/25/2031	11/26/2031	11/27/2031	11/28/2031	11/29/2031	11/30/2031	12/1/2031	12/2/2031	12/3/2031	12/4/2031	12/5/2031
		2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031
		4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6
	Phase Name	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
CO	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	12/6/2031	12/7/2031	12/8/2031	12/9/2031	12/10/2031	12/11/2031	12/12/2031	12/13/2031	12/14/2031	12/15/2031	12/16/2031	12/17/2031	12/18/2031	12/19/2031	12/20/2031	12/21/2031	12/22/2031	12/23/2031	12/24/2031	12/25/2031	12/26/2031	12/27/2031	12/28/2031	12/29/2031
		2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031	2031
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
CO	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	12/30/2031	12/31/2031	1/1/2032	1/2/2032	1/3/2032	1/4/2032	1/5/2032	1/6/2032	1/7/2032	1/8/2032	1/9/2032	1/10/2032	1/11/2032	1/12/2032	1/13/2032	1/14/2032	1/15/2032	1/16/2032	1/17/2032	1/18/2032	1/19/2032	1/20/2032	1/21/2032	1/22/2032
		2031	2031	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.9	51.9	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
CO	53.0	53.0	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	1/23/2032	1/24/2032	1/25/2032	1/26/2032	1/27/2032	1/28/2032	1/29/2032	1/30/2032	1/31/2032	2/1/2032	2/2/2032	2/3/2032	2/4/2032	2/5/2032	2/6/2032	2/7/2032	2/8/2032	2/9/2032	2/10/2032	2/11/2032	2/12/2032	2/13/2032	2/14/2032	2/15/2032
		2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	2/16/2032	2/17/2032	2/18/2032	2/19/2032	2/20/2032	2/21/2032	2/22/2032	2/23/2032	2/24/2032	2/25/2032	2/26/2032	2/27/2032	2/28/2032	2/29/2032	3/1/2032	3/2/2032	3/3/2032	3/4/2032	3/5/2032	3/6/2032	3/7/2032	3/8/2032	3/9/2032	3/10/2032
		2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	3/11/2032	3/12/2032	3/13/2032	3/14/2032	3/15/2032	3/16/2032	3/17/2032	3/18/2032	3/19/2032	3/20/2032	3/21/2032	3/22/2032	3/23/2032	3/24/2032	3/25/2032	3/26/2032	3/27/2032	3/28/2032	3/29/2032	3/30/2032	3/31/2032	4/1/2032	4/2/2032	4/3/2032
		2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	4/4/2032	4/5/2032	4/6/2032	4/7/2032	4/8/2032	4/9/2032	4/10/2032	4/11/2032	4/12/2032	4/13/2032	4/14/2032	4/15/2032	4/16/2032	4/17/2032	4/18/2032	4/19/2032	4/20/2032	4/21/2032	4/22/2032	4/23/2032	4/24/2032	4/25/2032	4/26/2032	4/27/2032
		2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032
		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3
	Phase Name	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	4/28/2032	4/29/2032	4/30/2032	5/1/2032	5/2/2032	5/3/2032	5/4/2032	5/5/2032	5/6/2032	5/7/2032	5/8/2032	5/9/2032	5/10/2032	5/11/2032	5/12/2032	5/13/2032	5/14/2032	5/15/2032	5/16/2032	5/17/2032	5/18/2032	5/19/2032	5/20/2032	5/21/2032
		2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032
		4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6
	Phase Name	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	5/22/2032	5/23/2032	5/24/2032	5/25/2032	5/26/2032	5/27/2032	5/28/2032	5/29/2032	5/30/2032	5/31/2032	6/1/2032	6/2/2032	6/3/2032	6/4/2032	6/5/2032	6/6/2032	6/7/2032	6/8/2032	6/9/2032	6/10/2032	6/11/2032	6/12/2032	6/13/2032	6/14/2032
		2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	6/15/2032	6/16/2032	6/17/2032	6/18/2032	6/19/2032	6/20/2032	6/21/2032	6/22/2032	6/23/2032	6/24/2032	6/25/2032	6/26/2032	6/27/2032	6/28/2032	6/29/2032	6/30/2032	7/1/2032	7/2/2032	7/3/2032	7/4/2032	7/5/2032	7/6/2032	7/7/2032	7/8/2032
		2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	7/9/2032	7/10/2032	7/11/2032	7/12/2032	7/13/2032	7/14/2032	7/15/2032	7/16/2032	7/17/2032	7/18/2032	7/19/2032	7/20/2032	7/21/2032	7/22/2032	7/23/2032	7/24/2032	7/25/2032	7/26/2032	7/27/2032	7/28/2032	7/29/2032	7/30/2032	7/31/2032	8/1/2032
		2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	8/2/2032	8/3/2032	8/4/2032	8/5/2032	8/6/2032	8/7/2032	8/8/2032	8/9/2032	8/10/2032	8/11/2032	8/12/2032	8/13/2032	8/14/2032	8/15/2032	8/16/2032	8/17/2032	8/18/2032	8/19/2032	8/20/2032	8/21/2032	8/22/2032	8/23/2032	8/24/2032	8/25/2032
		2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	8/26/2032	8/27/2032	8/28/2032	8/29/2032	8/30/2032	8/31/2032	9/1/2032	9/2/2032	9/3/2032	9/4/2032	9/5/2032	9/6/2032	9/7/2032	9/8/2032	9/9/2032	9/10/2032	9/11/2032	9/12/2032	9/13/2032	9/14/2032	9/15/2032	9/16/2032	9/17/2032	9/18/2032
		2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	9/19/2032	9/20/2032	9/21/2032	9/22/2032	9/23/2032	9/24/2032	9/25/2032	9/26/2032	9/27/2032	9/28/2032	9/29/2032	9/30/2032	10/1/2032	10/2/2032	10/3/2032	10/4/2032	10/5/2032	10/6/2032	10/7/2032	10/8/2032	10/9/2032	10/10/2032	10/11/2032	10/12/2032
		2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032
	Phase Name	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	10/13/2032	10/14/2032	10/15/2032	10/16/2032	10/17/2032	10/18/2032	10/19/2032	10/20/2032	10/21/2032	10/22/2032	10/23/2032	10/24/2032	10/25/2032	10/26/2032	10/27/2032	10/28/2032	10/29/2032	10/30/2032	10/31/2032	11/1/2032	11/2/2032	11/3/2032	11/4/2032	11/5/2032
		2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032
	Phase Name	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	11/6/2032	11/7/2032	11/8/2032	11/9/2032	11/10/2032	11/11/2032	11/12/2032	11/13/2032	11/14/2032	11/15/2032	11/16/2032	11/17/2032	11/18/2032	11/19/2032	11/20/2032	11/21/2032	11/22/2032	11/23/2032	11/24/2032	11/25/2032	11/26/2032	11/27/2032	11/28/2032	11/29/2032
		2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	11/30/2032	12/1/2032	12/2/2032	12/3/2032	12/4/2032	12/5/2032	12/6/2032	12/7/2032	12/8/2032	12/9/2032	12/10/2032	12/11/2032	12/12/2032	12/13/2032	12/14/2032	12/15/2032	12/16/2032	12/17/2032	12/18/2032	12/19/2032	12/20/2032	12/21/2032	12/22/2032	12/23/2032
		2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032	2032
	Phase Name	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
NOX	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	12/24/2032	12/25/2032	12/26/2032	12/27/2032	12/28/2032	12/29/2032	12/30/2032	12/31/2032	1/1/2033	1/2/2033	1/3/2033	1/4/2033	1/5/2033	1/6/2033	1/7/2033	1/8/2033	1/9/2033	1/10/2033	1/11/2033	1/12/2033	1/13/2033	1/14/2033	1/15/2033	1/16/2033
		2032	2032	2032	2032	2032	2032	2032	2032	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
NOX	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM2.5 Exhaust	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	1/17/2033	1/18/2033	1/19/2033	1/20/2033	1/21/2033	1/22/2033	1/23/2033	1/24/2033	1/25/2033	1/26/2033	1/27/2033	1/28/2033	1/29/2033	1/30/2033	1/31/2033	2/1/2033	2/2/2033	2/3/2033	2/4/2033	2/5/2033	2/6/2033	2/7/2033	2/8/2033	2/9/2033
		2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033
		2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4
	Phase Name	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
NOX	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM2.5 Exhaust	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	2/10/2033	2/11/2033	2/12/2033	2/13/2033	2/14/2033	2/15/2033	2/16/2033	2/17/2033	2/18/2033	2/19/2033	2/20/2033	2/21/2033	2/22/2033	2/23/2033	2/24/2033	2/25/2033	2/26/2033	2/27/2033	2/28/2033	3/1/2033	3/2/2033	3/3/2033	3/4/2033	3/5/2033
		2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033
	Phase Name	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
NOX	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM2.5 Exhaust	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	3/6/2033	3/7/2033	3/8/2033	3/9/2033	3/10/2033	3/11/2033	3/12/2033	3/13/2033	3/14/2033	3/15/2033	3/16/2033	3/17/2033	3/18/2033	3/19/2033	3/20/2033	3/21/2033	3/22/2033	3/23/2033	3/24/2033	3/25/2033	3/26/2033	3/27/2033	3/28/2033	3/29/2033
		2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033
	Phase Name	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
NOX	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM2.5 Exhaust	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	3/30/2033	3/31/2033	4/1/2033	4/2/2033	4/3/2033	4/4/2033	4/5/2033	4/6/2033	4/7/2033	4/8/2033	4/9/2033	4/10/2033	4/11/2033	4/12/2033	4/13/2033	4/14/2033	4/15/2033	4/16/2033	4/17/2033	4/18/2033	4/19/2033	4/20/2033	4/21/2033	4/22/2033
		2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033
	Phase Name	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
NOX	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM2.5 Exhaust	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	4/23/2033	4/24/2033	4/25/2033	4/26/2033	4/27/2033	4/28/2033	4/29/2033	4/30/2033	5/1/2033	5/2/2033	5/3/2033	5/4/2033	5/5/2033	5/6/2033	5/7/2033	5/8/2033	5/9/2033	5/10/2033	5/11/2033	5/12/2033	5/13/2033	5/14/2033	5/15/2033	5/16/2033
		2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
NOX	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM2.5 Exhaust	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	5/17/2033	5/18/2033	5/19/2033	5/20/2033	5/21/2033	5/22/2033	5/23/2033	5/24/2033	5/25/2033	5/26/2033	5/27/2033	5/28/2033	5/29/2033	5/30/2033	5/31/2033	6/1/2033	6/2/2033	6/3/2033	6/4/2033	6/5/2033	6/6/2033	6/7/2033	6/8/2033	6/9/2033
		2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033
		3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5
	Phase Name	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
NOX	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM2.5 Exhaust	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	6/10/2033	6/11/2033	6/12/2033	6/13/2033	6/14/2033	6/15/2033	6/16/2033	6/17/2033	6/18/2033	6/19/2033	6/20/2033	6/21/2033	6/22/2033	6/23/2033	6/24/2033	6/25/2033	6/26/2033	6/27/2033	6/28/2033	6/29/2033	6/30/2033	7/1/2033	7/2/2033	7/3/2033
		2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
NOX	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM2.5 Exhaust	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	7/4/2033	7/5/2033	7/6/2033	7/7/2033	7/8/2033	7/9/2033	7/10/2033	7/11/2033	7/12/2033	7/13/2033	7/14/2033	7/15/2033	7/16/2033	7/17/2033	7/18/2033	7/19/2033	7/20/2033	7/21/2033	7/22/2033	7/23/2033	7/24/2033	7/25/2033	7/26/2033	7/27/2033
		2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
NOX	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM2.5 Exhaust	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	7/28/2033	7/29/2033	7/30/2033	7/31/2033	8/1/2033	8/2/2033	8/3/2033	8/4/2033	8/5/2033	8/6/2033	8/7/2033	8/8/2033	8/9/2033	8/10/2033	8/11/2033	8/12/2033	8/13/2033	8/14/2033	8/15/2033	8/16/2033	8/17/2033	8/18/2033	8/19/2033	8/20/2033
		2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033
		5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
	Phase Name	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																									
ROG	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
NOX	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM2.5 Exhaust	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	8/21/2033	8/22/2033	8/23/2033	8/24/2033	8/25/2033	8/26/2033	8/27/2033	8/28/2033	8/29/2033	8/30/2033	8/31/2033	9/1/2033	9/2/2033	9/3/2033	9/4/2033	9/5/2033	9/6/2033	9/7/2033	9/8/2033	9/9/2033	9/10/2033	9/11/2033	9/12/2033	9/13/2033
		2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033
	Phase Name	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
NOX	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM2.5 Exhaust	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	9/14/2033	9/15/2033	9/16/2033	9/17/2033	9/18/2033	9/19/2033	9/20/2033	9/21/2033	9/22/2033	9/23/2033	9/24/2033	9/25/2033	9/26/2033	9/27/2033	9/28/2033	9/29/2033	9/30/2033	10/1/2033	10/2/2033	10/3/2033	10/4/2033	10/5/2033	10/6/2033	10/7/2033
		2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033
		4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6
	Phase Name	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
NOX	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM2.5 Exhaust	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	10/8/2033	10/9/2033	10/10/2033	10/11/2033	10/12/2033	10/13/2033	10/14/2033	10/15/2033	10/16/2033	10/17/2033	10/18/2033	10/19/2033	10/20/2033	10/21/2033	10/22/2033	10/23/2033	10/24/2033	10/25/2033	10/26/2033	10/27/2033	10/28/2033	10/29/2033	10/30/2033	10/31/2033
		2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033
	Phase Name	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
NOX	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM2.5 Exhaust	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	11/1/2033	11/2/2033	11/3/2033	11/4/2033	11/5/2033	11/6/2033	11/7/2033	11/8/2033	11/9/2033	11/10/2033	11/11/2033	11/12/2033	11/13/2033	11/14/2033	11/15/2033	11/16/2033	11/17/2033	11/18/2033	11/19/2033	11/20/2033	11/21/2033	11/22/2033	11/23/2033	11/24/2033
		2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033
		3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5
	Phase Name	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																									
ROG	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
NOX	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM2.5 Exhaust	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	11/25/2033	11/26/2033	11/27/2033	11/28/2033	11/29/2033	11/30/2033	12/1/2033	12/2/2033	12/3/2033	12/4/2033	12/5/2033	12/6/2033	12/7/2033	12/8/2033	12/9/2033	12/10/2033	12/11/2033	12/12/2033	12/13/2033	12/14/2033	12/15/2033	12/16/2033	12/17/2033	12/18/2033
		2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033
	Phase Name	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name																								
ROG	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
NOX	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM2.5 Exhaust	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	12/19/2033	12/20/2033	12/21/2033	12/22/2033	12/23/2033	12/24/2033	12/25/2033	12/26/2033	12/27/2033	12/28/2033	12/29/2033	12/30/2033	12/31/2033	1/1/2034	1/2/2034	1/3/2034	1/4/2034	1/5/2034	1/6/2034	1/7/2034	1/8/2034	1/9/2034	1/10/2034	1/11/2034
		2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2033	2034	2034	2034	2034	2034	2034	2034	2034	2034	2034	2034
	Phase Name	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed	5 Thurs	6 Fri	7 Sat	1 Sun	2 Monday	3 Tuesday	4 Wed
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1

Daily Maximum Emissions

Pollutant Name																								
ROG	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
NOX	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4
CO	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
PM10 Total	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
PM2.5 Exhaust	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
PM2.5 Fugitive	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MAX DAY SHEET

Project Start Date:
Project End Date:

	Phase Name	1/12/2034	1/13/2034	1/14/2034	1/15/2034
		2034	2034	2034	2034
		5	6	7	1
	Phase Name	Thurs	Fri	Sat	Sun
1a	Floating Dry Dock Replacement and Modification - Lot 20	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0
2	Repair Complex Wharf Improvements	0	0	0	0
3	Quay Wall Revetment Repairs (Berths 2-5)	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0
4	As-needed Quay Wall Revetment Repairs	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0
5	Structural Pile Repair and Replacement	0	0	0	0
5	Structural Pile Repair and Replacement	1	1	1	1
6	Mobilization/Demobilization	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0
6	Mobilization/Demobilization	0	0	0	0
6	Mobilization/Demobilization	1	1	1	1

Daily Maximum Emissions

Pollutant Name				
ROG	14.6	14.6	14.6	14.6
NOX	50.4	50.4	50.4	50.4
CO	52.8	52.8	52.8	52.8
SOx	0.0	0.0	0.0	0.0
PM10 Exhaust	2.4	2.4	2.4	2.4
PM10 Fugitive	0.3	0.3	0.3	0.3
PM10 Total	2.7	2.7	2.7	2.7
PM2.5 Exhaust	2.1	2.1	2.1	2.1
PM2.5 Fugitive	0.1	0.1	0.1	0.1
PM2.5 Total	2.2	2.2	2.2	2.2

DPM Summary by source by phase by year (in tons)

conc	#	phase	year	OFFROAD	TRUCKS	SITE TRUCKS	MARINE
1a_2024	1a	Floating Dry Dock Replacement and Modification - Lot	2024	8.03E-02	3.41E-04	6.57E-04	2.32E-02
1b_2024	1b	Floating Dry Dock Replacement and Modification - Dry	2024	2.12E-02	8.99E-05	1.73E-04	2.32E-02
1b_2025	1b	Floating Dry Dock Replacement and Modification - Dry	2025	6.62E-02	3.01E-04	5.41E-04	2.32E-02
2_2025	2	Repair Complex Wharf Improvements	2025	2.67E-02	1.22E-04	2.19E-04	2.32E-02
2_2026	2	Repair Complex Wharf Improvements	2026	4.46E-02	2.19E-04	3.61E-04	2.32E-02
3_2025	3	Quay Wall Revetment Repairs (Berths 2-5)	2025	6.11E-03	2.97E-04	5.00E-05	2.32E-02
4_2026	4	As-needed Quay Wall Revetment Repairs	2026	2.96E-03	1.55E-04	2.40E-05	7.33E-03
4_2027	4	As-needed Quay Wall Revetment Repairs	2027	2.80E-03	1.53E-04	2.25E-05	7.33E-03
4_2028	4	As-needed Quay Wall Revetment Repairs	2028	2.59E-03	1.51E-04	2.11E-05	7.33E-03
5_2025	5	Structural Pile Repair and Replacement	2025	6.37E-03	3.94E-05	5.21E-05	1.45E-02
5_2026	5	Structural Pile Repair and Replacement	2026	5.84E-03	3.89E-05	4.73E-05	1.45E-02
5_2027	5	Structural Pile Repair and Replacement	2027	5.52E-03	3.84E-05	4.45E-05	1.45E-02
5_2028	5	Structural Pile Repair and Replacement	2028	5.11E-03	3.79E-05	4.16E-05	1.45E-02
5_2029	5	Structural Pile Repair and Replacement	2029	4.95E-03	3.73E-05	3.83E-05	1.45E-02
5_2030	5	Structural Pile Repair and Replacement	2030	4.63E-03	3.67E-05	3.50E-05	1.45E-02
5_2031	5	Structural Pile Repair and Replacement	2031	4.50E-03	3.62E-05	3.19E-05	1.45E-02
5_2032	5	Structural Pile Repair and Replacement	2032	4.11E-03	3.56E-05	2.86E-05	1.45E-02
5_2033	5	Structural Pile Repair and Replacement	2033	3.79E-03	3.50E-05	2.50E-05	1.45E-02
5_2034	5	Structural Pile Repair and Replacement	2034	3.49E-03	3.44E-05	2.16E-05	1.45E-02
6_2024	6	Mobilization/Demobilization	2024	0	0	0	1.73E-04
6_2025	6	Mobilization/Demobilization	2025	0	0	0	1.73E-04
6_2026	6	Mobilization/Demobilization	2026	0	0	0	1.73E-04
6_2027	6	Mobilization/Demobilization	2027	0	0	0	1.73E-04
6_2028	6	Mobilization/Demobilization	2028	0	0	0	1.73E-04
6_2029	6	Mobilization/Demobilization	2029	0	0	0	1.73E-04
6_2030	6	Mobilization/Demobilization	2030	0	0	0	1.73E-04
6_2031	6	Mobilization/Demobilization	2031	0	0	0	1.73E-04
6_2032	6	Mobilization/Demobilization	2032	0	0	0	1.73E-04
6_2033	6	Mobilization/Demobilization	2033	0	0	0	1.73E-04
6_2034	6	Mobilization/Demobilization	2034	0	0	0	1.73E-04

OFFROAD EQUIPMENT

				Equipment Specs									Daily Emissions (in pounds per day)										
Phase #	Construction Phase	Year	Working days	Equipment	OFFROAD Match	#	HP	Hrs/day	Load Factor	Daily hp-hrs (# * HP * hrs * LF)	Total hp-hrs (Daily hphrs * days)	HP Bin (for EF lookup)	ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	288	150 ton Crane	Cranes	1	367	8	0.29	851	245,215	599.99	0.4	4.0	3.2	0.2	0.0	0.1	0.0	0.0	990.2	0.0	0.0
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	288	Excavator (PC300)	Excavators	1	180	4	0.38	274	78,797	299.99	0.1	0.7	0.7	0.0	0.0	0.0	0.0	0.0	318.8	0.0	0.0
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	288	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2,380	685,440	599.99	0.9	8.2	6.8	0.3	0.0	0.3	0.0	0.0	2771.6	0.1	0.0
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	288	Concrete pumper	Pumps	1	10	8	0.74	59	17,050	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	288	Diesel air compressor	Air Compressors	1	37	8	0.48	142	40,919	49.99	0.2	1.2	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	76	150 ton Crane	Cranes	1	367	8	0.29	851	64,709	599.99	0.4	4.0	3.2	0.2	0.0	0.1	0.0	0.0	990.2	0.0	0.0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	76	Excavator (PC300)	Excavators	1	180	4	0.38	274	20,794	299.99	0.1	0.7	0.7	0.0	0.0	0.0	0.0	0.0	318.8	0.0	0.0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	76	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2,380	180,880	599.99	0.9	8.2	6.8	0.3	0.0	0.3	0.0	0.0	2771.6	0.1	0.0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	76	Concrete pumper	Pumps	1	10	8	0.74	59	4,499	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	76	Diesel air compressor	Air Compressors	1	37	8	0.48	142	10,798	49.99	0.2	1.2	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	260	150 ton Crane	Cranes	1	367	8	0.29	851	221,374	599.99	0.4	3.7	3.1	0.1	0.0	0.1	0.0	0.0	990.3	0.0	0.0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	260	Excavator (PC300)	Excavators	1	180	4	0.38	274	71,136	299.99	0.1	0.6	0.7	0.0	0.0	0.0	0.0	0.0	318.6	0.0	0.0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	260	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2,380	618,800	599.99	0.8	7.4	6.7	0.3	0.0	0.3	0.0	0.0	2772.6	0.1	0.0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	260	Concrete pumper	Pumps	1	10	8	0.74	59	15,392	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	260	Diesel air compressor	Air Compressors	1	37	8	0.48	142	36,941	49.99	0.2	1.2	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0
2	Repair Complex Wharf Improvements	2025	105	150 ton Crane	Cranes	1	367	8	0.29	851	89,401	599.99	0.4	3.7	3.1	0.1	0.0	0.1	0.0	0.0	990.3	0.0	0.0
2	Repair Complex Wharf Improvements	2025	105	Excavator (PC300)	Excavators	1	180	4	0.38	274	28,728	299.99	0.1	0.6	0.7	0.0	0.0	0.0	0.0	0.0	318.6	0.0	0.0
2	Repair Complex Wharf Improvements	2025	105	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2,380	249,900	599.99	0.8	7.4	6.7	0.3	0.0	0.3	0.0	0.0	2772.6	0.1	0.0
2	Repair Complex Wharf Improvements	2025	105	Concrete pumper	Pumps	1	10	8	0.74	59	6,216	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
2	Repair Complex Wharf Improvements	2025	105	Diesel air compressor	Air Compressors	1	37	8	0.48	142	14,918	49.99	0.2	1.2	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0
2	Repair Complex Wharf Improvements	2026	191	150 ton Crane	Cranes	1	367	8	0.29	851	162,625	599.99	0.4	3.4	3.1	0.1	0.0	0.1	0.0	0.0	990.1	0.0	0.0
2	Repair Complex Wharf Improvements	2026	191	Excavator (PC300)	Excavators	1	180	4	0.38	274	52,258	299.99	0.1	0.6	0.7	0.0	0.0	0.0	0.0	0.0	318.6	0.0	0.0
2	Repair Complex Wharf Improvements	2026	191	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2,380	454,580	599.99	0.8	6.7	6.5	0.3	0.0	0.2	0.0	0.0	2773.2	0.1	0.0
2	Repair Complex Wharf Improvements	2026	191	Concrete pumper	Pumps	1	10	8	0.74	59	11,307	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
2	Repair Complex Wharf Improvements	2026	191	Diesel air compressor	Air Compressors	1	37	8	0.48	142	27,137	49.99	0.2	1.1	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	24	150 ton Crane	Cranes	1	367	8	0.29	851	20,435	599.99	0.4	3.7	3.1	0.1	0.0	0.1	0.0	0.0	990.3	0.0	0.0
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	24	Excavator (PC300)	Excavators	1	180	4	0.38	274	6,566	299.99	0.1	0.6	0.7	0.0	0.0	0.0	0.0	0.0	318.6	0.0	0.0
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	24	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2,380	57,120	599.99	0.8	7.4	6.7	0.3	0.0	0.3	0.0	0.0	2772.6	0.1	0.0
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	24	Concrete pumper	Pumps	1	10	8	0.74	59	1,421	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	24	Diesel air compressor	Air Compressors	1	37	8	0.48	142	3,410	49.99	0.2	1.2	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0
4	As-needed Quay Wall Revetment Repairs	2026	13	150 ton Crane	Cranes	1	367	8	0.29	851.44	10784.90667	599.99	0.4	3.4	3.1	0.1	0.0	0.1	0.0	0.0	990.1	0.0	0.0
4	As-needed Quay Wall Revetment Repairs	2026	13	Excavator (PC300)	Excavators	1	180	4	0.38	273.6	3465.6	299.99	0.1	0.6	0.7	0.0	0.0	0.0	0.0	0.0	318.6	0.0	0.0
4	As-needed Quay Wall Revetment Repairs	2026	13	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2380	30146.66667	599.99	0.8	6.7	6.5	0.3	0.0	0.2	0.0	0.0	2773.2	0.1	0.0
4	As-needed Quay Wall Revetment Repairs	2026	13	Concrete pumper	Pumps	1	10	8	0.74	59.2	749.8666667	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
4	As-needed Quay Wall Revetment Repairs	2026	13	Diesel air compressor	Air Compressors	1	37	8	0.48	142.08	1799.68	49.99	0.2	1.1	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0
4	As-needed Quay Wall Revetment Repairs	2027	13	150 ton Crane	Cranes	1	367	8	0.29	851.44	10784.90667	599.99	0.4	3.3	3.1	0.1	0.0	0.1	0.0	0.0	990.1	0.0	0.0
4	As-needed Quay Wall Revetment Repairs	2027	13	Excavator (PC300)	Excavators	1	180	4	0.38	273.6	3465.6	299.99	0.1	0.5	0.7	0.0	0.0	0.0	0.0	0.0	318.6	0.0	0.0
4	As-needed Quay Wall Revetment Repairs	2027	13	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2380	30146.66667	599.99	0.8	6.3	6.5	0.2	0.0	0.2	0.0	0.0	2776.4	0.1	0.0
4	As-needed Quay Wall Revetment Repairs	2027	13	Concrete pumper	Pumps	1	10	8	0.74	59.2	749.8666667	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
4	As-needed Quay Wall Revetment Repairs	2027	13	Diesel air compressor	Air Compressors	1	37	8	0.48	142.08	1799.68	49.99	0.2	1.1	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0
4	As-needed Quay Wall Revetment Repairs	2028	13	150 ton Crane	Cranes	1	367	8	0.29	851.44	10784.90667	599.99	0.4	3.0	3.1	0.1	0.0	0.1	0.0	0.0	990.7	0.0	0.0
4	As-needed Quay Wall Revetment Repairs	2028	13	Excavator (PC300)	Excavators	1	180	4	0.38	273.6	3465.6	299.99	0.1	0.5	0.7	0.0	0.0	0.0	0.0	0.0	318.6	0.0	0.0
4	As-needed Quay Wall Revetment Repairs	2028	13	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2380	30146.66667	599.99	0.7	5.8	6.6	0.2	0.0	0.2	0.0	0.0	2781.4	0.1	0.0
4	As-needed Quay Wall Revetment Repairs	2028	13	Concrete pumper	Pumps	1	10	8	0.74	59.2	749.8666667	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
4	As-needed Quay Wall Revetment Repairs	2028	13	Diesel air compressor	Air Compressors	1	37	8	0.48	142.08	1799.68	49.99	0.1	1.1	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0
5	Structural Pile Repair and Replacement	2025	25	150 ton Crane	Cranes	1	367	8	0.29	851.44	21286	599.99	0.4	3.7	3.1	0.1	0.0	0.1	0.0	0.0	990.3	0.0	0.0
5	Structural Pile Repair and Replacement	2025	25	Excavator (PC300)	Excavators	1	180	4	0.38	273.6	6840	299.99	0.1	0.6	0.7	0.0	0.0	0.0	0.0	0.0	318.6	0.0	0.0
5	Structural Pile Repair and Replacement	2025	25	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2380	59500	599.99	0.8	7.4	6.7	0.3	0.0	0.3	0.0	0.0	2772.6	0.1	0.0
5	Structural Pile Repair and Replacement	2025	25	Concrete pumper	Pumps	1	10	8	0.74	59.2	1480	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
5	Structural Pile Repair and Replacement	2025	25	Diesel air compressor	Air Compressors	1	37	8	0.48	142.08	3552	49.99	0.2	1.2	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0
5	Structural Pile Repair and Replacement	2026	25	150 ton Crane	Cranes	1	367	8	0.29	851.44	21286	599.99	0.4	3.4	3.1	0.1	0.0	0.1	0.0	0.0	990.1	0.0	0.0
5	Structural Pile Repair and Replacement	2026	25	Excavator (PC300)	Excavators	1	180	4	0.38	273.6	6840	299.99	0.1	0.6	0.7	0.0	0.0	0.0	0.0	0.0	318.6	0.0	0.0
5	Structural Pile Repair and Replacement	2026	25	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2380	59500	599.99	0.8	6.7	6.5	0.3	0.0	0.2	0.0	0.0	2773.2	0.1	0.0
5	Structural Pile Repair and Replacement	2026	25	Concrete pumper	Pumps	1	10	8	0.74	59.2	1480	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
5	Structural Pile Repair and Replacement	2026	25	Diesel air compressor	Air Compressors	1	37	8	0.48	142.08	3552	49.99	0.2	1.1	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0
5	Structural Pile Repair and Replacement	2027	25	150 ton Crane	Cranes	1	367	8	0.29	851.44	21286	599.99	0.4	3.3	3.1	0.1	0.0	0.1	0.0	0.0	990.1	0.0	0.0
5	Structural Pile Repair and Replacement	2027	25	Excavator (PC300)	Excavators	1	180	4	0.38	273.6	6840	299.99	0.1	0.5	0.7	0.0	0.0	0.0	0.0	0.0	318.6	0.0	0.0
5	Structural Pile Repair and Replacement	2027	25	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2380	59500	599.99	0.8	6.3	6.5	0.2	0.0	0.2	0.0	0.0	2776.4	0.1	0.0
5	Structural Pile Repair and Replacement	2027	25	Concrete pumper	Pumps	1	10	8	0.74	59.2	1480	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
5	Structural Pile Repair and Replacement	2027	25	Diesel air compressor	Air Compressors	1	37	8	0.48	142.08	3552	49.99	0.2	1.1	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0
5	Structural Pile Repair and Replacement	2028	25	150 ton Crane	Cranes	1	367	8	0.29	851.44	21286	599.99	0.4	3.0	3.1	0.1	0.0	0.1	0.0	0.0	990.7	0.0	0.0
5	Structural Pile Repair and Replacement	2028	25	Excavator (PC300)	Excavators	1	180	4	0.38	273.6	6840	299.99	0.1	0.5	0.7	0.0	0.0	0.0	0.0	0.0	318.6	0.0	0.0
5	Structural Pile Repair and Replacement	2028	25	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2380	59500	599.99	0.7	5.8	6.6	0.2	0.0	0.2	0.0	0.0	2781.4	0.1	0.0
5	Structural Pile Repair and Replacement	2028	25	Concrete pumper	Pumps	1	10	8	0.74	59.2	1480	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
5	Structural Pile Repair and Replacement	2028	25	Diesel air compressor	Air Compressors	1	37	8	0.48	142.08	3552	49.99	0.1	1.1	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0
5	Structural Pile Repair and Replacement	2029	25	150 ton Crane	Cranes	1	367	8	0.29	851.44	21286	599.99	0.3	2.8	3.0	0.1	0.0	0.1	0.0	0.0	990.4	0.0	0.0
5	Structural Pile Repair and Replacement	2029	25	Excavator (PC300)	Excavators	1	180	4	0.38	273.6	6840	299.99	0.1	0.4	0.7	0.0	0.0	0.0	0.0	0.0	318.5	0.0	0.0
5	Structural Pile Repair and Replacement	2029	25	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2380	59500	599.99	0.8	5.7	6.5	0.2	0.0	0.2	0.0	0.0	2779.9	0.1	0.0
5	Structural Pile Repair and Replacement	2029	25	Concrete pumper	Pumps	1	10	8	0.74	59.2	1480	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
5	Structural Pile Repair and Replacement	2029	25	Diesel air compressor	Air Compressors	1	37	8	0.48	142.08	3552	49.99	0.1	1.1	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0
5	Structural Pile Repair and Replacement	2030	25	150 ton Crane	Cranes	1	367	8	0.29	851.44	21286	599.99	0.3	2.7	3.0	0.1	0.0	0.1	0.0	0.0	990.4	0.0	0.0
5	Structural Pile Repair and Replacement	2030	25	Excavator (PC300)	Excavators	1	180	4	0.38	273.6	6840	299.99	0.1	0.4	0.7	0.0	0.0	0.0	0.0	0.0	318.5	0.0	0.0
5	Structural Pile Repair and Replacement	2030	25	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2380	59500	599.99	0.7	5.2	6.5	0.2	0.0	0.2	0.0	0.0	2779.9	0.1	0.0
5	Structural Pile Repair and Replacement	2030	25	Concrete pumper	Pumps	1	10	8	0.74	59.2	1480	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
5	Structural Pile Repair and Replacement	2030	25	Diesel air compressor	Air Compressors	1	37	8	0.48	142.08	3552	49.99	0.1	1.0	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0
5	Structural Pile Repair and Replacement	2031	25	150 ton Crane	Cranes	1	367	8	0.29	851.44	21286	599.99	0.3	2.5	3.0	0.1	0.0	0.1	0.0	0.0	990.4	0.0	0.0
5	Structural Pile Repair and Replacement	2031	25	Excavator (PC300)	Excavators	1	180	4	0.38	273.6	6840	299.99	0.1	0.4	0.7	0.0	0.0	0.0	0.0	0.0	318.5	0.0	0.0
5	Structural Pile Repair and Replacement	2031	25	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2380	59500	599.99	0.7	5.0	6.5	0.2	0.0	0.2	0.0	0.0	2779.9	0.1	0.0
5	Structural Pile Repair and Replacement	2031	25	Concrete pumper	Pumps	1	10	8	0.74	59.2	1480	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
5	Structural Pile Repair and Replacement	2031	25	Diesel air compressor	Air Compressors	1	37	8	0.48	142.08	3552	49.99	0.1	1.036	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0

OFFROAD EQUIPMENT

				Total Emisssions (in tons)											Emissions (in MT)					for HRA
Phase #	Construction Phase	Year	Working days	ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	CO2	CH4	N2O	CO2e	Fuel Gallons	Diesel PM (tons)
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	288	0.1	0.58	0.5	0.0	0.0	0.0	0.0	0.0	142.6	0.0	0.0	129.4	0.0	0.0	129.8	12670	2.32E-02
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	288	0.0	0.10	0.1	0.0	0.0	0.0	0.0	0.0	45.9	0.0	0.0	41.6	0.0	0.0	41.8	4078	3.23E-03
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	288	0.1	1.18	1.0	0.0	0.0	0.0	0.0	0.0	399.1	0.0	0.0	362.1	0.0	0.0	363.3	35462	4.43E-02
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	288	0.0	0.08	0.1	0.0	0.0	0.0	0.0	0.0	10.7	0.0	0.0	9.7	0.0	0.0	9.7	949	3.48E-03
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	288	0.0	0.17	0.2	0.0	0.0	0.0	0.0	0.0	25.6	0.0	0.0	23.3	0.0	0.0	23.3	2278	6.12E-03
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	76	0.0	0.15	0.1	0.0	0.0	0.0	0.0	0.0	37.6	0.0	0.0	34.1	0.0	0.0	34.3	3343	6.12E-03
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	76	0.0	0.03	0.0	0.0	0.0	0.0	0.0	0.0	12.1	0.0	0.0	11.0	0.0	0.0	11.0	1076	8.52E-04
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	76	0.0	0.31	0.3	0.0	0.0	0.0	0.0	0.0	105.3	0.0	0.0	95.5	0.0	0.0	95.9	9358	1.17E-02
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	76	0.0	0.02	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	2.6	0.0	0.0	2.6	250	9.18E-04
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	76	0.0	0.05	0.1	0.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0	6.1	0.0	0.0	6.2	601	1.61E-03
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	260	0.0	0.48	0.4	0.0	0.0	0.0	0.0	0.0	128.7	0.0	0.0	116.8	0.0	0.0	117.2	11439	1.93E-02
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	260	0.0	0.08	0.1	0.0	0.0	0.0	0.0	0.0	41.4	0.0	0.0	37.6	0.0	0.0	37.7	3681	2.57E-03
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	260	0.1	0.96	0.9	0.0	0.0	0.0	0.0	0.0	360.4	0.0	0.0	327.0	0.0	0.0	328.1	32026	3.65E-02
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	260	0.0	0.07	0.1	0.0	0.0	0.0	0.0	0.0	9.6	0.0	0.0	8.7	0.0	0.0	8.8	857	3.07E-03
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	260	0.0	0.15	0.2	0.0	0.0	0.0	0.0	0.0	23.1	0.0	0.0	21.0	0.0	0.0	21.1	2056	4.75E-03
2	Repair Complex Wharf Improvements	2025	105	0.0	0.19	0.2	0.0	0.0	0.0	0.0	0.0	52.0	0.0	0.0	47.2	0.0	0.0	47.3	4620	7.79E-03
2	Repair Complex Wharf Improvements	2025	105	0.0	0.03	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	15.2	0.0	0.0	15.2	1486	1.04E-03
2	Repair Complex Wharf Improvements	2025	105	0.0	0.39	0.3	0.0	0.0	0.0	0.0	0.0	145.6	0.0	0.0	132.1	0.0	0.0	132.5	12934	1.48E-02
2	Repair Complex Wharf Improvements	2025	105	0.0	0.03	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	3.5	0.0	0.0	3.5	346	1.24E-03
2	Repair Complex Wharf Improvements	2025	105	0.0	0.06	0.1	0.0	0.0	0.0	0.0	0.0	9.3	0.0	0.0	8.5	0.0	0.0	8.5	830	1.92E-03
2	Repair Complex Wharf Improvements	2026	191	0.0	0.33	0.3	0.0	0.0	0.0	0.0	0.0	94.6	0.0	0.0	85.8	0.0	0.0	86.1	8401	1.35E-02
2	Repair Complex Wharf Improvements	2026	191	0.0	0.05	0.1	0.0	0.0	0.0	0.0	0.0	30.4	0.0	0.0	27.6	0.0	0.0	27.7	2703	1.79E-03
2	Repair Complex Wharf Improvements	2026	191	0.1	0.64	0.6	0.0	0.0	0.0	0.0	0.0	264.8	0.0	0.0	240.3	0.0	0.0	241.1	23531	2.42E-02
2	Repair Complex Wharf Improvements	2026	191	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0	6.4	0.0	0.0	6.4	629	2.20E-03
2	Repair Complex Wharf Improvements	2026	191	0.0	0.11	0.1	0.0	0.0	0.0	0.0	0.0	17.0	0.0	0.0	15.4	0.0	0.0	15.5	1510	2.95E-03
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	24	0.0	0.04	0.0	0.0	0.0	0.0	0.0	0.0	11.9	0.0	0.0	10.8	0.0	0.0	10.8	1056	1.78E-03
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	24	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	3.5	0.0	0.0	3.5	340	2.37E-04
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	24	0.0	0.09	0.1	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	30.2	0.0	0.0	30.3	2956	3.37E-03
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	24	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.8	0.0	0.0	0.8	79	2.83E-04
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	24	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	1.9	0.0	0.0	1.9	190	4.39E-04
4	As-needed Quay Wall Revetment Repairs	2026	13	0.0	0.02	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	5.7	0.0	0.0	5.7	557	8.95E-04
4	As-needed Quay Wall Revetment Repairs	2026	13	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	1.8	0.0	0.0	1.8	179	1.19E-04
4	As-needed Quay Wall Revetment Repairs	2026	13	0.0	0.04	0.0	0.0	0.0	0.0	0.0	0.0	17.6	0.0	0.0	15.9	0.0	0.0	16.0	1561	1.60E-03
4	As-needed Quay Wall Revetment Repairs	2026	13	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.4	0.0	0.0	0.4	42	1.46E-04
4	As-needed Quay Wall Revetment Repairs	2026	13	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.0	0.0	0.0	1.0	100	1.96E-04
4	As-needed Quay Wall Revetment Repairs	2027	13	0.0	0.02	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	5.7	0.0	0.0	5.7	557	8.53E-04
4	As-needed Quay Wall Revetment Repairs	2027	13	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	1.8	0.0	0.0	1.8	179	1.09E-04
4	As-needed Quay Wall Revetment Repairs	2027	13	0.0	0.04	0.0	0.0	0.0	0.0	0.0	0.0	17.6	0.0	0.0	16.0	0.0	0.0	16.0	1562	1.53E-03
4	As-needed Quay Wall Revetment Repairs	2027	13	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.4	0.0	0.0	0.4	42	1.43E-04
4	As-needed Quay Wall Revetment Repairs	2027	13	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.0	0.0	0.0	1.0	100	1.61E-04
4	As-needed Quay Wall Revetment Repairs	2028	13	0.0	0.02	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	5.7	0.0	0.0	5.7	557	7.87E-04
4	As-needed Quay Wall Revetment Repairs	2028	13	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	1.8	0.0	0.0	1.8	179	1.02E-04
4	As-needed Quay Wall Revetment Repairs	2028	13	0.0	0.04	0.0	0.0	0.0	0.0	0.0	0.0	17.6	0.0	0.0	16.0	0.0	0.0	16.0	1565	1.43E-03
4	As-needed Quay Wall Revetment Repairs	2028	13	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.4	0.0	0.0	0.4	42	1.41E-04
4	As-needed Quay Wall Revetment Repairs	2028	13	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.0	0.0	0.0	1.0	100	1.30E-04
5	Structural Pile Repair and Replacement	2025	25	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	12.4	0.0	0.0	11.2	0.0	0.0	11.3	1100	1.86E-03
5	Structural Pile Repair and Replacement	2025	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	3.6	0.0	0.0	3.6	354	2.47E-04
5	Structural Pile Repair and Replacement	2025	25	0.0	0.09	0.1	0.0	0.0	0.0	0.0	0.0	34.7	0.0	0.0	31.4	0.0	0.0	31.5	3079	3.51E-03
5	Structural Pile Repair and Replacement	2025	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.8	0.0	0.0	0.8	82	2.95E-04
5	Structural Pile Repair and Replacement	2025	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.0	0.0	0.0	2.0	198	4.57E-04
5	Structural Pile Repair and Replacement	2026	25	0.0	0.04	0.0	0.0	0.0	0.0	0.0	0.0	12.4	0.0	0.0	11.2	0.0	0.0	11.3	1100	1.77E-03
5	Structural Pile Repair and Replacement	2026	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	3.6	0.0	0.0	3.6	354	2.34E-04
5	Structural Pile Repair and Replacement	2026	25	0.0	0.08	0.1	0.0	0.0	0.0	0.0	0.0	34.7	0.0	0.0	31.4	0.0	0.0	31.6	3080	3.17E-03
5	Structural Pile Repair and Replacement	2026	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.8	0.0	0.0	0.8	82	2.88E-04
5	Structural Pile Repair and Replacement	2026	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.0	0.0	0.0	2.0	198	3.86E-04
5	Structural Pile Repair and Replacement	2027	25	0.0	0.04	0.0	0.0	0.0	0.0	0.0	0.0	12.4	0.0	0.0	11.2	0.0	0.0	11.3	1100	1.68E-03
5	Structural Pile Repair and Replacement	2027	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	3.6	0.0	0.0	3.6	354	2.15E-04
5	Structural Pile Repair and Replacement	2027	25	0.0	0.08	0.1	0.0	0.0	0.0	0.0	0.0	34.7	0.0	0.0	31.5	0.0	0.0	31.6	3084	3.02E-03
5	Structural Pile Repair and Replacement	2027	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.8	0.0	0.0	0.8	82	2.83E-04
5	Structural Pile Repair and Replacement	2027	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.0	0.0	0.0	2.0	198	3.17E-04
5	Structural Pile Repair and Replacement	2028	25	0.0	0.04	0.0	0.0	0.0	0.0	0.0	0.0	12.4	0.0	0.0	11.2	0.0	0.0	11.3	1100	1.55E-03
5	Structural Pile Repair and Replacement	2028	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	3.6	0.0	0.0	3.6	354	2.02E-04
5	Structural Pile Repair and Replacement	2028	25	0.0	0.07	0.1	0.0	0.0	0.0	0.0	0.0	34.8	0.0	0.0	31.5	0.0	0.0	31.6	3089	2.82E-03
5	Structural Pile Repair and Replacement	2028	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.8	0.0	0.0	0.8	82	2.78E-04
5	Structural Pile Repair and Replacement	2028	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.0	0.0	0.0	2.0	198	2.56E-04
5	Structural Pile Repair and Replacement	2029	25	0.0	0.03	0.0	0.0	0.0	0.0	0.0	0.0	12.4	0.0	0.0	11.2	0.0	0.0	11.3	1100	1.46E-03
5	Structural Pile Repair and Replacement	2029	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	3.6	0.0	0.0	3.6	354	1.97E-04
5	Structural Pile Repair and Replacement	2029	25	0.0	0.07	0.1	0.0	0.0	0.0	0.0	0.0	34.7	0.0	0.0	31.5	0.0	0.0	31.6	3088	2.81E-03
5	Structural Pile Repair and Replacement	2029	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.8	0.0	0.0	0.8	82	2.74E-04
5	Structural Pile Repair and Replacement	2029	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.0	0.0	0.0	2.0	198	2.14E-04
5	Structural Pile Repair and Replacement	2030	25	0.0	0.03	0.0	0.0	0.0	0.0	0.0	0.0	12.4	0.0	0.0	11.2	0.0	0.0	11.3	1100	1.42E-03
5	Structural Pile Repair and Replacement	2030	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	3.6	0.0	0.0	3.6	354	1.86E-04
5	Structural Pile Repair and Replacement	2030	25	0.0	0.07	0.1	0.0	0.0	0.0	0.0	0.0	34.7	0.0	0.0	31.5	0.0	0.0	31.6	3088	2.56E-03
5	Structural Pile Repair and Replacement	2030	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.8	0.0	0.0	0.8	82	2.72E-04
5	Structural Pile Repair and Replacement	2030	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.0	0.0	0.0	2.0	198	1.83E-04
5	Structural Pile Repair and Replacement	2031	25	0.0	0.03	0.0	0.0	0.0	0.0	0.0	0.0	12.4	0.0	0.0	11.2	0.0	0.0	11.3	1100	1.38E-03
5	Structural Pile Repair and Replacement	2031	25	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	3.6	0.0	0.0	3.6	354	1.82E-04
5	Structural Pile Repair and Replacement	2031	25	0.0	0.06	0.1	0.0	0.0	0.0	0.0	0.0	34.7	0.0	0.0	31.5	0.0	0.0	31.6	3088	2.52E-03
5	Structural Pile Repair and Replacement	2031	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.8	0.0	0.0	0.8	82	2.69E-04
5	Structural Pile Repair and Replacement	2031	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.0	0.0	0.0	2.0	198	1.57E-04

				Equipment Specs									Daily Emissions (in pounds per day)										
Phase #	Construction Phase	Year	Working days	Equipment	OFFROAD Match	#	HP	Hrs/day	Load Factor	Daily hp-hrs (# * HP * hrs * LF)	Total hp-hrs (Daily hphrs * days)	HP Bin (for EF lookup)	ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O
5	Structural Pile Repair and Replacement	2032	25	150 ton Crane	Cranes	1	367	8	0.29	851.44	21286	599.99	0.3	2.4	2.9	0.1	0.0	0.1	0.0	0.0	990.4	0.0	0.0
5	Structural Pile Repair and Replacement	2032	25	Excavator (PC300)	Excavators	1	180	4	0.38	273.6	6840	299.99	0.1	0.4	0.7	0.0	0.0	0.0	0.0	0.0	318.5	0.0	0.0
5	Structural Pile Repair and Replacement	2032	25	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2380	59500	599.99	0.7	4.7	6.5	0.2	0.0	0.2	0.0	0.0	2779.9	0.1	0.0
5	Structural Pile Repair and Replacement	2032	25	Concrete pumper	Pumps	1	10	8	0.74	59.2	1480	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
5	Structural Pile Repair and Replacement	2032	25	Diesel air compressor	Air Compressors	1	37	8	0.48	142.08	3552	49.99	0.1	1.0	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0
5	Structural Pile Repair and Replacement	2033	25	150 ton Crane	Cranes	1	367	8	0.29	851.44	21286	599.99	0.3	2.2	2.9	0.1	0.0	0.1	0.0	0.0	990.4	0.0	0.0
5	Structural Pile Repair and Replacement	2033	25	Excavator (PC300)	Excavators	1	180	4	0.38	273.6	6840	299.99	0.1	0.3	0.7	0.0	0.0	0.0	0.0	0.0	318.5	0.0	0.0
5	Structural Pile Repair and Replacement	2033	25	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2380	59500	599.99	0.7	4.3	6.5	0.2	0.0	0.2	0.0	0.0	2779.9	0.1	0.0
5	Structural Pile Repair and Replacement	2033	25	Concrete pumper	Pumps	1	10	8	0.74	59.2	1480	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
5	Structural Pile Repair and Replacement	2033	25	Diesel air compressor	Air Compressors	1	37	8	0.48	142.08	3552	49.99	0.1	1.0	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0
5	Structural Pile Repair and Replacement	2034	25	150 ton Crane	Cranes	1	367	8	0.29	851.44	21286	599.99	0.3	2.1	2.9	0.1	0.0	0.1	0.0	0.0	990.4	0.0	0.0
5	Structural Pile Repair and Replacement	2034	25	Excavator (PC300)	Excavators	1	180	4	0.38	273.6	6840	299.99	0.1	0.3	0.7	0.0	0.0	0.0	0.0	0.0	318.5	0.0	0.0
5	Structural Pile Repair and Replacement	2034	25	Hydraulic Power Pack APE Model 595	Other Construction Equipment	1	595	4	1.00	2380	59500	599.99	0.7	4.0	6.5	0.2	0.0	0.1	0.0	0.0	2779.9	0.1	0.0
5	Structural Pile Repair and Replacement	2034	25	Concrete pumper	Pumps	1	10	8	0.74	59.2	1480	24.99	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	74.2	0.0	0.0
5	Structural Pile Repair and Replacement	2034	25	Diesel air compressor	Air Compressors	1	37	8	0.48	142.08	3552	49.99	0.1	1.0	1.5	0.0	0.0	0.0	0.0	0.0	178.0	0.0	0.0

				Total Emisssions (in tons)												Emissions (in MT)					for HRA
Phase #	Construction Phase	Year	Working days	ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	CO2	CH4	N2O	CO2e	Fuel Gallons	Diesel PM (tons)
5	Structural Pile Repair and Replacement	2032	25	0.0	0.03	0.0	0.0	0.0	0.0	0.0	0.0	12.4	0.0	0.0	11.2	0.0	0.0	11.3	1100	1.24E-03
5	Structural Pile Repair and Replacement	2032	25	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	3.6	0.0	0.0	3.6	354	1.77E-04
5	Structural Pile Repair and Replacement	2032	25	0.0	0.06	0.1	0.0	0.0	0.0	0.0	0.0	34.7	0.0	0.0	31.5	0.0	0.0	31.6	3088	2.30E-03
5	Structural Pile Repair and Replacement	2032	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.8	0.0	0.0	0.8	82	2.68E-04
5	Structural Pile Repair and Replacement	2032	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.0	0.0	0.0	2.0	198	1.35E-04
5	Structural Pile Repair and Replacement	2033	25	0.0	0.03	0.0	0.0	0.0	0.0	0.0	0.0	12.4	0.0	0.0	11.2	0.0	0.0	11.3	1100	1.10E-03
5	Structural Pile Repair and Replacement	2033	25	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	3.6	0.0	0.0	3.6	354	1.66E-04
5	Structural Pile Repair and Replacement	2033	25	0.0	0.05	0.1	0.0	0.0	0.0	0.0	0.0	34.7	0.0	0.0	31.5	0.0	0.0	31.6	3088	2.14E-03
5	Structural Pile Repair and Replacement	2033	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.8	0.0	0.0	0.8	82	2.67E-04
5	Structural Pile Repair and Replacement	2033	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.0	0.0	0.0	2.0	198	1.18E-04
5	Structural Pile Repair and Replacement	2034	25	0.0	0.03	0.0	0.0	0.0	0.0	0.0	0.0	12.4	0.0	0.0	11.2	0.0	0.0	11.3	1100	1.03E-03
5	Structural Pile Repair and Replacement	2034	25	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	3.6	0.0	0.0	3.6	354	1.58E-04
5	Structural Pile Repair and Replacement	2034	25	0.0	0.05	0.1	0.0	0.0	0.0	0.0	0.0	34.7	0.0	0.0	31.5	0.0	0.0	31.6	3088	1.93E-03
5	Structural Pile Repair and Replacement	2034	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.8	0.0	0.0	0.8	82	2.66E-04
5	Structural Pile Repair and Replacement	2034	25	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.0	0.0	0.0	2.0	198	1.03E-04

Worker Commute

Phase #	Construction Phase	Year	Working days	Number of Workers/Day	Trips per worker	Average Trip Length (one way)	Daily VMT	Daily Ttrips	Emisssions (in pounds per day)										
									ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	288	10	3	11.97	360	30	0.10	0.08	1.05	0.00	0.25	0.00	0.06	0.00	258.07	0.01	0.01
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	76	10	3	11.97	360	30	0.10	0.08	1.05	0.00	0.25	0.00	0.06	0.00	258.07	0.01	0.01
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	260	10	3	11.97	360	30	0.09	0.08	0.98	0.00	0.25	0.00	0.06	0.00	251.25	0.01	0.01
2	Repair Complex Wharf Improvements	2025	105	10	3	11.97	360	30	0.09	0.08	0.98	0.00	0.25	0.00	0.06	0.00	251.25	0.01	0.01
2	Repair Complex Wharf Improvements	2026	191	10	3	11.97	360	30	0.09	0.07	0.92	0.00	0.25	0.00	0.06	0.00	244.77	0.01	0.01
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	24	10	3	11.97	360	30	0.09	0.08	0.98	0.00	0.25	0.00	0.06	0.00	251.25	0.01	0.01
4	As-needed Quay Wall Revetment Repairs	2026	12.7	10	3	11.97	360	30	0.09	0.07	0.92	0.00	0.25	0.00	0.06	0.00	244.77	0.01	0.01
4	As-needed Quay Wall Revetment Repairs	2027	12.7	10	3	11.97	360	30	0.08	0.07	0.87	0.00	0.25	0.00	0.06	0.00	239.40	0.01	0.01
4	As-needed Quay Wall Revetment Repairs	2028	12.7	10	3	11.97	360	30	0.08	0.06	0.83	0.00	0.25	0.00	0.06	0.00	234.05	0.01	0.01
5	Structural Pile Repair and Replacement	2025	25	10	3	11.97	360	30	0.09	0.08	0.98	0.00	0.25	0.00	0.06	0.00	251.25	0.01	0.01
5	Structural Pile Repair and Replacement	2026	25	10	3	11.97	360	30	0.09	0.07	0.92	0.00	0.25	0.00	0.06	0.00	244.77	0.01	0.01
5	Structural Pile Repair and Replacement	2027	25	10	3	11.97	360	30	0.08	0.07	0.87	0.00	0.25	0.00	0.06	0.00	239.40	0.01	0.01
5	Structural Pile Repair and Replacement	2028	25	10	3	11.97	360	30	0.08	0.06	0.83	0.00	0.25	0.00	0.06	0.00	234.05	0.01	0.01
5	Structural Pile Repair and Replacement	2029	25	10	3	11.97	360	30	0.08	0.06	0.79	0.00	0.25	0.00	0.06	0.00	229.08	0.01	0.01
5	Structural Pile Repair and Replacement	2030	25	10	3	11.97	360	30	0.07	0.05	0.75	0.00	0.25	0.00	0.06	0.00	224.45	0.01	0.01
5	Structural Pile Repair and Replacement	2031	25	10	3	11.97	360	30	0.07	0.05	0.71	0.00	0.25	0.00	0.06	0.00	219.55	0.01	0.01
5	Structural Pile Repair and Replacement	2032	25	10	3	11.97	360	30	0.07	0.05	0.68	0.00	0.25	0.00	0.06	0.00	215.73	0.01	0.01
5	Structural Pile Repair and Replacement	2033	25	10	3	11.97	360	30	0.06	0.04	0.65	0.00	0.25	0.00	0.06	0.00	212.83	0.01	0.01
5	Structural Pile Repair and Replacement	2034	25	10	3	11.97	360	30	0.06	0.04	0.62	0.00	0.25	0.00	0.06	0.00	209.74	0.00	0.00
6	Mobilization/Demobilization	2024	2	1	3	11.97	36	3	0.01	0.01	0.10	0.00	0.03	0.00	0.01	0.00	25.81	0.00	0.00
6	Mobilization/Demobilization	2025	2	1	3	11.97	36	3	0.01	0.01	0.10	0.00	0.03	0.00	0.01	0.00	25.12	0.00	0.00
6	Mobilization/Demobilization	2026	2	1	3	11.97	36	3	0.01	0.01	0.09	0.00	0.03	0.00	0.01	0.00	24.48	0.00	0.00
6	Mobilization/Demobilization	2027	2	1	3	11.97	36	3	0.01	0.01	0.09	0.00	0.03	0.00	0.01	0.00	23.94	0.00	0.00
6	Mobilization/Demobilization	2028	2	1	3	11.97	36	3	0.01	0.01	0.08	0.00	0.03	0.00	0.01	0.00	23.41	0.00	0.00
6	Mobilization/Demobilization	2029	2	1	3	11.97	36	3	0.01	0.01	0.08	0.00	0.03	0.00	0.01	0.00	22.91	0.00	0.00
6	Mobilization/Demobilization	2030	2	1	3	11.97	36	3	0.01	0.01	0.07	0.00	0.03	0.00	0.01	0.00	22.44	0.00	0.00
6	Mobilization/Demobilization	2031	2	1	3	11.97	36	3	0.01	0.00	0.07	0.00	0.03	0.00	0.01	0.00	21.95	0.00	0.00
6	Mobilization/Demobilization	2032	2	1	3	11.97	36	3	0.01	0.00	0.07	0.00	0.03	0.00	0.01	0.00	21.57	0.00	0.00
6	Mobilization/Demobilization	2033	2	1	3	11.97	36	3	0.01	0.00	0.07	0.00	0.03	0.00	0.01	0.00	21.28	0.00	0.00
6	Mobilization/Demobilization	2034	2	1	3	11.97	36	3	0.01	0.00	0.06	0.00	0.03	0.00	0.01	0.00	20.97	0.00	0.00

Worker Commute

Phase #	Construction Phase	Year	Emisssions (in tons per year)											Emissions (in MT per year)				Fuel Gallons
			ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	CO2	CH4	N2O	CO2e	
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	0.01	0.01	0.15	0.00	0.04	0.00	0.01	0.00	37.16	0.00	0.00	33.71	0.00	0.00	34.04	3950
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	0.00	0.00	0.04	0.00	0.01	0.00	0.00	0.00	9.81	0.00	0.00	8.90	0.00	0.00	8.98	1042
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	0.01	0.01	0.13	0.00	0.03	0.00	0.01	0.00	32.66	0.00	0.00	29.63	0.00	0.00	29.91	3471
2	Repair Complex Wharf Improvements	2025	0.00	0.00	0.05	0.00	0.01	0.00	0.00	0.00	13.19	0.00	0.00	11.97	0.00	0.00	12.08	1402
2	Repair Complex Wharf Improvements	2026	0.01	0.01	0.09	0.00	0.02	0.00	0.01	0.00	23.38	0.00	0.00	21.21	0.00	0.00	21.40	2484
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	3.01	0.00	0.00	2.74	0.00	0.00	2.76	320
4	As-needed Quay Wall Revetment Repairs	2026	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	1.41	0.00	0.00	1.42	165
4	As-needed Quay Wall Revetment Repairs	2027	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	1.52	0.00	0.00	1.38	0.00	0.00	1.39	161
4	As-needed Quay Wall Revetment Repairs	2028	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	1.48	0.00	0.00	1.34	0.00	0.00	1.36	157
5	Structural Pile Repair and Replacement	2025	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	3.14	0.00	0.00	2.85	0.00	0.00	2.88	334
5	Structural Pile Repair and Replacement	2026	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	3.06	0.00	0.00	2.78	0.00	0.00	2.80	325
5	Structural Pile Repair and Replacement	2027	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	2.99	0.00	0.00	2.71	0.00	0.00	2.74	318
5	Structural Pile Repair and Replacement	2028	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	2.93	0.00	0.00	2.65	0.00	0.00	2.68	311
5	Structural Pile Repair and Replacement	2029	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	2.86	0.00	0.00	2.60	0.00	0.00	2.62	304
5	Structural Pile Repair and Replacement	2030	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	2.81	0.00	0.00	2.55	0.00	0.00	2.57	298
5	Structural Pile Repair and Replacement	2031	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	2.74	0.00	0.00	2.49	0.00	0.00	2.51	291
5	Structural Pile Repair and Replacement	2032	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	2.70	0.00	0.00	2.45	0.00	0.00	2.47	286
5	Structural Pile Repair and Replacement	2033	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	2.66	0.00	0.00	2.41	0.00	0.00	2.43	282
5	Structural Pile Repair and Replacement	2034	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	2.62	0.00	0.00	2.38	0.00	0.00	2.40	278
6	Mobilization/Demobilization	2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.02	0.00	0.00	0.02	3
6	Mobilization/Demobilization	2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.02	0.00	0.00	0.02	3
6	Mobilization/Demobilization	2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02	3
6	Mobilization/Demobilization	2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02	3
6	Mobilization/Demobilization	2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02	2
6	Mobilization/Demobilization	2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02	2
6	Mobilization/Demobilization	2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02	2
6	Mobilization/Demobilization	2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02	2
6	Mobilization/Demobilization	2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02	2
6	Mobilization/Demobilization	2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02	2
6	Mobilization/Demobilization	2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02	2

HAUL TRUCKS

Phase #	Construction Phase	Year	Working days	Total Trucks for this Phase	Average Daily Trucks	VMT per 1-way trip	Trips Per Truck	Daily Truck VMT	Daily Truck Trips	Emisssions (in pounds per day)										
										ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	288	288	1	20	2	40	2	0.003	0.20	0.07	0.0024	0.04	0.00	0.01	0.00	147.04	0.01	0.02
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	76	336	1	20	2	40	2	0.003	0.20	0.07	0.00	0.04	0.00	0.01	0.00	147.04	0.01	0.02
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	260	336	1	20	2	40	2	0.003	0.20	0.07	0.00	0.04	0.00	0.01	0.00	144.01	0.01	0.02
2	Repair Complex Wharf Improvements	2025	105	296	1	20	2	40	2	0.003	0.20	0.07	0.00	0.04	0.00	0.01	0.00	144.01	0.01	0.02
2	Repair Complex Wharf Improvements	2026	191	296	1	20	2	40	2	0.003	0.19	0.07	0.00	0.04	0.00	0.01	0.00	140.95	0.01	0.02
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	24	256	10.7	20	2	426.7	21.3	0.034	2.09	0.78	0.02	0.39	0.02	0.10	0.01	1536.13	0.08	0.24
4	As-needed Quay Wall Revetment Repairs	2026	12.7	405	10.7	20	2	426.3	21.3	0.033	2.00	0.77	0.02	0.39	0.02	0.10	0.01	1502.23	0.07	0.24
4	As-needed Quay Wall Revetment Repairs	2027	12.7	405	10.7	20	2	426.3	21.3	0.032	1.92	0.75	0.02	0.39	0.02	0.10	0.01	1466.38	0.07	0.23
4	As-needed Quay Wall Revetment Repairs	2028	12.7	405	10.7	20	2	426.3	21.3	0.031	1.85	0.74	0.02	0.39	0.02	0.10	0.01	1427.26	0.07	0.23
5	Structural Pile Repair and Replacement	2025	25	340	1.4	20	2	54.4	3	0.004	0.27	0.10	0.00	0.05	0.00	0.01	0.00	195.86	0.01	0.03
5	Structural Pile Repair and Replacement	2026	25	340	1.4	20	2	54.4	3	0.004	0.26	0.10	0.00	0.05	0.00	0.01	0.00	191.69	0.01	0.03
5	Structural Pile Repair and Replacement	2027	25	340	1.4	20	2	54.4	3	0.004	0.25	0.10	0.00	0.05	0.00	0.01	0.00	187.12	0.01	0.03
5	Structural Pile Repair and Replacement	2028	25	340	1.4	20	2	54.4	3	0.004	0.24	0.09	0.00	0.05	0.00	0.01	0.00	182.13	0.01	0.03
5	Structural Pile Repair and Replacement	2029	25	340	1.4	20	2	54.4	3	0.004	0.23	0.09	0.00	0.05	0.00	0.01	0.00	176.94	0.01	0.03
5	Structural Pile Repair and Replacement	2030	25	340	1.4	20	2	54.4	3	0.004	0.22	0.09	0.00	0.05	0.00	0.01	0.00	171.76	0.01	0.03
5	Structural Pile Repair and Replacement	2031	25	340	1.4	20	2	54.4	3	0.004	0.21	0.09	0.00	0.05	0.00	0.01	0.00	166.61	0.01	0.03
5	Structural Pile Repair and Replacement	2032	25	340	1.4	20	2	54.4	3	0.004	0.20	0.08	0.00	0.05	0.00	0.01	0.00	161.78	0.01	0.03
5	Structural Pile Repair and Replacement	2033	25	340	1.4	20	2	54.4	3	0.003	0.20	0.08	0.00	0.05	0.00	0.01	0.00	157.33	0.01	0.03
5	Structural Pile Repair and Replacement	2034	25	340	1.4	20	2	54.4	3	0.003	0.19	0.08	0.00	0.05	0.00	0.01	0.00	153.36	0.00	0.02
6	Mobilization/Demobilization	2024	2	0	0	20	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2025	2	0	0	20	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2026	2	0	0	20	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2027	2	0	0	20	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2028	2	0	0	20	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2029	2	0	0	20	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2030	2	0	0	20	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2031	2	0	0	20	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2032	2	0	0	20	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2033	2	0	0	20	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2034	2	0	0	20	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

HAUL TRUCKS

Phase #	Construction Phase	Year	Working days	Emisssions (in tons per year)											Emissions (in MT per year)				Fuel Gallons	Diesel PM (tons)
				ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	CO2	CH4	N2O	CO2e		
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	288	0.0005	0.0295	0.0106	0.0003	0.0053	0.0003	0.0014	0.0002	21.1741	0.0011	0.0034	19.21	0.00	0.00	20.14	1978	0.0003
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	76	0.0001	0.0078	0.0028	0.0001	0.0014	0.0001	0.0004	0.0001	5.5876	0.0003	0.0009	5.07	0.00	0.00	5.32	522	0.0001
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	260	0.0004	0.0255	0.0095	0.0003	0.0048	0.0003	0.0013	0.0002	18.7216	0.0010	0.0030	16.98	0.00	0.00	17.81	1751	0.0003
2	Repair Complex Wharf Improvements	2025	105	0.0002	0.0103	0.0038	0.0001	0.0019	0.0001	0.0005	0.0001	7.5606	0.0004	0.0012	6.86	0.00	0.00	7.19	707	0.0001
2	Repair Complex Wharf Improvements	2026	191	0.0003	0.0179	0.0069	0.0002	0.0035	0.0002	0.0009	0.0001	13.4608	0.0007	0.0021	12.21	0.00	0.00	12.81	1260	0.0002
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	24	0.0004	0.0251	0.0093	0.0003	0.0047	0.0003	0.0013	0.0002	18.4335	0.0009	0.0029	16.72	0.00	0.00	17.54	1724	0.0003
4	As-needed Quay Wall Revetment Repairs	2026	12.7	0.0002	0.0127	0.0049	0.0002	0.0025	0.0001	0.0007	0.0001	9.5141	0.0005	0.0015	8.63	0.00	0.00	9.05	890	0.0002
4	As-needed Quay Wall Revetment Repairs	2027	12.7	0.0002	0.0122	0.0048	0.0002	0.0025	0.0001	0.0007	0.0001	9.2871	0.0004	0.0015	8.43	0.00	0.00	8.83	870	0.0002
4	As-needed Quay Wall Revetment Repairs	2028	12.7	0.0002	0.0117	0.0047	0.0002	0.0025	0.0001	0.0007	0.0001	9.0393	0.0004	0.0014	8.20	0.00	0.00	8.60	847	0.0002
5	Structural Pile Repair and Replacement	2025	25	0.0001	0.0033	0.0012	0.0000	0.0006	0.0000	0.0002	0.0000	2.4482	0.0001	0.0004	2.22	0.00	0.00	2.33	229	0.0000
5	Structural Pile Repair and Replacement	2026	25	0.0001	0.0032	0.0012	0.0000	0.0006	0.0000	0.0002	0.0000	2.3962	0.0001	0.0004	2.17	0.00	0.00	2.28	224	0.0000
5	Structural Pile Repair and Replacement	2027	25	0.0001	0.0031	0.0012	0.0000	0.0006	0.0000	0.0002	0.0000	2.3390	0.0001	0.0004	2.12	0.00	0.00	2.23	219	0.0000
5	Structural Pile Repair and Replacement	2028	25	0.0000	0.0029	0.0012	0.0000	0.0006	0.0000	0.0002	0.0000	2.2766	0.0001	0.0004	2.07	0.00	0.00	2.17	213	0.0000
5	Structural Pile Repair and Replacement	2029	25	0.0000	0.0028	0.0012	0.0000	0.0006	0.0000	0.0002	0.0000	2.2118	0.0001	0.0004	2.01	0.00	0.00	2.10	207	0.0000
5	Structural Pile Repair and Replacement	2030	25	0.0000	0.0027	0.0011	0.0000	0.0006	0.0000	0.0002	0.0000	2.1469	0.0001	0.0003	1.95	0.00	0.00	2.04	201	0.0000
5	Structural Pile Repair and Replacement	2031	25	0.0000	0.0026	0.0011	0.0000	0.0006	0.0000	0.0002	0.0000	2.0826	0.0001	0.0003	1.89	0.00	0.00	1.98	195	0.0000
5	Structural Pile Repair and Replacement	2032	25	0.0000	0.0025	0.0010	0.0000	0.0006	0.0000	0.0002	0.0000	2.0222	0.0001	0.0003	1.83	0.00	0.00	1.92	190	0.0000
5	Structural Pile Repair and Replacement	2033	25	0.0000	0.0024	0.0010	0.0000	0.0006	0.0000	0.0002	0.0000	1.9667	0.0001	0.0003	1.78	0.00	0.00	1.87	184	0.0000
5	Structural Pile Repair and Replacement	2034	25	0.0000	0.0024	0.0010	0.0000	0.0006	0.0000	0.0002	0.0000	1.9170	0.0001	0.0003	1.74	0.00	0.00	1.82	180	0.0000
6	Mobilization/Demobilization	2024	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2025	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2026	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2027	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2028	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2029	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2030	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2031	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2032	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2033	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2034	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000

SITE TRUCKS

Phase #	Construction Phase	Year	Working days	Activity Assumptions							Emissions (in pounds per day)										
				Trucks per Day	Travel Speed Onsite	Hours of Use Per Day	VMT per truck	Trips (Starts) Per Truck Per Day	Daily Truck VMT	Avg Daily Truck Trips	ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	288	1	5	2	10	2	20	2	0.026	0.80	0.09	0.0046	0.02	0.00	0.01	0.00	156.46	0.00	0.02
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	76	1	5	2	10	2	20	2	0.026	0.80	0.09	0.00	0.02	0.00	0.01	0.00	156.46	0.00	0.02
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	260	1	5	2	10	2	20	2	0.025	0.75	0.08	0.00	0.02	0.00	0.01	0.00	154.57	0.00	0.02
2	Repair Complex Wharf Improvements	2025	105	1	5	2	10	2	20	2	0.025	0.75	0.08	0.00	0.02	0.00	0.01	0.00	154.57	0.00	0.02
2	Repair Complex Wharf Improvements	2026	191	1	5	2	10	2	20	2	0.023	0.71	0.08	0.00	0.02	0.00	0.01	0.00	152.71	0.00	0.02
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	24	1	5	2	10	2	20	2	0.025	0.75	0.08	0.00	0.02	0.00	0.01	0.00	154.57	0.00	0.02
4	As-needed Quay Wall Revetment Repairs	2026	12.7	1	5	2	10	2	20	2	0.023	0.71	0.08	0.00	0.02	0.00	0.01	0.00	152.71	0.00	0.02
4	As-needed Quay Wall Revetment Repairs	2027	12.7	1	5	2	10	2	20	2	0.023	0.68	0.08	0.00	0.02	0.00	0.01	0.00	151.20	0.00	0.02
4	As-needed Quay Wall Revetment Repairs	2028	12.7	1	5	2	10	2	20	2	0.022	0.65	0.08	0.00	0.02	0.00	0.01	0.00	149.74	0.00	0.02
5	Structural Pile Repair and Replacement	2025	25	1	5	2	10	2	20	2	0.025	0.75	0.08	0.00	0.02	0.00	0.01	0.00	154.57	0.00	0.02
5	Structural Pile Repair and Replacement	2026	25	1	5	2	10	2	20	2	0.023	0.71	0.08	0.00	0.02	0.00	0.01	0.00	152.71	0.00	0.02
5	Structural Pile Repair and Replacement	2027	25	1	5	2	10	2	20	2	0.023	0.68	0.08	0.00	0.02	0.00	0.01	0.00	151.20	0.00	0.02
5	Structural Pile Repair and Replacement	2028	25	1	5	2	10	2	20	2	0.022	0.65	0.08	0.00	0.02	0.00	0.01	0.00	149.74	0.00	0.02
5	Structural Pile Repair and Replacement	2029	25	1	5	2	10	2	20	2	0.021	0.62	0.08	0.00	0.02	0.00	0.01	0.00	148.29	0.00	0.02
5	Structural Pile Repair and Replacement	2030	25	1	5	2	10	2	20	2	0.019	0.59	0.08	0.00	0.02	0.00	0.01	0.00	146.89	0.00	0.02
5	Structural Pile Repair and Replacement	2031	25	1	5	2	10	2	20	2	0.019	0.57	0.07	0.00	0.02	0.00	0.01	0.00	145.54	0.00	0.02
5	Structural Pile Repair and Replacement	2032	25	1	5	2	10	2	20	2	0.018	0.54	0.07	0.00	0.02	0.00	0.01	0.00	144.21	0.00	0.02
5	Structural Pile Repair and Replacement	2033	25	1	5	2	10	2	20	2	0.016	0.52	0.07	0.00	0.02	0.00	0.01	0.00	142.86	0.00	0.02
5	Structural Pile Repair and Replacement	2034	25	1	5	2	10	2	20	2	0.015	0.50	0.07	0.00	0.02	0.00	0.01	0.00	141.54	0.00	0.02
6	Mobilization/Demobilization	2024	2	0	5	2	0	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2025	2	0	5	2	0	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2026	2	0	5	2	0	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2027	2	0	5	2	0	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2028	2	0	5	2	0	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2029	2	0	5	2	0	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2030	2	0	5	2	0	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2031	2	0	5	2	0	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2032	2	0	5	2	0	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2033	2	0	5	2	0	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2034	2	0	5	2	0	2	0	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SITE TRUCKS

Phase #	Construction Phase	Year	Working days	Emissions (in tons per year)											Emissions (in MT per year)				Fuel Gallons	Diesel PM (tons)
				ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	CO2	CH4	N2O	CO2e		
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	288	0.0038	0.1147	0.0124	0.0007	0.0029	0.0006	0.0008	0.0002	22.53	0.0002	0.0036	20.44	0.00	0.00	21.40	1963	0.0007
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	76	0.0010	0.0303	0.0033	0.0002	0.0008	0.0002	0.0002	0.0001	5.95	0.0001	0.0009	5.39	0.00	0.00	5.65	518	0.0002
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	260	0.0032	0.0978	0.0110	0.0005	0.0026	0.0005	0.0007	0.0002	20.09	0.0002	0.0032	18.23	0.00	0.00	19.09	1751	0.0005
2	Repair Complex Wharf Improvements	2025	105	0.0013	0.0395	0.0044	0.0002	0.0010	0.0002	0.0003	0.0001	8.11	0.0001	0.0013	7.36	0.00	0.00	7.71	707	0.0002
2	Repair Complex Wharf Improvements	2026	191	0.0022	0.0677	0.0079	0.0004	0.0019	0.0003	0.0005	0.0001	14.58	0.0001	0.0023	13.23	0.00	0.00	13.85	1271	0.0004
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	24	0.0003	0.0090	0.0010	0.0000	0.0002	0.0000	0.0001	0.0000	1.85	0.0000	0.0003	1.68	0.00	0.00	1.76	162	0.0000
4	As-needed Quay Wall Revetment Repairs	2026	12.7	0.0001	0.0045	0.0005	0.0000	0.0001	0.0000	0.0000	0.0000	0.97	0.0000	0.0002	0.88	0.00	0.00	0.92	84	0.0000
4	As-needed Quay Wall Revetment Repairs	2027	12.7	0.0001	0.0043	0.0005	0.0000	0.0001	0.0000	0.0000	0.0000	0.96	0.0000	0.0002	0.87	0.00	0.00	0.91	84	0.0000
4	As-needed Quay Wall Revetment Repairs	2028	12.7	0.0001	0.0041	0.0005	0.0000	0.0001	0.0000	0.0000	0.0000	0.95	0.0000	0.0001	0.86	0.00	0.00	0.90	83	0.0000
5	Structural Pile Repair and Replacement	2025	25	0.0003	0.0094	0.0011	0.0001	0.0002	0.0000	0.0001	0.0000	1.93	0.0000	0.0003	1.75	0.00	0.00	1.84	168	0.0001
5	Structural Pile Repair and Replacement	2026	25	0.0003	0.0089	0.0010	0.0000	0.0002	0.0000	0.0001	0.0000	1.91	0.0000	0.0003	1.73	0.00	0.00	1.81	166	0.0000
5	Structural Pile Repair and Replacement	2027	25	0.0003	0.0085	0.0010	0.0000	0.0002	0.0000	0.0001	0.0000	1.89	0.0000	0.0003	1.71	0.00	0.00	1.80	165	0.0000
5	Structural Pile Repair and Replacement	2028	25	0.0003	0.0081	0.0010	0.0000	0.0002	0.0000	0.0001	0.0000	1.87	0.0000	0.0003	1.70	0.00	0.00	1.78	163	0.0000
5	Structural Pile Repair and Replacement	2029	25	0.0003	0.0077	0.0010	0.0000	0.0002	0.0000	0.0001	0.0000	1.85	0.0000	0.0003	1.68	0.00	0.00	1.76	162	0.0000
5	Structural Pile Repair and Replacement	2030	25	0.0002	0.0074	0.0010	0.0000	0.0002	0.0000	0.0001	0.0000	1.84	0.0000	0.0003	1.67	0.00	0.00	1.74	160	0.0000
5	Structural Pile Repair and Replacement	2031	25	0.0002	0.0071	0.0009	0.0000	0.0002	0.0000	0.0001	0.0000	1.82	0.0000	0.0003	1.65	0.00	0.00	1.73	159	0.0000
5	Structural Pile Repair and Replacement	2032	25	0.0002	0.0068	0.0009	0.0000	0.0002	0.0000	0.0001	0.0000	1.80	0.0000	0.0003	1.64	0.00	0.00	1.71	158	0.0000
5	Structural Pile Repair and Replacement	2033	25	0.0002	0.0065	0.0009	0.0000	0.0002	0.0000	0.0001	0.0000	1.79	0.0000	0.0003	1.62	0.00	0.00	1.70	156	0.0000
5	Structural Pile Repair and Replacement	2034	25	0.0002	0.0062	0.0009	0.0000	0.0002	0.0000	0.0001	0.0000	1.77	0.0000	0.0003	1.61	0.00	0.00	1.68	155	0.0000
6	Mobilization/Demobilization	2024	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2025	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2026	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2027	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2028	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2029	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2030	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2031	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2032	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2033	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000
6	Mobilization/Demobilization	2034	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0	0.0000

MARINE

40 days per year - differs from other sources

Phase #	Construction Phase	Year	Working days	Equipment	Engine#	Type	HP	Hrs/day	Emissions (in pounds per day) ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	ROG	NOX	CO	PM10 ex
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	40	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.01	0.14	0.04	0.01
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	40	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.01	0.14	0.04	0.01
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	40	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.01	0.11	0.03	0.00
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	40	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.01	0.11	0.03	0.00
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	40	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.01	0.11	0.03	0.00
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	40	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.06	0.01	0.00
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	40	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.01	0.00	0.00
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	40	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.01	0.14	0.04	0.01
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	40	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.01	0.14	0.04	0.01
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	40	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.01	0.11	0.03	0.00
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	40	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.01	0.11	0.03	0.00
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	40	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.01	0.11	0.03	0.00
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	40	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.06	0.01	0.00
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	40	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.01	0.00	0.00
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	40	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.01	0.14	0.04	0.01
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	40	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.01	0.14	0.04	0.01
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	40	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.01	0.11	0.03	0.00
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	40	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.01	0.11	0.03	0.00
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	40	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.01	0.11	0.03	0.00
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	40	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.06	0.01	0.00
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	40	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.01	0.00	0.00
2	Repair Complex Wharf Improvements	2025	40	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.01	0.14	0.04	0.01
2	Repair Complex Wharf Improvements	2025	40	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.01	0.14	0.04	0.01
2	Repair Complex Wharf Improvements	2025	40	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.01	0.11	0.03	0.00
2	Repair Complex Wharf Improvements	2025	40	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.01	0.11	0.03	0.00
2	Repair Complex Wharf Improvements	2025	40	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.01	0.11	0.03	0.00
2	Repair Complex Wharf Improvements	2025	40	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.06	0.01	0.00
2	Repair Complex Wharf Improvements	2025	40	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.01	0.00	0.00
2	Repair Complex Wharf Improvements	2026	40	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.01	0.14	0.04	0.01
2	Repair Complex Wharf Improvements	2026	40	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.01	0.14	0.04	0.01
2	Repair Complex Wharf Improvements	2026	40	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.01	0.11	0.03	0.00
2	Repair Complex Wharf Improvements	2026	40	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.01	0.11	0.03	0.00
2	Repair Complex Wharf Improvements	2026	40	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.01	0.11	0.03	0.00
2	Repair Complex Wharf Improvements	2026	40	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.06	0.01	0.00
2	Repair Complex Wharf Improvements	2026	40	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.01	0.00	0.00
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	40	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.01	0.14	0.04	0.01
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	40	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.01	0.14	0.04	0.01
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	40	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.01	0.11	0.03	0.00
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	40	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.01	0.11	0.03	0.00
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	40	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.01	0.11	0.03	0.00
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	40	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.06	0.01	0.00
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	40	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.01	0.00	0.00
4	As-needed Quay Wall Revetment Repairs	2026	12.67	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.04	0.01	0.00
4	As-needed Quay Wall Revetment Repairs	2026	12.67	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.04	0.01	0.00
4	As-needed Quay Wall Revetment Repairs	2026	12.67	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.03	0.01	0.00
4	As-needed Quay Wall Revetment Repairs	2026	12.67	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.03	0.01	0.00
4	As-needed Quay Wall Revetment Repairs	2026	12.67	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.03	0.01	0.00
4	As-needed Quay Wall Revetment Repairs	2026	12.67	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.02	0.00	0.00
4	As-needed Quay Wall Revetment Repairs	2026	12.67	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.00	0.00	0.00
4	As-needed Quay Wall Revetment Repairs	2027	12.67	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.04	0.01	0.00
4	As-needed Quay Wall Revetment Repairs	2027	12.67	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.04	0.01	0.00
4	As-needed Quay Wall Revetment Repairs	2027	12.67	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.03	0.01	0.00
4	As-needed Quay Wall Revetment Repairs	2027	12.67	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.03	0.01	0.00
4	As-needed Quay Wall Revetment Repairs	2027	12.67	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.03	0.01	0.00
4	As-needed Quay Wall Revetment Repairs	2027	12.67	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.02	0.00	0.00
4	As-needed Quay Wall Revetment Repairs	2027	12.67	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.00	0.00	0.00
4	As-needed Quay Wall Revetment Repairs	2028	12.67	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.04	0.01	0.00
4	As-needed Quay Wall Revetment Repairs	2028	12.67	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.04	0.01	0.00
4	As-needed Quay Wall Revetment Repairs	2028	12.67	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.03	0.01	0.00
4	As-needed Quay Wall Revetment Repairs	2028	12.67	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.03	0.01	0.00
4	As-needed Quay Wall Revetment Repairs	2028	12.67	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.03	0.01	0.00
4	As-needed Quay Wall Revetment Repairs	2028	12.67	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.02	0.00	0.00
4	As-needed Quay Wall Revetment Repairs	2028	12.67	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.00	0.00	0.00
5	Structural Pile Repair and Replacement	2025	25	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2025	25	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2025	25	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2025	25	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2025	25	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2025	25	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.04	0.01	0.00
5	Structural Pile Repair and Replacement	2025	25	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.00	0.00	0.00
5	Structural Pile Repair and Replacement	2026	25	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2026	25	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2026	25	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2026	25	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2026	25	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2026	25	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.04	0.01	0.00
5	Structural Pile Repair and Replacement	2026	25	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.00	0.00	0.00

MARINE

Phase #	Construction Phase	Year	Emisssions (in tons per year)							Emissions (in MT per year)					for HRA
			PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	CO2	CH4	N2O	CO2e	Fuel Gallons	Diesel PM (tons)
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024		0.00		0.00	19.45	0.01	0.00	17.64	0.01	0.00	18.01	1733	5.15E-03
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024		0.00		0.00	19.45	0.01	0.00	17.64	0.01	0.00	18.01	1733	5.15E-03
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024		0.00		0.00	12.57	0.01	0.00	11.40	0.01	0.00	11.64	1120	3.71E-03
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024		0.00		0.00	12.57	0.01	0.00	11.40	0.01	0.00	11.64	1120	3.71E-03
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024		0.00		0.00	12.57	0.01	0.00	11.40	0.01	0.00	11.64	1120	3.71E-03
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024		0.00		0.00	6.66	0.00	0.00	6.04	0.00	0.00	6.17	297	1.44E-03
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024		0.00		0.00	1.08	0.00	0.00	0.98	0.00	0.00	1.00	96	2.88E-04
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024		0.00		0.00	19.45	0.01	0.00	17.64	0.01	0.00	18.01	1733	5.15E-03
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024		0.00		0.00	19.45	0.01	0.00	17.64	0.01	0.00	18.01	1733	5.15E-03
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024		0.00		0.00	12.57	0.01	0.00	11.40	0.01	0.00	11.64	1120	3.71E-03
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024		0.00		0.00	12.57	0.01	0.00	11.40	0.01	0.00	11.64	1120	3.71E-03
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024		0.00		0.00	12.57	0.01	0.00	11.40	0.01	0.00	11.64	1120	3.71E-03
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024		0.00		0.00	6.66	0.00	0.00	6.04	0.00	0.00	6.17	297	1.44E-03
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024		0.00		0.00	1.08	0.00	0.00	0.98	0.00	0.00	1.00	96	2.88E-04
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025		0.00		0.00	19.45	0.01	0.00	17.64	0.01	0.00	18.01	1733	5.15E-03
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025		0.00		0.00	19.45	0.01	0.00	17.64	0.01	0.00	18.01	1733	5.15E-03
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025		0.00		0.00	12.57	0.01	0.00	11.40	0.01	0.00	11.64	1120	3.71E-03
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025		0.00		0.00	12.57	0.01	0.00	11.40	0.01	0.00	11.64	1120	3.71E-03
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025		0.00		0.00	12.57	0.01	0.00	11.40	0.01	0.00	11.64	1120	3.71E-03
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025		0.00		0.00	6.66	0.00	0.00	6.04	0.00	0.00	6.17	297	1.44E-03
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025		0.00		0.00	1.08	0.00	0.00	0.98	0.00	0.00	1.00	96	2.88E-04
2	Repair Complex Wharf Improvements	2025		0.00		0.00	19.45	0.01	0.00	17.64	0.01	0.00	18.01	1733	5.15E-03
2	Repair Complex Wharf Improvements	2025		0.00		0.00	19.45	0.01	0.00	17.64	0.01	0.00	18.01	1733	5.15E-03
2	Repair Complex Wharf Improvements	2025		0.00		0.00	12.57	0.01	0.00	11.40	0.01	0.00	11.64	1120	3.71E-03
2	Repair Complex Wharf Improvements	2025		0.00		0.00	12.57	0.01	0.00	11.40	0.01	0.00	11.64	1120	3.71E-03
2	Repair Complex Wharf Improvements	2025		0.00		0.00	12.57	0.01	0.00	11.40	0.01	0.00	11.64	1120	3.71E-03
2	Repair Complex Wharf Improvements	2025		0.00		0.00	6.66	0.00	0.00	6.04	0.00	0.00	6.17	297	1.44E-03
2	Repair Complex Wharf Improvements	2025		0.00		0.00	1.08	0.00	0.00	0.98	0.00	0.00	1.00	96	2.88E-04
2	Repair Complex Wharf Improvements	2026		0.00		0.00	19.45	0.01	0.00	17.64	0.01	0.00	18.01	1733	5.15E-03
2	Repair Complex Wharf Improvements	2026		0.00		0.00	19.45	0.01	0.00	17.64	0.01	0.00	18.01	1733	5.15E-03
2	Repair Complex Wharf Improvements	2026		0.00		0.00	12.57	0.01	0.00	11.40	0.01	0.00	11.64	1120	3.71E-03
2	Repair Complex Wharf Improvements	2026		0.00		0.00	12.57	0.01	0.00	11.40	0.01	0.00	11.64	1120	3.71E-03
2	Repair Complex Wharf Improvements	2026		0.00		0.00	12.57	0.01	0.00	11.40	0.01	0.00	11.64	1120	3.71E-03
2	Repair Complex Wharf Improvements	2026		0.00		0.00	6.66	0.00	0.00	6.04	0.00	0.00	6.17	297	1.44E-03
2	Repair Complex Wharf Improvements	2026		0.00		0.00	1.08	0.00	0.00	0.98	0.00	0.00	1.00	96	2.88E-04
3	Quay Wall Revetment Repairs (Berths 2-5)	2025		0.00		0.00	19.45	0.01	0.00	17.64	0.01	0.00	18.01	1733	5.15E-03
3	Quay Wall Revetment Repairs (Berths 2-5)	2025		0.00		0.00	19.45	0.01	0.00	17.64	0.01	0.00	18.01	1733	5.15E-03
3	Quay Wall Revetment Repairs (Berths 2-5)	2025		0.00		0.00	12.57	0.01	0.00	11.40	0.01	0.00	11.64	1120	3.71E-03
3	Quay Wall Revetment Repairs (Berths 2-5)	2025		0.00		0.00	12.57	0.01	0.00	11.40	0.01	0.00	11.64	1120	3.71E-03
3	Quay Wall Revetment Repairs (Berths 2-5)	2025		0.00		0.00	12.57	0.01	0.00	11.40	0.01	0.00	11.64	1120	3.71E-03
3	Quay Wall Revetment Repairs (Berths 2-5)	2025		0.00		0.00	6.66	0.00	0.00	6.04	0.00	0.00	6.17	297	1.44E-03
3	Quay Wall Revetment Repairs (Berths 2-5)	2025		0.00		0.00	1.08	0.00	0.00	0.98	0.00	0.00	1.00	96	2.88E-04
4	As-needed Quay Wall Revetment Repairs	2026		0.00		0.00	6.16	0.00	0.00	5.59	0.00	0.00	5.70	549	1.63E-03
4	As-needed Quay Wall Revetment Repairs	2026		0.00		0.00	6.16	0.00	0.00	5.59	0.00	0.00	5.70	549	1.63E-03
4	As-needed Quay Wall Revetment Repairs	2026		0.00		0.00	3.98	0.00	0.00	3.61	0.00	0.00	3.68	355	1.17E-03
4	As-needed Quay Wall Revetment Repairs	2026		0.00		0.00	3.98	0.00	0.00	3.61	0.00	0.00	3.68	355	1.17E-03
4	As-needed Quay Wall Revetment Repairs	2026		0.00		0.00	3.98	0.00	0.00	3.61	0.00	0.00	3.68	355	1.17E-03
4	As-needed Quay Wall Revetment Repairs	2026		0.00		0.00	2.11	0.00	0.00	1.91	0.00	0.00	1.95	94	4.57E-04
4	As-needed Quay Wall Revetment Repairs	2026		0.00		0.00	0.34	0.00	0.00	0.31	0.00	0.00	0.32	30	9.12E-05
4	As-needed Quay Wall Revetment Repairs	2027		0.00		0.00	6.16	0.00	0.00	5.59	0.00	0.00	5.70	549	1.63E-03
4	As-needed Quay Wall Revetment Repairs	2027		0.00		0.00	6.16	0.00	0.00	5.59	0.00	0.00	5.70	549	1.63E-03
4	As-needed Quay Wall Revetment Repairs	2027		0.00		0.00	3.98	0.00	0.00	3.61	0.00	0.00	3.68	355	1.17E-03
4	As-needed Quay Wall Revetment Repairs	2027		0.00		0.00	3.98	0.00	0.00	3.61	0.00	0.00	3.68	355	1.17E-03
4	As-needed Quay Wall Revetment Repairs	2027		0.00		0.00	3.98	0.00	0.00	3.61	0.00	0.00	3.68	355	1.17E-03
4	As-needed Quay Wall Revetment Repairs	2027		0.00		0.00	2.11	0.00	0.00	1.91	0.00	0.00	1.95	94	4.57E-04
4	As-needed Quay Wall Revetment Repairs	2027		0.00		0.00	0.34	0.00	0.00	0.31	0.00	0.00	0.32	30	9.12E-05
4	As-needed Quay Wall Revetment Repairs	2028		0.00		0.00	6.16	0.00	0.00	5.59	0.00	0.00	5.70	549	1.63E-03
4	As-needed Quay Wall Revetment Repairs	2028		0.00		0.00	6.16	0.00	0.00	5.59	0.00	0.00	5.70	549	1.63E-03
4	As-needed Quay Wall Revetment Repairs	2028		0.00		0.00	3.98	0.00	0.00	3.61	0.00	0.00	3.68	355	1.17E-03
4	As-needed Quay Wall Revetment Repairs	2028		0.00		0.00	3.98	0.00	0.00	3.61	0.00	0.00	3.68	355	1.17E-03
4	As-needed Quay Wall Revetment Repairs	2028		0.00		0.00	3.98	0.00	0.00	3.61	0.00	0.00	3.68	355	1.17E-03
4	As-needed Quay Wall Revetment Repairs	2028		0.00		0.00	2.11	0.00	0.00	1.91	0.00	0.00	1.95	94	4.57E-04
4	As-needed Quay Wall Revetment Repairs	2028		0.00		0.00	0.34	0.00	0.00	0.31	0.00	0.00	0.32	30	9.12E-05
5	Structural Pile Repair and Replacement	2025		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2025		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2025		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2025		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2025		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2025		0.00		0.00	4.16	0.00	0.00	3.78	0.00	0.00	3.86	186	9.03E-04
5	Structural Pile Repair and Replacement	2025		0.00		0.00	0.67	0.00	0.00	0.61	0.00	0.00	0.62	60	1.80E-04
5	Structural Pile Repair and Replacement	2026		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2026		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2026		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2026		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2026		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2026		0.00		0.00	4.16	0.00	0.00	3.78	0.00	0.00	3.86	186	9.03E-04
5	Structural Pile Repair and Replacement	2026		0.00		0.00	0.67	0.00	0.00	0.61	0.00	0.00	0.62	60	1.80E-04

MARINE

40 days per year - differs from other sources

Phase #	Construction Phase	Year	Working days	Equipment	Engine#	Type	HP	Hrs/day	Emissions (in pounds per day)													
									ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	ROG	NOX	CO	PM10 ex
5	Structural Pile Repair and Replacement	2027	25	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2027	25	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2027	25	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2027	25	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2027	25	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2027	25	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.04	0.01	0.00
5	Structural Pile Repair and Replacement	2027	25	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.00	0.00	0.00
5	Structural Pile Repair and Replacement	2028	25	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2028	25	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2028	25	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2028	25	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2028	25	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2028	25	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.04	0.01	0.00
5	Structural Pile Repair and Replacement	2028	25	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.00	0.00	0.00
5	Structural Pile Repair and Replacement	2029	25	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2029	25	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2029	25	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2029	25	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2029	25	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2029	25	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.04	0.01	0.00
5	Structural Pile Repair and Replacement	2029	25	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.00	0.00	0.00
5	Structural Pile Repair and Replacement	2030	25	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2030	25	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2030	25	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2030	25	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2030	25	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2030	25	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.04	0.01	0.00
5	Structural Pile Repair and Replacement	2030	25	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.00	0.00	0.00
5	Structural Pile Repair and Replacement	2031	25	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2031	25	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2031	25	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2031	25	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2031	25	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2031	25	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.04	0.01	0.00
5	Structural Pile Repair and Replacement	2031	25	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.00	0.00	0.00
5	Structural Pile Repair and Replacement	2032	25	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2032	25	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2032	25	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2032	25	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2032	25	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2032	25	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.04	0.01	0.00
5	Structural Pile Repair and Replacement	2032	25	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.00	0.00	0.00
5	Structural Pile Repair and Replacement	2033	25	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2033	25	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2033	25	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2033	25	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2033	25	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2033	25	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.04	0.01	0.00
5	Structural Pile Repair and Replacement	2033	25	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.00	0.00	0.00
5	Structural Pile Repair and Replacement	2034	25	Derrick Barge	1	Aux 1	600	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2034	25	Derrick Barge	1	Aux 2	462	8	0.37	6.75	2.05	0.26		0.25		0.00	972.46	0.61	0.02	0.00	0.08	0.03	0.00
5	Structural Pile Repair and Replacement	2034	25	Derrick Barge	1	Aux 3	211	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2034	25	Spud Barge	1	Aux 1	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2034	25	Spud Barge	1	Aux 2	240	8	0.34	5.46	1.55	0.19		0.18		0.00	628.30	0.40	0.01	0.00	0.07	0.02	0.00
5	Structural Pile Repair and Replacement	2034	25	Tugboat	2	Main	500	1	0.17	3.13	0.58	0.07		0.07		0.00	333.14	0.21	0.01	0.00	0.04	0.01	0.00
5	Structural Pile Repair and Replacement	2034	25	Tugboat	1	Aux	127.2229822	1	0.02	0.39	0.12	0.01		0.01		0.00	53.90	0.03	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2024	2	Tugboat	2	Main	500	2	0.34	6.27	1.16	0.14		0.14		0.00	666.28	0.42	0.01	0.00	0.01	0.00	0.00
6	Mobilization/Demobilization	2024	2	Tugboat	1	Aux	127.2229822	2	0.05	0.79	0.25	0.03		0.03		0.00	107.80	0.07	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2025	2	Tugboat	2	Main	500	2	0.34	6.27	1.16	0.14		0.14		0.00	666.28	0.42	0.01	0.00	0.01	0.00	0.00
6	Mobilization/Demobilization	2025	2	Tugboat	1	Aux	127.2229822	2	0.05	0.79	0.25	0.03		0.03		0.00	107.80	0.07	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2026	2	Tugboat	2	Main	500	2	0.34	6.27	1.16	0.14		0.14		0.00	666.28	0.42	0.01	0.00	0.01	0.00	0.00
6	Mobilization/Demobilization	2026	2	Tugboat	1	Aux	127.2229822	2	0.05	0.79	0.25	0.03		0.03		0.00	107.80	0.07	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2027	2	Tugboat	2	Main	500	2	0.34	6.27	1.16	0.14		0.14		0.00	666.28	0.42	0.01	0.00	0.01	0.00	0.00
6	Mobilization/Demobilization	2027	2	Tugboat	1	Aux	127.2229822	2	0.05	0.79	0.25	0.03		0.03		0.00	107.80	0.07	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2028	2	Tugboat	2	Main	500	2	0.34	6.27	1.16	0.14		0.14		0.00	666.28	0.42	0.01	0.00	0.01	0.00	0.00
6	Mobilization/Demobilization	2028	2	Tugboat	1	Aux	127.2229822	2	0.05	0.79	0.25	0.03		0.03		0.00	107.80	0.07	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2029	2	Tugboat	2	Main	500	2	0.34	6.27	1.16	0.14		0.14		0.00	666.28	0.42	0.01	0.00	0.01	0.00	0.00
6	Mobilization/Demobilization	2029	2	Tugboat	1	Aux	127.2229822	2	0.05	0.79	0.25	0.03		0.03		0.00	107.80	0.07	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2030	2	Tugboat	2	Main	500	2	0.34	6.27	1.16	0.14		0.14		0.00	666.28	0.42	0.01	0.00	0.01	0.00	0.00
6	Mobilization/Demobilization	2030	2	Tugboat	1	Aux	127.2229822	2	0.05	0.79	0.25	0.03		0.03		0.00	107.80	0.07	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2031	2	Tugboat	2	Main	500	2	0.34	6.27	1.16	0.14		0.14		0.00	666.28	0.42	0.01	0.00	0.01	0.00	0.00
6	Mobilization/Demobilization	2031	2	Tugboat	1	Aux	127.2229822	2	0.05	0.79	0.25	0.03		0.03		0.00	107.80	0.07	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2032	2	Tugboat	2	Main	500	2	0.34	6.27	1.16	0.14		0.14		0.00	666.28	0.42	0.01	0.00	0.01	0.00	0.00
6	Mobilization/Demobilization	2032	2	Tugboat	1	Aux	127.2229822	2	0.05	0.79	0.25	0.03		0.03		0.00	107.80	0.07	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2033	2	Tugboat	2	Main	500	2	0.34	6.27	1.16	0.14		0.14		0.00	666.28	0.42	0.01	0.00	0.01	0.00	0.00
6	Mobilization/Demobilization	2033	2	Tugboat	1	Aux	127.2229822	2	0.05	0.79	0.25	0.03		0.03		0.00	107.80	0.07	0.00	0.00	0.00	0.00	0.00
6	Mobilization/Demobilization	2034	2	Tugboat	2	Main	500	2	0.34	6.27	1.16	0.14		0.14		0.00	666.28	0.42	0.01	0.00	0.01	0.00	0.00
6	Mobilization/Demobilization	2034	2	Tugboat	1	Aux	127.2229822	2	0.05	0.79	0.25	0.03		0.03		0.00	107.80	0.07	0.00	0.00	0.00	0.00	0.00

MARINE

Phase #	Construction Phase	Year	Emisssions (in tons per year)							Emissions (in MT per year)				Fuel Gallons	for HRA
			PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	CO2	CH4	N2O	CO2e		Diesel PM (tons)
5	Structural Pile Repair and Replacement	2027		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2027		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2027		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2027		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2027		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2027		0.00		0.00	4.16	0.00	0.00	3.78	0.00	0.00	3.86	186	9.03E-04
5	Structural Pile Repair and Replacement	2027		0.00		0.00	0.67	0.00	0.00	0.61	0.00	0.00	0.62	60	1.80E-04
5	Structural Pile Repair and Replacement	2028		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2028		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2028		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2028		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2028		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2028		0.00		0.00	4.16	0.00	0.00	3.78	0.00	0.00	3.86	186	9.03E-04
5	Structural Pile Repair and Replacement	2028		0.00		0.00	0.67	0.00	0.00	0.61	0.00	0.00	0.62	60	1.80E-04
5	Structural Pile Repair and Replacement	2029		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2029		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2029		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2029		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2029		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2029		0.00		0.00	4.16	0.00	0.00	3.78	0.00	0.00	3.86	186	9.03E-04
5	Structural Pile Repair and Replacement	2029		0.00		0.00	0.67	0.00	0.00	0.61	0.00	0.00	0.62	60	1.80E-04
5	Structural Pile Repair and Replacement	2030		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2030		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2030		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2030		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2030		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2030		0.00		0.00	4.16	0.00	0.00	3.78	0.00	0.00	3.86	186	9.03E-04
5	Structural Pile Repair and Replacement	2030		0.00		0.00	0.67	0.00	0.00	0.61	0.00	0.00	0.62	60	1.80E-04
5	Structural Pile Repair and Replacement	2031		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2031		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2031		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2031		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2031		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2031		0.00		0.00	4.16	0.00	0.00	3.78	0.00	0.00	3.86	186	9.03E-04
5	Structural Pile Repair and Replacement	2031		0.00		0.00	0.67	0.00	0.00	0.61	0.00	0.00	0.62	60	1.80E-04
5	Structural Pile Repair and Replacement	2032		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2032		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2032		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2032		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2032		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2032		0.00		0.00	4.16	0.00	0.00	3.78	0.00	0.00	3.86	186	9.03E-04
5	Structural Pile Repair and Replacement	2032		0.00		0.00	0.67	0.00	0.00	0.61	0.00	0.00	0.62	60	1.80E-04
5	Structural Pile Repair and Replacement	2033		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2033		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2033		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2033		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2033		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2033		0.00		0.00	4.16	0.00	0.00	3.78	0.00	0.00	3.86	186	9.03E-04
5	Structural Pile Repair and Replacement	2033		0.00		0.00	0.67	0.00	0.00	0.61	0.00	0.00	0.62	60	1.80E-04
5	Structural Pile Repair and Replacement	2034		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2034		0.00		0.00	12.16	0.01	0.00	11.03	0.01	0.00	11.26	1083	3.22E-03
5	Structural Pile Repair and Replacement	2034		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2034		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2034		0.00		0.00	7.85	0.00	0.00	7.12	0.00	0.00	7.27	700	2.32E-03
5	Structural Pile Repair and Replacement	2034		0.00		0.00	4.16	0.00	0.00	3.78	0.00	0.00	3.86	186	9.03E-04
5	Structural Pile Repair and Replacement	2034		0.00		0.00	0.67	0.00	0.00	0.61	0.00	0.00	0.62	60	1.80E-04
6	Mobilization/Demobilization	2024		0.00		0.00	0.67	0.00	0.00	0.60	0.00	0.00	0.62	30	1.44E-04
6	Mobilization/Demobilization	2024		0.00		0.00	0.11	0.00	0.00	0.10	0.00	0.00	0.10	10	2.88E-05
6	Mobilization/Demobilization	2025		0.00		0.00	0.67	0.00	0.00	0.60	0.00	0.00	0.62	30	1.44E-04
6	Mobilization/Demobilization	2025		0.00		0.00	0.11	0.00	0.00	0.10	0.00	0.00	0.10	10	2.88E-05
6	Mobilization/Demobilization	2026		0.00		0.00	0.67	0.00	0.00	0.60	0.00	0.00	0.62	30	1.44E-04
6	Mobilization/Demobilization	2026		0.00		0.00	0.11	0.00	0.00	0.10	0.00	0.00	0.10	10	2.88E-05
6	Mobilization/Demobilization	2027		0.00		0.00	0.67	0.00	0.00	0.60	0.00	0.00	0.62	30	1.44E-04
6	Mobilization/Demobilization	2027		0.00		0.00	0.11	0.00	0.00	0.10	0.00	0.00	0.10	10	2.88E-05
6	Mobilization/Demobilization	2028		0.00		0.00	0.67	0.00	0.00	0.60	0.00	0.00	0.62	30	1.44E-04
6	Mobilization/Demobilization	2028		0.00		0.00	0.11	0.00	0.00	0.10	0.00	0.00	0.10	10	2.88E-05
6	Mobilization/Demobilization	2029		0.00		0.00	0.67	0.00	0.00	0.60	0.00	0.00	0.62	30	1.44E-04
6	Mobilization/Demobilization	2029		0.00		0.00	0.11	0.00	0.00	0.10	0.00	0.00	0.10	10	2.88E-05
6	Mobilization/Demobilization	2030		0.00		0.00	0.67	0.00	0.00	0.60	0.00	0.00	0.62	30	1.44E-04
6	Mobilization/Demobilization	2030		0.00		0.00	0.11	0.00	0.00	0.10	0.00	0.00	0.10	10	2.88E-05
6	Mobilization/Demobilization	2031		0.00		0.00	0.67	0.00	0.00	0.60	0.00	0.00	0.62	30	1.44E-04
6	Mobilization/Demobilization	2031		0.00		0.00	0.11	0.00	0.00	0.10	0.00	0.00	0.10	10	2.88E-05
6	Mobilization/Demobilization	2032		0.00		0.00	0.67	0.00	0.00	0.60	0.00	0.00	0.62	30	1.44E-04
6	Mobilization/Demobilization	2032		0.00		0.00	0.11	0.00	0.00	0.10	0.00	0.00	0.10	10	2.88E-05
6	Mobilization/Demobilization	2033		0.00		0.00	0.67	0.00	0.00	0.60	0.00	0.00	0.62	30	1.44E-04
6	Mobilization/Demobilization	2033		0.00		0.00	0.11	0.00	0.00	0.10	0.00	0.00	0.10	10	2.88E-05
6	Mobilization/Demobilization	2034		0.00		0.00	0.67	0.00	0.00	0.60	0.00	0.00	0.62	30	1.44E-04
6	Mobilization/Demobilization	2034		0.00		0.00	0.11	0.00	0.00	0.10	0.00	0.00	0.10	10	2.88E-05

MARINE

40 days per year - differs from other sources

Phase #	Construction Phase	Year	Working days	Equipment	Engine#	Type	HP	Hrs/day	Emissions (in pounds per day)													
									ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	ROG	NOX	CO	PM10 ex
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	40	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.11	0.01	0.29	0.01
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	40	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.11	0.01	0.29	0.01
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	40	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.11	0.01	0.29	0.01
2	Repair Complex Wharf Improvements	2025	40	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.11	0.01	0.29	0.01
2	Repair Complex Wharf Improvements	2026	40	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.11	0.01	0.29	0.01
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	40	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.11	0.01	0.29	0.01
4	As-needed Quay Wall Revetment Repairs	2026	12.67	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.03	0.00	0.09	0.00
4	As-needed Quay Wall Revetment Repairs	2027	12.67	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.03	0.00	0.09	0.00
4	As-needed Quay Wall Revetment Repairs	2028	12.67	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.03	0.00	0.09	0.00
5	Structural Pile Repair and Replacement	2025	25	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.07	0.01	0.18	0.00
5	Structural Pile Repair and Replacement	2026	25	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.07	0.01	0.18	0.00
5	Structural Pile Repair and Replacement	2027	25	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.07	0.01	0.18	0.00
5	Structural Pile Repair and Replacement	2028	25	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.07	0.01	0.18	0.00
5	Structural Pile Repair and Replacement	2029	25	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.07	0.01	0.18	0.00
5	Structural Pile Repair and Replacement	2030	25	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.07	0.01	0.18	0.00
5	Structural Pile Repair and Replacement	2031	25	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.07	0.01	0.18	0.00
5	Structural Pile Repair and Replacement	2032	25	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.07	0.01	0.18	0.00
5	Structural Pile Repair and Replacement	2033	25	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.07	0.01	0.18	0.00
5	Structural Pile Repair and Replacement	2034	25	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.07	0.01	0.18	0.00
6	Mobilization/Demobilization	2024	2	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.01	0.00	0.01	0.00
6	Mobilization/Demobilization	2025	2	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.01	0.00	0.01	0.00
6	Mobilization/Demobilization	2026	2	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.01	0.00	0.01	0.00
6	Mobilization/Demobilization	2027	2	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.01	0.00	0.01	0.00
6	Mobilization/Demobilization	2028	2	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.01	0.00	0.01	0.00
6	Mobilization/Demobilization	2029	2	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.01	0.00	0.01	0.00
6	Mobilization/Demobilization	2030	2	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.01	0.00	0.01	0.00
6	Mobilization/Demobilization	2031	2	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.01	0.00	0.01	0.00
6	Mobilization/Demobilization	2032	2	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.01	0.00	0.01	0.00
6	Mobilization/Demobilization	2033	2	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.01	0.00	0.01	0.00
6	Mobilization/Demobilization	2034	2	Pushboat	1	Main	50	4	5.46	0.57	14.60	0.38		0.29		0.00	64.71	0.03	0.00	0.01	0.00	0.01	0.00

MARINE

Phase #	Construction Phase	Year	Emisssions (in tons per year)							Emissions (in MT per year)				Fuel Gallons	for HRA
			PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	CO2	CH4	N2O	CO2e		Diesel PM (tons)
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024		0.01		0.00	1.29	0.00	0.00	1.17	0.00	0.00	1.19	218	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024		0.01		0.00	1.29	0.00	0.00	1.17	0.00	0.00	1.19	218	0
1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025		0.01		0.00	1.29	0.00	0.00	1.17	0.00	0.00	1.19	218	0
2	Repair Complex Wharf Improvements	2025		0.01		0.00	1.29	0.00	0.00	1.17	0.00	0.00	1.19	218	0
2	Repair Complex Wharf Improvements	2026		0.01		0.00	1.29	0.00	0.00	1.17	0.00	0.00	1.19	218	0
3	Quay Wall Revetment Repairs (Berths 2-5)	2025		0.01		0.00	1.29	0.00	0.00	1.17	0.00	0.00	1.19	218	0
4	As-needed Quay Wall Revetment Repairs	2026		0.00		0.00	0.41	0.00	0.00	0.37	0.00	0.00	0.38	69	0
4	As-needed Quay Wall Revetment Repairs	2027		0.00		0.00	0.41	0.00	0.00	0.37	0.00	0.00	0.38	69	0
4	As-needed Quay Wall Revetment Repairs	2028		0.00		0.00	0.41	0.00	0.00	0.37	0.00	0.00	0.38	69	0
5	Structural Pile Repair and Replacement	2025		0.00		0.00	0.81	0.00	0.00	0.73	0.00	0.00	0.74	136	0
5	Structural Pile Repair and Replacement	2026		0.00		0.00	0.81	0.00	0.00	0.73	0.00	0.00	0.74	136	0
5	Structural Pile Repair and Replacement	2027		0.00		0.00	0.81	0.00	0.00	0.73	0.00	0.00	0.74	136	0
5	Structural Pile Repair and Replacement	2028		0.00		0.00	0.81	0.00	0.00	0.73	0.00	0.00	0.74	136	0
5	Structural Pile Repair and Replacement	2029		0.00		0.00	0.81	0.00	0.00	0.73	0.00	0.00	0.74	136	0
5	Structural Pile Repair and Replacement	2030		0.00		0.00	0.81	0.00	0.00	0.73	0.00	0.00	0.74	136	0
5	Structural Pile Repair and Replacement	2031		0.00		0.00	0.81	0.00	0.00	0.73	0.00	0.00	0.74	136	0
5	Structural Pile Repair and Replacement	2032		0.00		0.00	0.81	0.00	0.00	0.73	0.00	0.00	0.74	136	0
5	Structural Pile Repair and Replacement	2033		0.00		0.00	0.81	0.00	0.00	0.73	0.00	0.00	0.74	136	0
5	Structural Pile Repair and Replacement	2034		0.00		0.00	0.81	0.00	0.00	0.73	0.00	0.00	0.74	136	0
6	Mobilization/Demobilization	2024		0.00		0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06	11	0
6	Mobilization/Demobilization	2025		0.00		0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06	11	0
6	Mobilization/Demobilization	2026		0.00		0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06	11	0
6	Mobilization/Demobilization	2027		0.00		0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06	11	0
6	Mobilization/Demobilization	2028		0.00		0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06	11	0
6	Mobilization/Demobilization	2029		0.00		0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06	11	0
6	Mobilization/Demobilization	2030		0.00		0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06	11	0
6	Mobilization/Demobilization	2031		0.00		0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06	11	0
6	Mobilization/Demobilization	2032		0.00		0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06	11	0
6	Mobilization/Demobilization	2033		0.00		0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06	11	0
6	Mobilization/Demobilization	2034		0.00		0.00	0.06	0.00	0.00	0.06	0.00	0.00	0.06	11	0

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Aerial Lifts	2024	0	25	1.014	0.838	6.398	4.045	0.012	0.248	0.228	848.447	0.034	0.007
Aerial Lifts	2024	25	50	0.189	0.158	2.886	3.111	0.005	0.022	0.020	586.903	0.024	0.005
Aerial Lifts	2024	50	75	0.131	0.110	1.642	3.167	0.005	0.037	0.034	527.849	0.021	0.004
Aerial Lifts	2024	75	100	0.111	0.093	1.438	3.176	0.005	0.019	0.017	527.988	0.021	0.004
Aerial Lifts	2024	100	175	0.103	0.086	0.572	2.857	0.005	0.024	0.022	527.719	0.021	0.004
Aerial Lifts	2024	175	300	0.096	0.081	0.684	0.968	0.005	0.009	0.009	527.713	0.021	0.004
Aerial Lifts	2024	300	600	0.078	0.065	0.263	0.958	0.005	0.009	0.008	527.713	0.021	0.004
Aerial Lifts	2025	0	25	1.013	0.837	6.391	4.044	0.012	0.246	0.226	848.507	0.034	0.007
Aerial Lifts	2025	25	50	0.183	0.154	2.877	3.086	0.005	0.021	0.019	586.900	0.024	0.005
Aerial Lifts	2025	50	75	0.116	0.098	1.532	3.145	0.005	0.028	0.026	527.864	0.021	0.004
Aerial Lifts	2025	75	100	0.120	0.101	1.471	3.205	0.005	0.022	0.020	528.027	0.021	0.004
Aerial Lifts	2025	100	175	0.101	0.085	0.571	2.845	0.005	0.024	0.022	527.719	0.021	0.004
Aerial Lifts	2025	175	300	0.100	0.084	0.687	0.974	0.005	0.009	0.009	527.713	0.021	0.004
Aerial Lifts	2025	300	600	0.081	0.068	0.264	0.963	0.005	0.009	0.009	527.713	0.021	0.004
Aerial Lifts	2026	0	25	1.012	0.837	6.384	4.043	0.012	0.245	0.225	848.422	0.034	0.007
Aerial Lifts	2026	25	50	0.181	0.152	2.874	3.075	0.005	0.021	0.019	586.900	0.024	0.005
Aerial Lifts	2026	50	75	0.122	0.103	1.553	3.162	0.005	0.031	0.028	527.871	0.021	0.004
Aerial Lifts	2026	75	100	0.106	0.089	1.415	3.161	0.005	0.016	0.015	527.893	0.021	0.004
Aerial Lifts	2026	100	175	0.099	0.084	0.571	2.837	0.005	0.024	0.022	527.719	0.021	0.004
Aerial Lifts	2026	175	300	0.104	0.088	0.689	0.979	0.005	0.009	0.009	527.713	0.021	0.004
Aerial Lifts	2026	300	600	0.084	0.071	0.265	0.968	0.005	0.009	0.009	527.713	0.021	0.004
Aerial Lifts	2027	0	25	1.012	0.837	6.381	4.044	0.012	0.244	0.224	848.575	0.034	0.007
Aerial Lifts	2027	25	50	0.180	0.151	2.870	3.070	0.005	0.020	0.019	586.901	0.024	0.005
Aerial Lifts	2027	50	75	0.127	0.106	1.548	3.181	0.005	0.030	0.028	527.867	0.021	0.004
Aerial Lifts	2027	75	100	0.098	0.083	1.409	3.128	0.005	0.017	0.015	527.884	0.021	0.004
Aerial Lifts	2027	100	175	0.100	0.084	0.572	2.841	0.005	0.024	0.022	527.719	0.021	0.004
Aerial Lifts	2027	175	300	0.108	0.091	0.691	0.985	0.005	0.010	0.009	527.713	0.021	0.004
Aerial Lifts	2027	300	600	0.087	0.073	0.266	0.973	0.005	0.009	0.009	527.713	0.021	0.004
Aerial Lifts	2028	0	25	1.012	0.836	6.378	4.043	0.012	0.243	0.224	848.471	0.034	0.007
Aerial Lifts	2028	25	50	0.180	0.151	2.871	3.075	0.005	0.020	0.018	586.903	0.024	0.005
Aerial Lifts	2028	50	75	0.130	0.109	1.545	3.198	0.005	0.031	0.029	527.851	0.021	0.004
Aerial Lifts	2028	75	100	0.094	0.079	1.406	3.112	0.005	0.015	0.014	527.892	0.021	0.004
Aerial Lifts	2028	100	175	0.095	0.080	0.541	2.819	0.005	0.024	0.022	527.719	0.021	0.004
Aerial Lifts	2028	175	300	0.112	0.094	0.694	0.991	0.005	0.010	0.009	527.713	0.021	0.004
Aerial Lifts	2028	300	600	0.090	0.076	0.267	0.977	0.005	0.010	0.009	527.713	0.021	0.004
Aerial Lifts	2029	0	25	1.012	0.836	6.376	4.043	0.012	0.242	0.223	848.376	0.034	0.007
Aerial Lifts	2029	25	50	0.179	0.151	2.863	3.071	0.005	0.020	0.018	586.898	0.024	0.005
Aerial Lifts	2029	50	75	0.142	0.120	1.618	3.207	0.005	0.040	0.037	527.892	0.021	0.004
Aerial Lifts	2029	75	100	0.098	0.082	1.395	3.140	0.005	0.014	0.012	527.896	0.021	0.004
Aerial Lifts	2029	100	175	0.107	0.090	0.595	2.839	0.005	0.030	0.028	527.721	0.021	0.004
Aerial Lifts	2029	175	300	0.116	0.098	0.696	0.997	0.005	0.010	0.009	527.713	0.021	0.004
Aerial Lifts	2029	300	600	0.094	0.079	0.268	0.982	0.005	0.010	0.009	527.713	0.021	0.004
Aerial Lifts	2030	0	25	1.012	0.836	6.376	4.043	0.012	0.242	0.223	848.458	0.034	0.007
Aerial Lifts	2030	25	50	0.177	0.149	2.860	3.068	0.005	0.019	0.017	586.898	0.024	0.005
Aerial Lifts	2030	50	75	0.142	0.119	1.614	3.206	0.005	0.038	0.035	527.892	0.021	0.004
Aerial Lifts	2030	75	100	0.097	0.082	1.382	3.140	0.005	0.013	0.012	527.896	0.021	0.004
Aerial Lifts	2030	100	175	0.099	0.083	0.573	2.837	0.005	0.026	0.024	527.721	0.021	0.004
Aerial Lifts	2030	175	300	0.096	0.081	0.269	0.997	0.005	0.010	0.009	527.713	0.021	0.004
Aerial Lifts	2030	300	600	0.094	0.079	0.268	0.982	0.005	0.010	0.009	527.713	0.021	0.004
Aerial Lifts	2031	0	25	1.012	0.836	6.377	4.044	0.012	0.242	0.223	848.588	0.034	0.007
Aerial Lifts	2031	25	50	0.176	0.148	2.855	3.067	0.005	0.018	0.017	586.898	0.024	0.005
Aerial Lifts	2031	50	75	0.141	0.118	1.584	3.206	0.005	0.037	0.034	527.892	0.021	0.004
Aerial Lifts	2031	75	100	0.096	0.080	1.376	3.139	0.005	0.013	0.012	527.896	0.021	0.004
Aerial Lifts	2031	100	175	0.096	0.081	0.548	2.836	0.005	0.025	0.023	527.721	0.021	0.004
Aerial Lifts	2031	175	300	0.096	0.081	0.269	0.997	0.005	0.010	0.009	527.713	0.021	0.004
Aerial Lifts	2031	300	600	0.094	0.079	0.268	0.982	0.005	0.010	0.009	527.713	0.021	0.004
Aerial Lifts	2032	0	25	1.012	0.836	6.375	4.043	0.012	0.242	0.222	848.394	0.034	0.007
Aerial Lifts	2032	25	50	0.173	0.145	2.853	3.064	0.005	0.017	0.016	586.898	0.024	0.005
Aerial Lifts	2032	50	75	0.139	0.117	1.565	3.206	0.005	0.036	0.033	527.892	0.021	0.004
Aerial Lifts	2032	75	100	0.095	0.080	1.375	3.139	0.005	0.012	0.011	527.896	0.021	0.004
Aerial Lifts	2032	100	175	0.094	0.079	0.536	2.836	0.005	0.024	0.022	527.721	0.021	0.004
Aerial Lifts	2032	175	300	0.096	0.081	0.269	0.997	0.005	0.010	0.009	527.713	0.021	0.004
Aerial Lifts	2032	300	600	0.094	0.079	0.268	0.982	0.005	0.010	0.009	527.713	0.021	0.004
Aerial Lifts	2033	0	25	1.012	0.836	6.375	4.043	0.012	0.242	0.222	848.336	0.034	0.007
Aerial Lifts	2033	25	50	0.171	0.144	2.852	3.062	0.005	0.017	0.016	586.898	0.024	0.005
Aerial Lifts	2033	50	75	0.130	0.110	1.538	3.202	0.005	0.031	0.028	527.892	0.021	0.004
Aerial Lifts	2033	75	100	0.095	0.080	1.369	3.139	0.005	0.012	0.011	527.896	0.021	0.004
Aerial Lifts	2033	100	175	0.094	0.079	0.536	2.836	0.005	0.024	0.022	527.721	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Aerial Lifts	2033	175	300	0.096	0.081	0.269	0.997	0.005	0.010	0.009	527.713	0.021	0.004
Aerial Lifts	2033	300	600	0.094	0.079	0.268	0.982	0.005	0.010	0.009	527.713	0.021	0.004
Aerial Lifts	2034	0	25	1.012	0.836	6.376	4.043	0.012	0.242	0.222	848.437	0.034	0.007
Aerial Lifts	2034	25	50	0.166	0.139	2.847	3.057	0.005	0.016	0.014	586.898	0.024	0.005
Aerial Lifts	2034	50	75	0.123	0.103	1.517	3.198	0.005	0.026	0.024	527.892	0.021	0.004
Aerial Lifts	2034	75	100	0.095	0.080	1.369	3.139	0.005	0.012	0.011	527.896	0.021	0.004
Aerial Lifts	2034	100	175	0.092	0.078	0.509	2.834	0.005	0.023	0.021	527.721	0.021	0.004
Aerial Lifts	2034	175	300	0.096	0.081	0.269	0.997	0.005	0.010	0.009	527.713	0.021	0.004
Aerial Lifts	2034	300	600	0.094	0.079	0.268	0.982	0.005	0.010	0.009	527.713	0.021	0.004
Air Compressors	2024	0	25	0.715	0.591	4.417	2.622	0.008	0.183	0.169	569.937	0.023	0.005
Air Compressors	2024	25	50	0.703	0.581	3.865	4.881	0.007	0.136	0.125	568.361	0.023	0.005
Air Compressors	2025	0	25	0.706	0.584	4.392	2.608	0.008	0.179	0.165	569.768	0.023	0.005
Air Compressors	2025	25	50	0.659	0.545	3.756	4.852	0.007	0.117	0.107	568.363	0.023	0.005
Air Compressors	2026	0	25	0.699	0.578	4.370	2.596	0.008	0.176	0.162	569.493	0.023	0.005
Air Compressors	2026	25	50	0.620	0.512	3.646	4.822	0.007	0.099	0.091	568.287	0.023	0.005
Air Compressors	2027	0	25	0.694	0.573	4.355	2.589	0.008	0.173	0.159	569.699	0.023	0.005
Air Compressors	2027	25	50	0.584	0.482	3.538	4.790	0.007	0.081	0.075	568.322	0.023	0.005
Air Compressors	2028	0	25	0.689	0.570	4.341	2.582	0.008	0.170	0.157	569.672	0.023	0.005
Air Compressors	2028	25	50	0.553	0.457	3.440	4.760	0.007	0.065	0.060	568.340	0.023	0.005
Air Compressors	2029	0	25	0.686	0.567	4.328	2.577	0.008	0.168	0.155	569.538	0.023	0.005
Air Compressors	2029	25	50	0.527	0.436	3.380	4.734	0.007	0.055	0.050	568.309	0.023	0.005
Air Compressors	2030	0	25	0.684	0.565	4.320	2.574	0.008	0.167	0.153	569.588	0.023	0.005
Air Compressors	2030	25	50	0.507	0.419	3.340	4.713	0.007	0.047	0.043	568.322	0.023	0.005
Air Compressors	2031	0	25	0.683	0.564	4.313	2.573	0.008	0.165	0.152	569.416	0.023	0.005
Air Compressors	2031	25	50	0.491	0.406	3.307	4.697	0.007	0.040	0.037	568.343	0.023	0.005
Air Compressors	2032	0	25	0.683	0.564	4.309	2.573	0.008	0.164	0.151	569.407	0.023	0.005
Air Compressors	2032	25	50	0.479	0.396	3.278	4.685	0.007	0.035	0.032	568.283	0.023	0.005
Air Compressors	2033	0	25	0.683	0.564	4.307	2.574	0.008	0.164	0.151	569.580	0.023	0.005
Air Compressors	2033	25	50	0.471	0.389	3.253	4.680	0.007	0.030	0.028	568.338	0.023	0.005
Air Compressors	2034	0	25	0.683	0.564	4.307	2.575	0.008	0.163	0.150	569.799	0.023	0.005
Air Compressors	2034	25	50	0.466	0.385	3.233	4.678	0.007	0.026	0.024	568.397	0.023	0.005
Bore/Drill Rigs	2024	0	25	1.020	0.843	6.437	3.804	0.011	0.242	0.223	851.027	0.035	0.007
Bore/Drill Rigs	2024	25	50	0.732	0.615	4.201	4.375	0.006	0.221	0.204	598.652	0.024	0.005
Bore/Drill Rigs	2024	50	75	0.265	0.222	3.304	3.296	0.005	0.160	0.147	518.484	0.021	0.004
Bore/Drill Rigs	2024	75	100	0.197	0.165	1.952	3.277	0.005	0.072	0.067	521.434	0.021	0.004
Bore/Drill Rigs	2024	100	175	0.150	0.126	1.041	2.960	0.005	0.048	0.044	532.059	0.022	0.004
Bore/Drill Rigs	2024	175	300	0.138	0.116	1.118	1.058	0.005	0.036	0.033	524.922	0.021	0.004
Bore/Drill Rigs	2024	300	600	0.118	0.099	0.769	0.982	0.005	0.028	0.025	522.319	0.021	0.004
Bore/Drill Rigs	2024	600	750	0.093	0.078	0.560	0.967	0.005	0.022	0.020	532.561	0.022	0.004
Bore/Drill Rigs	2024	750	999	0.201	0.169	3.854	0.991	0.005	0.089	0.082	526.939	0.021	0.004
Bore/Drill Rigs	2025	0	25	1.020	0.843	6.436	3.804	0.011	0.242	0.223	850.855	0.035	0.007
Bore/Drill Rigs	2025	25	50	0.708	0.595	4.004	4.301	0.006	0.194	0.179	599.970	0.024	0.005
Bore/Drill Rigs	2025	50	75	0.357	0.300	4.671	3.327	0.005	0.255	0.235	497.786	0.020	0.004
Bore/Drill Rigs	2025	75	100	0.169	0.142	1.745	3.249	0.005	0.051	0.047	522.567	0.021	0.004
Bore/Drill Rigs	2025	100	175	0.137	0.115	0.900	2.952	0.005	0.040	0.037	530.619	0.022	0.004
Bore/Drill Rigs	2025	175	300	0.135	0.113	1.055	1.055	0.005	0.035	0.032	525.609	0.021	0.004
Bore/Drill Rigs	2025	300	600	0.122	0.102	0.825	0.983	0.005	0.030	0.027	521.059	0.021	0.004
Bore/Drill Rigs	2025	600	750	0.084	0.071	0.417	0.959	0.005	0.016	0.014	530.305	0.022	0.004
Bore/Drill Rigs	2025	750	999	0.205	0.172	3.862	0.994	0.005	0.089	0.082	526.939	0.021	0.004
Bore/Drill Rigs	2026	0	25	1.020	0.843	6.436	3.804	0.011	0.242	0.223	850.895	0.035	0.007
Bore/Drill Rigs	2026	25	50	0.714	0.600	4.008	4.367	0.006	0.190	0.175	604.536	0.025	0.005
Bore/Drill Rigs	2026	50	75	0.367	0.309	4.753	3.379	0.005	0.260	0.239	504.170	0.020	0.004
Bore/Drill Rigs	2026	75	100	0.153	0.128	1.639	3.253	0.005	0.040	0.037	525.082	0.021	0.004
Bore/Drill Rigs	2026	100	175	0.139	0.117	0.888	2.954	0.005	0.040	0.037	529.787	0.021	0.004
Bore/Drill Rigs	2026	175	300	0.139	0.116	1.073	1.061	0.005	0.035	0.032	525.411	0.021	0.004
Bore/Drill Rigs	2026	300	600	0.118	0.099	0.764	0.982	0.005	0.027	0.025	521.126	0.021	0.004
Bore/Drill Rigs	2026	600	750	0.085	0.072	0.417	0.964	0.005	0.016	0.014	531.707	0.022	0.004
Bore/Drill Rigs	2026	750	999	0.208	0.175	3.869	0.998	0.005	0.090	0.083	526.939	0.021	0.004
Bore/Drill Rigs	2027	0	25	1.020	0.843	6.435	3.803	0.011	0.242	0.223	850.656	0.035	0.007
Bore/Drill Rigs	2027	25	50	0.702	0.590	3.852	4.308	0.006	0.175	0.161	600.075	0.024	0.005
Bore/Drill Rigs	2027	50	75	0.165	0.139	2.270	3.209	0.005	0.076	0.070	526.729	0.021	0.004
Bore/Drill Rigs	2027	75	100	0.153	0.129	1.589	3.273	0.005	0.035	0.033	523.974	0.021	0.004
Bore/Drill Rigs	2027	100	175	0.141	0.118	0.859	2.963	0.005	0.041	0.037	530.503	0.022	0.004
Bore/Drill Rigs	2027	175	300	0.136	0.115	1.028	1.060	0.005	0.034	0.032	525.419	0.021	0.004
Bore/Drill Rigs	2027	300	600	0.116	0.098	0.727	0.981	0.005	0.026	0.024	520.885	0.021	0.004
Bore/Drill Rigs	2027	600	750	0.090	0.076	0.424	0.970	0.005	0.016	0.015	531.234	0.022	0.004
Bore/Drill Rigs	2027	750	999	0.211	0.177	3.876	1.001	0.005	0.090	0.083	526.939	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Bore/Drill Rigs	2028	0	25	1.021	0.844	6.440	3.806	0.011	0.243	0.223	851.416	0.035	0.007
Bore/Drill Rigs	2028	25	50	0.644	0.541	3.750	4.249	0.005	0.156	0.143	595.096	0.024	0.005
Bore/Drill Rigs	2028	50	75	0.196	0.164	2.145	3.237	0.005	0.074	0.068	525.102	0.021	0.004
Bore/Drill Rigs	2028	75	100	0.157	0.132	1.597	3.288	0.005	0.035	0.033	523.638	0.021	0.004
Bore/Drill Rigs	2028	100	175	0.141	0.118	0.854	2.966	0.005	0.040	0.037	529.528	0.021	0.004
Bore/Drill Rigs	2028	175	300	0.134	0.112	1.008	1.051	0.005	0.033	0.030	524.552	0.021	0.004
Bore/Drill Rigs	2028	300	600	0.119	0.100	0.741	0.984	0.005	0.027	0.025	521.095	0.021	0.004
Bore/Drill Rigs	2028	600	750	0.094	0.079	0.428	0.975	0.005	0.016	0.015	530.970	0.022	0.004
Bore/Drill Rigs	2028	750	999	0.211	0.177	3.876	1.000	0.005	0.091	0.083	526.939	0.021	0.004
Bore/Drill Rigs	2029	0	25	1.019	0.842	6.431	3.801	0.011	0.242	0.223	850.193	0.034	0.007
Bore/Drill Rigs	2029	25	50	0.688	0.578	3.774	4.319	0.005	0.163	0.150	596.182	0.024	0.005
Bore/Drill Rigs	2029	50	75	0.154	0.129	1.958	3.188	0.005	0.057	0.052	519.600	0.021	0.004
Bore/Drill Rigs	2029	75	100	0.157	0.132	1.580	3.283	0.005	0.034	0.032	523.327	0.021	0.004
Bore/Drill Rigs	2029	100	175	0.137	0.115	0.808	2.954	0.005	0.038	0.035	529.237	0.021	0.004
Bore/Drill Rigs	2029	175	300	0.132	0.111	0.974	1.054	0.005	0.032	0.029	525.142	0.021	0.004
Bore/Drill Rigs	2029	300	600	0.115	0.097	0.703	0.983	0.005	0.026	0.024	522.251	0.021	0.004
Bore/Drill Rigs	2029	600	750	0.097	0.081	0.429	0.979	0.005	0.016	0.015	531.254	0.022	0.004
Bore/Drill Rigs	2029	750	999	0.213	0.179	3.880	1.002	0.005	0.091	0.084	526.939	0.021	0.004
Bore/Drill Rigs	2030	0	25	1.020	0.843	6.433	3.802	0.011	0.242	0.223	850.491	0.034	0.007
Bore/Drill Rigs	2030	25	50	0.633	0.532	3.729	4.254	0.005	0.147	0.135	596.182	0.024	0.005
Bore/Drill Rigs	2030	50	75	0.143	0.120	1.731	3.183	0.005	0.050	0.046	519.600	0.021	0.004
Bore/Drill Rigs	2030	75	100	0.156	0.131	1.576	3.283	0.005	0.033	0.030	523.327	0.021	0.004
Bore/Drill Rigs	2030	100	175	0.135	0.113	0.760	2.954	0.005	0.038	0.035	529.237	0.021	0.004
Bore/Drill Rigs	2030	175	300	0.126	0.106	0.881	1.041	0.005	0.029	0.027	525.275	0.021	0.004
Bore/Drill Rigs	2030	300	600	0.115	0.097	0.685	0.983	0.005	0.026	0.024	522.172	0.021	0.004
Bore/Drill Rigs	2030	600	750	0.096	0.081	0.415	0.979	0.005	0.016	0.015	531.254	0.022	0.004
Bore/Drill Rigs	2030	750	999	0.203	0.171	3.708	1.002	0.005	0.090	0.083	526.939	0.021	0.004
Bore/Drill Rigs	2031	0	25	1.019	0.843	6.432	3.801	0.011	0.242	0.223	850.355	0.034	0.007
Bore/Drill Rigs	2031	25	50	0.580	0.487	3.683	4.206	0.006	0.132	0.121	596.723	0.024	0.005
Bore/Drill Rigs	2031	50	75	0.163	0.137	1.737	3.218	0.005	0.055	0.051	521.591	0.021	0.004
Bore/Drill Rigs	2031	75	100	0.150	0.126	1.541	3.280	0.005	0.029	0.027	523.327	0.021	0.004
Bore/Drill Rigs	2031	100	175	0.132	0.111	0.726	2.949	0.005	0.036	0.033	529.237	0.021	0.004
Bore/Drill Rigs	2031	175	300	0.126	0.106	0.875	1.041	0.005	0.030	0.028	525.142	0.021	0.004
Bore/Drill Rigs	2031	300	600	0.113	0.095	0.635	0.983	0.005	0.024	0.022	522.251	0.021	0.004
Bore/Drill Rigs	2031	600	750	0.096	0.081	0.415	0.979	0.005	0.016	0.015	531.254	0.022	0.004
Bore/Drill Rigs	2031	750	999	0.203	0.171	2.363	1.002	0.005	0.052	0.048	526.939	0.021	0.004
Bore/Drill Rigs	2032	0	25	1.020	0.843	6.435	3.803	0.011	0.242	0.223	850.675	0.035	0.007
Bore/Drill Rigs	2032	25	50	0.577	0.485	3.670	4.189	0.005	0.132	0.122	596.182	0.024	0.005
Bore/Drill Rigs	2032	50	75	0.140	0.118	1.660	3.182	0.005	0.048	0.044	519.600	0.021	0.004
Bore/Drill Rigs	2032	75	100	0.145	0.122	1.517	3.278	0.005	0.025	0.023	523.327	0.021	0.004
Bore/Drill Rigs	2032	100	175	0.128	0.108	0.695	2.949	0.005	0.034	0.031	529.237	0.021	0.004
Bore/Drill Rigs	2032	175	300	0.124	0.104	0.836	1.037	0.005	0.029	0.027	525.142	0.021	0.004
Bore/Drill Rigs	2032	300	600	0.112	0.094	0.618	0.983	0.005	0.023	0.021	522.251	0.021	0.004
Bore/Drill Rigs	2032	600	750	0.092	0.077	0.341	0.979	0.005	0.010	0.009	531.254	0.022	0.004
Bore/Drill Rigs	2032	750	999	0.203	0.171	2.363	1.002	0.005	0.052	0.048	526.939	0.021	0.004
Bore/Drill Rigs	2033	0	25	1.019	0.842	6.431	3.801	0.011	0.242	0.223	850.221	0.034	0.007
Bore/Drill Rigs	2033	25	50	0.546	0.459	3.654	4.153	0.006	0.122	0.112	596.182	0.024	0.005
Bore/Drill Rigs	2033	50	75	0.140	0.118	1.650	3.182	0.005	0.050	0.046	519.600	0.021	0.004
Bore/Drill Rigs	2033	75	100	0.143	0.120	1.507	3.277	0.005	0.024	0.022	523.327	0.021	0.004
Bore/Drill Rigs	2033	100	175	0.123	0.104	0.659	2.948	0.005	0.030	0.028	529.237	0.021	0.004
Bore/Drill Rigs	2033	175	300	0.119	0.100	0.755	1.025	0.005	0.026	0.024	525.142	0.021	0.004
Bore/Drill Rigs	2033	300	600	0.108	0.091	0.549	0.983	0.005	0.018	0.017	522.251	0.021	0.004
Bore/Drill Rigs	2033	600	750	0.092	0.077	0.341	0.979	0.005	0.010	0.009	531.254	0.022	0.004
Bore/Drill Rigs	2033	750	999	0.203	0.171	2.363	1.002	0.005	0.052	0.048	526.939	0.021	0.004
Bore/Drill Rigs	2034	0	25	1.019	0.842	6.429	3.799	0.011	0.242	0.223	849.929	0.034	0.007
Bore/Drill Rigs	2034	25	50	0.511	0.430	3.577	4.107	0.006	0.110	0.101	596.182	0.024	0.005
Bore/Drill Rigs	2034	50	75	0.134	0.113	1.604	3.180	0.005	0.035	0.032	519.600	0.021	0.004
Bore/Drill Rigs	2034	75	100	0.142	0.119	1.500	3.277	0.005	0.023	0.021	523.327	0.021	0.004
Bore/Drill Rigs	2034	100	175	0.121	0.101	0.633	2.947	0.005	0.028	0.025	529.237	0.021	0.004
Bore/Drill Rigs	2034	175	300	0.117	0.099	0.724	1.025	0.005	0.025	0.023	525.142	0.021	0.004
Bore/Drill Rigs	2034	300	600	0.105	0.088	0.488	0.983	0.005	0.014	0.013	522.251	0.021	0.004
Bore/Drill Rigs	2034	600	750	0.092	0.077	0.341	0.979	0.005	0.010	0.009	531.254	0.022	0.004
Bore/Drill Rigs	2034	750	999	0.203	0.171	2.363	1.002	0.005	0.052	0.048	526.939	0.021	0.004
Cement and Mortar Mix	2024	0	25	0.670	0.554	4.202	3.257	0.009	0.164	0.151	570.167	0.023	0.005
Cement and Mortar Mix	2025	0	25	0.669	0.553	4.200	3.255	0.009	0.164	0.151	570.175	0.023	0.005
Cement and Mortar Mix	2026	0	25	0.669	0.553	4.198	3.255	0.009	0.163	0.150	570.163	0.023	0.005
Cement and Mortar Mix	2027	0	25	0.669	0.553	4.198	3.255	0.009	0.163	0.150	570.320	0.023	0.005

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Cement and Mortar Mix	2028	0	25	0.669	0.553	4.197	3.256	0.009	0.163	0.150	570.333	0.023	0.005
Cement and Mortar Mix	2029	0	25	0.669	0.553	4.196	3.255	0.009	0.163	0.150	570.219	0.023	0.005
Cement and Mortar Mix	2030	0	25	0.669	0.553	4.195	3.255	0.009	0.163	0.150	570.183	0.023	0.005
Cement and Mortar Mix	2031	0	25	0.669	0.553	4.195	3.255	0.009	0.163	0.150	570.198	0.023	0.005
Cement and Mortar Mix	2032	0	25	0.668	0.552	4.194	3.254	0.009	0.162	0.149	570.106	0.023	0.005
Cement and Mortar Mix	2033	0	25	0.668	0.552	4.194	3.254	0.009	0.162	0.149	570.131	0.023	0.005
Cement and Mortar Mix	2034	0	25	0.669	0.553	4.195	3.255	0.009	0.162	0.149	570.201	0.023	0.005
Concrete/Industrial Saw	2024	0	25	0.717	0.593	4.531	2.447	0.008	0.169	0.156	594.363	0.024	0.005
Concrete/Industrial Saw	2024	25	50	0.569	0.470	3.744	4.381	0.007	0.117	0.108	574.905	0.023	0.005
Concrete/Industrial Saw	2025	0	25	0.719	0.595	4.546	2.456	0.008	0.170	0.156	596.388	0.024	0.005
Concrete/Industrial Saw	2025	25	50	0.532	0.439	3.635	4.348	0.007	0.101	0.093	575.013	0.023	0.005
Concrete/Industrial Saw	2026	0	25	0.717	0.593	4.532	2.448	0.008	0.169	0.156	594.535	0.024	0.005
Concrete/Industrial Saw	2026	25	50	0.499	0.413	3.526	4.315	0.007	0.085	0.078	574.357	0.023	0.005
Concrete/Industrial Saw	2027	0	25	0.714	0.590	4.509	2.435	0.008	0.168	0.155	591.493	0.024	0.005
Concrete/Industrial Saw	2027	25	50	0.472	0.390	3.430	4.291	0.007	0.071	0.065	574.332	0.023	0.005
Concrete/Industrial Saw	2028	0	25	0.711	0.587	4.491	2.426	0.007	0.168	0.154	589.166	0.024	0.005
Concrete/Industrial Saw	2028	25	50	0.448	0.370	3.344	4.271	0.007	0.058	0.053	574.375	0.023	0.005
Concrete/Industrial Saw	2029	0	25	0.708	0.585	4.474	2.417	0.007	0.167	0.154	586.916	0.024	0.005
Concrete/Industrial Saw	2029	25	50	0.429	0.355	3.293	4.257	0.007	0.049	0.045	574.485	0.023	0.005
Concrete/Industrial Saw	2030	0	25	0.710	0.587	4.485	2.422	0.007	0.168	0.154	588.267	0.024	0.005
Concrete/Industrial Saw	2030	25	50	0.414	0.342	3.255	4.241	0.007	0.042	0.039	574.000	0.023	0.005
Concrete/Industrial Saw	2031	0	25	0.711	0.587	4.490	2.425	0.007	0.168	0.154	589.005	0.024	0.005
Concrete/Industrial Saw	2031	25	50	0.402	0.332	3.221	4.227	0.007	0.036	0.033	573.268	0.023	0.005
Concrete/Industrial Saw	2032	0	25	0.708	0.585	4.474	2.416	0.007	0.167	0.154	586.839	0.024	0.005
Concrete/Industrial Saw	2032	25	50	0.393	0.325	3.197	4.224	0.007	0.031	0.029	573.771	0.023	0.005
Concrete/Industrial Saw	2033	0	25	0.706	0.584	4.462	2.410	0.007	0.167	0.153	585.302	0.024	0.005
Concrete/Industrial Saw	2033	25	50	0.386	0.319	3.175	4.221	0.007	0.027	0.025	573.945	0.023	0.005
Concrete/Industrial Saw	2034	0	25	0.708	0.585	4.472	2.415	0.007	0.167	0.154	586.602	0.024	0.005
Concrete/Industrial Saw	2034	25	50	0.382	0.315	3.154	4.216	0.007	0.024	0.022	573.677	0.023	0.005
Cranes	2024	0	25	1.470	1.235	4.864	5.722	0.005	0.382	0.351	586.607	0.024	0.005
Cranes	2024	25	50	2.411	2.026	5.983	7.537	0.005	0.603	0.555	592.536	0.024	0.005
Cranes	2024	50	75	1.584	1.331	9.967	4.582	0.005	0.938	0.863	531.141	0.022	0.004
Cranes	2024	75	100	0.569	0.478	4.283	3.851	0.005	0.269	0.247	526.264	0.021	0.004
Cranes	2024	100	175	0.469	0.394	3.790	3.399	0.005	0.205	0.188	528.401	0.021	0.004
Cranes	2024	175	300	0.350	0.294	3.150	1.684	0.005	0.131	0.121	527.567	0.021	0.004
Cranes	2024	300	600	0.250	0.210	2.131	1.680	0.005	0.086	0.079	527.532	0.021	0.004
Cranes	2024	600	750	0.460	0.387	3.917	2.885	0.005	0.194	0.178	527.321	0.021	0.004
Cranes	2024	750	999	0.683	0.574	6.840	4.895	0.005	0.303	0.279	527.566	0.021	0.004
Cranes	2025	0	25	1.509	1.268	4.898	5.859	0.005	0.389	0.358	586.607	0.024	0.005
Cranes	2025	25	50	2.245	1.886	5.810	7.309	0.005	0.565	0.520	592.060	0.024	0.005
Cranes	2025	50	75	1.636	1.375	9.722	4.696	0.005	0.981	0.903	525.413	0.021	0.004
Cranes	2025	75	100	0.456	0.383	3.564	3.727	0.005	0.206	0.190	526.436	0.021	0.004
Cranes	2025	100	175	0.424	0.356	3.321	3.362	0.005	0.181	0.166	528.683	0.021	0.004
Cranes	2025	175	300	0.322	0.270	2.772	1.537	0.005	0.118	0.108	527.564	0.021	0.004
Cranes	2025	300	600	0.239	0.201	1.950	1.663	0.005	0.079	0.073	527.585	0.021	0.004
Cranes	2025	600	750	0.452	0.380	3.764	2.675	0.005	0.187	0.172	527.208	0.021	0.004
Cranes	2025	750	999	0.579	0.487	6.034	4.087	0.005	0.251	0.231	527.447	0.021	0.004
Cranes	2026	0	25	1.548	1.301	4.933	5.994	0.005	0.396	0.364	586.607	0.024	0.005
Cranes	2026	25	50	1.747	1.468	5.170	6.409	0.005	0.440	0.405	589.414	0.024	0.005
Cranes	2026	50	75	1.643	1.381	9.744	4.710	0.005	0.988	0.909	525.501	0.021	0.004
Cranes	2026	75	100	0.428	0.360	3.353	3.706	0.005	0.188	0.173	526.523	0.021	0.004
Cranes	2026	100	175	0.385	0.323	2.937	3.329	0.005	0.158	0.146	528.820	0.021	0.004
Cranes	2026	175	300	0.297	0.250	2.511	1.484	0.005	0.104	0.096	527.563	0.021	0.004
Cranes	2026	300	600	0.235	0.198	1.837	1.637	0.005	0.075	0.069	527.461	0.021	0.004
Cranes	2026	600	750	0.477	0.400	4.284	2.686	0.005	0.196	0.180	527.258	0.021	0.004
Cranes	2026	750	999	0.478	0.402	5.250	3.301	0.005	0.201	0.185	527.133	0.021	0.004
Cranes	2027	0	25	1.587	1.334	4.967	6.129	0.005	0.403	0.370	586.607	0.024	0.005
Cranes	2027	25	50	1.273	1.070	4.674	5.648	0.005	0.330	0.304	587.468	0.024	0.005
Cranes	2027	50	75	1.651	1.388	9.683	4.728	0.005	0.996	0.917	525.346	0.021	0.004
Cranes	2027	75	100	0.401	0.337	3.190	3.700	0.005	0.165	0.152	527.003	0.021	0.004
Cranes	2027	100	175	0.358	0.301	2.680	3.311	0.005	0.143	0.131	528.803	0.021	0.004
Cranes	2027	175	300	0.278	0.234	2.251	1.446	0.005	0.094	0.086	527.560	0.021	0.004
Cranes	2027	300	600	0.232	0.195	1.748	1.629	0.005	0.072	0.066	527.455	0.021	0.004
Cranes	2027	600	750	0.323	0.271	2.535	2.233	0.005	0.126	0.116	527.099	0.021	0.004
Cranes	2027	750	999	0.488	0.410	5.298	3.339	0.005	0.204	0.187	527.522	0.021	0.004
Cranes	2028	0	25	1.616	1.358	4.996	6.242	0.005	0.407	0.375	586.607	0.024	0.005

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Cranes	2028	25	50	1.295	1.088	4.705	5.757	0.005	0.334	0.307	587.606	0.024	0.005
Cranes	2028	50	75	1.655	1.391	9.683	4.735	0.005	1.000	0.920	525.358	0.021	0.004
Cranes	2028	75	100	0.389	0.327	3.070	3.702	0.005	0.156	0.143	527.416	0.021	0.004
Cranes	2028	100	175	0.348	0.292	2.554	3.315	0.005	0.135	0.124	528.690	0.021	0.004
Cranes	2028	175	300	0.269	0.226	2.103	1.416	0.005	0.088	0.081	527.543	0.021	0.004
Cranes	2028	300	600	0.223	0.187	1.601	1.628	0.005	0.066	0.061	527.754	0.021	0.004
Cranes	2028	600	750	0.333	0.280	2.558	1.836	0.005	0.127	0.117	527.440	0.021	0.004
Cranes	2028	750	999	0.480	0.403	5.321	3.360	0.005	0.202	0.186	527.094	0.021	0.004
Cranes	2029	0	25	1.627	1.367	5.016	6.314	0.005	0.409	0.376	586.607	0.024	0.005
Cranes	2029	25	50	1.165	0.979	4.575	5.560	0.005	0.304	0.280	587.686	0.024	0.005
Cranes	2029	50	75	1.658	1.393	9.695	4.743	0.005	1.003	0.922	525.599	0.021	0.004
Cranes	2029	75	100	0.392	0.329	3.023	3.718	0.005	0.159	0.146	527.548	0.021	0.004
Cranes	2029	100	175	0.343	0.288	2.474	3.332	0.005	0.129	0.118	528.595	0.021	0.004
Cranes	2029	175	300	0.267	0.225	2.039	1.411	0.005	0.086	0.079	527.578	0.021	0.004
Cranes	2029	300	600	0.216	0.182	1.484	1.606	0.005	0.062	0.057	527.611	0.021	0.004
Cranes	2029	600	750	0.330	0.277	2.554	2.551	0.005	0.127	0.117	527.646	0.021	0.004
Cranes	2029	750	999	0.358	0.300	4.340	2.557	0.005	0.143	0.132	527.217	0.021	0.004
Cranes	2030	0	25	1.627	1.367	5.016	6.314	0.005	0.409	0.376	586.607	0.024	0.005
Cranes	2030	25	50	1.058	0.889	4.524	5.423	0.005	0.281	0.258	587.686	0.024	0.005
Cranes	2030	50	75	1.549	1.301	9.409	4.690	0.005	0.933	0.859	525.599	0.021	0.004
Cranes	2030	75	100	0.388	0.326	2.975	3.712	0.005	0.150	0.138	527.548	0.021	0.004
Cranes	2030	100	175	0.324	0.273	2.272	3.322	0.005	0.122	0.113	528.595	0.021	0.004
Cranes	2030	175	300	0.255	0.215	1.888	1.343	0.005	0.080	0.074	527.578	0.021	0.004
Cranes	2030	300	600	0.211	0.178	1.430	1.604	0.005	0.061	0.056	527.611	0.021	0.004
Cranes	2030	600	750	0.313	0.263	2.491	2.551	0.005	0.120	0.110	527.646	0.021	0.004
Cranes	2030	750	999	0.317	0.266	4.191	2.557	0.005	0.126	0.115	527.217	0.021	0.004
Cranes	2031	0	25	1.627	1.367	4.336	6.314	0.005	0.343	0.315	586.607	0.024	0.005
Cranes	2031	25	50	1.019	0.856	4.517	5.385	0.005	0.265	0.244	587.686	0.024	0.005
Cranes	2031	50	75	1.512	1.270	9.314	4.671	0.005	0.910	0.837	525.599	0.021	0.004
Cranes	2031	75	100	0.375	0.315	2.817	3.695	0.005	0.144	0.132	527.548	0.021	0.004
Cranes	2031	100	175	0.313	0.263	2.144	3.314	0.005	0.118	0.108	528.595	0.021	0.004
Cranes	2031	175	300	0.249	0.209	1.784	1.335	0.005	0.077	0.071	527.578	0.021	0.004
Cranes	2031	300	600	0.207	0.174	1.347	1.588	0.005	0.059	0.054	527.611	0.021	0.004
Cranes	2031	600	750	0.302	0.254	2.367	2.551	0.005	0.107	0.099	527.646	0.021	0.004
Cranes	2031	750	999	0.306	0.257	4.058	2.557	0.005	0.119	0.109	527.217	0.021	0.004
Cranes	2032	0	25	0.936	0.787	4.143	5.646	0.005	0.250	0.230	586.607	0.024	0.005
Cranes	2032	25	50	1.007	0.846	4.443	5.373	0.005	0.253	0.232	587.686	0.024	0.005
Cranes	2032	50	75	1.493	1.255	9.266	4.661	0.005	0.899	0.827	525.599	0.021	0.004
Cranes	2032	75	100	0.373	0.313	2.777	3.695	0.005	0.141	0.130	527.548	0.021	0.004
Cranes	2032	100	175	0.300	0.252	2.011	3.306	0.005	0.110	0.102	528.595	0.021	0.004
Cranes	2032	175	300	0.242	0.203	1.680	1.323	0.005	0.072	0.066	527.578	0.021	0.004
Cranes	2032	300	600	0.199	0.168	1.257	1.558	0.005	0.053	0.049	527.611	0.021	0.004
Cranes	2032	600	750	0.294	0.247	2.305	2.551	0.005	0.101	0.093	527.646	0.021	0.004
Cranes	2032	750	999	0.288	0.242	3.929	2.557	0.005	0.105	0.097	527.217	0.021	0.004
Cranes	2033	0	25	0.706	0.594	4.106	5.424	0.005	0.220	0.203	586.607	0.024	0.005
Cranes	2033	25	50	0.994	0.835	4.195	5.361	0.005	0.217	0.200	587.686	0.024	0.005
Cranes	2033	50	75	1.493	1.255	9.266	4.661	0.005	0.899	0.827	525.599	0.021	0.004
Cranes	2033	75	100	0.358	0.301	2.684	3.679	0.005	0.129	0.119	527.548	0.021	0.004
Cranes	2033	100	175	0.293	0.246	1.946	3.301	0.005	0.105	0.097	528.595	0.021	0.004
Cranes	2033	175	300	0.235	0.197	1.587	1.313	0.005	0.068	0.062	527.578	0.021	0.004
Cranes	2033	300	600	0.194	0.163	1.183	1.556	0.005	0.047	0.043	527.611	0.021	0.004
Cranes	2033	600	750	0.294	0.247	2.305	2.551	0.005	0.101	0.093	527.646	0.021	0.004
Cranes	2033	750	999	0.288	0.242	3.929	2.557	0.005	0.105	0.097	527.217	0.021	0.004
Cranes	2034	0	25	0.593	0.498	4.089	5.309	0.005	0.205	0.188	586.607	0.024	0.005
Cranes	2034	25	50	0.919	0.772	4.046	5.241	0.005	0.195	0.179	587.686	0.024	0.005
Cranes	2034	50	75	1.189	0.999	8.141	4.515	0.005	0.698	0.643	525.599	0.021	0.004
Cranes	2034	75	100	0.355	0.298	2.655	3.678	0.005	0.125	0.115	527.548	0.021	0.004
Cranes	2034	100	175	0.282	0.237	1.862	3.297	0.005	0.098	0.090	528.595	0.021	0.004
Cranes	2034	175	300	0.228	0.192	1.499	1.294	0.005	0.064	0.059	527.578	0.021	0.004
Cranes	2034	300	600	0.189	0.159	1.130	1.552	0.005	0.044	0.041	527.611	0.021	0.004
Cranes	2034	600	750	0.285	0.240	2.182	2.551	0.005	0.101	0.093	527.646	0.021	0.004
Cranes	2034	750	999	0.287	0.241	3.840	2.557	0.005	0.103	0.095	527.217	0.021	0.004
Crawler Tractors	2024	25	50	2.115	1.777	5.035	6.765	0.005	0.472	0.434	583.519	0.024	0.005
Crawler Tractors	2024	50	75	2.318	1.948	15.424	6.314	0.005	1.131	1.040	527.171	0.021	0.004
Crawler Tractors	2024	75	100	0.595	0.500	4.305	3.807	0.005	0.328	0.301	528.713	0.021	0.004
Crawler Tractors	2024	100	175	0.389	0.327	3.049	3.228	0.005	0.171	0.157	527.599	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Crawler Tractors	2024	175	300	0.366	0.308	3.391	1.820	0.005	0.140	0.129	527.475	0.021	0.004
Crawler Tractors	2024	300	600	0.236	0.199	1.935	1.463	0.005	0.076	0.070	527.935	0.021	0.004
Crawler Tractors	2024	600	750	0.534	0.449	5.569	2.736	0.005	0.202	0.186	524.584	0.021	0.004
Crawler Tractors	2024	750	999	0.342	0.287	5.126	1.502	0.005	0.128	0.118	531.504	0.022	0.004
Crawler Tractors	2025	25	50	2.095	1.761	4.984	6.752	0.005	0.461	0.424	582.954	0.024	0.005
Crawler Tractors	2025	50	75	2.321	1.950	15.444	6.322	0.005	1.132	1.042	527.857	0.021	0.004
Crawler Tractors	2025	75	100	0.528	0.443	3.876	3.747	0.005	0.279	0.256	528.471	0.021	0.004
Crawler Tractors	2025	100	175	0.356	0.299	2.697	3.211	0.005	0.151	0.139	527.479	0.021	0.004
Crawler Tractors	2025	175	300	0.330	0.277	2.934	1.749	0.005	0.122	0.113	527.288	0.021	0.004
Crawler Tractors	2025	300	600	0.215	0.180	1.630	1.417	0.005	0.065	0.060	528.093	0.021	0.004
Crawler Tractors	2025	600	750	0.488	0.410	5.326	1.929	0.005	0.178	0.164	524.386	0.021	0.004
Crawler Tractors	2025	750	999	0.265	0.223	4.257	1.396	0.005	0.095	0.088	533.878	0.022	0.004
Crawler Tractors	2026	25	50	1.939	1.629	4.805	6.521	0.005	0.418	0.384	584.823	0.024	0.005
Crawler Tractors	2026	50	75	0.848	0.712	6.262	4.545	0.005	0.458	0.421	544.396	0.022	0.004
Crawler Tractors	2026	75	100	0.492	0.414	3.631	3.725	0.005	0.251	0.231	528.629	0.021	0.004
Crawler Tractors	2026	100	175	0.331	0.278	2.442	3.207	0.005	0.136	0.125	527.281	0.021	0.004
Crawler Tractors	2026	175	300	0.316	0.265	2.724	1.707	0.005	0.115	0.105	527.271	0.021	0.004
Crawler Tractors	2026	300	600	0.207	0.174	1.487	1.412	0.005	0.060	0.055	528.096	0.021	0.004
Crawler Tractors	2026	600	750	0.306	0.257	2.994	1.597	0.005	0.100	0.092	524.705	0.021	0.004
Crawler Tractors	2026	750	999	0.269	0.226	4.261	1.404	0.005	0.096	0.088	534.142	0.022	0.004
Crawler Tractors	2027	25	50	1.876	1.577	4.717	6.414	0.005	0.398	0.366	585.693	0.024	0.005
Crawler Tractors	2027	50	75	1.083	0.910	7.701	4.838	0.005	0.564	0.519	541.522	0.022	0.004
Crawler Tractors	2027	75	100	0.443	0.372	3.310	3.690	0.005	0.215	0.198	529.009	0.021	0.004
Crawler Tractors	2027	100	175	0.308	0.259	2.194	3.205	0.005	0.121	0.111	526.909	0.021	0.004
Crawler Tractors	2027	175	300	0.266	0.224	2.189	1.397	0.005	0.089	0.082	527.027	0.021	0.004
Crawler Tractors	2027	300	600	0.211	0.178	1.467	1.476	0.005	0.060	0.055	528.139	0.021	0.004
Crawler Tractors	2027	600	750	0.342	0.287	3.619	1.807	0.005	0.134	0.123	527.515	0.021	0.004
Crawler Tractors	2027	750	999	0.240	0.201	3.857	1.397	0.005	0.081	0.075	534.444	0.022	0.004
Crawler Tractors	2028	25	50	1.748	1.469	4.583	6.255	0.005	0.366	0.337	584.591	0.024	0.005
Crawler Tractors	2028	50	75	1.155	0.971	8.062	4.821	0.005	0.614	0.565	539.998	0.022	0.004
Crawler Tractors	2028	75	100	0.405	0.340	3.059	3.669	0.005	0.186	0.171	528.574	0.021	0.004
Crawler Tractors	2028	100	175	0.292	0.245	2.013	3.207	0.005	0.111	0.102	526.884	0.021	0.004
Crawler Tractors	2028	175	300	0.261	0.219	2.050	1.404	0.005	0.085	0.078	527.365	0.021	0.004
Crawler Tractors	2028	300	600	0.202	0.170	1.334	1.457	0.005	0.055	0.050	528.225	0.021	0.004
Crawler Tractors	2028	600	750	0.353	0.297	3.696	1.830	0.005	0.137	0.126	526.000	0.021	0.004
Crawler Tractors	2028	750	999	0.231	0.194	3.740	1.364	0.005	0.076	0.070	534.732	0.022	0.004
Crawler Tractors	2029	25	50	1.599	1.344	4.430	6.031	0.005	0.329	0.303	583.759	0.024	0.005
Crawler Tractors	2029	50	75	1.022	0.858	7.183	4.654	0.005	0.556	0.511	542.952	0.022	0.004
Crawler Tractors	2029	75	100	0.385	0.324	2.919	3.670	0.005	0.168	0.154	528.992	0.021	0.004
Crawler Tractors	2029	100	175	0.282	0.237	1.868	3.214	0.005	0.105	0.096	526.938	0.021	0.004
Crawler Tractors	2029	175	300	0.249	0.210	1.858	1.392	0.005	0.078	0.072	527.287	0.021	0.004
Crawler Tractors	2029	300	600	0.199	0.168	1.258	1.448	0.005	0.052	0.048	528.108	0.021	0.004
Crawler Tractors	2029	600	750	0.325	0.273	3.296	1.733	0.005	0.123	0.113	526.670	0.021	0.004
Crawler Tractors	2029	750	999	0.232	0.195	3.734	1.369	0.005	0.076	0.070	535.359	0.022	0.004
Crawler Tractors	2030	25	50	1.581	1.329	4.413	6.014	0.005	0.321	0.296	583.759	0.024	0.005
Crawler Tractors	2030	50	75	1.022	0.858	7.183	4.654	0.005	0.556	0.511	542.952	0.022	0.004
Crawler Tractors	2030	75	100	0.365	0.306	2.812	3.657	0.005	0.155	0.143	528.992	0.021	0.004
Crawler Tractors	2030	100	175	0.269	0.226	1.758	3.210	0.005	0.099	0.091	526.938	0.021	0.004
Crawler Tractors	2030	175	300	0.240	0.202	1.719	1.381	0.005	0.074	0.068	527.287	0.021	0.004
Crawler Tractors	2030	300	600	0.194	0.163	1.182	1.428	0.005	0.050	0.046	528.108	0.021	0.004
Crawler Tractors	2030	600	750	0.321	0.270	3.193	1.733	0.005	0.120	0.111	526.670	0.021	0.004
Crawler Tractors	2030	750	999	0.228	0.191	3.593	1.369	0.005	0.073	0.067	535.359	0.022	0.004
Crawler Tractors	2031	25	50	1.577	1.325	4.399	6.011	0.005	0.320	0.294	583.759	0.024	0.005
Crawler Tractors	2031	50	75	1.022	0.858	7.183	4.654	0.005	0.565	0.520	542.952	0.022	0.004
Crawler Tractors	2031	75	100	0.354	0.297	2.720	3.646	0.005	0.148	0.136	528.992	0.021	0.004
Crawler Tractors	2031	100	175	0.257	0.216	1.646	3.202	0.005	0.092	0.085	526.938	0.021	0.004
Crawler Tractors	2031	175	300	0.236	0.198	1.636	1.375	0.005	0.072	0.066	527.287	0.021	0.004
Crawler Tractors	2031	300	600	0.191	0.161	1.113	1.397	0.005	0.048	0.045	528.108	0.021	0.004
Crawler Tractors	2031	600	750	0.318	0.267	3.101	1.733	0.005	0.120	0.110	526.670	0.021	0.004
Crawler Tractors	2031	750	999	0.216	0.181	3.446	1.315	0.005	0.068	0.063	535.359	0.022	0.004
Crawler Tractors	2032	25	50	1.543	1.297	4.380	5.978	0.005	0.314	0.289	583.759	0.024	0.005
Crawler Tractors	2032	50	75	1.002	0.842	6.940	4.654	0.005	0.471	0.434	542.952	0.022	0.004
Crawler Tractors	2032	75	100	0.342	0.287	2.587	3.639	0.005	0.141	0.129	528.992	0.021	0.004
Crawler Tractors	2032	100	175	0.249	0.210	1.559	3.200	0.005	0.087	0.080	526.938	0.021	0.004
Crawler Tractors	2032	175	300	0.230	0.193	1.525	1.368	0.005	0.067	0.062	527.287	0.021	0.004
Crawler Tractors	2032	300	600	0.187	0.157	1.060	1.373	0.005	0.045	0.042	528.108	0.021	0.004
Crawler Tractors	2032	600	750	0.318	0.267	3.101	1.733	0.005	0.120	0.110	526.670	0.021	0.004
Crawler Tractors	2032	750	999	0.215	0.181	3.415	1.315	0.005	0.068	0.063	535.359	0.022	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Crawler Tractors	2033	25	50	1.533	1.288	4.357	5.968	0.005	0.311	0.286	583.759	0.024	0.005
Crawler Tractors	2033	50	75	1.002	0.842	6.940	4.654	0.005	0.471	0.434	542.952	0.022	0.004
Crawler Tractors	2033	75	100	0.330	0.277	2.492	3.632	0.005	0.131	0.120	528.992	0.021	0.004
Crawler Tractors	2033	100	175	0.241	0.202	1.478	3.197	0.005	0.082	0.076	526.938	0.021	0.004
Crawler Tractors	2033	175	300	0.224	0.188	1.455	1.355	0.005	0.063	0.058	527.287	0.021	0.004
Crawler Tractors	2033	300	600	0.184	0.155	1.015	1.357	0.005	0.043	0.039	528.108	0.021	0.004
Crawler Tractors	2033	600	750	0.317	0.267	2.704	1.733	0.005	0.120	0.110	526.670	0.021	0.004
Crawler Tractors	2033	750	999	0.206	0.173	3.345	1.261	0.005	0.065	0.060	535.359	0.022	0.004
Crawler Tractors	2034	25	50	1.520	1.277	4.348	5.949	0.005	0.308	0.283	583.759	0.024	0.005
Crawler Tractors	2034	50	75	0.988	0.830	6.839	4.619	0.005	0.417	0.383	542.952	0.022	0.004
Crawler Tractors	2034	75	100	0.319	0.268	2.427	3.627	0.005	0.123	0.113	528.992	0.021	0.004
Crawler Tractors	2034	100	175	0.231	0.194	1.402	3.193	0.005	0.076	0.070	526.938	0.021	0.004
Crawler Tractors	2034	175	300	0.218	0.183	1.384	1.351	0.005	0.059	0.054	527.287	0.021	0.004
Crawler Tractors	2034	300	600	0.180	0.151	0.961	1.342	0.005	0.039	0.036	528.108	0.021	0.004
Crawler Tractors	2034	600	750	0.259	0.218	2.353	1.503	0.005	0.090	0.083	526.670	0.021	0.004
Crawler Tractors	2034	750	999	0.202	0.169	3.264	1.261	0.005	0.063	0.058	535.359	0.022	0.004
Dumpers/Tenders	2024	0	25	0.691	0.571	4.368	2.359	0.007	0.163	0.150	573.018	0.023	0.005
Dumpers/Tenders	2025	0	25	0.691	0.571	4.367	2.359	0.007	0.163	0.150	572.880	0.023	0.005
Dumpers/Tenders	2026	0	25	0.690	0.570	4.358	2.354	0.007	0.163	0.150	571.605	0.023	0.005
Dumpers/Tenders	2027	0	25	0.690	0.570	4.361	2.355	0.007	0.163	0.150	572.007	0.023	0.005
Dumpers/Tenders	2028	0	25	0.690	0.571	4.362	2.356	0.007	0.163	0.150	572.228	0.023	0.005
Dumpers/Tenders	2029	0	25	0.690	0.570	4.358	2.354	0.007	0.163	0.150	571.601	0.023	0.005
Dumpers/Tenders	2030	0	25	0.690	0.571	4.362	2.356	0.007	0.163	0.150	572.239	0.023	0.005
Dumpers/Tenders	2031	0	25	0.690	0.570	4.360	2.355	0.007	0.163	0.150	571.956	0.023	0.005
Dumpers/Tenders	2032	0	25	0.690	0.570	4.358	2.354	0.007	0.163	0.150	571.680	0.023	0.005
Dumpers/Tenders	2033	0	25	0.690	0.571	4.363	2.356	0.007	0.163	0.150	572.294	0.023	0.005
Dumpers/Tenders	2034	0	25	0.690	0.570	4.359	2.354	0.007	0.163	0.150	571.782	0.023	0.005
Excavators	2024	0	25	1.065	0.881	6.483	3.580	0.011	0.251	0.231	845.871	0.034	0.007
Excavators	2024	25	50	0.494	0.415	3.501	4.197	0.005	0.119	0.110	587.317	0.024	0.005
Excavators	2024	50	75	0.840	0.706	6.389	4.102	0.005	0.559	0.514	527.683	0.021	0.004
Excavators	2024	75	100	0.247	0.207	2.170	3.455	0.005	0.094	0.086	525.352	0.021	0.004
Excavators	2024	100	175	0.205	0.172	1.338	3.084	0.005	0.066	0.061	527.999	0.021	0.004
Excavators	2024	175	300	0.168	0.141	1.138	1.110	0.005	0.037	0.034	528.451	0.021	0.004
Excavators	2024	300	600	0.144	0.121	0.825	1.046	0.005	0.028	0.026	527.003	0.021	0.004
Excavators	2024	600	750	0.233	0.195	2.047	1.567	0.005	0.081	0.075	530.825	0.022	0.004
Excavators	2024	750	999	0.096	0.081	2.359	0.992	0.005	0.021	0.020	533.664	0.022	0.004
Excavators	2025	0	25	1.066	0.882	6.484	3.582	0.011	0.251	0.231	845.980	0.034	0.007
Excavators	2025	25	50	0.478	0.402	3.446	4.211	0.005	0.107	0.098	587.138	0.024	0.005
Excavators	2025	50	75	0.267	0.224	2.514	3.342	0.005	0.139	0.128	527.223	0.021	0.004
Excavators	2025	75	100	0.235	0.197	2.045	3.460	0.005	0.081	0.074	524.872	0.021	0.004
Excavators	2025	100	175	0.189	0.159	1.164	3.078	0.005	0.057	0.053	528.086	0.021	0.004
Excavators	2025	175	300	0.158	0.133	0.987	1.099	0.005	0.033	0.030	528.274	0.021	0.004
Excavators	2025	300	600	0.137	0.115	0.714	1.043	0.005	0.025	0.023	526.988	0.021	0.004
Excavators	2025	600	750	0.260	0.218	2.427	1.510	0.005	0.089	0.082	530.428	0.022	0.004
Excavators	2025	750	999	0.094	0.079	2.360	0.992	0.005	0.021	0.020	534.921	0.022	0.004
Excavators	2026	0	25	1.067	0.883	6.484	3.584	0.011	0.251	0.231	845.883	0.034	0.007
Excavators	2026	25	50	0.468	0.393	3.407	4.221	0.005	0.099	0.091	587.029	0.024	0.005
Excavators	2026	50	75	0.866	0.727	5.350	4.195	0.005	0.554	0.509	533.887	0.022	0.004
Excavators	2026	75	100	0.217	0.182	1.930	3.447	0.005	0.066	0.061	525.128	0.021	0.004
Excavators	2026	100	175	0.175	0.147	1.010	3.071	0.005	0.049	0.045	527.886	0.021	0.004
Excavators	2026	175	300	0.155	0.130	0.918	1.099	0.005	0.031	0.029	528.178	0.021	0.004
Excavators	2026	300	600	0.136	0.114	0.681	1.045	0.005	0.024	0.022	527.153	0.021	0.004
Excavators	2026	600	750	0.195	0.164	1.421	1.287	0.005	0.050	0.046	530.733	0.022	0.004
Excavators	2026	750	999	0.101	0.085	2.375	1.001	0.005	0.022	0.020	534.915	0.022	0.004
Excavators	2027	0	25	1.068	0.884	6.485	3.587	0.011	0.252	0.231	845.880	0.034	0.007
Excavators	2027	25	50	0.450	0.378	3.367	4.216	0.005	0.089	0.082	587.394	0.024	0.005
Excavators	2027	50	75	0.823	0.691	5.184	4.211	0.005	0.523	0.481	538.243	0.022	0.004
Excavators	2027	75	100	0.206	0.173	1.844	3.445	0.005	0.057	0.052	525.122	0.021	0.004
Excavators	2027	100	175	0.169	0.142	0.924	3.078	0.005	0.045	0.041	528.003	0.021	0.004
Excavators	2027	175	300	0.150	0.126	0.829	1.098	0.005	0.028	0.026	528.164	0.021	0.004
Excavators	2027	300	600	0.133	0.112	0.620	1.041	0.005	0.022	0.020	527.012	0.021	0.004
Excavators	2027	600	750	0.201	0.169	1.427	1.296	0.005	0.051	0.047	530.615	0.022	0.004
Excavators	2027	750	999	0.109	0.091	2.393	1.013	0.005	0.022	0.020	534.832	0.022	0.004
Excavators	2028	0	25	1.069	0.885	6.484	3.589	0.011	0.252	0.232	845.602	0.034	0.007
Excavators	2028	25	50	0.436	0.366	3.339	4.222	0.005	0.081	0.075	587.541	0.024	0.005
Excavators	2028	50	75	0.897	0.754	5.454	4.206	0.005	0.570	0.525	529.773	0.021	0.004
Excavators	2028	75	100	0.198	0.166	1.761	3.448	0.005	0.048	0.044	525.155	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Excavators	2028	100	175	0.163	0.137	0.837	3.087	0.005	0.040	0.037	528.134	0.021	0.004
Excavators	2028	175	300	0.148	0.124	0.759	1.099	0.005	0.027	0.025	528.129	0.021	0.004
Excavators	2028	300	600	0.130	0.110	0.579	1.040	0.005	0.021	0.019	527.040	0.021	0.004
Excavators	2028	600	750	0.221	0.186	1.681	1.353	0.005	0.060	0.055	528.785	0.021	0.004
Excavators	2028	750	999	0.109	0.091	2.392	1.013	0.005	0.022	0.020	534.724	0.022	0.004
Excavators	2029	0	25	1.043	0.862	6.476	3.534	0.011	0.246	0.226	847.414	0.034	0.007
Excavators	2029	25	50	0.425	0.357	3.312	4.225	0.005	0.074	0.068	588.066	0.024	0.005
Excavators	2029	50	75	1.593	1.339	8.554	4.589	0.005	1.021	0.940	527.007	0.021	0.004
Excavators	2029	75	100	0.193	0.162	1.704	3.447	0.005	0.043	0.039	524.860	0.021	0.004
Excavators	2029	100	175	0.161	0.135	0.790	3.094	0.005	0.038	0.035	528.144	0.021	0.004
Excavators	2029	175	300	0.147	0.124	0.729	1.102	0.005	0.026	0.024	528.080	0.021	0.004
Excavators	2029	300	600	0.129	0.108	0.549	1.041	0.005	0.020	0.018	527.304	0.021	0.004
Excavators	2029	600	750	0.233	0.196	1.786	1.386	0.005	0.064	0.059	531.157	0.022	0.004
Excavators	2029	750	999	0.093	0.078	2.329	0.979	0.005	0.021	0.019	528.437	0.021	0.004
Excavators	2030	0	25	1.043	0.862	6.476	3.534	0.011	0.246	0.226	847.402	0.034	0.007
Excavators	2030	25	50	0.390	0.328	3.297	4.190	0.005	0.066	0.061	588.066	0.024	0.005
Excavators	2030	50	75	1.593	1.339	8.554	4.589	0.005	1.021	0.940	527.007	0.021	0.004
Excavators	2030	75	100	0.187	0.157	1.663	3.444	0.005	0.038	0.035	524.860	0.021	0.004
Excavators	2030	100	175	0.157	0.132	0.733	3.092	0.005	0.036	0.033	528.144	0.021	0.004
Excavators	2030	175	300	0.144	0.121	0.680	1.099	0.005	0.025	0.023	528.080	0.021	0.004
Excavators	2030	300	600	0.127	0.107	0.516	1.039	0.005	0.019	0.018	527.304	0.021	0.004
Excavators	2030	600	750	0.220	0.185	1.399	1.342	0.005	0.056	0.051	531.157	0.022	0.004
Excavators	2030	750	999	0.093	0.078	2.329	0.979	0.005	0.021	0.019	528.437	0.021	0.004
Excavators	2031	0	25	1.043	0.862	6.477	3.535	0.011	0.246	0.226	847.502	0.034	0.007
Excavators	2031	25	50	0.366	0.308	3.283	4.166	0.005	0.058	0.053	588.066	0.024	0.005
Excavators	2031	50	75	1.530	1.286	8.390	4.558	0.005	0.981	0.903	527.007	0.021	0.004
Excavators	2031	75	100	0.183	0.154	1.624	3.443	0.005	0.034	0.032	524.860	0.021	0.004
Excavators	2031	100	175	0.153	0.129	0.688	3.091	0.005	0.033	0.031	528.144	0.021	0.004
Excavators	2031	175	300	0.143	0.120	0.639	1.099	0.005	0.024	0.022	528.080	0.021	0.004
Excavators	2031	300	600	0.125	0.105	0.484	1.038	0.005	0.018	0.017	527.304	0.021	0.004
Excavators	2031	600	750	0.216	0.182	1.333	1.342	0.005	0.052	0.048	531.157	0.022	0.004
Excavators	2031	750	999	0.093	0.078	2.329	0.979	0.005	0.021	0.019	528.437	0.021	0.004
Excavators	2032	0	25	1.043	0.863	6.478	3.535	0.011	0.246	0.226	847.637	0.034	0.007
Excavators	2032	25	50	0.346	0.291	3.271	4.146	0.005	0.049	0.045	588.066	0.024	0.005
Excavators	2032	50	75	1.410	1.185	8.075	4.500	0.005	0.905	0.832	527.007	0.021	0.004
Excavators	2032	75	100	0.181	0.152	1.588	3.442	0.005	0.032	0.030	524.860	0.021	0.004
Excavators	2032	100	175	0.149	0.125	0.635	3.088	0.005	0.031	0.028	528.144	0.021	0.004
Excavators	2032	175	300	0.142	0.119	0.606	1.097	0.005	0.023	0.022	528.080	0.021	0.004
Excavators	2032	300	600	0.125	0.105	0.467	1.035	0.005	0.018	0.017	527.304	0.021	0.004
Excavators	2032	600	750	0.216	0.181	1.315	1.342	0.005	0.052	0.048	531.157	0.022	0.004
Excavators	2032	750	999	0.093	0.078	2.329	0.979	0.005	0.021	0.019	528.437	0.021	0.004
Excavators	2033	0	25	1.043	0.862	6.474	3.533	0.011	0.246	0.226	847.150	0.034	0.007
Excavators	2033	25	50	0.334	0.281	3.262	4.134	0.005	0.043	0.040	588.066	0.024	0.005
Excavators	2033	50	75	0.988	0.831	6.904	4.295	0.005	0.641	0.589	527.007	0.021	0.004
Excavators	2033	75	100	0.180	0.151	1.565	3.442	0.005	0.030	0.027	524.860	0.021	0.004
Excavators	2033	100	175	0.147	0.123	0.603	3.086	0.005	0.030	0.027	528.144	0.021	0.004
Excavators	2033	175	300	0.139	0.117	0.569	1.092	0.005	0.022	0.020	528.080	0.021	0.004
Excavators	2033	300	600	0.124	0.104	0.445	1.032	0.005	0.017	0.016	527.304	0.021	0.004
Excavators	2033	600	750	0.216	0.181	1.315	1.342	0.005	0.052	0.048	531.157	0.022	0.004
Excavators	2033	750	999	0.090	0.076	2.329	0.979	0.005	0.020	0.018	528.437	0.021	0.004
Excavators	2034	0	25	1.043	0.862	6.474	3.533	0.011	0.246	0.226	847.141	0.034	0.007
Excavators	2034	25	50	0.327	0.275	3.239	4.127	0.005	0.039	0.036	588.066	0.024	0.005
Excavators	2034	50	75	0.753	0.632	6.292	4.179	0.005	0.492	0.452	527.007	0.021	0.004
Excavators	2034	75	100	0.178	0.150	1.544	3.442	0.005	0.028	0.026	524.860	0.021	0.004
Excavators	2034	100	175	0.144	0.121	0.572	3.086	0.005	0.028	0.026	528.144	0.021	0.004
Excavators	2034	175	300	0.138	0.116	0.545	1.086	0.005	0.021	0.019	528.080	0.021	0.004
Excavators	2034	300	600	0.122	0.103	0.425	1.031	0.005	0.016	0.014	527.304	0.021	0.004
Excavators	2034	600	750	0.213	0.179	1.145	1.342	0.005	0.052	0.047	531.157	0.022	0.004
Excavators	2034	750	999	0.090	0.076	2.329	0.979	0.005	0.020	0.018	528.437	0.021	0.004
Forklifts	2024	25	50	0.823	0.692	4.035	5.083	0.005	0.203	0.187	587.146	0.024	0.005
Forklifts	2024	50	75	2.040	1.714	13.487	5.647	0.005	1.051	0.967	524.509	0.021	0.004
Forklifts	2024	75	100	0.347	0.292	2.751	3.615	0.005	0.157	0.145	527.040	0.021	0.004
Forklifts	2024	100	175	0.268	0.225	1.870	3.173	0.005	0.096	0.089	527.512	0.021	0.004
Forklifts	2024	175	300	0.228	0.191	1.580	1.208	0.005	0.060	0.055	528.244	0.021	0.004
Forklifts	2024	300	600	0.281	0.236	1.905	1.252	0.005	0.072	0.066	531.099	0.022	0.004
Forklifts	2024	600	750	0.281	0.236	1.905	1.252	0.005	0.072	0.066	531.099	0.022	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Forklifts	2024	750	999	0.127	0.107	2.412	1.032	0.005	0.022	0.021	527.640	0.021	0.004
Forklifts	2025	25	50	0.757	0.636	3.929	5.026	0.005	0.178	0.164	587.350	0.024	0.005
Forklifts	2025	50	75	2.030	1.706	13.424	5.618	0.005	1.044	0.961	520.490	0.021	0.004
Forklifts	2025	75	100	0.321	0.269	2.551	3.599	0.005	0.135	0.124	527.108	0.021	0.004
Forklifts	2025	100	175	0.250	0.210	1.661	3.169	0.005	0.085	0.078	527.465	0.021	0.004
Forklifts	2025	175	300	0.222	0.187	1.426	1.204	0.005	0.055	0.050	528.244	0.021	0.004
Forklifts	2025	300	600	0.276	0.232	1.832	1.254	0.005	0.068	0.063	531.099	0.022	0.004
Forklifts	2025	600	750	0.276	0.232	1.832	1.254	0.005	0.068	0.063	531.099	0.022	0.004
Forklifts	2025	750	999	0.135	0.114	2.432	1.045	0.005	0.023	0.021	527.640	0.021	0.004
Forklifts	2026	25	50	0.720	0.605	3.821	4.987	0.005	0.158	0.145	587.229	0.024	0.005
Forklifts	2026	50	75	1.994	1.675	13.173	5.532	0.005	1.034	0.952	520.592	0.021	0.004
Forklifts	2026	75	100	0.293	0.246	2.342	3.579	0.005	0.112	0.103	527.097	0.021	0.004
Forklifts	2026	100	175	0.229	0.192	1.435	3.159	0.005	0.072	0.066	527.468	0.021	0.004
Forklifts	2026	175	300	0.225	0.189	1.408	1.213	0.005	0.054	0.049	528.244	0.021	0.004
Forklifts	2026	300	600	0.273	0.229	1.761	1.257	0.005	0.064	0.059	531.099	0.022	0.004
Forklifts	2026	600	750	0.273	0.229	1.761	1.257	0.005	0.064	0.059	531.099	0.022	0.004
Forklifts	2026	750	999	0.144	0.121	2.451	1.057	0.005	0.023	0.022	527.640	0.021	0.004
Forklifts	2027	25	50	0.686	0.577	3.746	4.957	0.005	0.142	0.131	587.187	0.024	0.005
Forklifts	2027	50	75	0.833	0.700	7.151	4.374	0.005	0.491	0.452	526.084	0.021	0.004
Forklifts	2027	75	100	0.272	0.228	2.152	3.568	0.005	0.092	0.085	527.070	0.021	0.004
Forklifts	2027	100	175	0.212	0.178	1.251	3.160	0.005	0.061	0.056	527.421	0.021	0.004
Forklifts	2027	175	300	0.224	0.188	1.343	1.219	0.005	0.051	0.047	528.244	0.021	0.004
Forklifts	2027	300	600	0.272	0.229	1.724	1.260	0.005	0.064	0.059	531.099	0.022	0.004
Forklifts	2027	600	750	0.272	0.229	1.724	1.260	0.005	0.064	0.059	531.099	0.022	0.004
Forklifts	2027	750	999	0.152	0.128	2.471	1.070	0.005	0.024	0.022	527.640	0.021	0.004
Forklifts	2028	25	50	0.678	0.569	3.708	4.980	0.005	0.133	0.123	587.187	0.024	0.005
Forklifts	2028	50	75	0.913	0.767	7.507	4.410	0.005	0.541	0.498	525.610	0.021	0.004
Forklifts	2028	75	100	0.257	0.216	2.032	3.565	0.005	0.079	0.072	527.025	0.021	0.004
Forklifts	2028	100	175	0.200	0.168	1.106	3.165	0.005	0.053	0.049	527.554	0.021	0.004
Forklifts	2028	175	300	0.218	0.183	1.218	1.221	0.005	0.047	0.043	528.243	0.021	0.004
Forklifts	2028	300	600	0.239	0.201	1.311	1.241	0.005	0.049	0.045	527.648	0.021	0.004
Forklifts	2028	600	750	0.239	0.201	1.311	1.241	0.005	0.049	0.045	527.648	0.021	0.004
Forklifts	2028	750	999	0.160	0.135	2.490	1.082	0.005	0.025	0.023	527.640	0.021	0.004
Forklifts	2029	25	50	0.665	0.558	3.655	4.970	0.005	0.122	0.112	587.137	0.024	0.005
Forklifts	2029	50	75	0.915	0.769	7.500	4.399	0.005	0.544	0.500	525.717	0.021	0.004
Forklifts	2029	75	100	0.249	0.210	1.956	3.570	0.005	0.070	0.065	527.076	0.021	0.004
Forklifts	2029	100	175	0.196	0.165	1.027	3.177	0.005	0.048	0.044	527.561	0.021	0.004
Forklifts	2029	175	300	0.218	0.183	1.176	1.225	0.005	0.045	0.041	528.228	0.021	0.004
Forklifts	2029	300	600	0.244	0.205	1.428	1.252	0.005	0.054	0.049	527.649	0.021	0.004
Forklifts	2029	600	750	0.244	0.205	1.428	1.252	0.005	0.054	0.049	527.649	0.021	0.004
Forklifts	2029	750	999	0.169	0.142	2.510	1.095	0.005	0.025	0.023	527.640	0.021	0.004
Forklifts	2030	25	50	0.629	0.529	3.590	4.932	0.005	0.109	0.100	587.137	0.024	0.005
Forklifts	2030	50	75	0.830	0.697	5.774	4.361	0.005	0.459	0.423	525.717	0.021	0.004
Forklifts	2030	75	100	0.242	0.203	1.909	3.566	0.005	0.064	0.059	527.076	0.021	0.004
Forklifts	2030	100	175	0.188	0.158	0.935	3.176	0.005	0.043	0.040	527.561	0.021	0.004
Forklifts	2030	175	300	0.212	0.178	1.061	1.224	0.005	0.041	0.038	528.228	0.021	0.004
Forklifts	2030	300	600	0.237	0.200	1.350	1.252	0.005	0.054	0.049	527.649	0.021	0.004
Forklifts	2030	600	750	0.237	0.200	1.350	1.252	0.005	0.054	0.049	527.649	0.021	0.004
Forklifts	2030	750	999	0.169	0.142	2.510	1.095	0.005	0.025	0.023	527.640	0.021	0.004
Forklifts	2031	25	50	0.599	0.503	3.559	4.899	0.005	0.098	0.090	587.137	0.024	0.005
Forklifts	2031	50	75	0.796	0.669	5.539	4.281	0.005	0.450	0.414	525.717	0.021	0.004
Forklifts	2031	75	100	0.233	0.196	1.832	3.562	0.005	0.057	0.053	527.076	0.021	0.004
Forklifts	2031	100	175	0.181	0.152	0.847	3.176	0.005	0.041	0.038	527.561	0.021	0.004
Forklifts	2031	175	300	0.207	0.174	0.998	1.224	0.005	0.041	0.038	528.228	0.021	0.004
Forklifts	2031	300	600	0.227	0.190	1.224	1.252	0.005	0.054	0.049	527.649	0.021	0.004
Forklifts	2031	600	750	0.227	0.190	1.224	1.252	0.005	0.054	0.049	527.649	0.021	0.004
Forklifts	2031	750	999	0.169	0.142	2.510	1.095	0.005	0.025	0.023	527.640	0.021	0.004
Forklifts	2032	25	50	0.578	0.486	3.530	4.879	0.005	0.091	0.084	587.137	0.024	0.005
Forklifts	2032	50	75	0.796	0.669	5.539	4.281	0.005	0.450	0.414	525.717	0.021	0.004
Forklifts	2032	75	100	0.227	0.191	1.774	3.559	0.005	0.053	0.049	527.076	0.021	0.004
Forklifts	2032	100	175	0.176	0.148	0.786	3.175	0.005	0.039	0.036	527.561	0.021	0.004
Forklifts	2032	175	300	0.203	0.171	0.952	1.221	0.005	0.039	0.035	528.228	0.021	0.004
Forklifts	2032	300	600	0.227	0.190	1.224	1.252	0.005	0.054	0.049	527.649	0.021	0.004
Forklifts	2032	600	750	0.227	0.190	1.224	1.252	0.005	0.054	0.049	527.649	0.021	0.004
Forklifts	2032	750	999	0.169	0.142	2.510	1.095	0.005	0.025	0.023	527.640	0.021	0.004
Forklifts	2033	25	50	0.555	0.467	3.512	4.854	0.005	0.083	0.077	587.137	0.024	0.005

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Forklifts	2033	50	75	0.782	0.658	5.446	4.249	0.005	0.457	0.421	525.717	0.021	0.004
Forklifts	2033	75	100	0.221	0.186	1.733	3.557	0.005	0.048	0.044	527.076	0.021	0.004
Forklifts	2033	100	175	0.171	0.144	0.721	3.174	0.005	0.038	0.035	527.561	0.021	0.004
Forklifts	2033	175	300	0.197	0.165	0.883	1.215	0.005	0.035	0.033	528.228	0.021	0.004
Forklifts	2033	300	600	0.225	0.189	1.169	1.252	0.005	0.052	0.048	527.649	0.021	0.004
Forklifts	2033	600	750	0.225	0.189	1.169	1.252	0.005	0.052	0.048	527.649	0.021	0.004
Forklifts	2033	750	999	0.169	0.142	2.510	1.095	0.005	0.025	0.023	527.640	0.021	0.004
Forklifts	2034	25	50	0.533	0.448	3.464	4.831	0.005	0.074	0.068	587.137	0.024	0.005
Forklifts	2034	50	75	0.758	0.637	5.169	4.249	0.005	0.348	0.320	525.717	0.021	0.004
Forklifts	2034	75	100	0.216	0.182	1.703	3.555	0.005	0.045	0.041	527.076	0.021	0.004
Forklifts	2034	100	175	0.168	0.141	0.695	3.174	0.005	0.035	0.033	527.561	0.021	0.004
Forklifts	2034	175	300	0.192	0.161	0.818	1.211	0.005	0.033	0.030	528.228	0.021	0.004
Forklifts	2034	300	600	0.206	0.173	0.946	1.252	0.005	0.031	0.029	527.649	0.021	0.004
Forklifts	2034	600	750	0.206	0.173	0.946	1.252	0.005	0.031	0.029	527.649	0.021	0.004
Forklifts	2034	750	999	0.169	0.142	2.510	1.095	0.005	0.025	0.023	527.640	0.021	0.004
Generator Sets	2024	0	25	0.660	0.546	4.373	2.881	0.008	0.180	0.166	568.315	0.023	0.005
Generator Sets	2024	25	50	0.476	0.393	3.583	3.788	0.007	0.108	0.099	568.327	0.023	0.005
Generator Sets	2025	0	25	0.656	0.542	4.347	2.869	0.008	0.177	0.163	568.322	0.023	0.005
Generator Sets	2025	25	50	0.441	0.364	3.482	3.759	0.007	0.093	0.086	568.312	0.023	0.005
Generator Sets	2026	0	25	0.653	0.539	4.324	2.860	0.008	0.174	0.160	568.327	0.023	0.005
Generator Sets	2026	25	50	0.409	0.338	3.382	3.731	0.007	0.079	0.073	568.315	0.023	0.005
Generator Sets	2027	0	25	0.650	0.537	4.305	2.852	0.008	0.172	0.158	568.306	0.023	0.005
Generator Sets	2027	25	50	0.379	0.314	3.286	3.704	0.007	0.066	0.060	568.333	0.023	0.005
Generator Sets	2028	0	25	0.648	0.535	4.289	2.846	0.008	0.170	0.156	568.300	0.023	0.005
Generator Sets	2028	25	50	0.354	0.292	3.197	3.678	0.007	0.053	0.049	568.314	0.023	0.005
Generator Sets	2029	0	25	0.646	0.534	4.276	2.842	0.008	0.168	0.154	568.317	0.023	0.005
Generator Sets	2029	25	50	0.332	0.275	3.144	3.657	0.007	0.045	0.041	568.304	0.023	0.005
Generator Sets	2030	0	25	0.645	0.533	4.267	2.840	0.008	0.166	0.153	568.320	0.023	0.005
Generator Sets	2030	25	50	0.315	0.261	3.107	3.641	0.007	0.038	0.035	568.301	0.023	0.005
Generator Sets	2031	0	25	0.644	0.532	4.260	2.839	0.008	0.165	0.152	568.306	0.023	0.005
Generator Sets	2031	25	50	0.302	0.250	3.077	3.628	0.007	0.033	0.030	568.336	0.023	0.005
Generator Sets	2032	0	25	0.644	0.532	4.256	2.839	0.008	0.164	0.151	568.305	0.023	0.005
Generator Sets	2032	25	50	0.292	0.241	3.051	3.619	0.007	0.028	0.026	568.308	0.023	0.005
Generator Sets	2033	0	25	0.644	0.532	4.253	2.839	0.008	0.163	0.150	568.308	0.023	0.005
Generator Sets	2033	25	50	0.284	0.235	3.027	3.613	0.007	0.024	0.022	568.314	0.023	0.005
Generator Sets	2034	0	25	0.643	0.532	4.250	2.839	0.008	0.163	0.150	568.303	0.023	0.005
Generator Sets	2034	25	50	0.280	0.231	3.008	3.610	0.007	0.021	0.020	568.314	0.023	0.005
Graders	2024	0	25	2.366	1.988	6.089	7.740	0.005	0.734	0.675	587.012	0.024	0.005
Graders	2024	25	50	2.338	1.965	5.318	7.482	0.005	0.547	0.504	586.703	0.024	0.005
Graders	2024	50	75	1.823	1.532	11.942	5.167	0.005	1.012	0.931	548.264	0.022	0.004
Graders	2024	75	100	0.825	0.693	5.479	4.200	0.005	0.416	0.382	523.605	0.021	0.004
Graders	2024	100	175	0.429	0.361	3.176	3.405	0.005	0.175	0.161	530.170	0.022	0.004
Graders	2024	175	300	0.317	0.266	2.909	1.262	0.005	0.097	0.089	527.899	0.021	0.004
Graders	2024	300	600	0.351	0.295	3.105	1.098	0.005	0.116	0.106	524.569	0.021	0.004
Graders	2024	600	750	0.351	0.295	3.105	1.098	0.005	0.116	0.106	524.569	0.021	0.004
Graders	2024	750	999	0.481	0.404	5.913	1.980	0.005	0.169	0.156	527.817	0.021	0.004
Graders	2025	0	25	2.366	1.988	6.089	7.740	0.005	0.734	0.675	587.012	0.024	0.005
Graders	2025	25	50	2.356	1.980	5.334	7.562	0.005	0.548	0.505	586.256	0.024	0.005
Graders	2025	50	75	1.762	1.481	11.526	5.017	0.005	0.992	0.912	544.098	0.022	0.004
Graders	2025	75	100	0.635	0.534	4.218	3.970	0.005	0.310	0.286	522.945	0.021	0.004
Graders	2025	100	175	0.404	0.340	2.859	3.419	0.005	0.159	0.146	531.194	0.022	0.004
Graders	2025	175	300	0.282	0.237	2.445	1.213	0.005	0.081	0.075	527.706	0.021	0.004
Graders	2025	300	600	0.347	0.292	3.115	1.098	0.005	0.113	0.104	525.708	0.021	0.004
Graders	2025	600	750	0.347	0.292	3.115	1.098	0.005	0.113	0.104	525.708	0.021	0.004
Graders	2025	750	999	0.256	0.215	3.876	1.380	0.005	0.085	0.078	528.121	0.021	0.004
Graders	2026	25	50	2.043	1.716	5.083	7.070	0.005	0.486	0.447	585.686	0.024	0.005
Graders	2026	50	75	1.819	1.528	9.218	5.664	0.005	0.792	0.728	563.142	0.023	0.005
Graders	2026	75	100	0.594	0.499	3.931	3.967	0.005	0.280	0.257	524.029	0.021	0.004
Graders	2026	100	175	0.372	0.313	2.528	3.397	0.005	0.140	0.129	530.815	0.022	0.004
Graders	2026	175	300	0.261	0.219	2.119	1.197	0.005	0.071	0.066	527.697	0.021	0.004
Graders	2026	300	600	0.262	0.220	2.098	1.056	0.005	0.078	0.072	524.468	0.021	0.004
Graders	2026	600	750	0.262	0.220	2.098	1.056	0.005	0.078	0.072	524.468	0.021	0.004
Graders	2026	750	999	0.266	0.223	3.915	1.406	0.005	0.087	0.080	528.121	0.021	0.004
Graders	2027	0	25	3.488	2.931	6.356	8.830	0.005	0.884	0.813	586.870	0.024	0.005
Graders	2027	25	50	1.689	1.419	4.702	6.663	0.005	0.375	0.345	585.895	0.024	0.005
Graders	2027	50	75	1.859	1.562	12.195	5.250	0.005	1.021	0.939	546.720	0.022	0.004
Graders	2027	75	100	0.531	0.446	3.565	3.946	0.005	0.232	0.214	525.733	0.021	0.004
Graders	2027	100	175	0.351	0.295	2.284	3.406	0.005	0.127	0.117	531.253	0.022	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Graders	2027	175	300	0.242	0.204	1.835	1.180	0.005	0.063	0.058	527.975	0.021	0.004
Graders	2027	300	600	0.286	0.240	2.318	1.066	0.005	0.087	0.080	522.633	0.021	0.004
Graders	2027	600	750	0.286	0.240	2.318	1.066	0.005	0.087	0.080	522.633	0.021	0.004
Graders	2027	750	999	0.276	0.232	3.954	1.433	0.005	0.088	0.081	527.969	0.021	0.004
Graders	2028	0	25	0.633	0.532	3.517	4.465	0.005	0.140	0.129	587.027	0.024	0.005
Graders	2028	25	50	1.704	1.431	4.686	6.768	0.005	0.364	0.335	587.227	0.024	0.005
Graders	2028	50	75	1.947	1.636	12.806	5.464	0.005	1.048	0.964	549.247	0.022	0.004
Graders	2028	75	100	0.510	0.428	3.389	3.952	0.005	0.211	0.194	525.513	0.021	0.004
Graders	2028	100	175	0.335	0.281	2.086	3.418	0.005	0.116	0.106	531.332	0.022	0.004
Graders	2028	175	300	0.234	0.196	1.679	1.174	0.005	0.058	0.053	528.025	0.021	0.004
Graders	2028	300	600	0.284	0.239	2.285	1.065	0.005	0.084	0.078	520.049	0.021	0.004
Graders	2028	600	750	0.284	0.239	2.285	1.065	0.005	0.084	0.078	520.049	0.021	0.004
Graders	2028	750	999	0.285	0.240	3.996	1.461	0.005	0.090	0.082	527.969	0.021	0.004
Graders	2029	0	25	0.651	0.547	3.542	4.577	0.005	0.141	0.130	586.940	0.024	0.005
Graders	2029	25	50	1.722	1.447	4.711	6.876	0.005	0.365	0.336	587.151	0.024	0.005
Graders	2029	50	75	1.650	1.387	11.131	5.256	0.005	0.821	0.755	528.475	0.021	0.004
Graders	2029	75	100	0.477	0.401	3.144	3.950	0.005	0.186	0.171	527.494	0.021	0.004
Graders	2029	100	175	0.317	0.266	1.891	3.426	0.005	0.103	0.095	531.047	0.022	0.004
Graders	2029	175	300	0.229	0.192	1.561	1.175	0.005	0.054	0.050	527.954	0.021	0.004
Graders	2029	300	600	0.234	0.197	1.679	1.058	0.005	0.061	0.056	525.026	0.021	0.004
Graders	2029	600	750	0.234	0.197	1.679	1.058	0.005	0.061	0.056	525.026	0.021	0.004
Graders	2029	750	999	0.295	0.248	4.037	1.490	0.005	0.091	0.084	527.664	0.021	0.004
Graders	2030	0	25	0.480	0.403	3.494	4.411	0.005	0.118	0.109	586.940	0.024	0.005
Graders	2030	25	50	1.640	1.378	4.695	6.800	0.005	0.355	0.327	587.151	0.024	0.005
Graders	2030	50	75	1.650	1.387	11.131	5.256	0.005	0.821	0.755	528.475	0.021	0.004
Graders	2030	75	100	0.460	0.387	3.036	3.940	0.005	0.175	0.161	527.494	0.021	0.004
Graders	2030	100	175	0.304	0.255	1.763	3.419	0.005	0.098	0.090	531.047	0.022	0.004
Graders	2030	175	300	0.224	0.188	1.467	1.166	0.005	0.051	0.047	527.954	0.021	0.004
Graders	2030	300	600	0.232	0.195	1.551	1.058	0.005	0.061	0.056	525.026	0.021	0.004
Graders	2030	600	750	0.232	0.195	1.551	1.058	0.005	0.061	0.056	525.026	0.021	0.004
Graders	2030	750	999	0.257	0.216	3.772	1.274	0.005	0.077	0.071	527.664	0.021	0.004
Graders	2031	0	25	0.394	0.331	3.480	4.329	0.005	0.084	0.078	586.940	0.024	0.005
Graders	2031	25	50	1.537	1.292	4.671	6.699	0.005	0.341	0.314	587.151	0.024	0.005
Graders	2031	50	75	1.512	1.271	10.013	4.928	0.005	0.790	0.727	528.475	0.021	0.004
Graders	2031	75	100	0.441	0.370	2.924	3.932	0.005	0.162	0.149	527.494	0.021	0.004
Graders	2031	100	175	0.297	0.250	1.681	3.411	0.005	0.096	0.088	531.047	0.022	0.004
Graders	2031	175	300	0.218	0.183	1.305	1.165	0.005	0.045	0.042	527.954	0.021	0.004
Graders	2031	300	600	0.230	0.193	1.334	1.058	0.005	0.061	0.056	525.026	0.021	0.004
Graders	2031	600	750	0.230	0.193	1.334	1.058	0.005	0.061	0.056	525.026	0.021	0.004
Graders	2031	750	999	0.256	0.215	3.746	1.274	0.005	0.077	0.071	527.664	0.021	0.004
Graders	2032	0	25	0.366	0.308	3.475	4.300	0.005	0.080	0.074	586.940	0.024	0.005
Graders	2032	25	50	1.512	1.271	4.664	6.678	0.005	0.338	0.311	587.151	0.024	0.005
Graders	2032	50	75	1.512	1.271	10.013	4.928	0.005	0.790	0.727	528.475	0.021	0.004
Graders	2032	75	100	0.427	0.359	2.812	3.916	0.005	0.154	0.142	527.494	0.021	0.004
Graders	2032	100	175	0.288	0.242	1.598	3.408	0.005	0.091	0.084	531.047	0.022	0.004
Graders	2032	175	300	0.208	0.175	1.153	1.159	0.005	0.041	0.038	527.954	0.021	0.004
Graders	2032	300	600	0.230	0.193	1.252	1.058	0.005	0.061	0.056	525.026	0.021	0.004
Graders	2032	600	750	0.230	0.193	1.252	1.058	0.005	0.061	0.056	525.026	0.021	0.004
Graders	2032	750	999	0.256	0.215	3.763	1.274	0.005	0.080	0.074	527.664	0.021	0.004
Graders	2033	0	25	0.366	0.308	3.475	4.300	0.005	0.080	0.074	586.940	0.024	0.005
Graders	2033	25	50	1.462	1.228	4.610	6.629	0.005	0.296	0.272	587.151	0.024	0.005
Graders	2033	50	75	1.512	1.271	10.013	4.928	0.005	0.790	0.727	528.475	0.021	0.004
Graders	2033	75	100	0.412	0.346	2.752	3.903	0.005	0.145	0.134	527.494	0.021	0.004
Graders	2033	100	175	0.280	0.235	1.528	3.401	0.005	0.085	0.078	531.047	0.022	0.004
Graders	2033	175	300	0.205	0.172	1.070	1.157	0.005	0.038	0.035	527.954	0.021	0.004
Graders	2033	300	600	0.230	0.193	1.227	1.058	0.005	0.060	0.055	525.026	0.021	0.004
Graders	2033	600	750	0.230	0.193	1.227	1.058	0.005	0.060	0.055	525.026	0.021	0.004
Graders	2033	750	999	0.256	0.215	3.738	1.274	0.005	0.080	0.074	527.664	0.021	0.004
Graders	2034	0	25	0.337	0.283	3.470	4.273	0.005	0.055	0.051	586.940	0.024	0.005
Graders	2034	25	50	1.393	1.171	4.524	6.479	0.005	0.286	0.263	587.151	0.024	0.005
Graders	2034	50	75	1.512	1.271	10.013	4.928	0.005	0.790	0.727	528.475	0.021	0.004
Graders	2034	75	100	0.395	0.332	2.658	3.892	0.005	0.135	0.124	527.494	0.021	0.004
Graders	2034	100	175	0.271	0.228	1.465	3.396	0.005	0.080	0.074	531.047	0.022	0.004
Graders	2034	175	300	0.196	0.165	0.960	1.153	0.005	0.034	0.032	527.954	0.021	0.004
Graders	2034	300	600	0.210	0.177	1.020	1.058	0.005	0.038	0.035	525.026	0.021	0.004
Graders	2034	600	750	0.210	0.177	1.020	1.058	0.005	0.038	0.035	525.026	0.021	0.004
Graders	2034	750	999	0.256	0.215	3.553	1.274	0.005	0.074	0.068	527.664	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Off-Highway Tractors	2024	0	25	4.827	4.056	7.675	11.147	0.005	1.055	0.971	586.526	0.024	0.005
Off-Highway Tractors	2024	25	50	0.707	0.594	3.853	4.749	0.005	0.174	0.160	585.564	0.024	0.005
Off-Highway Tractors	2024	50	75	0.395	0.332	3.056	3.748	0.005	0.163	0.150	527.719	0.021	0.004
Off-Highway Tractors	2024	75	100	0.330	0.278	2.839	3.604	0.005	0.173	0.159	529.217	0.021	0.004
Off-Highway Tractors	2024	100	175	0.213	0.179	1.457	3.115	0.005	0.069	0.064	527.441	0.021	0.004
Off-Highway Tractors	2024	175	300	0.214	0.180	1.489	1.157	0.005	0.055	0.051	527.766	0.021	0.004
Off-Highway Tractors	2024	300	600	0.156	0.131	0.873	1.061	0.005	0.030	0.027	526.249	0.021	0.004
Off-Highway Tractors	2024	600	750	0.295	0.248	1.713	1.086	0.005	0.088	0.081	524.222	0.021	0.004
Off-Highway Tractors	2024	750	999	0.325	0.273	3.628	1.296	0.005	0.098	0.090	527.635	0.021	0.004
Off-Highway Tractors	2025	0	25	4.827	4.056	7.675	11.147	0.005	1.055	0.971	586.526	0.024	0.005
Off-Highway Tractors	2025	25	50	0.613	0.515	3.682	4.608	0.005	0.140	0.128	586.153	0.024	0.005
Off-Highway Tractors	2025	50	75	0.431	0.362	3.303	3.811	0.005	0.193	0.177	526.613	0.021	0.004
Off-Highway Tractors	2025	75	100	0.254	0.213	2.260	3.515	0.005	0.109	0.100	529.622	0.021	0.004
Off-Highway Tractors	2025	100	175	0.208	0.175	1.344	3.131	0.005	0.064	0.059	527.455	0.021	0.004
Off-Highway Tractors	2025	175	300	0.187	0.157	1.154	1.138	0.005	0.042	0.038	527.781	0.021	0.004
Off-Highway Tractors	2025	300	600	0.150	0.126	0.750	1.051	0.005	0.026	0.024	526.647	0.021	0.004
Off-Highway Tractors	2025	600	750	0.301	0.253	1.717	1.093	0.005	0.089	0.082	524.144	0.021	0.004
Off-Highway Tractors	2025	750	999	0.238	0.200	2.856	1.060	0.005	0.062	0.057	527.647	0.021	0.004
Off-Highway Tractors	2026	25	50	0.584	0.490	3.617	4.600	0.005	0.126	0.116	586.163	0.024	0.005
Off-Highway Tractors	2026	50	75	0.361	0.303	2.703	3.698	0.005	0.137	0.126	526.237	0.021	0.004
Off-Highway Tractors	2026	75	100	0.257	0.216	2.289	3.558	0.005	0.107	0.098	530.185	0.022	0.004
Off-Highway Tractors	2026	100	175	0.196	0.165	1.192	3.142	0.005	0.055	0.051	527.971	0.021	0.004
Off-Highway Tractors	2026	175	300	0.178	0.150	1.022	1.137	0.005	0.037	0.034	527.666	0.021	0.004
Off-Highway Tractors	2026	300	600	0.153	0.129	0.738	1.057	0.005	0.026	0.024	526.897	0.021	0.004
Off-Highway Tractors	2026	600	750	0.304	0.256	1.717	1.098	0.005	0.089	0.082	524.464	0.021	0.004
Off-Highway Tractors	2026	750	999	0.248	0.208	2.874	1.071	0.005	0.063	0.058	527.646	0.021	0.004
Off-Highway Tractors	2027	0	25	4.766	4.005	7.614	11.147	0.005	1.055	0.971	586.558	0.024	0.005
Off-Highway Tractors	2027	25	50	0.539	0.453	3.536	4.569	0.005	0.107	0.098	586.150	0.024	0.005
Off-Highway Tractors	2027	50	75	0.332	0.279	2.422	3.682	0.005	0.109	0.100	526.372	0.021	0.004
Off-Highway Tractors	2027	75	100	0.253	0.212	2.277	3.576	0.005	0.099	0.091	530.122	0.022	0.004
Off-Highway Tractors	2027	100	175	0.197	0.165	1.143	3.164	0.005	0.052	0.048	527.905	0.021	0.004
Off-Highway Tractors	2027	175	300	0.174	0.146	0.916	1.141	0.005	0.033	0.031	527.608	0.021	0.004
Off-Highway Tractors	2027	300	600	0.152	0.127	0.654	1.061	0.005	0.023	0.021	527.392	0.021	0.004
Off-Highway Tractors	2027	600	750	0.307	0.258	1.716	1.102	0.005	0.089	0.082	524.285	0.021	0.004
Off-Highway Tractors	2027	750	999	0.258	0.217	2.891	1.081	0.005	0.064	0.059	527.633	0.021	0.004
Off-Highway Tractors	2028	0	25	4.765	4.004	7.612	11.146	0.005	1.055	0.971	586.486	0.024	0.005
Off-Highway Tractors	2028	25	50	0.526	0.442	3.502	4.600	0.005	0.096	0.089	586.269	0.024	0.005
Off-Highway Tractors	2028	50	75	0.294	0.247	2.243	3.624	0.005	0.089	0.082	526.790	0.021	0.004
Off-Highway Tractors	2028	75	100	0.262	0.220	2.273	3.624	0.005	0.100	0.092	530.972	0.022	0.004
Off-Highway Tractors	2028	100	175	0.174	0.147	0.890	3.138	0.005	0.038	0.035	528.002	0.021	0.004
Off-Highway Tractors	2028	175	300	0.163	0.137	0.729	1.129	0.005	0.027	0.025	527.557	0.021	0.004
Off-Highway Tractors	2028	300	600	0.147	0.123	0.571	1.061	0.005	0.020	0.018	527.785	0.021	0.004
Off-Highway Tractors	2028	600	750	0.309	0.260	1.715	1.106	0.005	0.089	0.082	524.280	0.021	0.004
Off-Highway Tractors	2028	750	999	0.268	0.225	2.908	1.091	0.005	0.065	0.060	527.609	0.021	0.004
Off-Highway Tractors	2029	0	25	4.767	4.005	7.616	11.151	0.005	1.056	0.971	586.774	0.024	0.005
Off-Highway Tractors	2029	25	50	0.509	0.428	3.458	4.608	0.005	0.085	0.078	586.224	0.024	0.005
Off-Highway Tractors	2029	50	75	0.288	0.242	2.204	3.629	0.005	0.083	0.077	526.703	0.021	0.004
Off-Highway Tractors	2029	75	100	0.243	0.204	2.044	3.591	0.005	0.080	0.073	529.443	0.021	0.004
Off-Highway Tractors	2029	100	175	0.168	0.141	0.795	3.138	0.005	0.036	0.033	527.882	0.021	0.004
Off-Highway Tractors	2029	175	300	0.166	0.139	0.701	1.137	0.005	0.027	0.025	527.220	0.021	0.004
Off-Highway Tractors	2029	300	600	0.143	0.121	0.541	1.058	0.005	0.019	0.017	527.324	0.021	0.004
Off-Highway Tractors	2029	600	750	0.300	0.252	1.595	1.115	0.005	0.082	0.076	528.020	0.021	0.004
Off-Highway Tractors	2029	750	999	0.276	0.232	2.923	1.100	0.005	0.066	0.061	527.855	0.021	0.004
Off-Highway Tractors	2030	0	25	4.767	4.005	7.616	11.151	0.005	1.056	0.971	586.774	0.024	0.005
Off-Highway Tractors	2030	25	50	0.489	0.411	3.414	4.586	0.005	0.076	0.070	586.224	0.024	0.005
Off-Highway Tractors	2030	50	75	0.276	0.232	2.114	3.617	0.005	0.072	0.066	526.770	0.021	0.004
Off-Highway Tractors	2030	75	100	0.237	0.199	1.964	3.594	0.005	0.076	0.070	529.330	0.021	0.004
Off-Highway Tractors	2030	100	175	0.162	0.136	0.715	3.138	0.005	0.036	0.033	527.882	0.021	0.004
Off-Highway Tractors	2030	175	300	0.162	0.136	0.652	1.137	0.005	0.026	0.024	527.220	0.021	0.004
Off-Highway Tractors	2030	300	600	0.140	0.117	0.493	1.058	0.005	0.018	0.016	527.324	0.021	0.004
Off-Highway Tractors	2030	600	750	0.300	0.252	1.595	1.115	0.005	0.082	0.076	528.020	0.021	0.004
Off-Highway Tractors	2030	750	999	0.276	0.232	2.518	1.100	0.005	0.052	0.048	527.855	0.021	0.004
Off-Highway Tractors	2031	0	25	4.746	3.988	7.595	11.151	0.005	1.056	0.971	586.774	0.024	0.005
Off-Highway Tractors	2031	25	50	0.466	0.392	3.404	4.562	0.005	0.066	0.061	586.224	0.024	0.005
Off-Highway Tractors	2031	50	75	0.271	0.228	2.061	3.622	0.005	0.069	0.064	526.703	0.021	0.004
Off-Highway Tractors	2031	75	100	0.224	0.188	1.858	3.582	0.005	0.065	0.060	529.443	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Off-Highway Tractors	2031	100	175	0.155	0.131	0.631	3.135	0.005	0.033	0.030	527.882	0.021	0.004
Off-Highway Tractors	2031	175	300	0.159	0.134	0.610	1.130	0.005	0.025	0.023	527.220	0.021	0.004
Off-Highway Tractors	2031	300	600	0.135	0.114	0.444	1.058	0.005	0.016	0.014	527.324	0.021	0.004
Off-Highway Tractors	2031	600	750	0.300	0.252	1.595	1.115	0.005	0.082	0.076	528.020	0.021	0.004
Off-Highway Tractors	2031	750	999	0.266	0.223	2.518	1.100	0.005	0.047	0.043	527.855	0.021	0.004
Off-Highway Tractors	2032	0	25	4.369	3.671	7.127	10.327	0.005	1.003	0.922	586.774	0.024	0.005
Off-Highway Tractors	2032	25	50	0.455	0.383	3.379	4.552	0.005	0.062	0.057	586.224	0.024	0.005
Off-Highway Tractors	2032	50	75	0.261	0.219	1.963	3.614	0.005	0.064	0.059	526.700	0.021	0.004
Off-Highway Tractors	2032	75	100	0.225	0.189	1.862	3.583	0.005	0.064	0.059	529.439	0.021	0.004
Off-Highway Tractors	2032	100	175	0.153	0.128	0.597	3.135	0.005	0.029	0.026	527.882	0.021	0.004
Off-Highway Tractors	2032	175	300	0.157	0.132	0.573	1.129	0.005	0.024	0.022	527.220	0.021	0.004
Off-Highway Tractors	2032	300	600	0.131	0.110	0.394	1.058	0.005	0.013	0.012	527.324	0.021	0.004
Off-Highway Tractors	2032	600	750	0.300	0.252	1.595	1.115	0.005	0.082	0.076	528.020	0.021	0.004
Off-Highway Tractors	2032	750	999	0.266	0.223	2.518	1.100	0.005	0.047	0.043	527.855	0.021	0.004
Off-Highway Tractors	2033	0	25	4.369	3.671	7.127	10.327	0.005	1.003	0.922	586.774	0.024	0.005
Off-Highway Tractors	2033	25	50	0.444	0.373	3.349	4.541	0.005	0.056	0.052	586.224	0.024	0.005
Off-Highway Tractors	2033	50	75	0.257	0.216	1.952	3.613	0.005	0.060	0.055	526.700	0.021	0.004
Off-Highway Tractors	2033	75	100	0.219	0.184	1.780	3.581	0.005	0.051	0.047	529.439	0.021	0.004
Off-Highway Tractors	2033	100	175	0.151	0.127	0.587	3.135	0.005	0.022	0.020	527.882	0.021	0.004
Off-Highway Tractors	2033	175	300	0.156	0.131	0.566	1.129	0.005	0.024	0.022	527.220	0.021	0.004
Off-Highway Tractors	2033	300	600	0.131	0.110	0.378	1.058	0.005	0.013	0.012	527.324	0.021	0.004
Off-Highway Tractors	2033	600	750	0.300	0.252	1.595	1.115	0.005	0.082	0.076	528.020	0.021	0.004
Off-Highway Tractors	2033	750	999	0.218	0.184	2.518	1.100	0.005	0.036	0.033	527.855	0.021	0.004
Off-Highway Tractors	2034	0	25	4.369	3.671	7.127	10.327	0.005	1.003	0.922	586.774	0.024	0.005
Off-Highway Tractors	2034	25	50	0.429	0.360	3.308	4.525	0.005	0.049	0.045	586.224	0.024	0.005
Off-Highway Tractors	2034	50	75	0.256	0.215	1.919	3.613	0.005	0.060	0.055	526.703	0.021	0.004
Off-Highway Tractors	2034	75	100	0.214	0.180	1.743	3.579	0.005	0.041	0.038	529.443	0.021	0.004
Off-Highway Tractors	2034	100	175	0.147	0.124	0.553	3.135	0.005	0.019	0.017	527.882	0.021	0.004
Off-Highway Tractors	2034	175	300	0.156	0.131	0.553	1.129	0.005	0.024	0.022	527.220	0.021	0.004
Off-Highway Tractors	2034	300	600	0.129	0.108	0.356	1.058	0.005	0.013	0.012	527.324	0.021	0.004
Off-Highway Tractors	2034	600	750	0.238	0.200	0.943	1.115	0.005	0.012	0.011	528.020	0.021	0.004
Off-Highway Tractors	2034	750	999	0.172	0.144	2.518	1.100	0.005	0.025	0.023	527.855	0.021	0.004
Off-Highway Trucks	2024	0	25	2.927	2.460	5.694	8.624	0.005	0.639	0.588	586.605	0.024	0.005
Off-Highway Trucks	2024	25	50	0.703	0.591	3.953	5.246	0.005	0.176	0.162	581.963	0.024	0.005
Off-Highway Trucks	2024	50	75	0.278	0.234	1.634	3.949	0.005	0.025	0.023	530.146	0.022	0.004
Off-Highway Trucks	2024	75	100	0.432	0.363	3.109	3.986	0.005	0.204	0.188	529.249	0.021	0.004
Off-Highway Trucks	2024	100	175	0.273	0.229	1.542	3.340	0.005	0.073	0.067	526.764	0.021	0.004
Off-Highway Trucks	2024	175	300	0.243	0.204	1.375	1.280	0.005	0.055	0.051	525.991	0.021	0.004
Off-Highway Trucks	2024	300	600	0.218	0.183	1.236	1.195	0.005	0.044	0.041	527.763	0.021	0.004
Off-Highway Trucks	2024	600	750	0.308	0.259	2.069	1.655	0.005	0.079	0.073	527.454	0.021	0.004
Off-Highway Trucks	2024	750	999	0.227	0.191	3.225	1.202	0.005	0.060	0.056	528.577	0.021	0.004
Off-Highway Trucks	2025	25	50	0.807	0.678	4.009	5.532	0.005	0.185	0.170	582.022	0.024	0.005
Off-Highway Trucks	2025	50	75	0.278	0.234	1.633	3.905	0.005	0.027	0.024	522.493	0.021	0.004
Off-Highway Trucks	2025	75	100	0.367	0.309	2.692	3.878	0.005	0.156	0.143	530.118	0.022	0.004
Off-Highway Trucks	2025	100	175	0.259	0.218	1.372	3.341	0.005	0.068	0.062	526.643	0.021	0.004
Off-Highway Trucks	2025	175	300	0.222	0.187	1.149	1.234	0.005	0.044	0.041	526.221	0.021	0.004
Off-Highway Trucks	2025	300	600	0.211	0.177	1.086	1.174	0.005	0.038	0.035	528.587	0.021	0.004
Off-Highway Trucks	2025	600	750	0.275	0.231	1.670	1.574	0.005	0.064	0.059	528.690	0.021	0.004
Off-Highway Trucks	2025	750	999	0.201	0.169	2.949	1.134	0.005	0.049	0.045	524.321	0.021	0.004
Off-Highway Trucks	2026	0	25	1.757	1.477	5.626	7.412	0.005	0.540	0.497	586.416	0.024	0.005
Off-Highway Trucks	2026	25	50	0.642	0.539	3.630	5.173	0.005	0.110	0.102	582.867	0.024	0.005
Off-Highway Trucks	2026	50	75	0.290	0.244	1.896	3.952	0.005	0.042	0.039	536.370	0.022	0.004
Off-Highway Trucks	2026	75	100	0.316	0.266	2.294	3.767	0.005	0.114	0.105	526.275	0.021	0.004
Off-Highway Trucks	2026	100	175	0.238	0.200	1.141	3.339	0.005	0.056	0.052	526.869	0.021	0.004
Off-Highway Trucks	2026	175	300	0.218	0.184	1.063	1.220	0.005	0.041	0.038	526.158	0.021	0.004
Off-Highway Trucks	2026	300	600	0.209	0.176	1.011	1.178	0.005	0.036	0.033	529.168	0.021	0.004
Off-Highway Trucks	2026	600	750	0.281	0.236	1.660	1.589	0.005	0.064	0.059	528.767	0.021	0.004
Off-Highway Trucks	2026	750	999	0.202	0.170	2.902	1.126	0.005	0.047	0.043	523.660	0.021	0.004
Off-Highway Trucks	2027	25	50	0.627	0.527	3.647	5.304	0.005	0.104	0.096	582.973	0.024	0.005
Off-Highway Trucks	2027	50	75	0.302	0.254	1.787	4.028	0.005	0.035	0.032	533.289	0.022	0.004
Off-Highway Trucks	2027	75	100	0.307	0.258	2.216	3.742	0.005	0.108	0.100	524.222	0.021	0.004
Off-Highway Trucks	2027	100	175	0.231	0.194	1.062	3.351	0.005	0.053	0.049	526.909	0.021	0.004
Off-Highway Trucks	2027	175	300	0.218	0.183	1.025	1.229	0.005	0.039	0.036	526.197	0.021	0.004
Off-Highway Trucks	2027	300	600	0.210	0.176	0.965	1.179	0.005	0.034	0.031	529.010	0.021	0.004
Off-Highway Trucks	2027	600	750	0.274	0.230	1.539	1.499	0.005	0.058	0.053	528.890	0.021	0.004
Off-Highway Trucks	2027	750	999	0.200	0.168	2.830	1.116	0.005	0.044	0.040	522.477	0.021	0.004
Off-Highway Trucks	2028	0	25	0.608	0.511	4.320	5.199	0.005	0.263	0.242	586.510	0.024	0.005
Off-Highway Trucks	2028	25	50	0.608	0.511	3.536	5.392	0.005	0.074	0.068	582.066	0.024	0.005

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Off-Highway Trucks	2028	50	75	0.274	0.230	1.727	3.901	0.005	0.032	0.029	530.814	0.022	0.004
Off-Highway Trucks	2028	75	100	0.308	0.258	2.174	3.777	0.005	0.100	0.092	524.849	0.021	0.004
Off-Highway Trucks	2028	100	175	0.219	0.184	0.919	3.351	0.005	0.046	0.042	526.904	0.021	0.004
Off-Highway Trucks	2028	175	300	0.217	0.182	0.984	1.230	0.005	0.038	0.035	526.165	0.021	0.004
Off-Highway Trucks	2028	300	600	0.208	0.174	0.889	1.170	0.005	0.032	0.029	529.297	0.021	0.004
Off-Highway Trucks	2028	600	750	0.278	0.234	1.559	1.508	0.005	0.059	0.054	528.811	0.021	0.004
Off-Highway Trucks	2028	750	999	0.192	0.162	2.750	1.103	0.005	0.040	0.037	520.748	0.021	0.004
Off-Highway Trucks	2029	0	25	0.839	0.705	5.120	6.252	0.005	0.401	0.369	586.499	0.024	0.005
Off-Highway Trucks	2029	25	50	0.618	0.520	3.512	5.496	0.005	0.065	0.059	582.048	0.024	0.005
Off-Highway Trucks	2029	50	75	0.186	0.156	1.444	3.568	0.005	0.014	0.013	529.963	0.021	0.004
Off-Highway Trucks	2029	75	100	0.325	0.273	2.223	3.858	0.005	0.104	0.096	527.522	0.021	0.004
Off-Highway Trucks	2029	100	175	0.208	0.175	0.801	3.352	0.005	0.040	0.037	527.041	0.021	0.004
Off-Highway Trucks	2029	175	300	0.218	0.183	0.983	1.233	0.005	0.038	0.035	526.347	0.021	0.004
Off-Highway Trucks	2029	300	600	0.204	0.172	0.823	1.155	0.005	0.029	0.027	529.508	0.021	0.004
Off-Highway Trucks	2029	600	750	0.267	0.224	1.440	1.431	0.005	0.053	0.049	528.893	0.021	0.004
Off-Highway Trucks	2029	750	999	0.187	0.157	2.673	1.102	0.005	0.036	0.033	520.954	0.021	0.004
Off-Highway Trucks	2030	0	25	0.601	0.505	5.079	6.027	0.005	0.183	0.169	586.499	0.024	0.005
Off-Highway Trucks	2030	25	50	0.618	0.520	3.512	5.496	0.005	0.065	0.060	582.048	0.024	0.005
Off-Highway Trucks	2030	50	75	0.186	0.156	1.444	3.568	0.005	0.014	0.013	529.963	0.021	0.004
Off-Highway Trucks	2030	75	100	0.324	0.272	2.210	3.858	0.005	0.100	0.092	527.522	0.021	0.004
Off-Highway Trucks	2030	100	175	0.203	0.171	0.737	3.352	0.005	0.037	0.034	527.041	0.021	0.004
Off-Highway Trucks	2030	175	300	0.212	0.178	0.908	1.229	0.005	0.035	0.032	526.347	0.021	0.004
Off-Highway Trucks	2030	300	600	0.201	0.169	0.779	1.151	0.005	0.028	0.026	529.508	0.021	0.004
Off-Highway Trucks	2030	600	750	0.257	0.216	1.269	1.388	0.005	0.051	0.047	528.893	0.021	0.004
Off-Highway Trucks	2030	750	999	0.183	0.153	2.643	1.102	0.005	0.034	0.032	520.954	0.021	0.004
Off-Highway Trucks	2031	0	25	0.601	0.505	5.079	6.027	0.005	0.183	0.169	586.499	0.024	0.005
Off-Highway Trucks	2031	25	50	0.612	0.514	3.511	5.490	0.005	0.059	0.055	582.048	0.024	0.005
Off-Highway Trucks	2031	50	75	0.186	0.156	1.444	3.568	0.005	0.014	0.013	529.963	0.021	0.004
Off-Highway Trucks	2031	75	100	0.321	0.270	2.172	3.858	0.005	0.084	0.077	527.522	0.021	0.004
Off-Highway Trucks	2031	100	175	0.199	0.167	0.683	3.352	0.005	0.035	0.032	527.041	0.021	0.004
Off-Highway Trucks	2031	175	300	0.208	0.175	0.871	1.220	0.005	0.033	0.030	526.347	0.021	0.004
Off-Highway Trucks	2031	300	600	0.199	0.167	0.731	1.149	0.005	0.028	0.025	529.508	0.021	0.004
Off-Highway Trucks	2031	600	750	0.250	0.210	1.171	1.268	0.005	0.049	0.045	528.893	0.021	0.004
Off-Highway Trucks	2031	750	999	0.182	0.153	2.626	1.096	0.005	0.033	0.031	520.954	0.021	0.004
Off-Highway Trucks	2032	0	25	0.601	0.505	5.079	6.027	0.005	0.183	0.169	586.499	0.024	0.005
Off-Highway Trucks	2032	25	50	0.612	0.514	3.475	5.490	0.005	0.056	0.051	582.048	0.024	0.005
Off-Highway Trucks	2032	50	75	0.186	0.156	1.444	3.568	0.005	0.014	0.013	529.963	0.021	0.004
Off-Highway Trucks	2032	75	100	0.315	0.265	2.103	3.858	0.005	0.070	0.064	527.522	0.021	0.004
Off-Highway Trucks	2032	100	175	0.197	0.166	0.660	3.352	0.005	0.034	0.032	527.041	0.021	0.004
Off-Highway Trucks	2032	175	300	0.202	0.169	0.802	1.197	0.005	0.030	0.027	526.347	0.021	0.004
Off-Highway Trucks	2032	300	600	0.198	0.166	0.686	1.149	0.005	0.027	0.024	529.508	0.021	0.004
Off-Highway Trucks	2032	600	750	0.249	0.210	1.102	1.259	0.005	0.049	0.045	528.893	0.021	0.004
Off-Highway Trucks	2032	750	999	0.181	0.152	2.606	1.096	0.005	0.033	0.030	520.954	0.021	0.004
Off-Highway Trucks	2033	0	25	0.601	0.505	5.079	6.027	0.005	0.195	0.179	586.499	0.024	0.005
Off-Highway Trucks	2033	25	50	0.593	0.498	3.421	5.471	0.005	0.048	0.044	582.048	0.024	0.005
Off-Highway Trucks	2033	50	75	0.186	0.156	1.444	3.568	0.005	0.014	0.013	529.963	0.021	0.004
Off-Highway Trucks	2033	75	100	0.311	0.262	2.050	3.858	0.005	0.057	0.052	527.522	0.021	0.004
Off-Highway Trucks	2033	100	175	0.195	0.164	0.623	3.352	0.005	0.033	0.030	527.041	0.021	0.004
Off-Highway Trucks	2033	175	300	0.198	0.166	0.734	1.194	0.005	0.028	0.025	526.347	0.021	0.004
Off-Highway Trucks	2033	300	600	0.196	0.165	0.647	1.148	0.005	0.025	0.023	529.508	0.021	0.004
Off-Highway Trucks	2033	600	750	0.242	0.204	0.985	1.252	0.005	0.043	0.039	528.893	0.021	0.004
Off-Highway Trucks	2033	750	999	0.178	0.149	2.544	1.095	0.005	0.031	0.028	520.954	0.021	0.004
Off-Highway Trucks	2034	0	25	0.601	0.505	5.079	6.027	0.005	0.195	0.179	586.499	0.024	0.005
Off-Highway Trucks	2034	25	50	0.584	0.490	3.416	5.459	0.005	0.047	0.043	582.048	0.024	0.005
Off-Highway Trucks	2034	50	75	0.137	0.115	1.388	3.333	0.005	0.012	0.011	527.144	0.021	0.004
Off-Highway Trucks	2034	75	100	0.302	0.253	1.842	3.872	0.005	0.052	0.047	528.035	0.021	0.004
Off-Highway Trucks	2034	100	175	0.194	0.163	0.599	3.350	0.005	0.033	0.030	527.036	0.021	0.004
Off-Highway Trucks	2034	175	300	0.196	0.165	0.703	1.202	0.005	0.027	0.025	526.352	0.021	0.004
Off-Highway Trucks	2034	300	600	0.193	0.162	0.610	1.143	0.005	0.023	0.021	529.508	0.021	0.004
Off-Highway Trucks	2034	600	750	0.238	0.200	0.916	1.221	0.005	0.038	0.035	528.893	0.021	0.004
Off-Highway Trucks	2034	750	999	0.175	0.147	2.508	1.090	0.005	0.029	0.027	520.954	0.021	0.004
Other Construction Equi	2024	0	25	0.994	0.822	6.236	4.875	0.013	0.242	0.222	848.428	0.034	0.007
Other Construction Equi	2024	25	50	0.982	0.825	4.496	5.016	0.005	0.304	0.280	590.090	0.024	0.005
Other Construction Equi	2024	50	75	0.998	0.839	7.684	4.274	0.005	0.578	0.532	519.506	0.021	0.004
Other Construction Equi	2024	75	100	0.409	0.343	3.241	3.563	0.005	0.209	0.192	528.454	0.021	0.004
Other Construction Equi	2024	100	175	0.314	0.264	2.544	3.158	0.005	0.132	0.121	525.865	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Other Construction Equi	2024	175	300	0.250	0.210	2.242	1.337	0.005	0.087	0.080	528.722	0.021	0.004
Other Construction Equi	2024	300	600	0.194	0.163	1.563	1.305	0.005	0.059	0.054	528.223	0.021	0.004
Other Construction Equi	2024	600	750	0.205	0.172	1.790	1.100	0.005	0.062	0.057	528.615	0.021	0.004
Other Construction Equi	2024	750	999	0.164	0.137	2.901	1.002	0.005	0.053	0.049	527.547	0.021	0.004
Other Construction Equi	2025	0	25	0.994	0.822	6.237	4.875	0.013	0.242	0.222	848.519	0.034	0.007
Other Construction Equi	2025	25	50	0.901	0.757	4.304	4.872	0.005	0.268	0.246	591.483	0.024	0.005
Other Construction Equi	2025	50	75	1.163	0.978	8.526	4.506	0.005	0.653	0.601	522.348	0.021	0.004
Other Construction Equi	2025	75	100	0.354	0.298	2.891	3.512	0.005	0.172	0.159	527.743	0.021	0.004
Other Construction Equi	2025	100	175	0.283	0.238	2.193	3.147	0.005	0.114	0.105	526.485	0.021	0.004
Other Construction Equi	2025	175	300	0.248	0.208	2.169	1.368	0.005	0.085	0.078	528.599	0.021	0.004
Other Construction Equi	2025	300	600	0.186	0.156	1.413	1.269	0.005	0.054	0.049	528.419	0.021	0.004
Other Construction Equi	2025	600	750	0.183	0.154	1.514	1.109	0.005	0.051	0.047	528.780	0.021	0.004
Other Construction Equi	2025	750	999	0.148	0.124	2.711	0.999	0.005	0.045	0.041	527.554	0.021	0.004
Other Construction Equi	2026	0	25	0.994	0.822	6.236	4.875	0.013	0.242	0.222	848.462	0.034	0.007
Other Construction Equi	2026	25	50	0.811	0.681	4.084	4.689	0.005	0.231	0.212	589.469	0.024	0.005
Other Construction Equi	2026	50	75	1.367	1.148	9.822	4.741	0.005	0.756	0.695	522.680	0.021	0.004
Other Construction Equi	2026	75	100	0.335	0.282	2.734	3.504	0.005	0.158	0.145	527.541	0.021	0.004
Other Construction Equi	2026	100	175	0.264	0.221	1.956	3.145	0.005	0.101	0.093	527.138	0.021	0.004
Other Construction Equi	2026	175	300	0.243	0.204	2.048	1.374	0.005	0.081	0.075	529.258	0.021	0.004
Other Construction Equi	2026	300	600	0.177	0.149	1.278	1.239	0.005	0.048	0.044	528.521	0.021	0.004
Other Construction Equi	2026	600	750	0.186	0.156	1.475	1.122	0.005	0.050	0.046	529.144	0.021	0.004
Other Construction Equi	2026	750	999	0.147	0.123	2.713	1.000	0.005	0.044	0.040	527.519	0.021	0.004
Other Construction Equi	2027	0	25	0.994	0.821	6.235	4.874	0.013	0.242	0.222	848.282	0.034	0.007
Other Construction Equi	2027	25	50	0.739	0.621	3.882	4.538	0.005	0.195	0.179	588.146	0.024	0.005
Other Construction Equi	2027	50	75	1.404	1.180	9.930	4.731	0.005	0.781	0.719	524.003	0.021	0.004
Other Construction Equi	2027	75	100	0.300	0.252	2.500	3.484	0.005	0.132	0.122	527.442	0.021	0.004
Other Construction Equi	2027	100	175	0.255	0.214	1.831	3.154	0.005	0.095	0.088	527.759	0.021	0.004
Other Construction Equi	2027	175	300	0.230	0.194	1.797	1.337	0.005	0.074	0.068	529.513	0.021	0.004
Other Construction Equi	2027	300	600	0.174	0.146	1.205	1.245	0.005	0.046	0.042	529.137	0.021	0.004
Other Construction Equi	2027	600	750	0.194	0.163	1.522	1.131	0.005	0.052	0.048	528.713	0.021	0.004
Other Construction Equi	2027	750	999	0.136	0.114	2.655	0.991	0.005	0.040	0.036	527.346	0.021	0.004
Other Construction Equi	2028	0	25	0.994	0.822	6.235	4.874	0.013	0.242	0.222	848.344	0.034	0.007
Other Construction Equi	2028	25	50	0.689	0.579	3.738	4.442	0.005	0.169	0.156	587.292	0.024	0.005
Other Construction Equi	2028	50	75	1.883	1.582	12.421	5.280	0.005	1.004	0.924	525.525	0.021	0.004
Other Construction Equi	2028	75	100	0.291	0.245	2.433	3.486	0.005	0.124	0.114	526.922	0.021	0.004
Other Construction Equi	2028	100	175	0.251	0.211	1.758	3.160	0.005	0.091	0.084	527.154	0.021	0.004
Other Construction Equi	2028	175	300	0.228	0.191	1.686	1.341	0.005	0.072	0.066	529.412	0.021	0.004
Other Construction Equi	2028	300	600	0.170	0.143	1.112	1.250	0.005	0.043	0.040	530.082	0.022	0.004
Other Construction Equi	2028	600	750	0.195	0.164	1.528	1.122	0.005	0.053	0.049	526.876	0.021	0.004
Other Construction Equi	2028	750	999	0.136	0.114	2.661	0.994	0.005	0.038	0.035	527.467	0.021	0.004
Other Construction Equi	2029	0	25	0.994	0.822	6.237	4.875	0.013	0.242	0.222	848.487	0.034	0.007
Other Construction Equi	2029	25	50	0.642	0.539	3.639	4.387	0.005	0.149	0.137	587.712	0.024	0.005
Other Construction Equi	2029	50	75	1.548	1.301	10.418	4.970	0.005	0.837	0.770	529.758	0.021	0.004
Other Construction Equi	2029	75	100	0.285	0.239	2.359	3.493	0.005	0.115	0.106	526.880	0.021	0.004
Other Construction Equi	2029	100	175	0.250	0.210	1.713	3.171	0.005	0.089	0.082	527.014	0.021	0.004
Other Construction Equi	2029	175	300	0.221	0.186	1.531	1.342	0.005	0.068	0.062	529.120	0.021	0.004
Other Construction Equi	2029	300	600	0.172	0.145	1.095	1.246	0.005	0.043	0.039	529.813	0.021	0.004
Other Construction Equi	2029	600	750	0.157	0.132	1.030	1.094	0.005	0.036	0.033	526.727	0.021	0.004
Other Construction Equi	2029	750	999	0.142	0.119	2.675	1.002	0.005	0.039	0.036	527.595	0.021	0.004
Other Construction Equi	2030	0	25	0.994	0.822	6.236	4.875	0.013	0.242	0.222	848.452	0.034	0.007
Other Construction Equi	2030	25	50	0.597	0.501	3.621	4.338	0.005	0.135	0.124	587.712	0.024	0.005
Other Construction Equi	2030	50	75	1.543	1.296	10.442	5.051	0.005	0.826	0.760	530.139	0.022	0.004
Other Construction Equi	2030	75	100	0.278	0.233	2.313	3.489	0.005	0.111	0.102	526.886	0.021	0.004
Other Construction Equi	2030	100	175	0.240	0.202	1.643	3.170	0.005	0.085	0.078	527.014	0.021	0.004
Other Construction Equi	2030	175	300	0.205	0.172	1.406	1.295	0.005	0.059	0.054	529.120	0.021	0.004
Other Construction Equi	2030	300	600	0.165	0.139	1.000	1.246	0.005	0.039	0.036	529.813	0.021	0.004
Other Construction Equi	2030	600	750	0.153	0.129	0.901	1.094	0.005	0.036	0.033	526.727	0.021	0.004
Other Construction Equi	2030	750	999	0.139	0.117	2.655	1.002	0.005	0.037	0.034	527.595	0.021	0.004
Other Construction Equi	2031	0	25	0.994	0.822	6.236	4.875	0.013	0.242	0.222	848.458	0.034	0.007
Other Construction Equi	2031	25	50	0.567	0.476	3.607	4.309	0.005	0.126	0.116	587.712	0.024	0.005
Other Construction Equi	2031	50	75	1.483	1.246	9.596	4.829	0.005	0.809	0.744	529.758	0.021	0.004
Other Construction Equi	2031	75	100	0.256	0.215	2.155	3.476	0.005	0.097	0.089	526.880	0.021	0.004
Other Construction Equi	2031	100	175	0.232	0.195	1.509	3.170	0.005	0.081	0.074	527.014	0.021	0.004
Other Construction Equi	2031	175	300	0.201	0.169	1.348	1.289	0.005	0.057	0.052	529.120	0.021	0.004
Other Construction Equi	2031	300	600	0.163	0.137	0.952	1.246	0.005	0.038	0.035	529.813	0.021	0.004
Other Construction Equi	2031	600	750	0.150	0.126	0.776	1.094	0.005	0.033	0.031	526.727	0.021	0.004
Other Construction Equi	2031	750	999	0.138	0.116	2.640	1.002	0.005	0.037	0.034	527.595	0.021	0.004
Other Construction Equi	2032	0	25	0.994	0.822	6.236	4.875	0.013	0.242	0.222	848.435	0.034	0.007

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Other Construction Equi	2032	25	50	0.542	0.456	3.578	4.281	0.005	0.115	0.106	587.712	0.024	0.005
Other Construction Equi	2032	50	75	1.483	1.246	9.596	4.829	0.005	0.809	0.744	529.758	0.021	0.004
Other Construction Equi	2032	75	100	0.243	0.204	2.078	3.467	0.005	0.089	0.082	526.880	0.021	0.004
Other Construction Equi	2032	100	175	0.223	0.187	1.390	3.163	0.005	0.076	0.070	527.014	0.021	0.004
Other Construction Equi	2032	175	300	0.195	0.164	1.274	1.275	0.005	0.052	0.048	529.120	0.021	0.004
Other Construction Equi	2032	300	600	0.159	0.133	0.890	1.246	0.005	0.035	0.032	529.813	0.021	0.004
Other Construction Equi	2032	600	750	0.149	0.126	0.767	1.094	0.005	0.032	0.030	526.727	0.021	0.004
Other Construction Equi	2032	750	999	0.126	0.105	2.509	1.002	0.005	0.032	0.029	527.595	0.021	0.004
Other Construction Equi	2033	0	25	0.994	0.822	6.236	4.875	0.013	0.242	0.222	848.403	0.034	0.007
Other Construction Equi	2033	25	50	0.510	0.428	3.551	4.248	0.005	0.106	0.097	587.712	0.024	0.005
Other Construction Equi	2033	50	75	1.441	1.211	9.086	4.730	0.005	0.792	0.729	529.758	0.021	0.004
Other Construction Equi	2033	75	100	0.228	0.192	1.998	3.460	0.005	0.078	0.072	526.880	0.021	0.004
Other Construction Equi	2033	100	175	0.218	0.183	1.344	3.157	0.005	0.069	0.064	527.014	0.021	0.004
Other Construction Equi	2033	175	300	0.190	0.160	1.206	1.265	0.005	0.049	0.045	529.120	0.021	0.004
Other Construction Equi	2033	300	600	0.155	0.130	0.823	1.239	0.005	0.033	0.030	529.813	0.021	0.004
Other Construction Equi	2033	600	750	0.143	0.120	0.687	1.094	0.005	0.024	0.022	526.727	0.021	0.004
Other Construction Equi	2033	750	999	0.126	0.105	2.365	1.002	0.005	0.027	0.025	527.595	0.021	0.004
Other Construction Equi	2034	0	25	0.994	0.822	6.235	4.874	0.013	0.242	0.222	848.344	0.034	0.007
Other Construction Equi	2034	25	50	0.478	0.401	3.478	4.214	0.005	0.094	0.086	587.712	0.024	0.005
Other Construction Equi	2034	50	75	1.397	1.174	8.861	4.765	0.005	0.752	0.692	530.139	0.022	0.004
Other Construction Equi	2034	75	100	0.226	0.190	1.985	3.460	0.005	0.076	0.070	526.886	0.021	0.004
Other Construction Equi	2034	100	175	0.213	0.179	1.290	3.154	0.005	0.064	0.059	527.014	0.021	0.004
Other Construction Equi	2034	175	300	0.188	0.158	1.157	1.265	0.005	0.048	0.044	529.120	0.021	0.004
Other Construction Equi	2034	300	600	0.152	0.128	0.768	1.235	0.005	0.029	0.027	529.813	0.021	0.004
Other Construction Equi	2034	600	750	0.140	0.118	0.649	1.094	0.005	0.024	0.022	526.727	0.021	0.004
Other Construction Equi	2034	750	999	0.126	0.105	2.365	1.002	0.005	0.027	0.025	527.595	0.021	0.004
Other General Industria	2024	0	25	0.992	0.820	6.401	3.899	0.011	0.242	0.223	848.062	0.034	0.007
Other General Industria	2024	25	50	0.649	0.545	3.856	4.776	0.005	0.165	0.152	588.151	0.024	0.005
Other General Industria	2024	50	75	0.287	0.241	2.404	3.618	0.005	0.113	0.104	527.848	0.021	0.004
Other General Industria	2024	75	100	0.517	0.434	3.661	3.742	0.005	0.255	0.235	529.013	0.021	0.004
Other General Industria	2024	100	175	0.247	0.208	1.585	3.219	0.005	0.083	0.076	528.382	0.021	0.004
Other General Industria	2024	175	300	0.227	0.190	1.711	1.176	0.005	0.057	0.052	528.768	0.021	0.004
Other General Industria	2024	300	600	0.174	0.146	0.947	1.089	0.005	0.033	0.030	528.188	0.021	0.004
Other General Industria	2024	600	750	0.113	0.095	0.516	1.184	0.005	0.023	0.022	528.187	0.021	0.004
Other General Industria	2024	750	999	0.181	0.152	3.283	1.035	0.005	0.055	0.050	528.190	0.021	0.004
Other General Industria	2025	0	25	0.992	0.820	6.400	3.898	0.011	0.242	0.223	848.007	0.034	0.007
Other General Industria	2025	25	50	0.585	0.491	3.713	4.675	0.005	0.136	0.125	588.026	0.024	0.005
Other General Industria	2025	50	75	0.246	0.207	2.050	3.571	0.005	0.077	0.071	528.191	0.021	0.004
Other General Industria	2025	75	100	0.526	0.442	3.866	3.825	0.005	0.270	0.248	528.455	0.021	0.004
Other General Industria	2025	100	175	0.237	0.199	1.445	3.226	0.005	0.076	0.070	528.383	0.021	0.004
Other General Industria	2025	175	300	0.204	0.172	1.397	1.167	0.005	0.047	0.043	528.509	0.021	0.004
Other General Industria	2025	300	600	0.168	0.141	0.875	1.087	0.005	0.030	0.027	528.188	0.021	0.004
Other General Industria	2025	600	750	0.122	0.102	0.535	1.209	0.005	0.025	0.023	528.187	0.021	0.004
Other General Industria	2025	750	999	0.188	0.158	3.301	1.046	0.005	0.055	0.051	528.190	0.021	0.004
Other General Industria	2026	0	25	0.992	0.820	6.401	3.899	0.011	0.242	0.223	848.083	0.034	0.007
Other General Industria	2026	25	50	0.540	0.453	3.588	4.594	0.005	0.113	0.104	587.877	0.024	0.005
Other General Industria	2026	50	75	0.249	0.209	2.089	3.579	0.005	0.078	0.072	528.133	0.021	0.004
Other General Industria	2026	75	100	0.404	0.340	2.844	3.749	0.005	0.167	0.153	529.857	0.021	0.004
Other General Industria	2026	100	175	0.229	0.192	1.349	3.225	0.005	0.070	0.064	528.383	0.021	0.004
Other General Industria	2026	175	300	0.194	0.163	1.192	1.166	0.005	0.041	0.037	528.627	0.021	0.004
Other General Industria	2026	300	600	0.164	0.138	0.786	1.090	0.005	0.026	0.024	528.188	0.021	0.004
Other General Industria	2026	600	750	0.109	0.091	0.532	1.190	0.005	0.024	0.022	528.187	0.021	0.004
Other General Industria	2026	750	999	0.196	0.164	3.319	1.057	0.005	0.056	0.051	528.190	0.021	0.004
Other General Industria	2027	0	25	0.992	0.820	6.400	3.898	0.011	0.242	0.223	847.999	0.034	0.007
Other General Industria	2027	25	50	0.519	0.436	3.525	4.597	0.005	0.099	0.091	587.927	0.024	0.005
Other General Industria	2027	50	75	0.243	0.204	1.968	3.582	0.005	0.068	0.063	528.439	0.021	0.004
Other General Industria	2027	75	100	0.358	0.301	2.610	3.728	0.005	0.131	0.120	528.727	0.021	0.004
Other General Industria	2027	100	175	0.215	0.181	1.192	3.213	0.005	0.061	0.056	528.408	0.021	0.004
Other General Industria	2027	175	300	0.185	0.155	1.049	1.166	0.005	0.037	0.034	528.632	0.021	0.004
Other General Industria	2027	300	600	0.168	0.141	0.767	1.098	0.005	0.025	0.023	528.188	0.021	0.004
Other General Industria	2027	600	750	0.109	0.092	0.515	1.179	0.005	0.023	0.021	528.187	0.021	0.004
Other General Industria	2027	750	999	0.203	0.171	3.336	1.069	0.005	0.056	0.052	528.190	0.021	0.004
Other General Industria	2028	0	25	0.992	0.820	6.400	3.898	0.011	0.242	0.223	847.980	0.034	0.007
Other General Industria	2028	25	50	0.487	0.409	3.447	4.548	0.005	0.084	0.077	587.798	0.024	0.005
Other General Industria	2028	50	75	0.223	0.187	1.772	3.566	0.005	0.049	0.045	528.164	0.021	0.004
Other General Industria	2028	75	100	0.398	0.335	2.847	3.824	0.005	0.157	0.144	529.430	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Other General Industria	2028	100	175	0.206	0.173	1.066	3.206	0.005	0.054	0.050	528.484	0.021	0.004
Other General Industria	2028	175	300	0.191	0.161	1.051	1.178	0.005	0.037	0.034	528.632	0.021	0.004
Other General Industria	2028	300	600	0.165	0.139	0.709	1.098	0.005	0.024	0.022	528.188	0.021	0.004
Other General Industria	2028	600	750	0.122	0.102	0.574	1.237	0.005	0.027	0.025	528.186	0.021	0.004
Other General Industria	2028	750	999	0.187	0.157	3.298	1.044	0.005	0.055	0.051	528.190	0.021	0.004
Other General Industria	2029	0	25	0.989	0.818	6.399	3.893	0.011	0.242	0.222	848.256	0.034	0.007
Other General Industria	2029	25	50	0.468	0.393	3.404	4.541	0.005	0.074	0.068	587.815	0.024	0.005
Other General Industria	2029	50	75	0.227	0.190	1.779	3.563	0.005	0.051	0.047	528.465	0.021	0.004
Other General Industria	2029	75	100	0.364	0.306	2.536	3.845	0.005	0.122	0.112	528.993	0.021	0.004
Other General Industria	2029	100	175	0.194	0.163	0.974	3.179	0.005	0.049	0.045	528.484	0.021	0.004
Other General Industria	2029	175	300	0.188	0.158	0.941	1.187	0.005	0.033	0.030	528.265	0.021	0.004
Other General Industria	2029	300	600	0.157	0.132	0.651	1.093	0.005	0.022	0.020	528.188	0.021	0.004
Other General Industria	2029	600	750	0.117	0.099	0.554	1.217	0.005	0.026	0.024	528.186	0.021	0.004
Other General Industria	2029	750	999	0.194	0.163	3.315	1.055	0.005	0.056	0.051	528.190	0.021	0.004
Other General Industria	2030	0	25	0.992	0.820	6.400	3.899	0.011	0.242	0.223	848.027	0.034	0.007
Other General Industria	2030	25	50	0.448	0.377	3.380	4.522	0.005	0.064	0.059	587.815	0.024	0.005
Other General Industria	2030	50	75	0.219	0.184	1.760	3.555	0.005	0.047	0.044	528.426	0.021	0.004
Other General Industria	2030	75	100	0.341	0.287	2.338	3.833	0.005	0.105	0.097	528.993	0.021	0.004
Other General Industria	2030	100	175	0.188	0.158	0.903	3.179	0.005	0.047	0.043	528.484	0.021	0.004
Other General Industria	2030	175	300	0.181	0.153	0.824	1.187	0.005	0.032	0.030	528.265	0.021	0.004
Other General Industria	2030	300	600	0.151	0.127	0.595	1.086	0.005	0.020	0.019	528.188	0.021	0.004
Other General Industria	2030	600	750	0.111	0.093	0.557	1.236	0.005	0.024	0.022	528.186	0.021	0.004
Other General Industria	2030	750	999	0.183	0.154	2.893	1.050	0.005	0.049	0.045	528.190	0.021	0.004
Other General Industria	2031	0	25	0.992	0.820	6.400	3.898	0.011	0.242	0.223	847.970	0.034	0.007
Other General Industria	2031	25	50	0.434	0.365	3.369	4.506	0.005	0.059	0.054	587.815	0.024	0.005
Other General Industria	2031	50	75	0.216	0.181	1.746	3.551	0.005	0.046	0.042	528.426	0.021	0.004
Other General Industria	2031	75	100	0.324	0.272	2.170	3.826	0.005	0.090	0.082	528.993	0.021	0.004
Other General Industria	2031	100	175	0.183	0.154	0.843	3.168	0.005	0.044	0.040	528.484	0.021	0.004
Other General Industria	2031	175	300	0.176	0.148	0.738	1.186	0.005	0.029	0.027	528.265	0.021	0.004
Other General Industria	2031	300	600	0.149	0.125	0.547	1.086	0.005	0.020	0.019	528.188	0.021	0.004
Other General Industria	2031	600	750	0.112	0.094	0.533	1.217	0.005	0.023	0.021	528.186	0.021	0.004
Other General Industria	2031	750	999	0.194	0.163	3.315	1.055	0.005	0.056	0.051	528.190	0.021	0.004
Other General Industria	2032	0	25	0.992	0.820	6.400	3.899	0.011	0.242	0.223	847.980	0.034	0.007
Other General Industria	2032	25	50	0.418	0.351	3.347	4.490	0.005	0.054	0.049	587.815	0.024	0.005
Other General Industria	2032	50	75	0.205	0.172	1.665	3.540	0.005	0.038	0.035	528.212	0.021	0.004
Other General Industria	2032	75	100	0.322	0.271	2.143	3.835	0.005	0.092	0.084	529.545	0.021	0.004
Other General Industria	2032	100	175	0.178	0.149	0.768	3.168	0.005	0.041	0.038	528.484	0.021	0.004
Other General Industria	2032	175	300	0.174	0.146	0.717	1.177	0.005	0.028	0.026	528.265	0.021	0.004
Other General Industria	2032	300	600	0.148	0.124	0.513	1.086	0.005	0.020	0.018	528.188	0.021	0.004
Other General Industria	2032	600	750	0.109	0.091	0.512	1.217	0.005	0.021	0.019	528.186	0.021	0.004
Other General Industria	2032	750	999	0.194	0.163	3.315	1.055	0.005	0.056	0.051	528.190	0.021	0.004
Other General Industria	2033	0	25	0.992	0.820	6.400	3.899	0.011	0.242	0.223	848.020	0.034	0.007
Other General Industria	2033	25	50	0.408	0.343	3.317	4.479	0.005	0.047	0.044	587.815	0.024	0.005
Other General Industria	2033	50	75	0.205	0.172	1.645	3.544	0.005	0.036	0.033	528.426	0.021	0.004
Other General Industria	2033	75	100	0.304	0.255	2.024	3.816	0.005	0.080	0.074	528.993	0.021	0.004
Other General Industria	2033	100	175	0.175	0.147	0.748	3.167	0.005	0.037	0.034	528.484	0.021	0.004
Other General Industria	2033	175	300	0.174	0.146	0.684	1.177	0.005	0.028	0.026	528.265	0.021	0.004
Other General Industria	2033	300	600	0.146	0.123	0.487	1.086	0.005	0.019	0.017	528.188	0.021	0.004
Other General Industria	2033	600	750	0.109	0.091	0.512	1.217	0.005	0.021	0.019	528.186	0.021	0.004
Other General Industria	2033	750	999	0.188	0.158	3.013	1.055	0.005	0.048	0.045	528.190	0.021	0.004
Other General Industria	2034	0	25	0.993	0.820	6.401	3.899	0.011	0.242	0.223	848.133	0.034	0.007
Other General Industria	2034	25	50	0.400	0.336	3.275	4.472	0.005	0.041	0.038	587.815	0.024	0.005
Other General Industria	2034	50	75	0.204	0.171	1.638	3.543	0.005	0.036	0.033	528.426	0.021	0.004
Other General Industria	2034	75	100	0.299	0.252	1.963	3.814	0.005	0.073	0.067	528.993	0.021	0.004
Other General Industria	2034	100	175	0.169	0.142	0.699	3.167	0.005	0.031	0.028	528.484	0.021	0.004
Other General Industria	2034	175	300	0.168	0.141	0.614	1.142	0.005	0.025	0.023	528.265	0.021	0.004
Other General Industria	2034	300	600	0.144	0.121	0.469	1.086	0.005	0.018	0.016	528.188	0.021	0.004
Other General Industria	2034	600	750	0.109	0.091	0.512	1.217	0.005	0.021	0.019	528.186	0.021	0.004
Other General Industria	2034	750	999	0.185	0.155	2.911	1.055	0.005	0.046	0.042	528.190	0.021	0.004
Other Material Handling	2024	0	25	0.933	0.784	3.698	5.475	0.005	0.144	0.133	586.799	0.024	0.005
Other Material Handling	2024	25	50	1.135	0.954	4.637	5.719	0.005	0.321	0.295	590.437	0.024	0.005
Other Material Handling	2024	50	75	0.558	0.469	4.147	4.063	0.005	0.326	0.300	526.052	0.021	0.004
Other Material Handling	2024	75	100	0.216	0.181	1.983	3.425	0.005	0.074	0.068	528.694	0.021	0.004
Other Material Handling	2024	100	175	0.292	0.245	1.964	3.320	0.005	0.107	0.098	527.725	0.021	0.004
Other Material Handling	2024	175	300	0.290	0.244	2.118	1.185	0.005	0.087	0.080	528.003	0.021	0.004
Other Material Handling	2024	300	600	0.209	0.176	1.465	1.270	0.005	0.054	0.050	528.603	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Other Material Handling	2024	600	750	0.397	0.333	2.663	1.125	0.005	0.138	0.127	527.804	0.021	0.004
Other Material Handling	2024	750	999	0.066	0.056	2.270	0.941	0.005	0.018	0.017	527.804	0.021	0.004
Other Material Handling	2025	0	25	1.430	1.202	4.143	5.824	0.005	0.296	0.272	586.785	0.024	0.005
Other Material Handling	2025	25	50	0.866	0.728	4.268	5.259	0.005	0.238	0.219	590.076	0.024	0.005
Other Material Handling	2025	50	75	0.632	0.531	4.560	4.133	0.005	0.364	0.335	525.353	0.021	0.004
Other Material Handling	2025	75	100	0.218	0.183	1.957	3.456	0.005	0.066	0.060	528.778	0.021	0.004
Other Material Handling	2025	100	175	0.248	0.209	1.552	3.239	0.005	0.086	0.079	527.405	0.021	0.004
Other Material Handling	2025	175	300	0.286	0.240	2.021	1.176	0.005	0.083	0.076	528.011	0.021	0.004
Other Material Handling	2025	300	600	0.199	0.167	1.280	1.263	0.005	0.048	0.044	528.583	0.021	0.004
Other Material Handling	2025	600	750	0.406	0.341	2.673	1.132	0.005	0.140	0.129	527.804	0.021	0.004
Other Material Handling	2025	750	999	0.072	0.061	2.284	0.950	0.005	0.018	0.017	527.804	0.021	0.004
Other Material Handling	2026	0	25	1.444	1.213	4.161	5.915	0.005	0.296	0.272	586.785	0.024	0.005
Other Material Handling	2026	25	50	0.858	0.721	4.190	5.272	0.005	0.219	0.201	590.076	0.024	0.005
Other Material Handling	2026	50	75	0.641	0.539	4.573	4.161	0.005	0.366	0.337	525.353	0.021	0.004
Other Material Handling	2026	75	100	0.211	0.177	1.906	3.450	0.005	0.060	0.055	528.736	0.021	0.004
Other Material Handling	2026	100	175	0.251	0.211	1.510	3.262	0.005	0.084	0.077	527.402	0.021	0.004
Other Material Handling	2026	175	300	0.285	0.239	1.961	1.159	0.005	0.081	0.074	528.000	0.021	0.004
Other Material Handling	2026	300	600	0.165	0.138	0.923	1.163	0.005	0.031	0.029	527.861	0.021	0.004
Other Material Handling	2026	600	750	0.242	0.203	1.470	1.042	0.005	0.075	0.069	527.804	0.021	0.004
Other Material Handling	2026	750	999	0.081	0.068	2.305	0.963	0.005	0.019	0.018	527.804	0.021	0.004
Other Material Handling	2027	0	25	2.464	2.070	5.188	7.688	0.005	0.544	0.501	586.799	0.024	0.005
Other Material Handling	2027	25	50	0.706	0.593	3.993	5.007	0.005	0.174	0.160	590.004	0.024	0.005
Other Material Handling	2027	50	75	0.738	0.620	5.178	4.246	0.005	0.420	0.386	527.825	0.021	0.004
Other Material Handling	2027	75	100	0.210	0.176	1.853	3.460	0.005	0.056	0.051	528.708	0.021	0.004
Other Material Handling	2027	100	175	0.225	0.189	1.295	3.259	0.005	0.064	0.059	527.568	0.021	0.004
Other Material Handling	2027	175	300	0.278	0.234	1.809	1.161	0.005	0.077	0.071	528.104	0.021	0.004
Other Material Handling	2027	300	600	0.166	0.140	0.903	1.167	0.005	0.031	0.029	527.861	0.021	0.004
Other Material Handling	2027	600	750	0.246	0.207	1.471	1.048	0.005	0.075	0.069	527.804	0.021	0.004
Other Material Handling	2027	750	999	0.090	0.075	2.325	0.976	0.005	0.020	0.018	527.804	0.021	0.004
Other Material Handling	2028	0	25	2.477	2.081	5.206	7.773	0.005	0.544	0.501	586.799	0.024	0.005
Other Material Handling	2028	25	50	0.576	0.484	3.683	4.648	0.005	0.129	0.119	588.708	0.024	0.005
Other Material Handling	2028	50	75	0.591	0.496	4.285	4.187	0.005	0.332	0.306	527.829	0.021	0.004
Other Material Handling	2028	75	100	0.207	0.174	1.789	3.479	0.005	0.050	0.046	528.459	0.021	0.004
Other Material Handling	2028	100	175	0.206	0.173	1.094	3.245	0.005	0.053	0.049	527.705	0.021	0.004
Other Material Handling	2028	175	300	0.262	0.220	1.608	1.164	0.005	0.068	0.063	528.007	0.021	0.004
Other Material Handling	2028	300	600	0.156	0.131	0.745	1.158	0.005	0.026	0.024	527.857	0.021	0.004
Other Material Handling	2028	600	750	0.250	0.210	1.473	1.054	0.005	0.075	0.069	527.804	0.021	0.004
Other Material Handling	2028	750	999	0.098	0.082	2.345	0.989	0.005	0.020	0.019	527.804	0.021	0.004
Other Material Handling	2029	0	25	1.608	1.351	5.439	7.004	0.005	0.408	0.375	586.785	0.024	0.005
Other Material Handling	2029	25	50	0.547	0.460	3.473	4.496	0.005	0.106	0.097	588.751	0.024	0.005
Other Material Handling	2029	50	75	0.682	0.573	4.858	4.272	0.005	0.378	0.348	527.842	0.021	0.004
Other Material Handling	2029	75	100	0.214	0.180	1.786	3.513	0.005	0.049	0.045	528.611	0.021	0.004
Other Material Handling	2029	100	175	0.203	0.171	1.038	3.258	0.005	0.049	0.045	527.812	0.021	0.004
Other Material Handling	2029	175	300	0.246	0.207	1.449	1.169	0.005	0.059	0.054	528.016	0.021	0.004
Other Material Handling	2029	300	600	0.156	0.131	0.727	1.157	0.005	0.025	0.023	527.856	0.021	0.004
Other Material Handling	2029	600	750	0.090	0.076	0.267	0.978	0.005	0.010	0.009	527.804	0.021	0.004
Other Material Handling	2029	750	999	0.092	0.077	2.330	0.980	0.005	0.020	0.018	527.804	0.021	0.004
Other Material Handling	2030	0	25	1.608	1.351	5.439	7.004	0.005	0.408	0.375	586.785	0.024	0.005
Other Material Handling	2030	25	50	0.523	0.440	3.405	4.474	0.005	0.088	0.081	588.751	0.024	0.005
Other Material Handling	2030	50	75	0.682	0.573	4.858	4.272	0.005	0.391	0.360	527.842	0.021	0.004
Other Material Handling	2030	75	100	0.204	0.172	1.728	3.506	0.005	0.042	0.039	528.611	0.021	0.004
Other Material Handling	2030	100	175	0.197	0.166	0.973	3.255	0.005	0.046	0.042	527.812	0.021	0.004
Other Material Handling	2030	175	300	0.240	0.202	1.378	1.160	0.005	0.058	0.053	528.016	0.021	0.004
Other Material Handling	2030	300	600	0.154	0.129	0.651	1.132	0.005	0.024	0.022	527.856	0.021	0.004
Other Material Handling	2030	600	750	0.090	0.076	0.267	0.978	0.005	0.010	0.009	527.804	0.021	0.004
Other Material Handling	2030	750	999	0.092	0.077	2.330	0.980	0.005	0.020	0.018	527.804	0.021	0.004
Other Material Handling	2031	25	50	0.489	0.411	3.434	4.493	0.005	0.081	0.075	588.672	0.024	0.005
Other Material Handling	2031	50	75	0.841	0.707	4.302	4.537	0.005	0.294	0.270	531.356	0.022	0.004
Other Material Handling	2031	75	100	0.199	0.168	1.671	3.504	0.005	0.038	0.035	528.611	0.021	0.004
Other Material Handling	2031	100	175	0.194	0.163	0.948	3.254	0.005	0.042	0.039	527.812	0.021	0.004
Other Material Handling	2031	175	300	0.235	0.197	1.286	1.160	0.005	0.057	0.052	528.016	0.021	0.004
Other Material Handling	2031	300	600	0.151	0.126	0.611	1.132	0.005	0.024	0.022	527.856	0.021	0.004
Other Material Handling	2031	600	750	0.090	0.076	0.267	0.978	0.005	0.010	0.009	527.804	0.021	0.004
Other Material Handling	2031	750	999	0.092	0.077	2.330	0.980	0.005	0.020	0.018	527.804	0.021	0.004
Other Material Handling	2032	0	25	1.608	1.351	4.913	7.004	0.005	0.356	0.327	586.785	0.024	0.005
Other Material Handling	2032	25	50	0.447	0.376	3.387	4.400	0.005	0.072	0.067	588.751	0.024	0.005

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Other Material Handling	2032	50	75	0.589	0.495	4.089	4.119	0.005	0.246	0.226	527.842	0.021	0.004
Other Material Handling	2032	75	100	0.193	0.162	1.628	3.502	0.005	0.033	0.031	528.611	0.021	0.004
Other Material Handling	2032	100	175	0.188	0.158	0.878	3.246	0.005	0.039	0.036	527.812	0.021	0.004
Other Material Handling	2032	175	300	0.212	0.178	1.015	1.155	0.005	0.031	0.029	528.016	0.021	0.004
Other Material Handling	2032	300	600	0.148	0.124	0.580	1.132	0.005	0.024	0.022	527.856	0.021	0.004
Other Material Handling	2032	600	750	0.090	0.076	0.267	0.978	0.005	0.010	0.009	527.804	0.021	0.004
Other Material Handling	2032	750	999	0.092	0.077	2.330	0.980	0.005	0.020	0.018	527.804	0.021	0.004
Other Material Handling	2033	0	25	1.159	0.974	4.787	6.570	0.005	0.295	0.271	586.785	0.024	0.005
Other Material Handling	2033	25	50	0.432	0.363	3.384	4.386	0.005	0.066	0.061	588.751	0.024	0.005
Other Material Handling	2033	50	75	0.589	0.495	3.920	4.119	0.005	0.184	0.170	527.842	0.021	0.004
Other Material Handling	2033	75	100	0.190	0.160	1.599	3.501	0.005	0.031	0.029	528.611	0.021	0.004
Other Material Handling	2033	100	175	0.185	0.155	0.843	3.246	0.005	0.037	0.034	527.812	0.021	0.004
Other Material Handling	2033	175	300	0.206	0.173	0.964	1.146	0.005	0.025	0.023	528.024	0.021	0.004
Other Material Handling	2033	300	600	0.147	0.124	0.553	1.131	0.005	0.023	0.022	527.855	0.021	0.004
Other Material Handling	2033	600	750	0.090	0.076	0.267	0.978	0.005	0.010	0.009	527.804	0.021	0.004
Other Material Handling	2033	750	999	0.092	0.077	2.330	0.980	0.005	0.020	0.018	527.804	0.021	0.004
Other Material Handling	2034	0	25	1.009	0.848	4.236	6.426	0.005	0.220	0.203	586.785	0.024	0.005
Other Material Handling	2034	25	50	0.432	0.363	3.384	4.386	0.005	0.066	0.061	588.751	0.024	0.005
Other Material Handling	2034	50	75	0.513	0.431	2.891	4.119	0.005	0.184	0.170	527.842	0.021	0.004
Other Material Handling	2034	75	100	0.189	0.159	1.583	3.500	0.005	0.030	0.028	528.611	0.021	0.004
Other Material Handling	2034	100	175	0.177	0.149	0.788	3.244	0.005	0.034	0.031	527.812	0.021	0.004
Other Material Handling	2034	175	300	0.202	0.170	0.901	1.139	0.005	0.024	0.022	528.016	0.021	0.004
Other Material Handling	2034	300	600	0.147	0.124	0.543	1.132	0.005	0.024	0.022	527.856	0.021	0.004
Other Material Handling	2034	600	750	0.090	0.076	0.267	0.978	0.005	0.010	0.009	527.804	0.021	0.004
Other Material Handling	2034	750	999	0.092	0.077	2.330	0.980	0.005	0.020	0.018	527.804	0.021	0.004
Pavers	2024	0	25	1.037	0.857	6.552	3.539	0.011	0.246	0.226	859.487	0.035	0.007
Pavers	2024	25	50	1.128	0.948	4.191	4.942	0.005	0.278	0.256	587.664	0.024	0.005
Pavers	2024	50	75	1.110	0.932	6.997	4.049	0.005	0.675	0.621	524.123	0.021	0.004
Pavers	2024	75	100	0.295	0.248	2.708	3.423	0.005	0.144	0.133	526.332	0.021	0.004
Pavers	2024	100	175	0.234	0.196	1.854	3.015	0.005	0.088	0.081	528.824	0.021	0.004
Pavers	2024	175	300	0.155	0.130	1.480	1.009	0.005	0.048	0.044	528.480	0.021	0.004
Pavers	2024	300	600	0.122	0.103	0.978	0.975	0.005	0.027	0.025	527.659	0.021	0.004
Pavers	2024	600	750	0.070	0.059	0.261	0.947	0.005	0.009	0.008	527.836	0.021	0.004
Pavers	2025	0	25	1.038	0.858	6.558	3.542	0.011	0.245	0.226	860.205	0.035	0.007
Pavers	2025	25	50	1.089	0.915	4.118	4.929	0.005	0.264	0.243	587.425	0.024	0.005
Pavers	2025	50	75	0.720	0.605	4.905	3.706	0.005	0.420	0.386	524.498	0.021	0.004
Pavers	2025	75	100	0.295	0.248	2.646	3.445	0.005	0.139	0.128	526.537	0.021	0.004
Pavers	2025	100	175	0.220	0.185	1.676	3.014	0.005	0.080	0.073	528.494	0.021	0.004
Pavers	2025	175	300	0.130	0.110	1.069	1.000	0.005	0.036	0.033	528.337	0.021	0.004
Pavers	2025	300	600	0.128	0.108	1.041	0.980	0.005	0.032	0.029	527.676	0.021	0.004
Pavers	2025	600	750	0.075	0.063	0.263	0.954	0.005	0.009	0.008	527.836	0.021	0.004
Pavers	2026	0	25	1.038	0.858	6.558	3.542	0.011	0.245	0.225	860.219	0.035	0.007
Pavers	2026	25	50	1.047	0.880	4.047	4.903	0.005	0.249	0.229	588.023	0.024	0.005
Pavers	2026	50	75	0.645	0.542	4.534	3.673	0.005	0.368	0.338	525.253	0.021	0.004
Pavers	2026	75	100	0.282	0.237	2.533	3.431	0.005	0.129	0.119	525.804	0.021	0.004
Pavers	2026	100	175	0.206	0.173	1.497	3.012	0.005	0.073	0.067	528.486	0.021	0.004
Pavers	2026	175	300	0.129	0.108	1.000	1.002	0.005	0.034	0.031	528.275	0.021	0.004
Pavers	2026	300	600	0.123	0.104	0.891	0.980	0.005	0.031	0.028	527.269	0.021	0.004
Pavers	2026	600	750	0.080	0.067	0.264	0.962	0.005	0.009	0.009	528.473	0.021	0.004
Pavers	2027	0	25	1.035	0.855	6.539	3.532	0.011	0.244	0.225	857.700	0.035	0.007
Pavers	2027	25	50	1.005	0.845	3.980	4.866	0.005	0.234	0.215	588.960	0.024	0.005
Pavers	2027	50	75	0.502	0.422	3.736	3.560	0.005	0.273	0.251	526.951	0.021	0.004
Pavers	2027	75	100	0.273	0.229	2.450	3.438	0.005	0.119	0.110	525.809	0.021	0.004
Pavers	2027	100	175	0.199	0.167	1.382	3.020	0.005	0.068	0.062	528.501	0.021	0.004
Pavers	2027	175	300	0.129	0.108	0.942	1.009	0.005	0.032	0.029	528.745	0.021	0.004
Pavers	2027	300	600	0.116	0.097	0.767	0.980	0.005	0.025	0.023	527.382	0.021	0.004
Pavers	2027	600	750	0.084	0.071	0.265	0.968	0.005	0.009	0.009	527.836	0.021	0.004
Pavers	2028	0	25	1.036	0.856	6.547	3.536	0.011	0.245	0.225	858.741	0.035	0.007
Pavers	2028	25	50	0.965	0.811	3.932	4.841	0.005	0.221	0.203	588.686	0.024	0.005
Pavers	2028	50	75	0.484	0.407	3.585	3.561	0.005	0.258	0.238	526.960	0.021	0.004
Pavers	2028	75	100	0.257	0.216	2.338	3.435	0.005	0.105	0.097	525.896	0.021	0.004
Pavers	2028	100	175	0.185	0.156	1.225	3.016	0.005	0.059	0.054	528.484	0.021	0.004
Pavers	2028	175	300	0.125	0.105	0.845	1.011	0.005	0.029	0.026	528.843	0.021	0.004
Pavers	2028	300	600	0.120	0.101	0.771	0.985	0.005	0.026	0.023	526.924	0.021	0.004
Pavers	2028	600	750	0.089	0.075	0.267	0.975	0.005	0.009	0.009	527.836	0.021	0.004
Pavers	2029	0	25	1.035	0.856	6.543	3.534	0.011	0.244	0.225	858.280	0.035	0.007
Pavers	2029	25	50	0.955	0.802	3.922	4.873	0.005	0.217	0.199	589.263	0.024	0.005
Pavers	2029	50	75	0.491	0.413	3.614	3.588	0.005	0.259	0.239	526.670	0.021	0.004
Pavers	2029	75	100	0.249	0.210	2.244	3.431	0.005	0.098	0.091	525.843	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Pavers	2029	100	175	0.183	0.154	1.178	3.021	0.005	0.058	0.053	528.331	0.021	0.004
Pavers	2029	175	300	0.119	0.100	0.710	1.011	0.005	0.025	0.023	528.571	0.021	0.004
Pavers	2029	300	600	0.118	0.099	0.755	0.979	0.005	0.025	0.023	524.973	0.021	0.004
Pavers	2029	750	999	0.094	0.079	0.268	0.983	0.005	0.010	0.009	528.473	0.021	0.004
Pavers	2030	0	25	1.035	0.855	6.538	3.531	0.011	0.244	0.225	857.667	0.035	0.007
Pavers	2030	25	50	0.928	0.780	3.872	4.835	0.005	0.201	0.185	589.263	0.024	0.005
Pavers	2030	50	75	0.463	0.389	3.487	3.574	0.005	0.246	0.226	526.670	0.021	0.004
Pavers	2030	75	100	0.233	0.196	2.134	3.424	0.005	0.087	0.080	525.843	0.021	0.004
Pavers	2030	100	175	0.176	0.148	1.099	3.019	0.005	0.055	0.050	528.331	0.021	0.004
Pavers	2030	175	300	0.118	0.099	0.650	1.011	0.005	0.024	0.022	528.571	0.021	0.004
Pavers	2030	300	600	0.117	0.098	0.625	0.979	0.005	0.024	0.022	524.973	0.021	0.004
Pavers	2030	600	750	0.094	0.079	0.268	0.983	0.005	0.010	0.009	528.473	0.021	0.004
Pavers	2031	0	25	1.036	0.856	6.545	3.535	0.011	0.245	0.225	858.513	0.035	0.007
Pavers	2031	25	50	0.902	0.758	3.865	4.810	0.005	0.193	0.177	589.263	0.024	0.005
Pavers	2031	50	75	0.438	0.368	3.380	3.542	0.005	0.235	0.216	526.670	0.021	0.004
Pavers	2031	75	100	0.231	0.194	2.087	3.426	0.005	0.083	0.076	525.846	0.021	0.004
Pavers	2031	100	175	0.168	0.141	0.986	3.007	0.005	0.049	0.045	528.332	0.021	0.004
Pavers	2031	175	300	0.116	0.098	0.604	1.011	0.005	0.023	0.021	528.571	0.021	0.004
Pavers	2031	300	600	0.116	0.097	0.611	0.979	0.005	0.024	0.022	524.973	0.021	0.004
Pavers	2031	600	750	0.094	0.079	0.268	0.983	0.005	0.010	0.009	528.473	0.021	0.004
Pavers	2032	0	25	1.034	0.855	6.537	3.531	0.011	0.244	0.225	857.438	0.035	0.007
Pavers	2032	25	50	0.841	0.706	3.830	4.745	0.005	0.182	0.167	589.263	0.024	0.005
Pavers	2032	50	75	0.412	0.346	3.274	3.529	0.005	0.220	0.203	526.670	0.021	0.004
Pavers	2032	75	100	0.226	0.190	2.018	3.424	0.005	0.079	0.072	525.846	0.021	0.004
Pavers	2032	100	175	0.165	0.139	0.937	3.004	0.005	0.048	0.044	528.332	0.021	0.004
Pavers	2032	175	300	0.114	0.096	0.569	1.011	0.005	0.020	0.018	528.571	0.021	0.004
Pavers	2032	300	600	0.116	0.097	0.604	0.979	0.005	0.024	0.022	524.973	0.021	0.004
Pavers	2032	600	750	0.094	0.079	0.268	0.983	0.005	0.010	0.009	528.473	0.021	0.004
Pavers	2033	0	25	1.034	0.854	6.532	3.528	0.011	0.244	0.225	856.857	0.035	0.007
Pavers	2033	25	50	0.774	0.651	3.801	4.668	0.005	0.172	0.158	589.263	0.024	0.005
Pavers	2033	50	75	0.388	0.326	2.949	3.518	0.005	0.204	0.187	526.670	0.021	0.004
Pavers	2033	75	100	0.215	0.181	1.963	3.416	0.005	0.069	0.064	525.846	0.021	0.004
Pavers	2033	100	175	0.158	0.132	0.868	3.004	0.005	0.045	0.041	528.332	0.021	0.004
Pavers	2033	175	300	0.111	0.094	0.530	1.011	0.005	0.017	0.016	528.571	0.021	0.004
Pavers	2033	300	600	0.116	0.097	0.604	0.979	0.005	0.024	0.022	524.973	0.021	0.004
Pavers	2033	600	750	0.094	0.079	0.268	0.983	0.005	0.010	0.009	528.473	0.021	0.004
Pavers	2034	0	25	1.033	0.854	6.528	3.526	0.011	0.244	0.224	856.292	0.035	0.007
Pavers	2034	25	50	0.711	0.598	3.761	4.607	0.005	0.162	0.149	589.263	0.024	0.005
Pavers	2034	50	75	0.303	0.254	2.664	3.466	0.005	0.150	0.138	526.630	0.021	0.004
Pavers	2034	75	100	0.217	0.182	1.930	3.420	0.005	0.068	0.062	525.859	0.021	0.004
Pavers	2034	100	175	0.151	0.127	0.807	3.004	0.005	0.041	0.038	528.332	0.021	0.004
Pavers	2034	175	300	0.109	0.091	0.481	1.011	0.005	0.014	0.013	528.571	0.021	0.004
Pavers	2034	300	600	0.112	0.094	0.548	0.979	0.005	0.019	0.017	524.973	0.021	0.004
Pavers	2034	600	750	0.094	0.079	0.268	0.983	0.005	0.010	0.009	528.473	0.021	0.004
Paving Equipment	2024	0	25	1.027	0.849	6.489	3.505	0.011	0.242	0.223	851.192	0.035	0.007
Paving Equipment	2024	25	50	0.623	0.524	3.750	4.282	0.005	0.164	0.151	583.890	0.024	0.005
Paving Equipment	2024	50	75	0.660	0.555	4.929	3.828	0.005	0.403	0.371	525.564	0.021	0.004
Paving Equipment	2024	75	100	0.269	0.226	2.410	3.447	0.005	0.109	0.100	528.115	0.021	0.004
Paving Equipment	2024	100	175	0.267	0.225	2.005	3.124	0.005	0.105	0.097	527.038	0.021	0.004
Paving Equipment	2024	175	300	0.184	0.155	1.495	1.094	0.005	0.059	0.054	528.616	0.021	0.004
Paving Equipment	2024	300	600	0.164	0.138	1.315	1.021	0.005	0.044	0.040	527.215	0.021	0.004
Paving Equipment	2024	600	750	0.174	0.147	1.318	1.001	0.005	0.036	0.033	528.802	0.021	0.004
Paving Equipment	2024	750	999	0.133	0.112	2.366	1.002	0.005	0.040	0.037	528.095	0.021	0.004
Paving Equipment	2025	0	25	1.026	0.848	6.483	3.502	0.011	0.242	0.223	850.426	0.034	0.007
Paving Equipment	2025	25	50	0.570	0.479	3.646	4.225	0.005	0.142	0.131	585.796	0.024	0.005
Paving Equipment	2025	50	75	1.058	0.889	6.658	4.184	0.005	0.662	0.609	523.953	0.021	0.004
Paving Equipment	2025	75	100	0.241	0.202	2.216	3.418	0.005	0.089	0.082	527.686	0.021	0.004
Paving Equipment	2025	100	175	0.235	0.197	1.696	3.088	0.005	0.089	0.082	526.935	0.021	0.004
Paving Equipment	2025	175	300	0.183	0.154	1.397	1.102	0.005	0.056	0.051	528.599	0.021	0.004
Paving Equipment	2025	300	600	0.119	0.100	0.699	1.002	0.005	0.022	0.020	527.009	0.021	0.004
Paving Equipment	2025	600	750	0.116	0.098	0.698	0.972	0.005	0.011	0.010	528.037	0.021	0.004
Paving Equipment	2025	750	999	0.139	0.117	2.377	1.010	0.005	0.040	0.037	528.095	0.021	0.004
Paving Equipment	2026	0	25	1.061	0.878	6.473	3.571	0.011	0.251	0.231	845.672	0.034	0.007
Paving Equipment	2026	25	50	0.525	0.441	3.587	4.175	0.005	0.128	0.117	585.967	0.024	0.005
Paving Equipment	2026	50	75	0.952	0.800	6.458	4.143	0.005	0.603	0.555	526.691	0.021	0.004
Paving Equipment	2026	75	100	0.226	0.190	2.065	3.403	0.005	0.080	0.074	527.706	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Paving Equipment	2026	100	175	0.214	0.180	1.528	3.080	0.005	0.075	0.069	527.529	0.021	0.004
Paving Equipment	2026	175	300	0.185	0.155	1.341	1.108	0.005	0.055	0.050	528.621	0.021	0.004
Paving Equipment	2026	300	600	0.114	0.096	0.573	1.002	0.005	0.022	0.020	526.904	0.021	0.004
Paving Equipment	2026	600	750	0.123	0.104	0.712	0.978	0.005	0.011	0.010	526.629	0.021	0.004
Paving Equipment	2026	750	999	0.146	0.122	2.389	1.017	0.005	0.041	0.038	528.095	0.021	0.004
Paving Equipment	2027	0	25	1.063	0.879	6.479	3.576	0.011	0.252	0.231	846.356	0.034	0.007
Paving Equipment	2027	25	50	0.526	0.442	3.587	4.163	0.005	0.129	0.119	586.020	0.024	0.005
Paving Equipment	2027	50	75	1.169	0.982	7.603	4.337	0.005	0.737	0.678	530.236	0.022	0.004
Paving Equipment	2027	75	100	0.218	0.183	2.016	3.403	0.005	0.075	0.069	528.068	0.021	0.004
Paving Equipment	2027	100	175	0.204	0.172	1.417	3.071	0.005	0.068	0.063	527.656	0.021	0.004
Paving Equipment	2027	175	300	0.175	0.147	1.164	1.115	0.005	0.048	0.044	529.152	0.021	0.004
Paving Equipment	2027	300	600	0.111	0.093	0.510	1.003	0.005	0.019	0.018	526.815	0.021	0.004
Paving Equipment	2027	600	750	0.130	0.109	0.714	0.985	0.005	0.011	0.010	526.534	0.021	0.004
Paving Equipment	2027	750	999	0.152	0.127	2.401	1.024	0.005	0.042	0.038	528.095	0.021	0.004
Paving Equipment	2028	0	25	1.064	0.880	6.480	3.578	0.011	0.252	0.232	846.475	0.034	0.007
Paving Equipment	2028	25	50	0.517	0.435	3.584	4.189	0.005	0.126	0.116	586.634	0.024	0.005
Paving Equipment	2028	50	75	1.313	1.103	8.023	4.438	0.005	0.823	0.757	527.592	0.021	0.004
Paving Equipment	2028	75	100	0.194	0.163	1.883	3.377	0.005	0.058	0.053	527.910	0.021	0.004
Paving Equipment	2028	100	175	0.207	0.174	1.330	3.069	0.005	0.071	0.066	527.542	0.021	0.004
Paving Equipment	2028	175	300	0.181	0.152	1.168	1.125	0.005	0.048	0.044	529.150	0.021	0.004
Paving Equipment	2028	300	600	0.116	0.097	0.512	1.010	0.005	0.019	0.018	526.638	0.021	0.004
Paving Equipment	2028	600	750	0.135	0.114	0.716	0.993	0.005	0.011	0.010	526.425	0.021	0.004
Paving Equipment	2028	750	999	0.158	0.132	2.412	1.032	0.005	0.042	0.039	528.095	0.021	0.004
Paving Equipment	2029	0	25	1.065	0.881	6.484	3.582	0.011	0.252	0.232	846.953	0.034	0.007
Paving Equipment	2029	25	50	0.522	0.439	3.566	4.224	0.005	0.123	0.113	586.573	0.024	0.005
Paving Equipment	2029	50	75	0.651	0.547	4.611	3.845	0.005	0.398	0.366	529.844	0.021	0.004
Paving Equipment	2029	75	100	0.195	0.164	1.845	3.384	0.005	0.054	0.049	527.611	0.021	0.004
Paving Equipment	2029	100	175	0.202	0.170	1.251	3.073	0.005	0.067	0.062	527.708	0.021	0.004
Paving Equipment	2029	175	300	0.187	0.157	1.197	1.127	0.005	0.050	0.046	528.738	0.021	0.004
Paving Equipment	2029	300	600	0.109	0.091	0.411	1.012	0.005	0.014	0.013	527.844	0.021	0.004
Paving Equipment	2029	600	750	0.141	0.119	0.718	1.001	0.005	0.011	0.011	526.539	0.021	0.004
Paving Equipment	2029	750	999	0.163	0.137	2.423	1.039	0.005	0.043	0.039	528.095	0.021	0.004
Paving Equipment	2030	0	25	1.065	0.881	6.485	3.582	0.011	0.252	0.232	847.062	0.034	0.007
Paving Equipment	2030	25	50	0.476	0.400	3.480	4.174	0.005	0.103	0.095	586.573	0.024	0.005
Paving Equipment	2030	50	75	0.593	0.499	4.356	3.817	0.005	0.365	0.336	529.844	0.021	0.004
Paving Equipment	2030	75	100	0.193	0.162	1.813	3.384	0.005	0.052	0.048	527.611	0.021	0.004
Paving Equipment	2030	100	175	0.200	0.168	1.223	3.073	0.005	0.067	0.061	527.708	0.021	0.004
Paving Equipment	2030	175	300	0.183	0.153	1.136	1.127	0.005	0.045	0.041	528.738	0.021	0.004
Paving Equipment	2030	300	600	0.108	0.090	0.396	1.012	0.005	0.014	0.013	527.844	0.021	0.004
Paving Equipment	2030	600	750	0.141	0.119	0.718	1.001	0.005	0.011	0.011	526.539	0.021	0.004
Paving Equipment	2030	750	999	0.163	0.137	2.423	1.039	0.005	0.043	0.039	528.095	0.021	0.004
Paving Equipment	2031	0	25	1.065	0.881	6.482	3.581	0.011	0.252	0.232	846.640	0.034	0.007
Paving Equipment	2031	25	50	0.411	0.345	3.435	4.110	0.005	0.089	0.082	586.573	0.024	0.005
Paving Equipment	2031	50	75	0.572	0.481	4.220	3.810	0.005	0.318	0.293	529.844	0.021	0.004
Paving Equipment	2031	75	100	0.190	0.159	1.734	3.383	0.005	0.050	0.046	527.611	0.021	0.004
Paving Equipment	2031	100	175	0.186	0.157	1.053	3.069	0.005	0.060	0.055	527.706	0.021	0.004
Paving Equipment	2031	175	300	0.185	0.156	1.121	1.136	0.005	0.047	0.043	528.731	0.021	0.004
Paving Equipment	2031	300	600	0.106	0.089	0.366	1.012	0.005	0.014	0.013	527.844	0.021	0.004
Paving Equipment	2031	600	750	0.141	0.119	0.718	1.001	0.005	0.011	0.011	526.539	0.021	0.004
Paving Equipment	2031	750	999	0.131	0.110	2.423	1.039	0.005	0.023	0.021	528.095	0.021	0.004
Paving Equipment	2032	0	25	1.065	0.881	6.483	3.581	0.011	0.252	0.232	846.838	0.034	0.007
Paving Equipment	2032	25	50	0.384	0.322	3.429	4.084	0.005	0.083	0.076	586.573	0.024	0.005
Paving Equipment	2032	50	75	0.484	0.407	3.822	3.767	0.005	0.261	0.240	529.844	0.021	0.004
Paving Equipment	2032	75	100	0.187	0.157	1.708	3.378	0.005	0.049	0.045	527.611	0.021	0.004
Paving Equipment	2032	100	175	0.184	0.155	1.012	3.066	0.005	0.059	0.054	527.708	0.021	0.004
Paving Equipment	2032	175	300	0.168	0.141	0.926	1.111	0.005	0.035	0.032	528.738	0.021	0.004
Paving Equipment	2032	300	600	0.106	0.089	0.366	1.012	0.005	0.014	0.013	527.844	0.021	0.004
Paving Equipment	2032	600	750	0.123	0.104	0.494	1.001	0.005	0.008	0.007	526.539	0.021	0.004
Paving Equipment	2032	750	999	0.131	0.110	2.423	1.039	0.005	0.023	0.021	528.095	0.021	0.004
Paving Equipment	2033	0	25	1.038	0.858	6.476	3.555	0.011	0.248	0.228	846.857	0.034	0.007
Paving Equipment	2033	25	50	0.366	0.307	3.395	4.066	0.005	0.072	0.066	586.573	0.024	0.005
Paving Equipment	2033	50	75	0.417	0.350	3.649	3.735	0.005	0.199	0.183	529.844	0.021	0.004
Paving Equipment	2033	75	100	0.187	0.157	1.699	3.378	0.005	0.048	0.044	527.611	0.021	0.004
Paving Equipment	2033	100	175	0.180	0.151	0.984	3.062	0.005	0.056	0.052	527.708	0.021	0.004
Paving Equipment	2033	175	300	0.158	0.133	0.798	1.111	0.005	0.027	0.025	528.738	0.021	0.004
Paving Equipment	2033	300	600	0.106	0.089	0.366	1.012	0.005	0.014	0.013	527.844	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Paving Equipment	2033	600	750	0.123	0.104	0.494	1.001	0.005	0.008	0.007	526.539	0.021	0.004
Paving Equipment	2033	750	999	0.131	0.110	2.423	1.039	0.005	0.023	0.021	528.095	0.021	0.004
Paving Equipment	2034	0	25	1.028	0.850	6.472	3.545	0.011	0.247	0.227	846.536	0.034	0.007
Paving Equipment	2034	25	50	0.347	0.292	3.321	4.048	0.005	0.061	0.056	586.573	0.024	0.005
Paving Equipment	2034	50	75	0.363	0.305	3.095	3.718	0.005	0.169	0.155	529.844	0.021	0.004
Paving Equipment	2034	75	100	0.187	0.157	1.699	3.378	0.005	0.048	0.044	527.611	0.021	0.004
Paving Equipment	2034	100	175	0.174	0.146	0.938	3.061	0.005	0.052	0.048	527.708	0.021	0.004
Paving Equipment	2034	175	300	0.155	0.130	0.770	1.095	0.005	0.026	0.024	528.738	0.021	0.004
Paving Equipment	2034	300	600	0.106	0.089	0.366	1.012	0.005	0.014	0.013	527.844	0.021	0.004
Paving Equipment	2034	600	750	0.123	0.104	0.494	1.001	0.005	0.008	0.007	526.539	0.021	0.004
Paving Equipment	2034	750	999	0.131	0.110	2.423	1.039	0.005	0.023	0.021	528.095	0.021	0.004
Plate Compactors	2024	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.353	0.023	0.005
Plate Compactors	2025	0	25	0.662	0.547	4.144	3.471	0.009	0.162	0.149	568.406	0.023	0.005
Plate Compactors	2026	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.337	0.023	0.005
Plate Compactors	2027	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.318	0.023	0.005
Plate Compactors	2028	0	25	0.662	0.547	4.143	3.471	0.009	0.162	0.149	568.389	0.023	0.005
Plate Compactors	2029	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.343	0.023	0.005
Plate Compactors	2030	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.372	0.023	0.005
Plate Compactors	2031	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.294	0.023	0.005
Plate Compactors	2032	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.291	0.023	0.005
Plate Compactors	2033	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.358	0.023	0.005
Plate Compactors	2034	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.347	0.023	0.005
Pressure Washers	2024	0	25	0.646	0.534	4.414	3.275	0.009	0.184	0.169	578.474	0.023	0.005
Pressure Washers	2024	25	50	0.341	0.282	3.526	3.313	0.008	0.090	0.082	582.246	0.024	0.005
Pressure Washers	2025	0	25	0.640	0.529	4.377	3.262	0.009	0.181	0.166	577.829	0.023	0.005
Pressure Washers	2025	25	50	0.315	0.260	3.429	3.291	0.008	0.077	0.071	582.656	0.024	0.005
Pressure Washers	2026	0	25	0.636	0.526	4.349	3.253	0.009	0.178	0.163	577.730	0.023	0.005
Pressure Washers	2026	25	50	0.290	0.240	3.333	3.271	0.008	0.065	0.060	583.021	0.024	0.005
Pressure Washers	2027	0	25	0.634	0.524	4.331	3.250	0.009	0.175	0.161	578.370	0.023	0.005
Pressure Washers	2027	25	50	0.268	0.222	3.241	3.252	0.008	0.054	0.050	583.375	0.024	0.005
Pressure Washers	2028	0	25	0.630	0.521	4.309	3.243	0.009	0.173	0.159	578.034	0.023	0.005
Pressure Washers	2028	25	50	0.248	0.205	3.144	3.222	0.008	0.044	0.040	581.131	0.024	0.005
Pressure Washers	2029	0	25	0.629	0.520	4.296	3.242	0.009	0.171	0.157	578.387	0.023	0.005
Pressure Washers	2029	25	50	0.233	0.193	3.094	3.209	0.008	0.037	0.034	581.535	0.024	0.005
Pressure Washers	2030	0	25	0.627	0.518	4.283	3.238	0.009	0.169	0.156	578.062	0.023	0.005
Pressure Washers	2030	25	50	0.220	0.182	3.056	3.194	0.008	0.031	0.029	580.913	0.024	0.005
Pressure Washers	2031	0	25	0.626	0.518	4.278	3.239	0.009	0.168	0.155	578.392	0.023	0.005
Pressure Washers	2031	25	50	0.210	0.174	3.025	3.183	0.008	0.027	0.025	580.561	0.024	0.005
Pressure Washers	2032	0	25	0.625	0.517	4.270	3.237	0.009	0.167	0.154	577.961	0.023	0.005
Pressure Washers	2032	25	50	0.203	0.168	2.995	3.172	0.007	0.023	0.021	579.608	0.024	0.005
Pressure Washers	2033	0	25	0.625	0.516	4.265	3.236	0.009	0.166	0.153	577.764	0.023	0.005
Pressure Washers	2033	25	50	0.198	0.163	2.978	3.173	0.008	0.020	0.018	580.611	0.024	0.005
Pressure Washers	2034	0	25	0.624	0.516	4.262	3.236	0.009	0.166	0.152	577.713	0.023	0.005
Pressure Washers	2034	25	50	0.194	0.160	2.960	3.169	0.008	0.018	0.016	580.477	0.024	0.005
Pumps	2024	0	25	0.703	0.581	4.365	3.012	0.008	0.185	0.170	568.303	0.023	0.005
Pumps	2024	25	50	0.523	0.433	3.630	3.974	0.007	0.115	0.105	568.309	0.023	0.005
Pumps	2025	0	25	0.695	0.574	4.334	3.001	0.008	0.181	0.166	568.244	0.023	0.005
Pumps	2025	25	50	0.486	0.401	3.528	3.943	0.007	0.099	0.091	568.336	0.023	0.005
Pumps	2026	0	25	0.688	0.569	4.309	2.993	0.008	0.177	0.163	568.310	0.023	0.005
Pumps	2026	25	50	0.451	0.373	3.428	3.914	0.007	0.084	0.078	568.369	0.023	0.005
Pumps	2027	0	25	0.683	0.565	4.288	2.986	0.008	0.173	0.160	568.297	0.023	0.005
Pumps	2027	25	50	0.419	0.346	3.329	3.883	0.007	0.070	0.064	568.375	0.023	0.005
Pumps	2028	0	25	0.679	0.561	4.270	2.980	0.008	0.171	0.157	568.344	0.023	0.005
Pumps	2028	25	50	0.391	0.323	3.239	3.856	0.007	0.057	0.052	568.334	0.023	0.005
Pumps	2029	0	25	0.676	0.559	4.255	2.976	0.008	0.168	0.155	568.320	0.023	0.005
Pumps	2029	25	50	0.368	0.304	3.184	3.833	0.007	0.048	0.044	568.334	0.023	0.005
Pumps	2030	0	25	0.674	0.557	4.245	2.974	0.008	0.166	0.153	568.352	0.023	0.005
Pumps	2030	25	50	0.349	0.288	3.147	3.814	0.007	0.041	0.038	568.301	0.023	0.005
Pumps	2031	0	25	0.673	0.556	4.238	2.974	0.008	0.165	0.152	568.325	0.023	0.005
Pumps	2031	25	50	0.334	0.276	3.116	3.800	0.007	0.035	0.032	568.345	0.023	0.005
Pumps	2032	0	25	0.673	0.556	4.234	2.974	0.008	0.164	0.151	568.328	0.023	0.005
Pumps	2032	25	50	0.323	0.267	3.089	3.790	0.007	0.030	0.028	568.302	0.023	0.005
Pumps	2033	0	25	0.672	0.556	4.230	2.973	0.008	0.163	0.150	568.301	0.023	0.005
Pumps	2033	25	50	0.315	0.260	3.065	3.784	0.007	0.026	0.024	568.323	0.023	0.005
Pumps	2034	0	25	0.672	0.556	4.228	2.974	0.008	0.163	0.150	568.339	0.023	0.005
Pumps	2034	25	50	0.310	0.256	3.046	3.780	0.007	0.023	0.021	568.311	0.023	0.005

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Rollers	2024	0	25	1.008	0.833	6.317	4.394	0.012	0.242	0.223	847.965	0.034	0.007
Rollers	2024	25	50	0.736	0.618	3.814	4.195	0.005	0.192	0.177	586.798	0.024	0.005
Rollers	2024	50	75	2.225	1.870	15.055	6.146	0.005	1.071	0.986	527.793	0.021	0.004
Rollers	2024	75	100	0.309	0.260	2.749	3.419	0.005	0.144	0.132	528.107	0.021	0.004
Rollers	2024	100	175	0.168	0.141	1.323	2.911	0.005	0.060	0.056	527.451	0.021	0.004
Rollers	2024	175	300	0.255	0.214	2.357	1.522	0.005	0.091	0.083	528.113	0.021	0.004
Rollers	2024	300	600	0.168	0.141	1.447	1.417	0.005	0.049	0.045	530.541	0.022	0.004
Rollers	2025	0	25	1.008	0.833	6.317	4.394	0.012	0.242	0.223	847.999	0.034	0.007
Rollers	2025	25	50	0.675	0.567	3.678	4.113	0.005	0.166	0.153	586.902	0.024	0.005
Rollers	2025	50	75	2.239	1.882	15.110	6.171	0.005	1.081	0.994	527.546	0.021	0.004
Rollers	2025	75	100	0.290	0.244	2.601	3.414	0.005	0.129	0.118	528.034	0.021	0.004
Rollers	2025	100	175	0.151	0.127	1.100	2.906	0.005	0.049	0.045	527.452	0.021	0.004
Rollers	2025	175	300	0.248	0.208	2.175	1.522	0.005	0.087	0.080	528.085	0.021	0.004
Rollers	2025	300	600	0.170	0.143	1.428	1.422	0.005	0.049	0.046	529.722	0.021	0.004
Rollers	2026	0	25	1.008	0.833	6.318	4.395	0.012	0.242	0.223	848.045	0.034	0.007
Rollers	2026	25	50	0.645	0.542	3.614	4.093	0.005	0.154	0.142	586.914	0.024	0.005
Rollers	2026	50	75	2.254	1.894	15.168	6.197	0.005	1.090	1.002	527.546	0.021	0.004
Rollers	2026	75	100	0.274	0.231	2.484	3.411	0.005	0.116	0.106	528.012	0.021	0.004
Rollers	2026	100	175	0.144	0.121	1.000	2.911	0.005	0.044	0.041	527.368	0.021	0.004
Rollers	2026	175	300	0.243	0.204	2.057	1.519	0.005	0.083	0.077	528.142	0.021	0.004
Rollers	2026	300	600	0.175	0.147	1.452	1.437	0.005	0.051	0.046	528.943	0.021	0.004
Rollers	2027	0	25	1.008	0.833	6.318	4.395	0.012	0.242	0.223	848.116	0.034	0.007
Rollers	2027	25	50	0.629	0.529	3.577	4.105	0.005	0.146	0.134	587.122	0.024	0.005
Rollers	2027	50	75	2.268	1.905	15.225	6.223	0.005	1.099	1.011	527.546	0.021	0.004
Rollers	2027	75	100	0.263	0.221	2.384	3.411	0.005	0.105	0.097	528.181	0.021	0.004
Rollers	2027	100	175	0.134	0.112	0.876	2.918	0.005	0.038	0.035	527.397	0.021	0.004
Rollers	2027	175	300	0.224	0.188	1.757	1.479	0.005	0.074	0.068	528.054	0.021	0.004
Rollers	2027	300	600	0.180	0.151	1.503	1.460	0.005	0.053	0.048	528.733	0.021	0.004
Rollers	2028	0	25	1.008	0.833	6.318	4.395	0.012	0.242	0.223	848.056	0.034	0.007
Rollers	2028	25	50	0.596	0.501	3.509	4.084	0.005	0.132	0.121	587.117	0.024	0.005
Rollers	2028	50	75	2.279	1.915	15.271	6.244	0.005	1.106	1.017	527.546	0.021	0.004
Rollers	2028	75	100	0.248	0.209	2.269	3.408	0.005	0.094	0.087	528.379	0.021	0.004
Rollers	2028	100	175	0.129	0.108	0.794	2.925	0.005	0.035	0.032	527.409	0.021	0.004
Rollers	2028	175	300	0.218	0.183	1.673	1.475	0.005	0.071	0.065	528.192	0.021	0.004
Rollers	2028	300	600	0.171	0.144	1.294	1.475	0.005	0.047	0.044	530.685	0.022	0.004
Rollers	2029	0	25	1.008	0.833	6.318	4.395	0.012	0.242	0.223	848.088	0.034	0.007
Rollers	2029	25	50	0.582	0.489	3.480	4.094	0.005	0.125	0.115	587.111	0.024	0.005
Rollers	2029	50	75	2.291	1.925	15.319	6.266	0.005	1.113	1.024	527.546	0.021	0.004
Rollers	2029	75	100	0.242	0.203	2.209	3.409	0.005	0.089	0.081	528.433	0.021	0.004
Rollers	2029	100	175	0.128	0.107	0.749	2.930	0.005	0.033	0.030	527.451	0.021	0.004
Rollers	2029	175	300	0.218	0.183	1.656	1.476	0.005	0.071	0.065	528.175	0.021	0.004
Rollers	2029	300	600	0.173	0.146	1.297	1.482	0.005	0.048	0.044	531.116	0.022	0.004
Rollers	2030	0	25	1.008	0.833	6.318	4.395	0.012	0.242	0.223	848.083	0.034	0.007
Rollers	2030	25	50	0.556	0.467	3.460	4.065	0.005	0.119	0.109	587.111	0.024	0.005
Rollers	2030	50	75	2.112	1.775	14.061	5.837	0.005	1.064	0.979	527.546	0.021	0.004
Rollers	2030	75	100	0.236	0.198	2.160	3.407	0.005	0.084	0.077	528.433	0.021	0.004
Rollers	2030	100	175	0.124	0.104	0.708	2.929	0.005	0.032	0.029	527.451	0.021	0.004
Rollers	2030	175	300	0.202	0.170	1.486	1.475	0.005	0.063	0.058	528.175	0.021	0.004
Rollers	2030	300	600	0.168	0.141	1.213	1.482	0.005	0.043	0.040	531.116	0.022	0.004
Rollers	2031	0	25	1.008	0.833	6.318	4.395	0.012	0.242	0.223	848.049	0.034	0.007
Rollers	2031	25	50	0.530	0.445	3.443	4.037	0.005	0.111	0.102	587.111	0.024	0.005
Rollers	2031	50	75	2.014	1.692	13.368	5.601	0.005	1.037	0.954	527.546	0.021	0.004
Rollers	2031	75	100	0.231	0.194	2.104	3.405	0.005	0.079	0.073	528.433	0.021	0.004
Rollers	2031	100	175	0.120	0.101	0.639	2.928	0.005	0.030	0.027	527.451	0.021	0.004
Rollers	2031	175	300	0.194	0.163	1.412	1.457	0.005	0.060	0.055	528.175	0.021	0.004
Rollers	2031	300	600	0.159	0.133	1.059	1.353	0.005	0.039	0.036	531.116	0.022	0.004
Rollers	2032	0	25	1.008	0.833	6.317	4.394	0.012	0.242	0.223	848.026	0.034	0.007
Rollers	2032	25	50	0.502	0.422	3.412	4.005	0.005	0.102	0.094	587.111	0.024	0.005
Rollers	2032	50	75	1.833	1.540	12.104	5.170	0.005	0.987	0.908	527.546	0.021	0.004
Rollers	2032	75	100	0.226	0.190	2.046	3.403	0.005	0.076	0.070	528.433	0.021	0.004
Rollers	2032	100	175	0.118	0.099	0.601	2.927	0.005	0.029	0.026	527.451	0.021	0.004
Rollers	2032	175	300	0.188	0.158	1.345	1.457	0.005	0.056	0.051	528.175	0.021	0.004
Rollers	2032	300	600	0.151	0.127	0.936	1.222	0.005	0.033	0.031	531.116	0.022	0.004
Rollers	2033	0	25	1.008	0.833	6.317	4.394	0.012	0.242	0.223	848.024	0.034	0.007
Rollers	2033	25	50	0.476	0.400	3.394	3.976	0.005	0.095	0.087	587.111	0.024	0.005
Rollers	2033	50	75	1.833	1.540	12.104	5.170	0.005	0.987	0.908	527.546	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Rollers	2033	75	100	0.218	0.184	1.981	3.394	0.005	0.071	0.065	528.433	0.021	0.004
Rollers	2033	100	175	0.116	0.097	0.572	2.927	0.005	0.027	0.024	527.451	0.021	0.004
Rollers	2033	175	300	0.184	0.154	1.269	1.448	0.005	0.054	0.050	528.175	0.021	0.004
Rollers	2033	300	600	0.148	0.124	0.882	1.222	0.005	0.033	0.031	531.116	0.022	0.004
Rollers	2034	0	25	1.008	0.833	6.318	4.395	0.012	0.242	0.223	848.089	0.034	0.007
Rollers	2034	25	50	0.443	0.372	3.355	3.940	0.005	0.087	0.080	587.111	0.024	0.005
Rollers	2034	50	75	1.726	1.450	11.355	4.914	0.005	0.957	0.880	527.546	0.021	0.004
Rollers	2034	75	100	0.215	0.180	1.952	3.393	0.005	0.068	0.063	528.433	0.021	0.004
Rollers	2034	100	175	0.112	0.094	0.547	2.927	0.005	0.024	0.022	527.451	0.021	0.004
Rollers	2034	175	300	0.182	0.153	1.209	1.448	0.005	0.052	0.048	528.175	0.021	0.004
Rollers	2034	300	600	0.142	0.120	0.759	1.222	0.005	0.031	0.028	531.116	0.022	0.004
Rough Terrain Forklifts	2024	0	25	0.484	0.407	5.022	4.109	0.005	0.285	0.262	587.236	0.024	0.005
Rough Terrain Forklifts	2024	25	50	0.594	0.499	3.541	3.799	0.005	0.141	0.129	586.945	0.024	0.005
Rough Terrain Forklifts	2024	50	75	2.403	2.020	9.515	6.280	0.005	0.825	0.759	562.208	0.023	0.005
Rough Terrain Forklifts	2024	75	100	0.149	0.125	1.794	3.224	0.005	0.043	0.040	528.511	0.021	0.004
Rough Terrain Forklifts	2024	100	175	0.238	0.200	1.675	2.951	0.005	0.111	0.102	527.958	0.021	0.004
Rough Terrain Forklifts	2024	175	300	0.136	0.114	1.398	0.989	0.005	0.033	0.030	528.155	0.021	0.004
Rough Terrain Forklifts	2024	300	600	0.085	0.071	0.526	0.952	0.005	0.009	0.008	527.513	0.021	0.004
Rough Terrain Forklifts	2024	600	750	0.138	0.116	1.345	0.982	0.005	0.010	0.009	527.403	0.021	0.004
Rough Terrain Forklifts	2025	0	25	0.495	0.416	5.040	4.163	0.005	0.288	0.265	587.236	0.024	0.005
Rough Terrain Forklifts	2025	25	50	0.543	0.456	3.460	3.735	0.005	0.126	0.116	587.160	0.024	0.005
Rough Terrain Forklifts	2025	50	75	1.748	1.469	12.074	5.063	0.005	0.884	0.813	529.994	0.021	0.004
Rough Terrain Forklifts	2025	75	100	0.141	0.118	1.694	3.221	0.005	0.036	0.033	528.726	0.021	0.004
Rough Terrain Forklifts	2025	100	175	0.213	0.179	1.471	2.942	0.005	0.101	0.093	527.759	0.021	0.004
Rough Terrain Forklifts	2025	175	300	0.140	0.117	1.406	0.995	0.005	0.034	0.031	528.299	0.021	0.004
Rough Terrain Forklifts	2025	300	600	0.088	0.074	0.527	0.957	0.005	0.009	0.008	527.807	0.021	0.004
Rough Terrain Forklifts	2025	600	750	0.142	0.119	1.348	0.985	0.005	0.010	0.009	527.403	0.021	0.004
Rough Terrain Forklifts	2026	0	25	0.440	0.370	5.014	4.089	0.005	0.261	0.240	586.999	0.024	0.005
Rough Terrain Forklifts	2026	25	50	0.496	0.417	3.356	3.688	0.005	0.107	0.099	587.450	0.024	0.005
Rough Terrain Forklifts	2026	50	75	1.758	1.477	12.115	5.083	0.005	0.891	0.820	530.057	0.022	0.004
Rough Terrain Forklifts	2026	75	100	0.137	0.115	1.643	3.220	0.005	0.033	0.030	528.889	0.021	0.004
Rough Terrain Forklifts	2026	100	175	0.199	0.167	1.307	2.932	0.005	0.092	0.085	527.710	0.021	0.004
Rough Terrain Forklifts	2026	175	300	0.138	0.116	1.345	0.995	0.005	0.031	0.029	527.851	0.021	0.004
Rough Terrain Forklifts	2026	300	600	0.091	0.077	0.528	0.962	0.005	0.009	0.009	528.219	0.021	0.004
Rough Terrain Forklifts	2026	600	750	0.145	0.122	1.351	0.989	0.005	0.010	0.009	527.403	0.021	0.004
Rough Terrain Forklifts	2027	0	25	0.450	0.378	5.032	4.144	0.005	0.264	0.242	586.999	0.024	0.005
Rough Terrain Forklifts	2027	25	50	0.447	0.376	3.287	3.642	0.005	0.091	0.084	587.756	0.024	0.005
Rough Terrain Forklifts	2027	50	75	1.769	1.486	12.157	5.103	0.005	0.899	0.827	530.131	0.022	0.004
Rough Terrain Forklifts	2027	75	100	0.134	0.113	1.619	3.216	0.005	0.032	0.029	528.688	0.021	0.004
Rough Terrain Forklifts	2027	100	175	0.185	0.155	1.123	2.919	0.005	0.081	0.075	527.860	0.021	0.004
Rough Terrain Forklifts	2027	175	300	0.107	0.090	0.934	0.972	0.005	0.019	0.018	528.408	0.021	0.004
Rough Terrain Forklifts	2027	300	600	0.094	0.079	0.529	0.966	0.005	0.009	0.009	528.234	0.021	0.004
Rough Terrain Forklifts	2027	600	750	0.149	0.125	1.355	0.992	0.005	0.010	0.009	527.403	0.021	0.004
Rough Terrain Forklifts	2028	0	25	0.460	0.387	5.049	4.198	0.005	0.266	0.245	586.999	0.024	0.005
Rough Terrain Forklifts	2028	25	50	0.402	0.338	3.209	3.588	0.005	0.076	0.070	587.488	0.024	0.005
Rough Terrain Forklifts	2028	50	75	0.473	0.397	5.776	3.676	0.005	0.324	0.298	530.811	0.022	0.004
Rough Terrain Forklifts	2028	75	100	0.130	0.109	1.576	3.208	0.005	0.029	0.027	528.604	0.021	0.004
Rough Terrain Forklifts	2028	100	175	0.177	0.148	1.056	2.918	0.005	0.077	0.071	527.687	0.021	0.004
Rough Terrain Forklifts	2028	175	300	0.105	0.088	0.817	0.973	0.005	0.017	0.015	527.537	0.021	0.004
Rough Terrain Forklifts	2028	300	600	0.097	0.082	0.533	0.970	0.005	0.009	0.009	527.806	0.021	0.004
Rough Terrain Forklifts	2028	600	750	0.152	0.128	1.358	0.996	0.005	0.010	0.009	527.403	0.021	0.004
Rough Terrain Forklifts	2029	0	25	0.470	0.395	5.067	4.252	0.005	0.269	0.248	586.999	0.024	0.005
Rough Terrain Forklifts	2029	25	50	0.393	0.330	3.163	3.550	0.005	0.072	0.066	587.380	0.024	0.005
Rough Terrain Forklifts	2029	50	75	0.483	0.406	5.820	3.702	0.005	0.329	0.303	531.785	0.022	0.004
Rough Terrain Forklifts	2029	75	100	0.125	0.105	1.559	3.198	0.005	0.027	0.025	528.728	0.021	0.004
Rough Terrain Forklifts	2029	100	175	0.174	0.146	1.126	2.984	0.005	0.069	0.064	527.903	0.021	0.004
Rough Terrain Forklifts	2029	175	300	0.106	0.089	0.820	0.975	0.005	0.017	0.016	527.909	0.021	0.004
Rough Terrain Forklifts	2029	300	600	0.101	0.085	0.537	0.974	0.005	0.009	0.009	528.104	0.021	0.004
Rough Terrain Forklifts	2029	600	750	0.156	0.131	1.361	0.999	0.005	0.010	0.009	527.403	0.021	0.004
Rough Terrain Forklifts	2030	0	25	0.392	0.329	4.538	4.172	0.005	0.214	0.197	586.999	0.024	0.005
Rough Terrain Forklifts	2030	25	50	0.390	0.327	3.162	3.547	0.005	0.071	0.065	587.380	0.024	0.005
Rough Terrain Forklifts	2030	50	75	0.483	0.406	5.820	3.702	0.005	0.329	0.303	531.785	0.022	0.004
Rough Terrain Forklifts	2030	75	100	0.124	0.104	1.541	3.198	0.005	0.026	0.024	528.728	0.021	0.004
Rough Terrain Forklifts	2030	100	175	0.170	0.143	1.087	2.980	0.005	0.067	0.062	527.903	0.021	0.004
Rough Terrain Forklifts	2030	175	300	0.103	0.087	0.753	0.975	0.005	0.017	0.016	527.909	0.021	0.004
Rough Terrain Forklifts	2030	300	600	0.101	0.085	0.537	0.974	0.005	0.009	0.009	528.104	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Rough Terrain Forklifts	2030	600	750	0.156	0.131	1.361	0.999	0.005	0.010	0.009	527.403	0.021	0.004
Rough Terrain Forklifts	2031	0	25	0.392	0.329	4.538	4.172	0.005	0.214	0.197	586.999	0.024	0.005
Rough Terrain Forklifts	2031	25	50	0.384	0.322	3.160	3.541	0.005	0.067	0.061	587.380	0.024	0.005
Rough Terrain Forklifts	2031	50	75	0.387	0.325	3.813	3.660	0.005	0.264	0.243	531.785	0.022	0.004
Rough Terrain Forklifts	2031	75	100	0.122	0.102	1.517	3.195	0.005	0.025	0.023	528.728	0.021	0.004
Rough Terrain Forklifts	2031	100	175	0.163	0.137	1.051	2.980	0.005	0.063	0.058	527.903	0.021	0.004
Rough Terrain Forklifts	2031	175	300	0.096	0.081	0.597	0.975	0.005	0.017	0.016	527.909	0.021	0.004
Rough Terrain Forklifts	2031	300	600	0.096	0.080	0.428	0.974	0.005	0.009	0.009	528.104	0.021	0.004
Rough Terrain Forklifts	2031	600	750	0.156	0.131	1.361	0.999	0.005	0.010	0.009	527.403	0.021	0.004
Rough Terrain Forklifts	2032	0	25	0.310	0.261	4.515	4.094	0.005	0.140	0.129	586.999	0.024	0.005
Rough Terrain Forklifts	2032	25	50	0.384	0.322	3.160	3.541	0.005	0.067	0.061	587.380	0.024	0.005
Rough Terrain Forklifts	2032	50	75	0.387	0.325	3.813	3.660	0.005	0.264	0.243	531.785	0.022	0.004
Rough Terrain Forklifts	2032	75	100	0.121	0.102	1.501	3.194	0.005	0.024	0.022	528.728	0.021	0.004
Rough Terrain Forklifts	2032	100	175	0.147	0.123	0.992	2.970	0.005	0.055	0.051	527.903	0.021	0.004
Rough Terrain Forklifts	2032	175	300	0.090	0.076	0.478	0.975	0.005	0.015	0.014	527.909	0.021	0.004
Rough Terrain Forklifts	2032	300	600	0.088	0.074	0.267	0.974	0.005	0.009	0.009	528.104	0.021	0.004
Rough Terrain Forklifts	2032	600	750	0.105	0.088	0.271	0.999	0.005	0.010	0.009	527.403	0.021	0.004
Rough Terrain Forklifts	2033	0	25	0.310	0.261	4.515	4.094	0.005	0.140	0.129	586.999	0.024	0.005
Rough Terrain Forklifts	2033	25	50	0.387	0.325	3.094	3.522	0.005	0.061	0.057	587.392	0.024	0.005
Rough Terrain Forklifts	2033	50	75	0.376	0.316	3.821	3.686	0.005	0.246	0.226	537.484	0.022	0.004
Rough Terrain Forklifts	2033	75	100	0.120	0.101	1.488	3.193	0.005	0.024	0.022	528.728	0.021	0.004
Rough Terrain Forklifts	2033	100	175	0.125	0.105	0.924	2.960	0.005	0.042	0.039	527.903	0.021	0.004
Rough Terrain Forklifts	2033	175	300	0.088	0.074	0.452	0.975	0.005	0.013	0.012	527.909	0.021	0.004
Rough Terrain Forklifts	2033	300	600	0.088	0.074	0.267	0.974	0.005	0.009	0.009	528.104	0.021	0.004
Rough Terrain Forklifts	2033	600	750	0.105	0.088	0.271	0.999	0.005	0.010	0.009	527.403	0.021	0.004
Rough Terrain Forklifts	2034	0	25	0.310	0.261	3.753	4.094	0.005	0.073	0.068	586.999	0.024	0.005
Rough Terrain Forklifts	2034	25	50	0.382	0.321	3.131	3.540	0.005	0.063	0.058	587.380	0.024	0.005
Rough Terrain Forklifts	2034	50	75	0.387	0.325	3.724	3.660	0.005	0.280	0.258	531.785	0.022	0.004
Rough Terrain Forklifts	2034	75	100	0.119	0.100	1.481	3.192	0.005	0.023	0.021	528.728	0.021	0.004
Rough Terrain Forklifts	2034	100	175	0.117	0.099	0.905	2.956	0.005	0.037	0.034	527.903	0.021	0.004
Rough Terrain Forklifts	2034	175	300	0.088	0.074	0.452	0.975	0.005	0.013	0.012	527.909	0.021	0.004
Rough Terrain Forklifts	2034	300	600	0.088	0.074	0.267	0.974	0.005	0.009	0.009	528.104	0.021	0.004
Rough Terrain Forklifts	2034	600	750	0.105	0.088	0.271	0.999	0.005	0.010	0.009	527.403	0.021	0.004
Rubber Tired Dozers	2024	25	50	0.530	0.445	3.577	4.868	0.005	0.113	0.104	586.897	0.024	0.005
Rubber Tired Dozers	2024	50	75	0.891	0.749	5.762	4.365	0.005	0.417	0.383	528.795	0.021	0.004
Rubber Tired Dozers	2024	75	100	0.758	0.637	5.315	4.180	0.005	0.393	0.362	531.865	0.022	0.004
Rubber Tired Dozers	2024	100	175	0.697	0.585	5.165	3.763	0.005	0.333	0.306	528.043	0.021	0.004
Rubber Tired Dozers	2024	175	300	0.625	0.525	5.776	3.784	0.005	0.257	0.237	528.759	0.021	0.004
Rubber Tired Dozers	2024	300	600	0.486	0.409	4.010	3.253	0.005	0.179	0.164	532.203	0.022	0.004
Rubber Tired Dozers	2024	600	750	0.269	0.226	2.868	1.090	0.005	0.081	0.075	527.876	0.021	0.004
Rubber Tired Dozers	2025	25	50	0.628	0.528	3.679	5.181	0.005	0.127	0.117	586.987	0.024	0.005
Rubber Tired Dozers	2025	50	75	0.805	0.677	5.408	4.257	0.005	0.385	0.354	527.918	0.021	0.004
Rubber Tired Dozers	2025	75	100	0.704	0.591	4.915	4.156	0.005	0.355	0.327	531.632	0.022	0.004
Rubber Tired Dozers	2025	100	175	0.622	0.522	4.472	3.687	0.005	0.290	0.267	528.125	0.021	0.004
Rubber Tired Dozers	2025	175	300	0.511	0.430	4.599	2.585	0.005	0.201	0.185	528.560	0.021	0.004
Rubber Tired Dozers	2025	300	600	0.441	0.371	3.506	2.902	0.005	0.154	0.142	532.172	0.022	0.004
Rubber Tired Dozers	2025	600	750	0.276	0.232	2.871	1.100	0.005	0.081	0.075	527.876	0.021	0.004
Rubber Tired Dozers	2026	25	50	0.659	0.554	3.720	5.392	0.005	0.127	0.117	586.933	0.024	0.005
Rubber Tired Dozers	2026	50	75	0.765	0.643	5.010	4.213	0.005	0.369	0.339	527.921	0.021	0.004
Rubber Tired Dozers	2026	75	100	0.658	0.553	4.516	4.153	0.005	0.323	0.297	534.030	0.022	0.004
Rubber Tired Dozers	2026	100	175	0.516	0.434	3.706	3.575	0.005	0.220	0.202	528.033	0.021	0.004
Rubber Tired Dozers	2026	175	300	0.567	0.477	5.081	3.568	0.005	0.225	0.207	528.489	0.021	0.004
Rubber Tired Dozers	2026	300	600	0.420	0.353	3.223	2.726	0.005	0.142	0.131	532.550	0.022	0.004
Rubber Tired Dozers	2026	600	750	0.283	0.238	2.873	1.111	0.005	0.082	0.075	527.876	0.021	0.004
Rubber Tired Dozers	2027	25	50	0.619	0.520	3.689	5.497	0.005	0.111	0.102	586.953	0.024	0.005
Rubber Tired Dozers	2027	50	75	0.590	0.496	3.864	4.049	0.005	0.262	0.241	527.763	0.021	0.004
Rubber Tired Dozers	2027	75	100	0.570	0.479	3.979	4.108	0.005	0.260	0.240	534.108	0.022	0.004
Rubber Tired Dozers	2027	100	175	0.482	0.405	3.395	3.576	0.005	0.199	0.183	527.758	0.021	0.004
Rubber Tired Dozers	2027	175	300	0.529	0.444	4.623	3.477	0.005	0.205	0.189	528.479	0.021	0.004
Rubber Tired Dozers	2027	300	600	0.408	0.343	3.091	2.656	0.005	0.135	0.125	532.559	0.022	0.004
Rubber Tired Dozers	2027	600	750	0.288	0.242	2.874	1.119	0.005	0.082	0.075	527.876	0.021	0.004
Rubber Tired Dozers	2028	25	50	0.645	0.542	3.723	5.669	0.005	0.111	0.102	587.174	0.024	0.005
Rubber Tired Dozers	2028	50	75	0.566	0.476	3.636	4.056	0.005	0.244	0.225	527.594	0.021	0.004
Rubber Tired Dozers	2028	75	100	0.571	0.480	3.963	4.121	0.005	0.259	0.238	534.034	0.022	0.004
Rubber Tired Dozers	2028	100	175	0.397	0.334	2.575	3.535	0.005	0.150	0.138	528.372	0.021	0.004
Rubber Tired Dozers	2028	175	300	0.524	0.440	4.439	3.483	0.005	0.201	0.185	528.471	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Rubber Tired Dozers	2028	300	600	0.407	0.342	3.041	2.663	0.005	0.134	0.123	532.858	0.022	0.004
Rubber Tired Dozers	2028	600	750	0.293	0.246	2.875	1.126	0.005	0.082	0.075	527.876	0.021	0.004
Rubber Tired Dozers	2029	25	50	0.647	0.543	3.684	5.727	0.005	0.100	0.092	587.167	0.024	0.005
Rubber Tired Dozers	2029	50	75	0.531	0.446	3.340	4.045	0.005	0.222	0.204	527.593	0.021	0.004
Rubber Tired Dozers	2029	75	100	0.519	0.436	3.602	4.085	0.005	0.227	0.209	534.980	0.022	0.004
Rubber Tired Dozers	2029	100	175	0.370	0.311	2.355	3.554	0.005	0.129	0.118	527.849	0.021	0.004
Rubber Tired Dozers	2029	175	300	0.525	0.441	4.439	3.487	0.005	0.201	0.185	528.442	0.021	0.004
Rubber Tired Dozers	2029	300	600	0.398	0.334	2.857	2.627	0.005	0.128	0.118	532.425	0.022	0.004
Rubber Tired Dozers	2029	600	750	0.297	0.250	2.877	1.132	0.005	0.082	0.075	527.876	0.021	0.004
Rubber Tired Dozers	2030	25	50	0.612	0.514	3.679	5.693	0.005	0.095	0.087	587.167	0.024	0.005
Rubber Tired Dozers	2030	50	75	0.503	0.423	3.267	4.031	0.005	0.204	0.188	527.593	0.021	0.004
Rubber Tired Dozers	2030	75	100	0.465	0.391	3.249	4.061	0.005	0.194	0.179	534.980	0.022	0.004
Rubber Tired Dozers	2030	100	175	0.354	0.297	2.115	3.553	0.005	0.126	0.115	527.849	0.021	0.004
Rubber Tired Dozers	2030	175	300	0.413	0.347	3.460	2.393	0.005	0.147	0.135	528.517	0.021	0.004
Rubber Tired Dozers	2030	300	600	0.391	0.329	2.773	2.673	0.005	0.126	0.116	532.382	0.022	0.004
Rubber Tired Dozers	2030	600	750	0.297	0.250	2.877	1.132	0.005	0.082	0.075	527.876	0.021	0.004
Rubber Tired Dozers	2031	25	50	0.594	0.499	3.675	5.675	0.005	0.082	0.076	587.167	0.024	0.005
Rubber Tired Dozers	2031	50	75	0.489	0.411	3.171	4.024	0.005	0.198	0.182	527.593	0.021	0.004
Rubber Tired Dozers	2031	75	100	0.428	0.360	3.068	4.043	0.005	0.169	0.156	534.980	0.022	0.004
Rubber Tired Dozers	2031	100	175	0.347	0.291	1.975	3.553	0.005	0.122	0.112	527.849	0.021	0.004
Rubber Tired Dozers	2031	175	300	0.408	0.343	3.371	2.392	0.005	0.144	0.132	528.517	0.021	0.004
Rubber Tired Dozers	2031	300	600	0.385	0.323	2.665	2.605	0.005	0.124	0.114	532.382	0.022	0.004
Rubber Tired Dozers	2031	600	750	0.297	0.250	2.877	1.132	0.005	0.082	0.075	527.876	0.021	0.004
Rubber Tired Dozers	2032	25	50	0.569	0.478	3.671	5.652	0.005	0.060	0.055	587.167	0.024	0.005
Rubber Tired Dozers	2032	50	75	0.483	0.406	3.132	4.011	0.005	0.197	0.181	527.593	0.021	0.004
Rubber Tired Dozers	2032	75	100	0.403	0.338	2.769	4.031	0.005	0.148	0.136	534.980	0.022	0.004
Rubber Tired Dozers	2032	100	175	0.340	0.285	1.869	3.544	0.005	0.119	0.109	527.849	0.021	0.004
Rubber Tired Dozers	2032	175	300	0.482	0.405	4.051	3.437	0.005	0.180	0.165	528.442	0.021	0.004
Rubber Tired Dozers	2032	300	600	0.360	0.303	2.414	2.328	0.005	0.109	0.101	532.425	0.022	0.004
Rubber Tired Dozers	2032	600	750	0.285	0.240	2.278	1.132	0.005	0.068	0.062	527.876	0.021	0.004
Rubber Tired Dozers	2033	25	50	0.564	0.474	3.670	5.647	0.005	0.055	0.050	587.167	0.024	0.005
Rubber Tired Dozers	2033	50	75	0.422	0.354	2.722	3.981	0.005	0.152	0.140	527.593	0.021	0.004
Rubber Tired Dozers	2033	75	100	0.399	0.335	2.751	4.029	0.005	0.147	0.135	534.980	0.022	0.004
Rubber Tired Dozers	2033	100	175	0.340	0.285	1.869	3.544	0.005	0.119	0.109	527.849	0.021	0.004
Rubber Tired Dozers	2033	175	300	0.476	0.400	3.960	3.437	0.005	0.175	0.161	528.442	0.021	0.004
Rubber Tired Dozers	2033	300	600	0.350	0.294	2.278	2.153	0.005	0.102	0.094	532.425	0.022	0.004
Rubber Tired Dozers	2033	600	750	0.278	0.234	2.076	1.132	0.005	0.063	0.058	527.876	0.021	0.004
Rubber Tired Dozers	2034	25	50	0.564	0.474	3.670	5.647	0.005	0.055	0.051	587.167	0.024	0.005
Rubber Tired Dozers	2034	50	75	0.406	0.341	2.680	3.973	0.005	0.142	0.131	527.593	0.021	0.004
Rubber Tired Dozers	2034	75	100	0.392	0.329	2.596	4.027	0.005	0.135	0.124	534.980	0.022	0.004
Rubber Tired Dozers	2034	100	175	0.331	0.278	1.811	3.544	0.005	0.113	0.104	527.849	0.021	0.004
Rubber Tired Dozers	2034	175	300	0.471	0.396	3.885	3.423	0.005	0.173	0.159	528.442	0.021	0.004
Rubber Tired Dozers	2034	300	600	0.342	0.287	2.207	2.116	0.005	0.097	0.089	532.425	0.022	0.004
Rubber Tired Dozers	2034	600	750	0.277	0.233	1.975	1.132	0.005	0.062	0.057	527.876	0.021	0.004
Rubber Tired Loaders	2024	0	25	1.027	0.849	6.490	3.505	0.011	0.243	0.223	851.331	0.035	0.007
Rubber Tired Loaders	2024	25	50	1.208	1.015	4.494	6.022	0.005	0.288	0.265	589.803	0.024	0.005
Rubber Tired Loaders	2024	50	75	1.576	1.324	10.260	4.539	0.005	0.919	0.845	521.322	0.021	0.004
Rubber Tired Loaders	2024	75	100	0.466	0.391	3.294	3.831	0.005	0.217	0.199	523.314	0.021	0.004
Rubber Tired Loaders	2024	100	175	0.296	0.248	1.902	3.293	0.005	0.102	0.094	526.332	0.021	0.004
Rubber Tired Loaders	2024	175	300	0.230	0.193	1.784	1.168	0.005	0.059	0.054	526.680	0.021	0.004
Rubber Tired Loaders	2024	300	600	0.261	0.219	1.796	1.347	0.005	0.068	0.063	525.984	0.021	0.004
Rubber Tired Loaders	2024	600	750	0.235	0.197	1.305	1.538	0.005	0.047	0.043	526.145	0.021	0.004
Rubber Tired Loaders	2024	750	999	0.254	0.213	3.734	1.169	0.005	0.077	0.071	528.592	0.021	0.004
Rubber Tired Loaders	2025	0	25	1.026	0.848	6.486	3.503	0.011	0.242	0.223	850.791	0.035	0.007
Rubber Tired Loaders	2025	25	50	1.148	0.965	4.369	5.969	0.005	0.260	0.239	588.750	0.024	0.005
Rubber Tired Loaders	2025	50	75	2.322	1.951	15.449	6.324	0.005	1.133	1.042	528.023	0.021	0.004
Rubber Tired Loaders	2025	75	100	0.415	0.349	2.946	3.790	0.005	0.177	0.163	522.879	0.021	0.004
Rubber Tired Loaders	2025	100	175	0.268	0.225	1.602	3.283	0.005	0.085	0.078	526.161	0.021	0.004
Rubber Tired Loaders	2025	175	300	0.213	0.179	1.492	1.160	0.005	0.050	0.046	526.675	0.021	0.004
Rubber Tired Loaders	2025	300	600	0.234	0.197	1.459	1.261	0.005	0.055	0.050	527.135	0.021	0.004
Rubber Tired Loaders	2025	600	750	0.240	0.202	1.253	1.574	0.005	0.046	0.042	526.188	0.021	0.004
Rubber Tired Loaders	2025	750	999	0.226	0.190	3.418	1.122	0.005	0.064	0.059	529.003	0.021	0.004
Rubber Tired Loaders	2026	0	25	1.026	0.848	6.482	3.501	0.011	0.242	0.223	850.265	0.034	0.007
Rubber Tired Loaders	2026	25	50	1.038	0.872	4.148	5.780	0.005	0.215	0.198	588.570	0.024	0.005
Rubber Tired Loaders	2026	50	75	2.322	1.951	15.449	6.324	0.005	1.133	1.042	528.023	0.021	0.004
Rubber Tired Loaders	2026	75	100	0.387	0.325	2.722	3.785	0.005	0.153	0.141	523.446	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Rubber Tired Loaders	2026	100	175	0.252	0.211	1.398	3.293	0.005	0.073	0.067	526.415	0.021	0.004
Rubber Tired Loaders	2026	175	300	0.208	0.175	1.337	1.166	0.005	0.045	0.041	526.593	0.021	0.004
Rubber Tired Loaders	2026	300	600	0.222	0.187	1.303	1.235	0.005	0.049	0.045	527.198	0.021	0.004
Rubber Tired Loaders	2026	600	750	0.233	0.196	1.134	1.476	0.005	0.040	0.037	526.611	0.021	0.004
Rubber Tired Loaders	2026	750	999	0.224	0.188	3.414	1.120	0.005	0.064	0.058	529.048	0.021	0.004
Rubber Tired Loaders	2027	0	25	1.027	0.849	6.491	3.506	0.011	0.243	0.223	851.426	0.035	0.007
Rubber Tired Loaders	2027	25	50	1.004	0.844	4.103	5.801	0.005	0.203	0.186	588.202	0.024	0.005
Rubber Tired Loaders	2027	50	75	1.893	1.590	12.460	5.302	0.005	1.012	0.931	527.014	0.021	0.004
Rubber Tired Loaders	2027	75	100	0.356	0.299	2.498	3.774	0.005	0.128	0.117	522.846	0.021	0.004
Rubber Tired Loaders	2027	100	175	0.239	0.200	1.240	3.304	0.005	0.063	0.058	526.609	0.021	0.004
Rubber Tired Loaders	2027	175	300	0.190	0.160	1.076	1.148	0.005	0.037	0.034	526.664	0.021	0.004
Rubber Tired Loaders	2027	300	600	0.223	0.188	1.203	1.246	0.005	0.046	0.042	527.657	0.021	0.004
Rubber Tired Loaders	2027	600	750	0.210	0.177	0.943	1.206	0.005	0.030	0.027	526.885	0.021	0.004
Rubber Tired Loaders	2027	750	999	0.231	0.194	3.432	1.131	0.005	0.064	0.059	529.084	0.021	0.004
Rubber Tired Loaders	2028	0	25	1.041	0.862	6.449	3.710	0.010	0.265	0.243	834.804	0.034	0.007
Rubber Tired Loaders	2028	25	50	0.955	0.802	3.972	5.679	0.005	0.179	0.164	586.978	0.024	0.005
Rubber Tired Loaders	2028	50	75	1.655	1.390	9.088	4.750	0.005	1.042	0.958	537.020	0.022	0.004
Rubber Tired Loaders	2028	75	100	0.328	0.275	2.310	3.771	0.005	0.103	0.094	523.539	0.021	0.004
Rubber Tired Loaders	2028	100	175	0.227	0.191	1.098	3.317	0.005	0.054	0.050	527.104	0.021	0.004
Rubber Tired Loaders	2028	175	300	0.187	0.157	0.964	1.151	0.005	0.033	0.031	526.776	0.021	0.004
Rubber Tired Loaders	2028	300	600	0.222	0.187	1.137	1.236	0.005	0.043	0.040	527.230	0.021	0.004
Rubber Tired Loaders	2028	600	750	0.215	0.180	0.840	1.233	0.005	0.027	0.025	526.022	0.021	0.004
Rubber Tired Loaders	2028	750	999	0.239	0.201	3.453	1.143	0.005	0.065	0.059	529.085	0.021	0.004
Rubber Tired Loaders	2029	0	25	1.041	0.862	6.443	3.718	0.010	0.266	0.244	833.523	0.034	0.007
Rubber Tired Loaders	2029	25	50	0.905	0.761	3.910	5.691	0.005	0.159	0.146	588.052	0.024	0.005
Rubber Tired Loaders	2029	50	75	1.657	1.392	9.182	4.753	0.005	1.037	0.954	535.625	0.022	0.004
Rubber Tired Loaders	2029	75	100	0.324	0.272	2.237	3.789	0.005	0.095	0.087	523.887	0.021	0.004
Rubber Tired Loaders	2029	100	175	0.219	0.184	0.977	3.332	0.005	0.048	0.044	527.249	0.021	0.004
Rubber Tired Loaders	2029	175	300	0.189	0.158	0.906	1.177	0.005	0.032	0.029	526.689	0.021	0.004
Rubber Tired Loaders	2029	300	600	0.219	0.184	1.063	1.212	0.005	0.040	0.037	526.628	0.021	0.004
Rubber Tired Loaders	2029	600	750	0.213	0.179	0.711	1.203	0.005	0.023	0.021	525.807	0.021	0.004
Rubber Tired Loaders	2029	750	999	0.216	0.182	3.125	1.140	0.005	0.052	0.048	529.063	0.021	0.004
Rubber Tired Loaders	2030	0	25	1.020	0.844	6.439	3.696	0.010	0.263	0.242	833.484	0.034	0.007
Rubber Tired Loaders	2030	25	50	0.882	0.741	3.883	5.657	0.005	0.153	0.141	588.052	0.024	0.005
Rubber Tired Loaders	2030	50	75	1.271	1.068	7.838	4.566	0.005	0.809	0.744	535.625	0.022	0.004
Rubber Tired Loaders	2030	75	100	0.314	0.264	2.166	3.784	0.005	0.087	0.080	523.887	0.021	0.004
Rubber Tired Loaders	2030	100	175	0.212	0.178	0.903	3.332	0.005	0.045	0.042	527.249	0.021	0.004
Rubber Tired Loaders	2030	175	300	0.186	0.156	0.851	1.174	0.005	0.030	0.028	526.689	0.021	0.004
Rubber Tired Loaders	2030	300	600	0.215	0.180	0.972	1.195	0.005	0.038	0.035	526.628	0.021	0.004
Rubber Tired Loaders	2030	600	750	0.210	0.176	0.674	1.203	0.005	0.023	0.021	525.807	0.021	0.004
Rubber Tired Loaders	2030	750	999	0.206	0.173	3.000	1.093	0.005	0.047	0.044	529.063	0.021	0.004
Rubber Tired Loaders	2031	0	25	1.020	0.844	6.437	3.694	0.010	0.262	0.241	833.183	0.034	0.007
Rubber Tired Loaders	2031	25	50	0.844	0.709	3.874	5.620	0.005	0.146	0.134	588.052	0.024	0.005
Rubber Tired Loaders	2031	50	75	1.141	0.959	7.502	4.502	0.005	0.726	0.668	535.625	0.022	0.004
Rubber Tired Loaders	2031	75	100	0.300	0.252	2.057	3.776	0.005	0.078	0.071	523.887	0.021	0.004
Rubber Tired Loaders	2031	100	175	0.207	0.174	0.829	3.331	0.005	0.043	0.040	527.249	0.021	0.004
Rubber Tired Loaders	2031	175	300	0.184	0.155	0.799	1.156	0.005	0.029	0.027	526.689	0.021	0.004
Rubber Tired Loaders	2031	300	600	0.213	0.179	0.918	1.194	0.005	0.038	0.035	526.628	0.021	0.004
Rubber Tired Loaders	2031	600	750	0.205	0.172	0.547	1.194	0.005	0.022	0.020	525.807	0.021	0.004
Rubber Tired Loaders	2031	750	999	0.204	0.172	2.963	1.093	0.005	0.046	0.043	529.063	0.021	0.004
Rubber Tired Loaders	2032	0	25	0.999	0.826	6.438	3.676	0.010	0.243	0.223	833.804	0.034	0.007
Rubber Tired Loaders	2032	25	50	0.795	0.668	3.800	5.573	0.005	0.133	0.123	588.052	0.024	0.005
Rubber Tired Loaders	2032	50	75	1.075	0.904	7.334	4.467	0.005	0.686	0.631	535.625	0.022	0.004
Rubber Tired Loaders	2032	75	100	0.292	0.246	1.978	3.773	0.005	0.071	0.066	523.887	0.021	0.004
Rubber Tired Loaders	2032	100	175	0.203	0.170	0.762	3.330	0.005	0.041	0.037	527.249	0.021	0.004
Rubber Tired Loaders	2032	175	300	0.181	0.152	0.737	1.153	0.005	0.027	0.025	526.689	0.021	0.004
Rubber Tired Loaders	2032	300	600	0.210	0.176	0.854	1.174	0.005	0.035	0.032	526.628	0.021	0.004
Rubber Tired Loaders	2032	600	750	0.205	0.172	0.547	1.194	0.005	0.022	0.020	525.807	0.021	0.004
Rubber Tired Loaders	2032	750	999	0.201	0.169	2.895	1.093	0.005	0.044	0.041	529.063	0.021	0.004
Rubber Tired Loaders	2033	0	25	0.998	0.826	6.435	3.674	0.010	0.243	0.223	833.503	0.034	0.007
Rubber Tired Loaders	2033	25	50	0.768	0.646	3.751	5.541	0.005	0.123	0.113	588.052	0.024	0.005
Rubber Tired Loaders	2033	50	75	1.075	0.904	7.334	4.467	0.005	0.686	0.631	535.625	0.022	0.004
Rubber Tired Loaders	2033	75	100	0.285	0.239	1.911	3.770	0.005	0.065	0.059	523.887	0.021	0.004
Rubber Tired Loaders	2033	100	175	0.199	0.168	0.725	3.330	0.005	0.038	0.035	527.249	0.021	0.004
Rubber Tired Loaders	2033	175	300	0.178	0.150	0.691	1.152	0.005	0.026	0.024	526.689	0.021	0.004
Rubber Tired Loaders	2033	300	600	0.207	0.174	0.802	1.165	0.005	0.033	0.030	526.628	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Rubber Tired Loaders	2033	600	750	0.205	0.172	0.547	1.194	0.005	0.022	0.020	525.807	0.021	0.004
Rubber Tired Loaders	2033	750	999	0.199	0.168	2.861	1.093	0.005	0.043	0.040	529.063	0.021	0.004
Rubber Tired Loaders	2034	0	25	0.999	0.826	6.437	3.675	0.010	0.243	0.223	833.722	0.034	0.007
Rubber Tired Loaders	2034	25	50	0.717	0.603	3.668	5.485	0.005	0.109	0.100	588.052	0.024	0.005
Rubber Tired Loaders	2034	50	75	0.825	0.693	5.486	4.332	0.005	0.506	0.466	535.625	0.022	0.004
Rubber Tired Loaders	2034	75	100	0.283	0.237	1.891	3.769	0.005	0.062	0.057	523.887	0.021	0.004
Rubber Tired Loaders	2034	100	175	0.196	0.164	0.689	3.329	0.005	0.035	0.033	527.249	0.021	0.004
Rubber Tired Loaders	2034	175	300	0.176	0.148	0.649	1.151	0.005	0.024	0.022	526.689	0.021	0.004
Rubber Tired Loaders	2034	300	600	0.202	0.170	0.738	1.155	0.005	0.028	0.026	526.628	0.021	0.004
Rubber Tired Loaders	2034	600	750	0.205	0.172	0.544	1.194	0.005	0.022	0.020	525.807	0.021	0.004
Rubber Tired Loaders	2034	750	999	0.196	0.164	2.727	1.093	0.005	0.039	0.036	529.063	0.021	0.004
Scrapers	2024	0	25	0.208	0.175	2.892	3.416	0.005	0.011	0.010	586.963	0.024	0.005
Scrapers	2024	25	50	4.067	3.417	6.751	9.617	0.005	0.949	0.873	577.150	0.023	0.005
Scrapers	2024	50	75	0.898	0.755	5.825	4.082	0.005	0.495	0.455	531.943	0.022	0.004
Scrapers	2024	75	100	0.616	0.518	5.413	3.995	0.005	0.386	0.355	530.381	0.022	0.004
Scrapers	2024	100	175	0.373	0.313	2.915	3.342	0.005	0.153	0.140	531.820	0.022	0.004
Scrapers	2024	175	300	0.382	0.321	3.212	1.700	0.005	0.145	0.134	527.327	0.021	0.004
Scrapers	2024	300	600	0.272	0.229	2.292	1.711	0.005	0.089	0.081	528.968	0.021	0.004
Scrapers	2024	600	750	0.845	0.710	9.628	6.815	0.005	0.398	0.366	529.775	0.021	0.004
Scrapers	2024	750	999	0.495	0.416	5.964	4.049	0.005	0.205	0.188	527.722	0.021	0.004
Scrapers	2025	0	25	0.233	0.196	2.926	3.579	0.005	0.012	0.011	586.963	0.024	0.005
Scrapers	2025	25	50	4.088	3.435	6.761	9.663	0.005	0.953	0.877	577.150	0.023	0.005
Scrapers	2025	50	75	0.701	0.589	4.650	3.892	0.005	0.372	0.343	531.265	0.022	0.004
Scrapers	2025	75	100	0.642	0.539	5.506	4.035	0.005	0.399	0.367	530.077	0.022	0.004
Scrapers	2025	100	175	0.360	0.303	2.737	3.357	0.005	0.142	0.131	531.820	0.022	0.004
Scrapers	2025	175	300	0.336	0.283	2.714	1.735	0.005	0.123	0.113	527.149	0.021	0.004
Scrapers	2025	300	600	0.243	0.204	1.909	1.576	0.005	0.074	0.068	528.942	0.021	0.004
Scrapers	2025	600	750	0.330	0.277	3.468	2.993	0.005	0.143	0.131	527.905	0.021	0.004
Scrapers	2025	750	999	0.499	0.420	5.970	4.055	0.005	0.205	0.189	527.722	0.021	0.004
Scrapers	2026	0	25	0.257	0.216	2.959	3.738	0.005	0.012	0.011	586.963	0.024	0.005
Scrapers	2026	25	50	4.107	3.451	6.771	9.704	0.005	0.957	0.880	577.150	0.023	0.005
Scrapers	2026	50	75	0.734	0.617	4.929	3.954	0.005	0.399	0.367	528.761	0.021	0.004
Scrapers	2026	75	100	0.573	0.482	4.959	3.954	0.005	0.351	0.323	529.585	0.021	0.004
Scrapers	2026	100	175	0.323	0.272	2.404	3.276	0.005	0.125	0.115	531.008	0.022	0.004
Scrapers	2026	175	300	0.331	0.278	2.582	1.562	0.005	0.116	0.106	527.080	0.021	0.004
Scrapers	2026	300	600	0.233	0.196	1.741	1.539	0.005	0.068	0.062	528.854	0.021	0.004
Scrapers	2026	600	750	0.316	0.266	3.232	2.908	0.005	0.134	0.124	527.106	0.021	0.004
Scrapers	2026	750	999	0.504	0.423	5.976	4.061	0.005	0.206	0.189	527.722	0.021	0.004
Scrapers	2027	0	25	0.280	0.235	2.991	3.893	0.005	0.013	0.012	586.963	0.024	0.005
Scrapers	2027	25	50	4.108	3.452	6.772	9.708	0.005	0.957	0.881	577.150	0.023	0.005
Scrapers	2027	50	75	0.540	0.453	3.799	3.762	0.005	0.271	0.250	528.713	0.021	0.004
Scrapers	2027	75	100	0.489	0.411	4.425	3.870	0.005	0.289	0.266	530.862	0.022	0.004
Scrapers	2027	100	175	0.304	0.256	2.181	3.256	0.005	0.113	0.104	530.743	0.022	0.004
Scrapers	2027	175	300	0.311	0.261	2.300	1.520	0.005	0.105	0.096	527.229	0.021	0.004
Scrapers	2027	300	600	0.227	0.191	1.609	1.522	0.005	0.063	0.058	528.705	0.021	0.004
Scrapers	2027	600	750	0.377	0.317	3.987	3.447	0.005	0.168	0.154	528.237	0.021	0.004
Scrapers	2027	750	999	0.508	0.427	5.981	4.068	0.005	0.206	0.190	527.868	0.021	0.004
Scrapers	2028	0	25	0.303	0.254	3.022	4.043	0.005	0.013	0.012	586.963	0.024	0.005
Scrapers	2028	25	50	4.108	3.452	6.772	9.708	0.005	0.957	0.881	577.150	0.023	0.005
Scrapers	2028	50	75	0.483	0.406	3.459	3.723	0.005	0.225	0.207	527.315	0.021	0.004
Scrapers	2028	75	100	0.296	0.249	2.776	3.515	0.005	0.140	0.129	528.866	0.021	0.004
Scrapers	2028	100	175	0.287	0.241	1.984	3.254	0.005	0.102	0.094	531.054	0.022	0.004
Scrapers	2028	175	300	0.308	0.259	2.225	1.513	0.005	0.102	0.094	526.984	0.021	0.004
Scrapers	2028	300	600	0.220	0.185	1.493	1.500	0.005	0.059	0.054	528.609	0.021	0.004
Scrapers	2028	600	750	0.337	0.283	3.250	3.345	0.005	0.146	0.134	528.037	0.021	0.004
Scrapers	2028	750	999	0.512	0.430	5.980	4.072	0.005	0.206	0.190	527.576	0.021	0.004
Scrapers	2029	0	25	0.325	0.273	3.052	4.189	0.005	0.014	0.013	586.963	0.024	0.005
Scrapers	2029	25	50	4.108	3.452	6.772	9.708	0.005	0.957	0.881	577.150	0.023	0.005
Scrapers	2029	50	75	0.407	0.342	3.108	3.697	0.005	0.163	0.150	526.992	0.021	0.004
Scrapers	2029	75	100	0.291	0.244	2.710	3.515	0.005	0.134	0.123	529.056	0.021	0.004
Scrapers	2029	100	175	0.283	0.238	1.904	3.268	0.005	0.097	0.090	530.967	0.022	0.004
Scrapers	2029	175	300	0.307	0.258	2.158	1.511	0.005	0.099	0.091	527.122	0.021	0.004
Scrapers	2029	300	600	0.213	0.179	1.374	1.469	0.005	0.055	0.050	528.521	0.021	0.004
Scrapers	2029	600	750	0.967	0.813	10.343	8.763	0.005	0.466	0.429	527.724	0.021	0.004
Scrapers	2029	750	999	0.471	0.396	5.605	3.625	0.005	0.186	0.171	528.007	0.021	0.004
Scrapers	2030	0	25	0.325	0.273	3.052	4.189	0.005	0.014	0.013	586.963	0.024	0.005

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Scrapers	2030	25	50	4.108	3.452	6.772	9.708	0.005	0.957	0.881	577.150	0.023	0.005
Scrapers	2030	50	75	0.390	0.327	2.929	3.663	0.005	0.155	0.143	526.992	0.021	0.004
Scrapers	2030	75	100	0.268	0.225	2.646	3.504	0.005	0.117	0.108	529.056	0.021	0.004
Scrapers	2030	100	175	0.278	0.233	1.812	3.287	0.005	0.096	0.089	531.173	0.022	0.004
Scrapers	2030	175	300	0.285	0.239	1.941	1.557	0.005	0.090	0.083	527.152	0.021	0.004
Scrapers	2030	300	600	0.208	0.175	1.281	1.454	0.005	0.053	0.049	528.521	0.021	0.004
Scrapers	2030	600	750	0.803	0.674	8.518	3.033	0.005	0.354	0.325	527.724	0.021	0.004
Scrapers	2030	750	999	0.467	0.392	5.393	3.625	0.005	0.182	0.167	528.007	0.021	0.004
Scrapers	2031	0	25	0.325	0.273	3.052	4.189	0.005	0.014	0.013	586.963	0.024	0.005
Scrapers	2031	25	50	4.108	3.452	6.772	9.708	0.005	0.957	0.881	577.150	0.023	0.005
Scrapers	2031	50	75	0.390	0.327	2.929	3.663	0.005	0.152	0.140	526.992	0.021	0.004
Scrapers	2031	75	100	0.251	0.211	2.442	3.496	0.005	0.104	0.095	529.056	0.021	0.004
Scrapers	2031	100	175	0.238	0.200	1.434	3.245	0.005	0.076	0.070	531.071	0.022	0.004
Scrapers	2031	175	300	0.303	0.255	2.065	1.542	0.005	0.101	0.093	527.147	0.021	0.004
Scrapers	2031	300	600	0.204	0.172	1.196	1.446	0.005	0.051	0.047	528.521	0.021	0.004
Scrapers	2031	600	750	0.803	0.674	8.518	3.033	0.005	0.354	0.325	527.724	0.021	0.004
Scrapers	2031	750	999	0.458	0.385	5.260	3.620	0.005	0.181	0.166	528.007	0.021	0.004
Scrapers	2032	0	25	0.325	0.273	3.052	4.189	0.005	0.014	0.013	586.963	0.024	0.005
Scrapers	2032	25	50	3.410	2.865	6.577	9.031	0.005	0.863	0.794	577.150	0.023	0.005
Scrapers	2032	50	75	0.387	0.325	2.884	3.663	0.005	0.152	0.140	526.992	0.021	0.004
Scrapers	2032	75	100	0.244	0.205	2.287	3.492	0.005	0.095	0.087	529.056	0.021	0.004
Scrapers	2032	100	175	0.251	0.211	1.541	3.255	0.005	0.084	0.077	530.967	0.022	0.004
Scrapers	2032	175	300	0.280	0.235	1.822	1.467	0.005	0.087	0.080	527.122	0.021	0.004
Scrapers	2032	300	600	0.200	0.168	1.132	1.433	0.005	0.049	0.045	528.521	0.021	0.004
Scrapers	2032	600	750	0.797	0.669	8.213	3.033	0.005	0.346	0.319	527.724	0.021	0.004
Scrapers	2032	750	999	0.457	0.384	5.171	3.620	0.005	0.180	0.166	528.007	0.021	0.004
Scrapers	2033	0	25	0.325	0.273	3.052	4.189	0.005	0.014	0.013	586.963	0.024	0.005
Scrapers	2033	25	50	3.177	2.669	6.539	8.806	0.005	0.833	0.767	577.150	0.023	0.005
Scrapers	2033	50	75	0.387	0.325	2.884	3.663	0.005	0.153	0.141	526.992	0.021	0.004
Scrapers	2033	75	100	0.235	0.198	2.116	3.489	0.005	0.088	0.081	529.056	0.021	0.004
Scrapers	2033	100	175	0.238	0.200	1.384	3.253	0.005	0.074	0.068	531.292	0.022	0.004
Scrapers	2033	175	300	0.277	0.233	1.771	1.574	0.005	0.086	0.079	527.175	0.021	0.004
Scrapers	2033	300	600	0.196	0.165	1.073	1.423	0.005	0.045	0.042	528.521	0.021	0.004
Scrapers	2033	600	750	0.793	0.666	8.110	3.033	0.005	0.344	0.316	527.724	0.021	0.004
Scrapers	2033	750	999	0.457	0.384	4.693	3.620	0.005	0.164	0.151	528.007	0.021	0.004
Scrapers	2034	0	25	0.325	0.273	3.052	4.189	0.005	0.014	0.013	586.963	0.024	0.005
Scrapers	2034	25	50	2.559	2.150	6.381	8.203	0.005	0.749	0.689	577.150	0.023	0.005
Scrapers	2034	50	75	0.386	0.324	2.870	3.663	0.005	0.148	0.136	526.992	0.021	0.004
Scrapers	2034	75	100	0.235	0.198	2.116	3.489	0.005	0.089	0.082	529.056	0.021	0.004
Scrapers	2034	100	175	0.230	0.193	1.334	3.251	0.005	0.071	0.065	531.292	0.022	0.004
Scrapers	2034	175	300	0.270	0.227	1.683	1.562	0.005	0.082	0.076	527.175	0.021	0.004
Scrapers	2034	300	600	0.190	0.160	1.004	1.415	0.005	0.041	0.037	528.521	0.021	0.004
Scrapers	2034	600	750	0.792	0.666	8.059	3.033	0.005	0.343	0.316	527.724	0.021	0.004
Scrapers	2034	750	999	0.445	0.374	4.541	3.474	0.005	0.159	0.146	528.007	0.021	0.004
Signal Boards	2024	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.303	0.023	0.005
Signal Boards	2024	25	50	0.554	0.458	3.621	4.200	0.007	0.113	0.104	561.957	0.023	0.005
Signal Boards	2025	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.302	0.023	0.005
Signal Boards	2025	25	50	0.517	0.427	3.525	4.174	0.007	0.097	0.090	562.457	0.023	0.005
Signal Boards	2026	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.302	0.023	0.005
Signal Boards	2026	25	50	0.482	0.398	3.418	4.135	0.007	0.082	0.076	560.870	0.023	0.005
Signal Boards	2027	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.298	0.023	0.005
Signal Boards	2027	25	50	0.451	0.373	3.316	4.098	0.007	0.068	0.063	559.515	0.023	0.005
Signal Boards	2028	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.300	0.023	0.005
Signal Boards	2028	25	50	0.426	0.352	3.235	4.079	0.007	0.055	0.051	560.388	0.023	0.005
Signal Boards	2029	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.300	0.023	0.005
Signal Boards	2029	25	50	0.403	0.333	3.171	4.043	0.007	0.046	0.042	558.178	0.023	0.005
Signal Boards	2030	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.301	0.023	0.005
Signal Boards	2030	25	50	0.386	0.319	3.137	4.026	0.007	0.040	0.036	558.156	0.023	0.005
Signal Boards	2031	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.298	0.023	0.005
Signal Boards	2031	25	50	0.374	0.309	3.109	4.016	0.007	0.034	0.031	558.310	0.023	0.005
Signal Boards	2032	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.303	0.023	0.005
Signal Boards	2032	25	50	0.364	0.300	3.077	3.998	0.007	0.029	0.027	557.079	0.023	0.005
Signal Boards	2033	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.298	0.023	0.005
Signal Boards	2033	25	50	0.357	0.295	3.054	3.991	0.007	0.026	0.023	556.900	0.023	0.005
Signal Boards	2034	0	25	0.662	0.547	4.143	3.470	0.009	0.162	0.149	568.301	0.023	0.005
Signal Boards	2034	25	50	0.352	0.291	3.039	3.991	0.007	0.022	0.021	557.398	0.023	0.005

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Skid Steer Loaders	2024	0	25	1.026	0.848	6.496	3.494	0.011	0.250	0.230	848.207	0.034	0.007
Skid Steer Loaders	2024	25	50	0.415	0.349	3.338	3.662	0.005	0.088	0.081	588.969	0.024	0.005
Skid Steer Loaders	2024	50	75	0.169	0.142	1.918	3.255	0.005	0.059	0.054	528.170	0.021	0.004
Skid Steer Loaders	2024	75	100	1.339	1.125	7.862	4.112	0.005	0.784	0.721	523.523	0.021	0.004
Skid Steer Loaders	2024	100	175	0.156	0.131	1.244	2.879	0.005	0.053	0.048	526.346	0.021	0.004
Skid Steer Loaders	2024	175	300	0.125	0.105	1.185	0.989	0.005	0.036	0.034	528.250	0.021	0.004
Skid Steer Loaders	2024	300	600	0.197	0.166	2.085	0.998	0.005	0.091	0.084	528.537	0.021	0.004
Skid Steer Loaders	2024	600	750	0.197	0.166	2.085	0.998	0.005	0.091	0.084	528.537	0.021	0.004
Skid Steer Loaders	2024	750	999	0.088	0.074	2.289	0.953	0.005	0.031	0.028	528.537	0.021	0.004
Skid Steer Loaders	2025	0	25	1.025	0.847	6.486	3.493	0.011	0.248	0.228	848.214	0.034	0.007
Skid Steer Loaders	2025	25	50	0.405	0.341	3.302	3.652	0.005	0.084	0.077	589.204	0.024	0.005
Skid Steer Loaders	2025	50	75	0.166	0.139	1.862	3.249	0.005	0.056	0.052	528.374	0.021	0.004
Skid Steer Loaders	2025	75	100	2.064	1.734	14.404	5.850	0.005	0.968	0.891	528.023	0.021	0.004
Skid Steer Loaders	2025	100	175	0.130	0.109	1.005	2.878	0.005	0.039	0.036	527.077	0.021	0.004
Skid Steer Loaders	2025	175	300	0.129	0.108	1.195	0.995	0.005	0.037	0.034	528.013	0.021	0.004
Skid Steer Loaders	2025	300	600	0.201	0.169	2.089	1.001	0.005	0.092	0.084	528.537	0.021	0.004
Skid Steer Loaders	2025	600	750	0.201	0.169	2.089	1.001	0.005	0.092	0.084	528.537	0.021	0.004
Skid Steer Loaders	2025	750	999	0.090	0.076	2.290	0.955	0.005	0.030	0.028	527.040	0.021	0.004
Skid Steer Loaders	2026	0	25	1.024	0.846	6.478	3.493	0.011	0.246	0.227	848.222	0.034	0.007
Skid Steer Loaders	2026	25	50	0.394	0.331	3.266	3.614	0.005	0.080	0.073	588.646	0.024	0.005
Skid Steer Loaders	2026	50	75	0.159	0.134	1.807	3.245	0.005	0.051	0.047	528.621	0.021	0.004
Skid Steer Loaders	2026	75	100	2.074	1.743	14.444	5.868	0.005	0.975	0.897	528.023	0.021	0.004
Skid Steer Loaders	2026	100	175	0.131	0.110	1.009	2.891	0.005	0.039	0.036	528.071	0.021	0.004
Skid Steer Loaders	2026	175	300	0.119	0.100	1.021	0.992	0.005	0.029	0.027	528.075	0.021	0.004
Skid Steer Loaders	2026	300	600	0.204	0.172	2.093	1.004	0.005	0.092	0.085	528.537	0.021	0.004
Skid Steer Loaders	2026	600	750	0.204	0.172	2.093	1.004	0.005	0.092	0.085	528.537	0.021	0.004
Skid Steer Loaders	2026	750	999	0.093	0.078	2.298	0.960	0.005	0.030	0.028	527.040	0.021	0.004
Skid Steer Loaders	2027	0	25	1.024	0.846	6.473	3.492	0.011	0.245	0.225	848.199	0.034	0.007
Skid Steer Loaders	2027	25	50	0.384	0.323	3.232	3.595	0.005	0.075	0.069	588.573	0.024	0.005
Skid Steer Loaders	2027	50	75	0.154	0.129	1.753	3.243	0.005	0.047	0.043	528.655	0.021	0.004
Skid Steer Loaders	2027	75	100	2.084	1.751	14.484	5.886	0.005	0.981	0.903	528.023	0.021	0.004
Skid Steer Loaders	2027	100	175	0.135	0.114	1.015	2.911	0.005	0.040	0.036	528.073	0.021	0.004
Skid Steer Loaders	2027	175	300	0.118	0.100	1.040	0.989	0.005	0.029	0.027	528.177	0.021	0.004
Skid Steer Loaders	2027	300	600	0.208	0.175	2.096	1.006	0.005	0.093	0.085	528.537	0.021	0.004
Skid Steer Loaders	2027	600	750	0.208	0.175	2.096	1.006	0.005	0.093	0.085	528.537	0.021	0.004
Skid Steer Loaders	2027	750	999	0.098	0.082	2.313	0.968	0.005	0.031	0.028	528.537	0.021	0.004
Skid Steer Loaders	2028	0	25	1.023	0.846	6.469	3.493	0.011	0.244	0.224	848.214	0.034	0.007
Skid Steer Loaders	2028	25	50	0.366	0.308	3.198	3.577	0.005	0.069	0.063	588.561	0.024	0.005
Skid Steer Loaders	2028	50	75	0.150	0.126	1.712	3.245	0.005	0.043	0.039	528.614	0.021	0.004
Skid Steer Loaders	2028	75	100	2.093	1.759	14.524	5.904	0.005	0.987	0.908	528.023	0.021	0.004
Skid Steer Loaders	2028	100	175	0.135	0.114	0.963	2.921	0.005	0.040	0.037	528.158	0.021	0.004
Skid Steer Loaders	2028	175	300	0.122	0.102	1.062	0.993	0.005	0.030	0.027	528.080	0.021	0.004
Skid Steer Loaders	2028	300	600	0.211	0.177	2.100	1.009	0.005	0.093	0.086	528.537	0.021	0.004
Skid Steer Loaders	2028	600	750	0.211	0.177	2.100	1.009	0.005	0.093	0.086	528.537	0.021	0.004
Skid Steer Loaders	2028	750	999	0.102	0.086	2.321	0.973	0.005	0.032	0.029	528.537	0.021	0.004
Skid Steer Loaders	2029	0	25	1.023	0.846	6.467	3.493	0.011	0.243	0.223	848.219	0.034	0.007
Skid Steer Loaders	2029	25	50	0.361	0.304	3.179	3.558	0.005	0.067	0.062	588.387	0.024	0.005
Skid Steer Loaders	2029	50	75	0.148	0.124	1.682	3.245	0.005	0.041	0.038	529.013	0.021	0.004
Skid Steer Loaders	2029	75	100	0.298	0.250	3.168	3.513	0.005	0.065	0.060	524.772	0.021	0.004
Skid Steer Loaders	2029	100	175	0.137	0.115	0.971	2.931	0.005	0.040	0.037	528.339	0.021	0.004
Skid Steer Loaders	2029	175	300	0.126	0.106	1.085	0.999	0.005	0.030	0.028	528.224	0.021	0.004
Skid Steer Loaders	2029	300	600	0.214	0.180	2.104	1.012	0.005	0.094	0.086	528.537	0.021	0.004
Skid Steer Loaders	2029	600	750	0.214	0.180	2.104	1.012	0.005	0.094	0.086	528.537	0.021	0.004
Skid Steer Loaders	2029	750	999	0.107	0.090	2.323	0.976	0.005	0.033	0.030	527.040	0.021	0.004
Skid Steer Loaders	2030	0	25	1.023	0.846	6.466	3.493	0.011	0.242	0.223	848.209	0.034	0.007
Skid Steer Loaders	2030	25	50	0.349	0.293	3.155	3.545	0.005	0.063	0.058	588.387	0.024	0.005
Skid Steer Loaders	2030	50	75	0.142	0.119	1.655	3.242	0.005	0.037	0.034	529.013	0.021	0.004
Skid Steer Loaders	2030	75	100	0.254	0.214	2.104	3.513	0.005	0.065	0.060	524.772	0.021	0.004
Skid Steer Loaders	2030	100	175	0.132	0.111	0.833	2.931	0.005	0.036	0.033	528.339	0.021	0.004
Skid Steer Loaders	2030	175	300	0.121	0.102	0.875	0.999	0.005	0.030	0.028	528.224	0.021	0.004
Skid Steer Loaders	2030	300	600	0.214	0.180	2.104	1.012	0.005	0.094	0.086	528.537	0.021	0.004
Skid Steer Loaders	2030	600	750	0.214	0.180	2.104	1.012	0.005	0.094	0.086	528.537	0.021	0.004
Skid Steer Loaders	2030	750	999	0.107	0.090	2.323	0.976	0.005	0.033	0.030	527.040	0.021	0.004
Skid Steer Loaders	2031	0	25	1.023	0.846	6.466	3.493	0.011	0.242	0.222	848.232	0.034	0.007
Skid Steer Loaders	2031	25	50	0.329	0.277	3.124	3.520	0.005	0.057	0.053	588.388	0.024	0.005
Skid Steer Loaders	2031	50	75	0.138	0.116	1.618	3.241	0.005	0.034	0.031	529.022	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Skid Steer Loaders	2031	75	100	0.241	0.203	2.009	3.481	0.005	0.062	0.057	524.772	0.021	0.004
Skid Steer Loaders	2031	100	175	0.130	0.109	0.742	2.931	0.005	0.035	0.032	528.339	0.021	0.004
Skid Steer Loaders	2031	175	300	0.119	0.100	0.841	0.999	0.005	0.030	0.028	528.224	0.021	0.004
Skid Steer Loaders	2031	300	600	0.214	0.180	2.104	1.012	0.005	0.094	0.086	528.537	0.021	0.004
Skid Steer Loaders	2031	600	750	0.214	0.180	2.104	1.012	0.005	0.094	0.086	528.537	0.021	0.004
Skid Steer Loaders	2031	750	999	0.090	0.076	2.323	0.976	0.005	0.020	0.018	527.040	0.021	0.004
Skid Steer Loaders	2032	0	25	1.023	0.846	6.466	3.493	0.011	0.242	0.222	848.214	0.034	0.007
Skid Steer Loaders	2032	25	50	0.318	0.267	3.104	3.509	0.005	0.053	0.049	588.387	0.024	0.005
Skid Steer Loaders	2032	50	75	0.134	0.113	1.582	3.239	0.005	0.032	0.029	529.013	0.021	0.004
Skid Steer Loaders	2032	75	100	0.241	0.203	2.009	3.481	0.005	0.062	0.057	524.772	0.021	0.004
Skid Steer Loaders	2032	100	175	0.130	0.109	0.742	2.931	0.005	0.035	0.032	528.339	0.021	0.004
Skid Steer Loaders	2032	175	300	0.118	0.099	0.715	0.999	0.005	0.030	0.028	528.224	0.021	0.004
Skid Steer Loaders	2032	300	600	0.159	0.134	1.188	1.012	0.005	0.010	0.009	528.537	0.021	0.004
Skid Steer Loaders	2032	600	750	0.159	0.134	1.188	1.012	0.005	0.010	0.009	528.537	0.021	0.004
Skid Steer Loaders	2032	750	999	0.090	0.076	2.323	0.976	0.005	0.020	0.018	527.040	0.021	0.004
Skid Steer Loaders	2033	0	25	1.023	0.846	6.466	3.493	0.011	0.242	0.222	848.211	0.034	0.007
Skid Steer Loaders	2033	25	50	0.303	0.255	3.098	3.493	0.005	0.049	0.045	588.387	0.024	0.005
Skid Steer Loaders	2033	50	75	0.131	0.110	1.548	3.237	0.005	0.029	0.027	529.013	0.021	0.004
Skid Steer Loaders	2033	75	100	0.241	0.203	2.009	3.481	0.005	0.062	0.057	524.772	0.021	0.004
Skid Steer Loaders	2033	100	175	0.128	0.107	0.696	2.931	0.005	0.035	0.032	528.339	0.021	0.004
Skid Steer Loaders	2033	175	300	0.113	0.095	0.631	0.999	0.005	0.022	0.021	528.224	0.021	0.004
Skid Steer Loaders	2033	300	600	0.159	0.134	1.188	1.012	0.005	0.010	0.009	528.537	0.021	0.004
Skid Steer Loaders	2033	600	750	0.159	0.134	1.188	1.012	0.005	0.010	0.009	528.537	0.021	0.004
Skid Steer Loaders	2033	750	999	0.090	0.076	2.323	0.976	0.005	0.020	0.018	527.040	0.021	0.004
Skid Steer Loaders	2034	0	25	1.023	0.846	6.466	3.493	0.011	0.242	0.222	848.238	0.034	0.007
Skid Steer Loaders	2034	25	50	0.286	0.240	3.086	3.473	0.005	0.046	0.043	588.387	0.024	0.005
Skid Steer Loaders	2034	50	75	0.128	0.107	1.529	3.236	0.005	0.027	0.025	529.013	0.021	0.004
Skid Steer Loaders	2034	75	100	0.241	0.203	2.009	3.481	0.005	0.062	0.057	524.772	0.021	0.004
Skid Steer Loaders	2034	100	175	0.120	0.100	0.544	2.923	0.005	0.027	0.025	528.317	0.021	0.004
Skid Steer Loaders	2034	175	300	0.116	0.098	0.674	1.192	0.005	0.025	0.023	528.254	0.021	0.004
Skid Steer Loaders	2034	300	600	0.159	0.134	1.188	1.012	0.005	0.010	0.009	528.537	0.021	0.004
Skid Steer Loaders	2034	600	750	0.159	0.134	1.188	1.012	0.005	0.010	0.009	528.537	0.021	0.004
Skid Steer Loaders	2034	750	999	0.090	0.076	2.323	0.976	0.005	0.020	0.018	527.040	0.021	0.004
Surfacing Equipment	2024	25	50	0.391	0.329	3.673	3.615	0.005	0.115	0.105	591.938	0.024	0.005
Surfacing Equipment	2024	50	75	0.788	0.662	6.374	3.869	0.005	0.418	0.385	529.534	0.021	0.004
Surfacing Equipment	2024	75	100	0.186	0.156	2.191	3.277	0.005	0.081	0.074	531.151	0.022	0.004
Surfacing Equipment	2024	100	175	0.371	0.311	3.076	3.120	0.005	0.175	0.161	528.304	0.021	0.004
Surfacing Equipment	2024	175	300	0.230	0.193	2.533	1.320	0.005	0.084	0.078	529.139	0.021	0.004
Surfacing Equipment	2024	300	600	0.140	0.117	1.236	1.071	0.005	0.046	0.043	527.717	0.021	0.004
Surfacing Equipment	2024	600	750	0.108	0.091	0.888	0.996	0.005	0.033	0.030	527.332	0.021	0.004
Surfacing Equipment	2024	750	999	0.141	0.119	2.799	1.123	0.005	0.047	0.044	527.931	0.021	0.004
Surfacing Equipment	2025	25	50	0.275	0.231	3.526	3.488	0.005	0.080	0.074	591.326	0.024	0.005
Surfacing Equipment	2025	50	75	0.725	0.610	6.180	3.816	0.005	0.402	0.370	530.261	0.022	0.004
Surfacing Equipment	2025	75	100	0.161	0.135	1.904	3.266	0.005	0.058	0.054	532.453	0.022	0.004
Surfacing Equipment	2025	100	175	0.319	0.268	2.623	3.106	0.005	0.147	0.135	528.391	0.021	0.004
Surfacing Equipment	2025	175	300	0.198	0.167	2.031	1.295	0.005	0.069	0.063	528.396	0.021	0.004
Surfacing Equipment	2025	300	600	0.125	0.105	0.993	1.068	0.005	0.036	0.033	527.121	0.021	0.004
Surfacing Equipment	2025	600	750	0.108	0.091	0.810	1.000	0.005	0.033	0.031	527.646	0.021	0.004
Surfacing Equipment	2025	750	999	0.164	0.137	3.090	1.120	0.005	0.056	0.052	527.980	0.021	0.004
Surfacing Equipment	2026	25	50	0.275	0.231	3.465	3.499	0.005	0.072	0.066	589.707	0.024	0.005
Surfacing Equipment	2026	50	75	0.733	0.616	6.200	3.832	0.005	0.406	0.374	530.215	0.022	0.004
Surfacing Equipment	2026	75	100	0.162	0.136	1.888	3.274	0.005	0.057	0.052	532.222	0.022	0.004
Surfacing Equipment	2026	100	175	0.293	0.246	2.243	3.060	0.005	0.129	0.119	527.796	0.021	0.004
Surfacing Equipment	2026	175	300	0.195	0.164	1.933	1.303	0.005	0.069	0.063	528.804	0.021	0.004
Surfacing Equipment	2026	300	600	0.114	0.096	0.834	1.053	0.005	0.030	0.027	527.817	0.021	0.004
Surfacing Equipment	2026	600	750	0.102	0.086	0.691	0.997	0.005	0.028	0.026	526.986	0.021	0.004
Surfacing Equipment	2026	750	999	0.147	0.124	2.814	1.133	0.005	0.048	0.044	527.948	0.021	0.004
Surfacing Equipment	2027	25	50	0.227	0.191	3.333	3.434	0.005	0.053	0.049	587.566	0.024	0.005
Surfacing Equipment	2027	50	75	0.647	0.544	5.640	3.773	0.005	0.369	0.340	530.210	0.022	0.004
Surfacing Equipment	2027	75	100	0.157	0.132	1.788	3.266	0.005	0.045	0.042	531.453	0.022	0.004
Surfacing Equipment	2027	100	175	0.278	0.233	2.076	3.056	0.005	0.119	0.109	527.796	0.021	0.004
Surfacing Equipment	2027	175	300	0.190	0.160	1.817	1.297	0.005	0.066	0.061	528.438	0.021	0.004
Surfacing Equipment	2027	300	600	0.112	0.094	0.778	1.054	0.005	0.027	0.025	527.255	0.021	0.004
Surfacing Equipment	2027	600	750	0.098	0.082	0.608	0.997	0.005	0.024	0.022	527.275	0.021	0.004
Surfacing Equipment	2027	750	999	0.151	0.127	2.822	1.137	0.005	0.048	0.044	527.934	0.021	0.004
Surfacing Equipment	2028	0	25	0.266	0.224	2.978	3.806	0.005	0.013	0.012	588.235	0.024	0.005

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Surfacing Equipment	2028	25	50	0.223	0.188	3.246	3.395	0.005	0.047	0.043	585.804	0.024	0.005
Surfacing Equipment	2028	50	75	0.683	0.574	5.996	3.824	0.005	0.382	0.352	531.981	0.022	0.004
Surfacing Equipment	2028	75	100	0.134	0.113	1.569	3.238	0.005	0.030	0.027	529.127	0.021	0.004
Surfacing Equipment	2028	100	175	0.292	0.245	2.122	3.072	0.005	0.127	0.117	526.715	0.021	0.004
Surfacing Equipment	2028	175	300	0.192	0.162	1.781	1.310	0.005	0.066	0.060	528.035	0.021	0.004
Surfacing Equipment	2028	300	600	0.108	0.091	0.699	1.057	0.005	0.025	0.023	527.315	0.021	0.004
Surfacing Equipment	2028	600	750	0.099	0.083	0.598	0.998	0.005	0.024	0.022	527.194	0.021	0.004
Surfacing Equipment	2028	750	999	0.154	0.129	2.830	1.142	0.005	0.048	0.045	527.949	0.021	0.004
Surfacing Equipment	2029	0	25	0.273	0.230	2.987	3.854	0.005	0.013	0.012	588.235	0.024	0.005
Surfacing Equipment	2029	25	50	0.200	0.168	3.097	3.354	0.005	0.024	0.022	585.348	0.024	0.005
Surfacing Equipment	2029	50	75	0.720	0.605	6.109	3.853	0.005	0.397	0.366	529.791	0.021	0.004
Surfacing Equipment	2029	75	100	0.154	0.130	1.675	3.241	0.005	0.044	0.040	528.372	0.021	0.004
Surfacing Equipment	2029	100	175	0.248	0.209	1.876	3.057	0.005	0.096	0.088	527.048	0.021	0.004
Surfacing Equipment	2029	175	300	0.191	0.160	1.708	1.336	0.005	0.062	0.057	528.542	0.021	0.004
Surfacing Equipment	2029	300	600	0.106	0.089	0.651	1.057	0.005	0.023	0.022	527.284	0.021	0.004
Surfacing Equipment	2029	600	750	0.102	0.085	0.600	1.002	0.005	0.024	0.022	527.326	0.021	0.004
Surfacing Equipment	2029	750	999	0.150	0.126	2.829	1.141	0.005	0.045	0.042	527.936	0.021	0.004
Surfacing Equipment	2030	0	25	0.273	0.230	2.987	3.854	0.005	0.013	0.012	588.235	0.024	0.005
Surfacing Equipment	2030	25	50	0.200	0.168	3.097	3.354	0.005	0.024	0.022	585.348	0.024	0.005
Surfacing Equipment	2030	50	75	0.669	0.562	5.507	3.829	0.005	0.373	0.343	529.791	0.021	0.004
Surfacing Equipment	2030	75	100	0.154	0.130	1.675	3.241	0.005	0.044	0.040	528.372	0.021	0.004
Surfacing Equipment	2030	100	175	0.247	0.207	1.869	3.057	0.005	0.095	0.087	527.048	0.021	0.004
Surfacing Equipment	2030	175	300	0.188	0.158	1.644	1.336	0.005	0.061	0.056	528.542	0.021	0.004
Surfacing Equipment	2030	300	600	0.102	0.086	0.618	1.043	0.005	0.022	0.020	527.284	0.021	0.004
Surfacing Equipment	2030	600	750	0.091	0.077	0.557	0.956	0.005	0.019	0.018	527.326	0.021	0.004
Surfacing Equipment	2030	750	999	0.140	0.117	2.829	1.141	0.005	0.042	0.038	527.936	0.021	0.004
Surfacing Equipment	2031	0	25	0.273	0.230	2.987	3.854	0.005	0.013	0.012	588.235	0.024	0.005
Surfacing Equipment	2031	25	50	0.200	0.168	2.981	3.354	0.005	0.015	0.014	585.348	0.024	0.005
Surfacing Equipment	2031	50	75	0.656	0.551	5.288	3.823	0.005	0.369	0.339	529.791	0.021	0.004
Surfacing Equipment	2031	75	100	0.143	0.120	1.647	3.236	0.005	0.037	0.034	528.372	0.021	0.004
Surfacing Equipment	2031	100	175	0.244	0.205	1.778	3.057	0.005	0.094	0.087	527.048	0.021	0.004
Surfacing Equipment	2031	175	300	0.178	0.150	1.519	1.307	0.005	0.057	0.053	528.542	0.021	0.004
Surfacing Equipment	2031	300	600	0.097	0.082	0.561	1.030	0.005	0.020	0.018	527.284	0.021	0.004
Surfacing Equipment	2031	600	750	0.089	0.075	0.518	0.956	0.005	0.016	0.015	527.326	0.021	0.004
Surfacing Equipment	2031	750	999	0.140	0.117	2.829	1.141	0.005	0.042	0.038	527.936	0.021	0.004
Surfacing Equipment	2032	0	25	0.273	0.230	2.987	3.854	0.005	0.013	0.012	588.235	0.024	0.005
Surfacing Equipment	2032	25	50	0.200	0.168	2.912	3.354	0.005	0.014	0.013	585.348	0.024	0.005
Surfacing Equipment	2032	50	75	0.563	0.473	4.402	3.622	0.005	0.340	0.312	529.791	0.021	0.004
Surfacing Equipment	2032	75	100	0.139	0.116	1.634	3.234	0.005	0.034	0.031	528.372	0.021	0.004
Surfacing Equipment	2032	100	175	0.227	0.190	1.578	3.057	0.005	0.089	0.082	527.048	0.021	0.004
Surfacing Equipment	2032	175	300	0.176	0.148	1.429	1.307	0.005	0.055	0.051	528.542	0.021	0.004
Surfacing Equipment	2032	300	600	0.097	0.081	0.552	1.030	0.005	0.019	0.018	527.284	0.021	0.004
Surfacing Equipment	2032	600	750	0.089	0.075	0.518	0.956	0.005	0.016	0.015	527.326	0.021	0.004
Surfacing Equipment	2032	750	999	0.140	0.117	2.829	1.141	0.005	0.042	0.038	527.936	0.021	0.004
Surfacing Equipment	2033	0	25	0.273	0.230	2.987	3.854	0.005	0.013	0.012	588.235	0.024	0.005
Surfacing Equipment	2033	25	50	0.200	0.168	2.874	3.354	0.005	0.010	0.010	585.348	0.024	0.005
Surfacing Equipment	2033	50	75	0.554	0.465	4.209	3.618	0.005	0.336	0.309	529.791	0.021	0.004
Surfacing Equipment	2033	75	100	0.136	0.114	1.622	3.233	0.005	0.031	0.028	528.372	0.021	0.004
Surfacing Equipment	2033	100	175	0.221	0.186	1.549	3.057	0.005	0.083	0.076	527.048	0.021	0.004
Surfacing Equipment	2033	175	300	0.172	0.144	1.367	1.307	0.005	0.052	0.048	528.542	0.021	0.004
Surfacing Equipment	2033	300	600	0.097	0.081	0.551	1.030	0.005	0.019	0.018	527.284	0.021	0.004
Surfacing Equipment	2033	600	750	0.087	0.073	0.482	0.956	0.005	0.013	0.012	527.326	0.021	0.004
Surfacing Equipment	2033	750	999	0.140	0.117	2.843	1.141	0.005	0.044	0.041	527.936	0.021	0.004
Surfacing Equipment	2034	0	25	0.273	0.230	2.987	3.854	0.005	0.013	0.012	588.235	0.024	0.005
Surfacing Equipment	2034	25	50	0.200	0.168	2.874	3.354	0.005	0.010	0.010	585.348	0.024	0.005
Surfacing Equipment	2034	50	75	0.505	0.425	4.036	3.597	0.005	0.289	0.266	529.791	0.021	0.004
Surfacing Equipment	2034	75	100	0.136	0.114	1.622	3.233	0.005	0.030	0.028	528.372	0.021	0.004
Surfacing Equipment	2034	100	175	0.221	0.186	1.542	3.063	0.005	0.083	0.077	527.049	0.021	0.004
Surfacing Equipment	2034	175	300	0.164	0.138	1.292	1.302	0.005	0.048	0.044	528.523	0.021	0.004
Surfacing Equipment	2034	300	600	0.096	0.080	0.543	1.028	0.005	0.019	0.018	527.284	0.021	0.004
Surfacing Equipment	2034	600	750	0.085	0.071	0.442	0.956	0.005	0.013	0.012	527.326	0.021	0.004
Surfacing Equipment	2034	750	999	0.140	0.117	2.843	1.141	0.005	0.044	0.041	527.936	0.021	0.004
Sweepers/Scrubbers	2024	0	25	0.971	0.802	6.371	4.138	0.012	0.242	0.223	849.744	0.034	0.007
Sweepers/Scrubbers	2024	25	50	0.887	0.745	4.075	4.998	0.005	0.238	0.219	587.008	0.024	0.005
Sweepers/Scrubbers	2024	50	75	1.135	0.954	6.991	4.372	0.005	0.629	0.579	524.229	0.021	0.004
Sweepers/Scrubbers	2024	75	100	0.312	0.262	2.654	3.598	0.005	0.139	0.128	528.146	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Sweepers/Scrubbers	2024	100	175	0.316	0.266	2.248	3.226	0.005	0.107	0.098	528.031	0.021	0.004
Sweepers/Scrubbers	2024	175	300	0.224	0.188	1.992	1.132	0.005	0.064	0.059	528.031	0.021	0.004
Sweepers/Scrubbers	2024	300	600	0.088	0.074	0.267	0.974	0.005	0.009	0.009	528.031	0.021	0.004
Sweepers/Scrubbers	2024	600	750	0.088	0.074	0.267	0.974	0.005	0.009	0.009	528.031	0.021	0.004
Sweepers/Scrubbers	2024	750	999	0.068	0.057	2.275	0.944	0.005	0.018	0.017	528.031	0.021	0.004
Sweepers/Scrubbers	2025	0	25	0.970	0.802	6.368	4.137	0.012	0.242	0.223	849.457	0.034	0.007
Sweepers/Scrubbers	2025	25	50	0.740	0.622	3.851	4.762	0.005	0.191	0.176	586.859	0.024	0.005
Sweepers/Scrubbers	2025	50	75	1.067	0.897	6.798	4.347	0.005	0.597	0.549	525.363	0.021	0.004
Sweepers/Scrubbers	2025	75	100	0.283	0.238	2.376	3.570	0.005	0.112	0.103	527.853	0.021	0.004
Sweepers/Scrubbers	2025	100	175	0.253	0.213	1.634	3.194	0.005	0.072	0.066	528.031	0.021	0.004
Sweepers/Scrubbers	2025	175	300	0.230	0.193	1.995	1.144	0.005	0.064	0.059	528.031	0.021	0.004
Sweepers/Scrubbers	2025	300	600	0.096	0.081	0.269	0.986	0.005	0.010	0.009	528.031	0.021	0.004
Sweepers/Scrubbers	2025	600	750	0.096	0.081	0.269	0.986	0.005	0.010	0.009	528.031	0.021	0.004
Sweepers/Scrubbers	2025	750	999	0.076	0.064	2.293	0.956	0.005	0.019	0.017	528.031	0.021	0.004
Sweepers/Scrubbers	2026	0	25	0.970	0.802	6.367	4.136	0.012	0.242	0.223	849.238	0.034	0.007
Sweepers/Scrubbers	2026	25	50	0.696	0.584	3.759	4.731	0.005	0.171	0.157	586.659	0.024	0.005
Sweepers/Scrubbers	2026	50	75	0.977	0.821	6.497	4.337	0.005	0.514	0.473	525.912	0.021	0.004
Sweepers/Scrubbers	2026	75	100	0.279	0.235	2.258	3.566	0.005	0.104	0.096	527.890	0.021	0.004
Sweepers/Scrubbers	2026	100	175	0.262	0.220	1.639	3.235	0.005	0.072	0.067	528.031	0.021	0.004
Sweepers/Scrubbers	2026	175	300	0.222	0.186	1.817	1.145	0.005	0.059	0.054	528.031	0.021	0.004
Sweepers/Scrubbers	2026	300	600	0.104	0.087	0.271	0.998	0.005	0.010	0.009	528.031	0.021	0.004
Sweepers/Scrubbers	2026	600	750	0.104	0.087	0.271	0.998	0.005	0.010	0.009	528.031	0.021	0.004
Sweepers/Scrubbers	2026	750	999	0.084	0.070	2.312	0.968	0.005	0.019	0.018	528.031	0.021	0.004
Sweepers/Scrubbers	2027	0	25	0.970	0.802	6.365	4.135	0.012	0.242	0.223	849.042	0.034	0.007
Sweepers/Scrubbers	2027	25	50	0.643	0.541	3.671	4.690	0.005	0.149	0.137	586.632	0.024	0.005
Sweepers/Scrubbers	2027	50	75	0.724	0.608	4.900	3.971	0.005	0.363	0.334	524.353	0.021	0.004
Sweepers/Scrubbers	2027	75	100	0.269	0.226	2.174	3.589	0.005	0.091	0.083	527.969	0.021	0.004
Sweepers/Scrubbers	2027	100	175	0.230	0.193	1.273	3.248	0.005	0.053	0.049	528.031	0.021	0.004
Sweepers/Scrubbers	2027	175	300	0.228	0.191	1.819	1.156	0.005	0.059	0.055	528.031	0.021	0.004
Sweepers/Scrubbers	2027	300	600	0.112	0.094	0.274	1.010	0.005	0.010	0.009	528.031	0.021	0.004
Sweepers/Scrubbers	2027	600	750	0.112	0.094	0.274	1.010	0.005	0.010	0.009	528.031	0.021	0.004
Sweepers/Scrubbers	2027	750	999	0.092	0.077	2.331	0.980	0.005	0.020	0.018	528.031	0.021	0.004
Sweepers/Scrubbers	2028	0	25	0.970	0.802	6.367	4.136	0.012	0.242	0.223	849.318	0.034	0.007
Sweepers/Scrubbers	2028	25	50	0.616	0.517	3.613	4.688	0.005	0.133	0.123	586.827	0.024	0.005
Sweepers/Scrubbers	2028	50	75	0.854	0.718	5.698	4.260	0.005	0.438	0.403	524.554	0.021	0.004
Sweepers/Scrubbers	2028	75	100	0.243	0.205	1.963	3.570	0.005	0.069	0.064	527.841	0.021	0.004
Sweepers/Scrubbers	2028	100	175	0.232	0.195	1.234	3.270	0.005	0.053	0.049	528.031	0.021	0.004
Sweepers/Scrubbers	2028	175	300	0.185	0.156	1.105	1.138	0.005	0.042	0.038	528.031	0.021	0.004
Sweepers/Scrubbers	2028	300	600	0.120	0.101	0.276	1.022	0.005	0.010	0.009	528.031	0.021	0.004
Sweepers/Scrubbers	2028	600	750	0.120	0.101	0.276	1.022	0.005	0.010	0.009	528.031	0.021	0.004
Sweepers/Scrubbers	2028	750	999	0.100	0.084	2.349	0.992	0.005	0.020	0.019	528.031	0.021	0.004
Sweepers/Scrubbers	2029	0	25	0.963	0.796	6.355	4.171	0.012	0.242	0.223	844.397	0.034	0.007
Sweepers/Scrubbers	2029	25	50	0.601	0.505	3.565	4.716	0.005	0.122	0.113	586.869	0.024	0.005
Sweepers/Scrubbers	2029	50	75	0.875	0.735	5.828	4.311	0.005	0.447	0.411	525.477	0.021	0.004
Sweepers/Scrubbers	2029	75	100	0.245	0.206	1.931	3.588	0.005	0.066	0.061	527.971	0.021	0.004
Sweepers/Scrubbers	2029	100	175	0.231	0.194	1.236	3.263	0.005	0.053	0.049	528.031	0.021	0.004
Sweepers/Scrubbers	2029	175	300	0.171	0.144	0.763	1.139	0.005	0.033	0.030	528.031	0.021	0.004
Sweepers/Scrubbers	2029	300	600	0.128	0.107	0.278	1.034	0.005	0.011	0.010	528.031	0.021	0.004
Sweepers/Scrubbers	2029	600	750	0.128	0.107	0.278	1.034	0.005	0.011	0.010	528.031	0.021	0.004
Sweepers/Scrubbers	2029	750	999	0.108	0.090	2.368	1.004	0.005	0.021	0.019	528.031	0.021	0.004
Sweepers/Scrubbers	2030	0	25	0.963	0.796	6.311	4.171	0.012	0.238	0.219	844.321	0.034	0.007
Sweepers/Scrubbers	2030	25	50	0.550	0.462	3.553	4.664	0.005	0.111	0.102	586.869	0.024	0.005
Sweepers/Scrubbers	2030	50	75	0.781	0.656	5.174	4.208	0.005	0.390	0.359	525.477	0.021	0.004
Sweepers/Scrubbers	2030	75	100	0.242	0.203	1.859	3.587	0.005	0.064	0.059	527.971	0.021	0.004
Sweepers/Scrubbers	2030	100	175	0.228	0.191	1.159	3.263	0.005	0.054	0.050	528.031	0.021	0.004
Sweepers/Scrubbers	2030	175	300	0.171	0.144	0.683	1.139	0.005	0.033	0.030	528.031	0.021	0.004
Sweepers/Scrubbers	2030	300	600	0.128	0.107	0.278	1.034	0.005	0.011	0.010	528.031	0.021	0.004
Sweepers/Scrubbers	2030	600	750	0.128	0.107	0.278	1.034	0.005	0.011	0.010	528.031	0.021	0.004
Sweepers/Scrubbers	2030	750	999	0.108	0.090	2.368	1.004	0.005	0.021	0.019	528.031	0.021	0.004
Sweepers/Scrubbers	2031	0	25	0.963	0.796	6.311	4.172	0.012	0.238	0.219	844.309	0.034	0.007
Sweepers/Scrubbers	2031	25	50	0.520	0.437	3.532	4.634	0.005	0.100	0.092	586.869	0.024	0.005
Sweepers/Scrubbers	2031	50	75	0.743	0.625	4.832	4.199	0.005	0.380	0.349	525.477	0.021	0.004
Sweepers/Scrubbers	2031	75	100	0.235	0.197	1.811	3.584	0.005	0.056	0.052	527.971	0.021	0.004
Sweepers/Scrubbers	2031	100	175	0.216	0.182	1.016	3.263	0.005	0.050	0.046	528.031	0.021	0.004
Sweepers/Scrubbers	2031	175	300	0.171	0.144	0.683	1.139	0.005	0.033	0.030	528.031	0.021	0.004
Sweepers/Scrubbers	2031	300	600	0.128	0.107	0.278	1.034	0.005	0.011	0.010	528.031	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Sweepers/Scrubbers	2031	600	750	0.128	0.107	0.278	1.034	0.005	0.011	0.010	528.031	0.021	0.004
Sweepers/Scrubbers	2031	750	999	0.108	0.090	2.368	1.004	0.005	0.021	0.019	528.031	0.021	0.004
Sweepers/Scrubbers	2032	0	25	0.963	0.796	6.311	4.172	0.012	0.238	0.219	844.292	0.034	0.007
Sweepers/Scrubbers	2032	25	50	0.486	0.408	3.511	4.600	0.005	0.086	0.079	586.869	0.024	0.005
Sweepers/Scrubbers	2032	50	75	0.729	0.613	4.664	4.176	0.005	0.370	0.340	525.477	0.021	0.004
Sweepers/Scrubbers	2032	75	100	0.230	0.193	1.789	3.582	0.005	0.053	0.048	527.971	0.021	0.004
Sweepers/Scrubbers	2032	100	175	0.205	0.173	0.877	3.250	0.005	0.049	0.045	528.031	0.021	0.004
Sweepers/Scrubbers	2032	175	300	0.170	0.142	0.683	1.137	0.005	0.033	0.030	528.031	0.021	0.004
Sweepers/Scrubbers	2032	300	600	0.128	0.107	0.278	1.034	0.005	0.011	0.010	528.031	0.021	0.004
Sweepers/Scrubbers	2032	600	750	0.128	0.107	0.278	1.034	0.005	0.011	0.010	528.031	0.021	0.004
Sweepers/Scrubbers	2032	750	999	0.108	0.090	2.368	1.004	0.005	0.021	0.019	528.031	0.021	0.004
Sweepers/Scrubbers	2033	0	25	0.963	0.796	6.312	4.173	0.012	0.238	0.219	844.471	0.034	0.007
Sweepers/Scrubbers	2033	25	50	0.460	0.387	3.492	4.575	0.005	0.075	0.069	586.869	0.024	0.005
Sweepers/Scrubbers	2033	50	75	0.676	0.568	4.138	4.136	0.005	0.337	0.310	525.477	0.021	0.004
Sweepers/Scrubbers	2033	75	100	0.228	0.191	1.779	3.581	0.005	0.048	0.044	527.971	0.021	0.004
Sweepers/Scrubbers	2033	100	175	0.186	0.156	0.703	3.255	0.005	0.030	0.028	528.031	0.021	0.004
Sweepers/Scrubbers	2033	175	300	0.191	0.160	0.863	1.272	0.005	0.043	0.040	528.031	0.021	0.004
Sweepers/Scrubbers	2033	300	600	0.128	0.107	0.278	1.034	0.005	0.011	0.010	528.031	0.021	0.004
Sweepers/Scrubbers	2033	600	750	0.128	0.107	0.278	1.034	0.005	0.011	0.010	528.031	0.021	0.004
Sweepers/Scrubbers	2033	750	999	0.108	0.090	2.368	1.004	0.005	0.021	0.019	528.031	0.021	0.004
Sweepers/Scrubbers	2034	0	25	0.970	0.802	6.369	4.137	0.012	0.242	0.223	849.482	0.034	0.007
Sweepers/Scrubbers	2034	25	50	0.435	0.365	3.461	4.549	0.005	0.067	0.062	586.870	0.024	0.005
Sweepers/Scrubbers	2034	50	75	0.612	0.514	3.925	4.096	0.005	0.299	0.275	525.477	0.021	0.004
Sweepers/Scrubbers	2034	75	100	0.224	0.188	1.740	3.580	0.005	0.043	0.040	527.971	0.021	0.004
Sweepers/Scrubbers	2034	100	175	0.200	0.168	0.818	3.250	0.005	0.041	0.038	528.031	0.021	0.004
Sweepers/Scrubbers	2034	175	300	0.159	0.134	0.572	1.137	0.005	0.021	0.019	528.031	0.021	0.004
Sweepers/Scrubbers	2034	300	600	0.128	0.107	0.278	1.034	0.005	0.011	0.010	528.031	0.021	0.004
Sweepers/Scrubbers	2034	600	750	0.128	0.107	0.278	1.034	0.005	0.011	0.010	528.031	0.021	0.004
Sweepers/Scrubbers	2034	750	999	0.108	0.090	2.368	1.004	0.005	0.021	0.019	528.031	0.021	0.004
Tractors/Loaders/Backh	2024	0	25	1.023	0.846	6.467	3.493	0.011	0.242	0.222	848.372	0.034	0.007
Tractors/Loaders/Backh	2024	25	50	0.709	0.596	3.809	4.658	0.005	0.168	0.154	580.944	0.024	0.005
Tractors/Loaders/Backh	2024	50	75	1.940	1.630	12.795	5.417	0.005	1.025	0.943	528.215	0.021	0.004
Tractors/Loaders/Backh	2024	75	100	0.256	0.215	2.192	3.495	0.005	0.097	0.089	529.933	0.021	0.004
Tractors/Loaders/Backh	2024	100	175	0.210	0.176	1.380	3.096	0.005	0.069	0.063	526.286	0.021	0.004
Tractors/Loaders/Backh	2024	175	300	0.209	0.176	1.647	1.226	0.005	0.060	0.055	526.144	0.021	0.004
Tractors/Loaders/Backh	2024	300	600	0.180	0.151	1.155	1.211	0.005	0.044	0.041	525.872	0.021	0.004
Tractors/Loaders/Backh	2024	600	750	0.315	0.264	2.296	2.677	0.005	0.095	0.088	518.144	0.021	0.004
Tractors/Loaders/Backh	2024	750	999	0.203	0.170	3.141	1.035	0.005	0.059	0.054	527.874	0.021	0.004
Tractors/Loaders/Backh	2025	0	25	1.023	0.846	6.467	3.493	0.011	0.242	0.222	848.305	0.034	0.007
Tractors/Loaders/Backh	2025	25	50	0.661	0.556	3.699	4.606	0.005	0.146	0.135	580.494	0.024	0.005
Tractors/Loaders/Backh	2025	50	75	1.916	1.610	12.621	5.357	0.005	1.018	0.937	527.224	0.021	0.004
Tractors/Loaders/Backh	2025	75	100	0.233	0.196	2.010	3.482	0.005	0.077	0.071	529.863	0.021	0.004
Tractors/Loaders/Backh	2025	100	175	0.193	0.162	1.183	3.089	0.005	0.059	0.054	525.997	0.021	0.004
Tractors/Loaders/Backh	2025	175	300	0.194	0.163	1.399	1.221	0.005	0.053	0.049	526.844	0.021	0.004
Tractors/Loaders/Backh	2025	300	600	0.170	0.143	0.989	1.167	0.005	0.038	0.035	525.863	0.021	0.004
Tractors/Loaders/Backh	2025	600	750	0.173	0.146	1.120	1.660	0.005	0.045	0.042	503.925	0.020	0.004
Tractors/Loaders/Backh	2025	750	999	0.189	0.159	2.998	1.032	0.005	0.052	0.048	528.147	0.021	0.004
Tractors/Loaders/Backh	2026	0	25	1.023	0.846	6.467	3.493	0.011	0.242	0.222	848.340	0.034	0.007
Tractors/Loaders/Backh	2026	25	50	0.647	0.544	3.632	4.605	0.005	0.136	0.125	579.681	0.024	0.005
Tractors/Loaders/Backh	2026	50	75	1.845	1.551	12.132	5.190	0.005	0.999	0.919	527.604	0.021	0.004
Tractors/Loaders/Backh	2026	75	100	0.219	0.184	1.885	3.481	0.005	0.063	0.058	529.707	0.021	0.004
Tractors/Loaders/Backh	2026	100	175	0.185	0.156	1.074	3.098	0.005	0.053	0.048	526.226	0.021	0.004
Tractors/Loaders/Backh	2026	175	300	0.189	0.159	1.276	1.220	0.005	0.050	0.046	527.587	0.021	0.004
Tractors/Loaders/Backh	2026	300	600	0.165	0.139	0.876	1.171	0.005	0.034	0.031	526.330	0.021	0.004
Tractors/Loaders/Backh	2026	600	750	0.204	0.172	1.319	1.855	0.005	0.054	0.050	515.505	0.021	0.004
Tractors/Loaders/Backh	2026	750	999	0.162	0.136	2.737	1.018	0.005	0.042	0.038	527.971	0.021	0.004
Tractors/Loaders/Backh	2027	0	25	1.023	0.846	6.467	3.493	0.011	0.242	0.222	848.366	0.034	0.007
Tractors/Loaders/Backh	2027	25	50	0.624	0.525	3.558	4.589	0.005	0.122	0.113	579.496	0.024	0.005
Tractors/Loaders/Backh	2027	50	75	1.852	1.556	12.173	5.206	0.005	1.002	0.922	528.299	0.021	0.004
Tractors/Loaders/Backh	2027	75	100	0.211	0.177	1.807	3.487	0.005	0.054	0.050	529.618	0.021	0.004
Tractors/Loaders/Backh	2027	100	175	0.179	0.150	0.974	3.106	0.005	0.047	0.044	525.934	0.021	0.004
Tractors/Loaders/Backh	2027	175	300	0.185	0.156	1.181	1.195	0.005	0.047	0.043	527.267	0.021	0.004
Tractors/Loaders/Backh	2027	300	600	0.158	0.133	0.776	1.180	0.005	0.031	0.028	527.997	0.021	0.004
Tractors/Loaders/Backh	2027	600	750	0.212	0.178	1.368	1.910	0.005	0.056	0.052	523.186	0.021	0.004
Tractors/Loaders/Backh	2027	750	999	0.143	0.120	2.632	1.009	0.005	0.036	0.033	527.875	0.021	0.004
Tractors/Loaders/Backh	2028	0	25	1.023	0.846	6.467	3.493	0.011	0.242	0.222	848.255	0.034	0.007

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Tractors/Loaders/Backh	2028	25	50	0.610	0.513	3.521	4.605	0.005	0.114	0.105	579.741	0.024	0.005
Tractors/Loaders/Backh	2028	50	75	1.858	1.561	12.217	5.221	0.005	1.004	0.923	528.280	0.021	0.004
Tractors/Loaders/Backh	2028	75	100	0.206	0.173	1.749	3.496	0.005	0.048	0.044	529.565	0.021	0.004
Tractors/Loaders/Backh	2028	100	175	0.175	0.147	0.899	3.113	0.005	0.044	0.041	525.709	0.021	0.004
Tractors/Loaders/Backh	2028	175	300	0.176	0.148	1.032	1.185	0.005	0.042	0.039	527.170	0.021	0.004
Tractors/Loaders/Backh	2028	300	600	0.156	0.131	0.721	1.181	0.005	0.029	0.026	528.124	0.021	0.004
Tractors/Loaders/Backh	2028	600	750	0.252	0.212	1.667	1.810	0.005	0.077	0.071	525.024	0.021	0.004
Tractors/Loaders/Backh	2028	750	999	0.132	0.111	2.536	1.007	0.005	0.031	0.029	527.872	0.021	0.004
Tractors/Loaders/Backh	2029	0	25	1.023	0.846	6.467	3.493	0.011	0.242	0.222	848.289	0.034	0.007
Tractors/Loaders/Backh	2029	25	50	0.602	0.506	3.488	4.616	0.005	0.107	0.098	579.853	0.024	0.005
Tractors/Loaders/Backh	2029	50	75	1.860	1.563	12.231	5.227	0.005	1.005	0.924	528.607	0.021	0.004
Tractors/Loaders/Backh	2029	75	100	0.203	0.171	1.707	3.501	0.005	0.044	0.040	529.264	0.021	0.004
Tractors/Loaders/Backh	2029	100	175	0.172	0.145	0.847	3.122	0.005	0.042	0.039	525.868	0.021	0.004
Tractors/Loaders/Backh	2029	175	300	0.182	0.153	1.025	1.212	0.005	0.043	0.039	527.288	0.021	0.004
Tractors/Loaders/Backh	2029	300	600	0.149	0.126	0.634	1.159	0.005	0.025	0.023	529.211	0.021	0.004
Tractors/Loaders/Backh	2029	600	750	0.247	0.208	1.578	1.897	0.005	0.072	0.066	524.885	0.021	0.004
Tractors/Loaders/Backh	2029	750	999	0.125	0.105	2.472	1.006	0.005	0.027	0.025	527.888	0.021	0.004
Tractors/Loaders/Backh	2030	0	25	1.023	0.846	6.467	3.493	0.011	0.242	0.222	848.359	0.034	0.007
Tractors/Loaders/Backh	2030	25	50	0.580	0.487	3.467	4.590	0.005	0.100	0.092	579.853	0.024	0.005
Tractors/Loaders/Backh	2030	50	75	1.811	1.522	11.890	5.110	0.005	0.991	0.912	528.607	0.021	0.004
Tractors/Loaders/Backh	2030	75	100	0.198	0.166	1.676	3.499	0.005	0.040	0.037	529.264	0.021	0.004
Tractors/Loaders/Backh	2030	100	175	0.168	0.141	0.800	3.119	0.005	0.040	0.037	525.868	0.021	0.004
Tractors/Loaders/Backh	2030	175	300	0.177	0.149	0.961	1.207	0.005	0.040	0.037	527.288	0.021	0.004
Tractors/Loaders/Backh	2030	300	600	0.147	0.124	0.583	1.155	0.005	0.024	0.022	529.211	0.021	0.004
Tractors/Loaders/Backh	2030	600	750	0.245	0.206	1.547	1.897	0.005	0.072	0.066	524.885	0.021	0.004
Tractors/Loaders/Backh	2030	750	999	0.122	0.103	2.461	1.006	0.005	0.027	0.025	527.888	0.021	0.004
Tractors/Loaders/Backh	2031	0	25	1.023	0.846	6.467	3.493	0.011	0.242	0.222	848.355	0.034	0.007
Tractors/Loaders/Backh	2031	25	50	0.563	0.473	3.440	4.571	0.005	0.092	0.085	579.853	0.024	0.005
Tractors/Loaders/Backh	2031	50	75	1.811	1.522	11.890	5.110	0.005	0.991	0.912	528.607	0.021	0.004
Tractors/Loaders/Backh	2031	75	100	0.193	0.162	1.637	3.497	0.005	0.037	0.034	529.264	0.021	0.004
Tractors/Loaders/Backh	2031	100	175	0.164	0.138	0.752	3.117	0.005	0.038	0.035	525.868	0.021	0.004
Tractors/Loaders/Backh	2031	175	300	0.175	0.147	0.898	1.204	0.005	0.038	0.035	527.288	0.021	0.004
Tractors/Loaders/Backh	2031	300	600	0.147	0.123	0.571	1.154	0.005	0.024	0.022	529.211	0.021	0.004
Tractors/Loaders/Backh	2031	600	750	0.245	0.206	1.547	1.897	0.005	0.072	0.066	524.885	0.021	0.004
Tractors/Loaders/Backh	2031	750	999	0.120	0.101	2.461	1.006	0.005	0.026	0.024	527.888	0.021	0.004
Tractors/Loaders/Backh	2032	0	25	1.023	0.846	6.467	3.493	0.011	0.242	0.222	848.301	0.034	0.007
Tractors/Loaders/Backh	2032	25	50	0.548	0.461	3.403	4.554	0.005	0.084	0.078	579.853	0.024	0.005
Tractors/Loaders/Backh	2032	50	75	1.758	1.478	11.259	4.985	0.005	0.990	0.911	528.607	0.021	0.004
Tractors/Loaders/Backh	2032	75	100	0.190	0.160	1.610	3.495	0.005	0.034	0.032	529.264	0.021	0.004
Tractors/Loaders/Backh	2032	100	175	0.161	0.136	0.720	3.115	0.005	0.036	0.033	525.867	0.021	0.004
Tractors/Loaders/Backh	2032	175	300	0.172	0.144	0.867	1.197	0.005	0.036	0.033	527.288	0.021	0.004
Tractors/Loaders/Backh	2032	300	600	0.145	0.122	0.548	1.153	0.005	0.023	0.021	529.211	0.021	0.004
Tractors/Loaders/Backh	2032	600	750	0.245	0.206	1.547	1.897	0.005	0.072	0.066	524.885	0.021	0.004
Tractors/Loaders/Backh	2032	750	999	0.118	0.099	2.450	1.006	0.005	0.026	0.024	527.888	0.021	0.004
Tractors/Loaders/Backh	2033	0	25	1.023	0.846	6.468	3.493	0.011	0.242	0.222	848.388	0.034	0.007
Tractors/Loaders/Backh	2033	25	50	0.532	0.447	3.382	4.535	0.005	0.079	0.073	579.853	0.024	0.005
Tractors/Loaders/Backh	2033	50	75	1.735	1.458	10.920	4.929	0.005	0.992	0.913	528.607	0.021	0.004
Tractors/Loaders/Backh	2033	75	100	0.187	0.157	1.585	3.494	0.005	0.031	0.029	529.264	0.021	0.004
Tractors/Loaders/Backh	2033	100	175	0.159	0.133	0.686	3.112	0.005	0.033	0.030	525.868	0.021	0.004
Tractors/Loaders/Backh	2033	175	300	0.168	0.141	0.822	1.187	0.005	0.034	0.031	527.288	0.021	0.004
Tractors/Loaders/Backh	2033	300	600	0.144	0.121	0.530	1.151	0.005	0.022	0.020	529.211	0.021	0.004
Tractors/Loaders/Backh	2033	600	750	0.230	0.193	1.378	1.897	0.005	0.054	0.050	524.885	0.021	0.004
Tractors/Loaders/Backh	2033	750	999	0.118	0.099	2.372	1.006	0.005	0.023	0.021	527.888	0.021	0.004
Tractors/Loaders/Backh	2034	0	25	1.024	0.846	6.468	3.493	0.011	0.242	0.222	848.412	0.034	0.007
Tractors/Loaders/Backh	2034	25	50	0.519	0.436	3.353	4.521	0.005	0.074	0.068	579.853	0.024	0.005
Tractors/Loaders/Backh	2034	50	75	1.716	1.442	10.670	4.882	0.005	0.992	0.913	528.607	0.021	0.004
Tractors/Loaders/Backh	2034	75	100	0.185	0.155	1.567	3.493	0.005	0.029	0.027	529.264	0.021	0.004
Tractors/Loaders/Backh	2034	100	175	0.156	0.131	0.658	3.112	0.005	0.031	0.028	525.868	0.021	0.004
Tractors/Loaders/Backh	2034	175	300	0.165	0.139	0.778	1.183	0.005	0.032	0.029	527.288	0.021	0.004
Tractors/Loaders/Backh	2034	300	600	0.142	0.119	0.512	1.149	0.005	0.020	0.019	529.211	0.021	0.004
Tractors/Loaders/Backh	2034	600	750	0.225	0.189	1.358	1.875	0.005	0.052	0.048	524.885	0.021	0.004
Tractors/Loaders/Backh	2034	750	999	0.118	0.099	2.372	1.006	0.005	0.023	0.021	527.888	0.021	0.004
Trenchers	2024	0	25	1.017	0.840	6.415	3.826	0.011	0.242	0.222	848.779	0.034	0.007
Trenchers	2024	25	50	0.713	0.599	3.824	4.222	0.005	0.196	0.180	587.904	0.024	0.005
Trenchers	2024	50	75	0.960	0.806	7.032	4.211	0.005	0.526	0.484	527.464	0.021	0.004
Trenchers	2024	75	100	0.518	0.435	4.127	3.662	0.005	0.278	0.256	528.932	0.021	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Trenchers	2024	100	175	0.436	0.366	3.692	3.334	0.005	0.188	0.173	526.797	0.021	0.004
Trenchers	2024	175	300	0.352	0.296	3.292	1.545	0.005	0.139	0.127	529.435	0.021	0.004
Trenchers	2024	300	600	0.214	0.179	1.685	1.642	0.005	0.071	0.065	530.208	0.022	0.004
Trenchers	2024	600	750	0.070	0.059	0.262	0.948	0.005	0.009	0.008	528.334	0.021	0.004
Trenchers	2024	750	999	1.397	1.174	13.392	14.184	0.005	0.624	0.574	528.023	0.021	0.004
Trenchers	2025	0	25	1.017	0.841	6.416	3.827	0.011	0.242	0.222	848.919	0.034	0.007
Trenchers	2025	25	50	0.643	0.540	3.646	4.108	0.005	0.162	0.149	587.948	0.024	0.005
Trenchers	2025	50	75	1.150	0.966	7.674	4.445	0.005	0.585	0.538	522.319	0.021	0.004
Trenchers	2025	75	100	0.461	0.387	3.830	3.626	0.005	0.240	0.221	530.152	0.022	0.004
Trenchers	2025	100	175	0.486	0.408	3.825	3.401	0.005	0.228	0.210	527.186	0.021	0.004
Trenchers	2025	175	300	0.348	0.292	3.149	1.548	0.005	0.137	0.126	529.781	0.021	0.004
Trenchers	2025	300	600	0.208	0.175	1.605	1.625	0.005	0.068	0.062	529.637	0.021	0.004
Trenchers	2025	600	750	0.072	0.060	0.262	0.950	0.005	0.009	0.008	527.929	0.021	0.004
Trenchers	2025	750	999	1.397	1.174	13.392	14.184	0.005	0.624	0.574	528.023	0.021	0.004
Trenchers	2026	0	25	1.018	0.841	6.419	3.828	0.011	0.242	0.223	849.308	0.034	0.007
Trenchers	2026	25	50	0.602	0.506	3.536	4.047	0.005	0.141	0.130	588.094	0.024	0.005
Trenchers	2026	50	75	1.213	1.019	8.069	4.576	0.005	0.607	0.558	524.655	0.021	0.004
Trenchers	2026	75	100	0.450	0.378	3.728	3.617	0.005	0.232	0.213	529.355	0.021	0.004
Trenchers	2026	100	175	0.423	0.355	3.526	3.358	0.005	0.183	0.168	526.909	0.021	0.004
Trenchers	2026	175	300	0.327	0.274	2.814	1.525	0.005	0.127	0.117	527.799	0.021	0.004
Trenchers	2026	300	600	0.207	0.174	1.602	1.633	0.005	0.068	0.063	529.258	0.021	0.004
Trenchers	2026	600	750	0.076	0.064	0.263	0.955	0.005	0.009	0.008	527.846	0.021	0.004
Trenchers	2026	750	999	1.397	1.174	13.392	14.184	0.005	0.624	0.574	528.023	0.021	0.004
Trenchers	2027	0	25	1.017	0.841	6.416	3.827	0.011	0.242	0.222	848.941	0.034	0.007
Trenchers	2027	25	50	0.556	0.467	3.445	3.992	0.005	0.122	0.112	588.179	0.024	0.005
Trenchers	2027	50	75	1.209	1.016	8.262	4.698	0.005	0.577	0.530	525.626	0.021	0.004
Trenchers	2027	75	100	0.433	0.364	3.505	3.592	0.005	0.215	0.198	528.389	0.021	0.004
Trenchers	2027	100	175	0.420	0.353	3.432	3.355	0.005	0.178	0.164	526.860	0.021	0.004
Trenchers	2027	175	300	0.321	0.270	2.663	1.544	0.005	0.124	0.114	528.136	0.021	0.004
Trenchers	2027	300	600	0.199	0.167	1.528	1.585	0.005	0.065	0.060	530.689	0.022	0.004
Trenchers	2027	600	750	0.065	0.055	0.260	0.940	0.005	0.009	0.008	527.888	0.021	0.004
Trenchers	2027	750	999	1.397	1.174	13.392	14.184	0.005	0.624	0.574	528.023	0.021	0.004
Trenchers	2028	0	25	1.017	0.841	6.418	3.828	0.011	0.242	0.223	849.221	0.034	0.007
Trenchers	2028	25	50	0.532	0.447	3.399	3.997	0.005	0.110	0.102	588.492	0.024	0.005
Trenchers	2028	50	75	1.259	1.058	8.559	4.755	0.005	0.605	0.557	525.470	0.021	0.004
Trenchers	2028	75	100	0.402	0.338	3.201	3.562	0.005	0.190	0.174	528.457	0.021	0.004
Trenchers	2028	100	175	0.420	0.353	3.394	3.362	0.005	0.176	0.162	526.840	0.021	0.004
Trenchers	2028	175	300	0.313	0.263	2.560	1.525	0.005	0.119	0.110	528.904	0.021	0.004
Trenchers	2028	300	600	0.195	0.163	1.504	1.581	0.005	0.065	0.060	530.245	0.022	0.004
Trenchers	2028	600	750	0.068	0.057	0.261	0.944	0.005	0.009	0.008	527.832	0.021	0.004
Trenchers	2028	750	999	1.397	1.174	13.392	14.184	0.005	0.624	0.574	528.023	0.021	0.004
Trenchers	2029	0	25	1.017	0.841	6.416	3.827	0.011	0.242	0.222	848.889	0.034	0.007
Trenchers	2029	25	50	0.497	0.418	3.322	3.954	0.005	0.095	0.087	588.164	0.024	0.005
Trenchers	2029	50	75	1.036	0.871	7.444	4.452	0.005	0.510	0.469	523.161	0.021	0.004
Trenchers	2029	75	100	0.399	0.335	3.104	3.573	0.005	0.182	0.168	528.825	0.021	0.004
Trenchers	2029	100	175	0.426	0.358	3.406	3.379	0.005	0.176	0.162	526.740	0.021	0.004
Trenchers	2029	175	300	0.313	0.263	2.533	1.522	0.005	0.118	0.108	528.999	0.021	0.004
Trenchers	2029	300	600	0.193	0.162	1.490	1.588	0.005	0.066	0.061	530.138	0.022	0.004
Trenchers	2029	600	750	0.073	0.061	0.262	0.952	0.005	0.009	0.008	528.541	0.021	0.004
Trenchers	2029	750	999	1.397	1.174	13.392	14.184	0.005	0.624	0.574	528.023	0.021	0.004
Trenchers	2030	0	25	1.017	0.841	6.417	3.827	0.011	0.242	0.222	849.002	0.034	0.007
Trenchers	2030	25	50	0.476	0.400	3.307	3.930	0.005	0.090	0.083	588.164	0.024	0.005
Trenchers	2030	50	75	0.979	0.823	6.833	4.345	0.005	0.486	0.447	523.161	0.021	0.004
Trenchers	2030	75	100	0.388	0.326	3.023	3.568	0.005	0.177	0.163	528.825	0.021	0.004
Trenchers	2030	100	175	0.409	0.343	3.274	3.355	0.005	0.166	0.153	526.740	0.021	0.004
Trenchers	2030	175	300	0.296	0.249	2.434	1.521	0.005	0.112	0.103	528.999	0.021	0.004
Trenchers	2030	300	600	0.191	0.160	1.466	1.584	0.005	0.064	0.059	530.138	0.022	0.004
Trenchers	2030	600	750	0.073	0.061	0.262	0.952	0.005	0.009	0.008	528.541	0.021	0.004
Trenchers	2030	750	999	1.397	1.174	13.392	14.184	0.005	0.624	0.574	528.023	0.021	0.004
Trenchers	2031	0	25	1.017	0.840	6.414	3.825	0.011	0.242	0.222	848.635	0.034	0.007
Trenchers	2031	25	50	0.461	0.388	3.291	3.913	0.005	0.084	0.078	588.164	0.024	0.005
Trenchers	2031	50	75	0.946	0.795	6.598	4.265	0.005	0.477	0.439	523.161	0.021	0.004
Trenchers	2031	75	100	0.376	0.316	2.913	3.563	0.005	0.169	0.156	528.825	0.021	0.004
Trenchers	2031	100	175	0.392	0.329	3.022	3.355	0.005	0.163	0.150	526.740	0.021	0.004
Trenchers	2031	175	300	0.292	0.246	2.393	1.518	0.005	0.112	0.103	528.999	0.021	0.004
Trenchers	2031	300	600	0.191	0.160	1.462	1.584	0.005	0.064	0.059	530.138	0.022	0.004

Unmitigated EFs from Caleemod 2022 (based on OFFROAD 2017) Appx G, Table G-11

Equipment	Year	Low HP	High HP	TOG	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
Trenchers	2031	600	750	0.073	0.061	0.262	0.952	0.005	0.009	0.008	528.541	0.021	0.004
Trenchers	2031	750	999	1.397	1.174	13.392	14.184	0.005	0.624	0.574	528.023	0.021	0.004
Trenchers	2032	0	25	1.016	0.840	6.412	3.824	0.011	0.242	0.222	848.411	0.034	0.007
Trenchers	2032	25	50	0.447	0.376	3.275	3.896	0.005	0.079	0.073	588.164	0.024	0.005
Trenchers	2032	50	75	0.946	0.795	6.574	4.265	0.005	0.478	0.440	523.161	0.021	0.004
Trenchers	2032	75	100	0.359	0.302	2.808	3.548	0.005	0.161	0.148	528.825	0.021	0.004
Trenchers	2032	100	175	0.372	0.313	2.859	3.294	0.005	0.147	0.135	526.740	0.021	0.004
Trenchers	2032	175	300	0.273	0.229	2.216	1.480	0.005	0.099	0.091	528.999	0.021	0.004
Trenchers	2032	300	600	0.178	0.150	1.401	1.534	0.005	0.058	0.054	530.138	0.022	0.004
Trenchers	2032	600	750	0.073	0.061	0.262	0.952	0.005	0.009	0.008	528.541	0.021	0.004
Trenchers	2032	750	999	1.397	1.174	13.392	14.184	0.005	0.624	0.574	528.023	0.021	0.004
Trenchers	2033	0	25	1.017	0.841	6.416	3.827	0.011	0.242	0.222	848.949	0.034	0.007
Trenchers	2033	25	50	0.429	0.360	3.254	3.875	0.005	0.075	0.069	588.164	0.024	0.005
Trenchers	2033	50	75	0.946	0.795	6.574	4.265	0.005	0.480	0.442	523.161	0.021	0.004
Trenchers	2033	75	100	0.341	0.287	2.730	3.534	0.005	0.148	0.136	528.825	0.021	0.004
Trenchers	2033	100	175	0.369	0.310	2.806	3.294	0.005	0.147	0.136	526.740	0.021	0.004
Trenchers	2033	175	300	0.266	0.224	2.140	1.461	0.005	0.095	0.087	528.999	0.021	0.004
Trenchers	2033	300	600	0.166	0.139	1.307	1.371	0.005	0.053	0.048	530.138	0.022	0.004
Trenchers	2033	600	750	0.073	0.061	0.262	0.952	0.005	0.009	0.008	528.541	0.021	0.004
Trenchers	2033	750	999	1.397	1.174	13.392	14.184	0.005	0.624	0.574	528.023	0.021	0.004
Trenchers	2034	0	25	1.017	0.841	6.417	3.827	0.011	0.242	0.222	849.002	0.034	0.007
Trenchers	2034	25	50	0.401	0.337	3.235	3.846	0.005	0.069	0.063	588.164	0.024	0.005
Trenchers	2034	50	75	0.932	0.783	6.448	4.239	0.005	0.458	0.421	523.161	0.021	0.004
Trenchers	2034	75	100	0.330	0.277	2.656	3.529	0.005	0.142	0.131	528.825	0.021	0.004
Trenchers	2034	100	175	0.360	0.303	2.737	3.291	0.005	0.145	0.133	526.740	0.021	0.004
Trenchers	2034	175	300	0.262	0.220	2.076	1.441	0.005	0.092	0.084	528.999	0.021	0.004
Trenchers	2034	300	600	0.154	0.129	1.234	1.321	0.005	0.047	0.044	530.138	0.022	0.004
Trenchers	2034	600	750	0.073	0.061	0.262	0.952	0.005	0.009	0.008	528.541	0.021	0.004
Trenchers	2034	750	999	1.324	1.112	12.272	14.184	0.005	0.624	0.574	528.023	0.021	0.004
Welders	2024	0	25	0.708	0.585	4.384	2.817	0.008	0.184	0.169	568.343	0.023	0.005
Welders	2024	25	50	0.646	0.534	3.783	4.558	0.007	0.131	0.120	568.290	0.023	0.005
Welders	2025	0	25	0.700	0.578	4.358	2.806	0.008	0.180	0.165	568.329	0.023	0.005
Welders	2025	25	50	0.602	0.498	3.676	4.525	0.007	0.113	0.104	568.301	0.023	0.005
Welders	2026	0	25	0.693	0.573	4.335	2.796	0.008	0.176	0.162	568.341	0.023	0.005
Welders	2026	25	50	0.562	0.465	3.570	4.493	0.007	0.095	0.088	568.291	0.023	0.005
Welders	2027	0	25	0.688	0.568	4.316	2.788	0.008	0.173	0.159	568.317	0.023	0.005
Welders	2027	25	50	0.526	0.435	3.466	4.461	0.007	0.079	0.073	568.297	0.023	0.005
Welders	2028	0	25	0.683	0.565	4.299	2.782	0.008	0.170	0.157	568.314	0.023	0.005
Welders	2028	25	50	0.495	0.409	3.371	4.432	0.007	0.064	0.059	568.307	0.023	0.005
Welders	2029	0	25	0.680	0.562	4.286	2.778	0.008	0.168	0.155	568.308	0.023	0.005
Welders	2029	25	50	0.470	0.389	3.313	4.407	0.007	0.053	0.049	568.301	0.023	0.005
Welders	2030	0	25	0.678	0.561	4.277	2.775	0.008	0.166	0.153	568.333	0.023	0.005
Welders	2030	25	50	0.450	0.372	3.273	4.387	0.007	0.045	0.042	568.301	0.023	0.005
Welders	2031	0	25	0.677	0.560	4.271	2.775	0.008	0.165	0.152	568.324	0.023	0.005
Welders	2031	25	50	0.435	0.359	3.240	4.372	0.007	0.039	0.036	568.304	0.023	0.005
Welders	2032	0	25	0.677	0.559	4.267	2.775	0.008	0.164	0.151	568.336	0.023	0.005
Welders	2032	25	50	0.423	0.349	3.211	4.361	0.007	0.033	0.031	568.306	0.023	0.005
Welders	2033	0	25	0.677	0.559	4.263	2.775	0.008	0.163	0.150	568.317	0.023	0.005
Welders	2033	25	50	0.415	0.343	3.186	4.355	0.007	0.029	0.027	568.309	0.023	0.005
Welders	2034	0	25	0.676	0.559	4.261	2.775	0.008	0.163	0.150	568.307	0.023	0.005
Welders	2034	25	50	0.409	0.338	3.166	4.352	0.007	0.025	0.023	568.318	0.023	0.005

Unmitigated Lookup

Offroad Equipment (from Caleemod user's guide)

year	Equipment	OFFROAD Match	HP	HP Bin	string	Unmitgated Efs (in grams per hp-hr) ROG	NOX	CO	PM10 ex	PM2.5 ex	SOx	CO2	CH4	N2O
2024	150 ton crane	Cranes	367	599.99	2024Cranes599.99	0.21	2.13	1.68	0.09	0.08	0.005	527.53	0.02	0.0043
2024	Excavator (PC300)	Excavators	180	299.99	2024Excavators299.99	0.14	1.14	1.11	0.04	0.03	0.00	528.45	0.02	0.0043
2024	Hydraulic Power Pack APE Model 595	Other Construction Equipment	595	599.99	4Other Construction Equipment599.99	0.16	1.56	1.30	0.06	0.05	0.00	528.22	0.02	0.0043
2024	Concrete pumper	Pumps	10	24.99	2024Pumps24.99	0.58	4.36	3.01	0.19	0.17	0.01	568.30	0.02	0.0046
2024	Diesel air compressor	Air Compressors	37	49.99	2024Air Compressors49.99	0.58	3.86	4.88	0.14	0.12	0.01	568.36	0.02	0.0046
2025	150 ton crane	Cranes	367	599.99	2025Cranes599.99	0.20	1.95	1.66	0.08	0.07	0.00	527.58	0.02	0.0043
2025	Excavator (PC300)	Excavators	180	299.99	2025Excavators299.99	0.13	0.99	1.10	0.03	0.03	0.00	528.27	0.02	0.0043
2025	Hydraulic Power Pack APE Model 595	Other Construction Equipment	595	599.99	5Other Construction Equipment599.99	0.16	1.41	1.27	0.05	0.05	0.00	528.42	0.02	0.0043
2025	Concrete pumper	Pumps	10	24.99	2025Pumps24.99	0.57	4.33	3.00	0.18	0.17	0.01	568.24	0.02	0.0046
2025	Diesel air compressor	Air Compressors	37	49.99	2025Air Compressors49.99	0.54	3.76	4.85	0.12	0.11	0.01	568.36	0.02	0.0046
2026	150 ton crane	Cranes	367	599.99	2026Cranes599.99	0.20	1.84	1.64	0.08	0.07	0.00	527.46	0.02	0.0043
2026	Excavator (PC300)	Excavators	180	299.99	2026Excavators299.99	0.13	0.92	1.10	0.03	0.03	0.00	528.18	0.02	0.0043
2026	Hydraulic Power Pack APE Model 595	Other Construction Equipment	595	599.99	5Other Construction Equipment599.99	0.15	1.28	1.24	0.05	0.04	0.00	528.52	0.02	0.0043
2026	Concrete pumper	Pumps	10	24.99	2026Pumps24.99	0.57	4.31	2.99	0.18	0.16	0.01	568.31	0.02	0.0046
2026	Diesel air compressor	Air Compressors	37	49.99	2026Air Compressors49.99	0.51	3.65	4.82	0.10	0.09	0.01	568.29	0.02	0.0046
2027	150 ton crane	Cranes	367	599.99	2027Cranes599.99	0.19	1.75	1.63	0.07	0.07	0.00	527.45	0.02	0.0043
2027	Excavator (PC300)	Excavators	180	299.99	2027Excavators299.99	0.13	0.83	1.10	0.03	0.03	0.00	528.16	0.02	0.0043
2027	Hydraulic Power Pack APE Model 595	Other Construction Equipment	595	599.99	7Other Construction Equipment599.99	0.15	1.21	1.25	0.05	0.04	0.00	529.14	0.02	0.0043
2027	Concrete pumper	Pumps	10	24.99	2027Pumps24.99	0.56	4.29	2.99	0.17	0.16	0.01	568.30	0.02	0.0046
2027	Diesel air compressor	Air Compressors	37	49.99	2027Air Compressors49.99	0.48	3.54	4.79	0.08	0.07	0.01	568.32	0.02	0.0046
2028	150 ton crane	Cranes	367	599.99	2028Cranes599.99	0.19	1.60	1.63	0.07	0.06	0.00	527.75	0.02	0.0043
2028	Excavator (PC300)	Excavators	180	299.99	2028Excavators299.99	0.12	0.76	1.10	0.03	0.02	0.00	528.13	0.02	0.0043
2028	Hydraulic Power Pack APE Model 595	Other Construction Equipment	595	599.99	3Other Construction Equipment599.99	0.14	1.11	1.25	0.04	0.04	0.00	530.08	0.02	0.0043
2028	Concrete pumper	Pumps	10	24.99	2028Pumps24.99	0.56	4.27	2.98	0.17	0.16	0.01	568.34	0.02	0.0046
2028	Diesel air compressor	Air Compressors	37	49.99	2028Air Compressors49.99	0.46	3.44	4.76	0.07	0.06	0.01	568.34	0.02	0.0046
2029	150 ton crane	Cranes	367	599.99	2029Cranes599.99	0.18	1.48	1.61	0.06	0.06	0.00	527.61	0.02	0.0043
2029	Excavator (PC300)	Excavators	180	299.99	2029Excavators299.99	0.12	0.73	1.10	0.03	0.02	0.00	528.08	0.02	0.0043
2029	Hydraulic Power Pack APE Model 595	Other Construction Equipment	595	599.99	9Other Construction Equipment599.99	0.14	1.10	1.25	0.04	0.04	0.00	529.81	0.02	0.0043
2029	Concrete pumper	Pumps	10	24.99	2029Pumps24.99	0.56	4.26	2.98	0.17	0.15	0.01	568.32	0.02	0.0046
2029	Diesel air compressor	Air Compressors	37	49.99	2029Air Compressors49.99	0.44	3.38	4.73	0.05	0.05	0.01	568.31	0.02	0.0046
2030	150 ton crane	Cranes	367	599.99	2030Cranes599.99	0.18	1.43	1.60	0.06	0.06	0.00	527.61	0.02	0.0043
2030	Excavator (PC300)	Excavators	180	299.99	2030Excavators299.99	0.12	0.68	1.10	0.02	0.02	0.00	528.08	0.02	0.0043
2030	Hydraulic Power Pack APE Model 595	Other Construction Equipment	595	599.99	0Other Construction Equipment599.99	0.14	1.00	1.25	0.04	0.04	0.00	529.81	0.02	0.0043
2030	Concrete pumper	Pumps	10	24.99	2030Pumps24.99	0.56	4.25	2.97	0.17	0.15	0.01	568.35	0.02	0.0046
2030	Diesel air compressor	Air Compressors	37	49.99	2030Air Compressors49.99	0.42	3.34	4.71	0.05	0.04	0.01	568.32	0.02	0.0046
2031	150 ton crane	Cranes	367	599.99	2031Cranes599.99	0.17	1.35	1.59	0.06	0.05	0.00	527.61	0.02	0.0043
2031	Excavator (PC300)	Excavators	180	299.99	2031Excavators299.99	0.12	0.64	1.10	0.02	0.02	0.00	528.08	0.02	0.0043
2031	Hydraulic Power Pack APE Model 595	Other Construction Equipment	595	599.99	1Other Construction Equipment599.99	0.14	0.95	1.25	0.04	0.04	0.00	529.81	0.02	0.0043
2031	Concrete pumper	Pumps	10	24.99	2031Pumps24.99	0.56	4.24	2.97	0.17	0.15	0.01	568.32	0.02	0.0046
2031	Diesel air compressor	Air Compressors	37	49.99	2031Air Compressors49.99	0.41	3.31	4.70	0.04	0.04	0.01	568.34	0.02	0.0046
2032	150 ton crane	Cranes	367	599.99	2032Cranes599.99	0.17	1.26	1.56	0.05	0.05	0.00	527.61	0.02	0.0043
2032	Excavator (PC300)	Excavators	180	299.99	2032Excavators299.99	0.12	0.61	1.10	0.02	0.02	0.00	528.08	0.02	0.0043
2032	Hydraulic Power Pack APE Model 595	Other Construction Equipment	595	599.99	2Other Construction Equipment599.99	0.13	0.89	1.25	0.03	0.03	0.00	529.81	0.02	0.0043
2032	Concrete pumper	Pumps	10	24.99	2032Pumps24.99	0.56	4.23	2.97	0.16	0.15	0.01	568.33	0.02	0.0046
2032	Diesel air compressor	Air Compressors	37	49.99	2032Air Compressors49.99	0.40	3.28	4.69	0.03	0.03	0.01	568.28	0.02	0.0046
2033	150 ton crane	Cranes	367	599.99	2033Cranes599.99	0.16	1.18	1.56	0.05	0.04	0.00	527.61	0.02	0.0043
2033	Excavator (PC300)	Excavators	180	299.99	2033Excavators299.99	0.12	0.57	1.09	0.02	0.02	0.00	528.08	0.02	0.0043
2033	Hydraulic Power Pack APE Model 595	Other Construction Equipment	595	599.99	3Other Construction Equipment599.99	0.13	0.82	1.24	0.03	0.03	0.00	529.81	0.02	0.0043
2033	Concrete pumper	Pumps	10	24.99	2033Pumps24.99	0.56	4.23	2.97	0.16	0.15	0.01	568.30	0.02	0.0046
2033	Diesel air compressor	Air Compressors	37	49.99	2033Air Compressors49.99	0.39	3.25	4.68	0.03	0.03	0.01	568.34	0.02	0.0046
2034	150 ton crane	Cranes	367	599.99	2034Cranes599.99	0.16	1.13	1.55	0.04	0.04	0.00	527.61	0.02	0.0043
2034	Excavator (PC300)	Excavators	180	299.99	2034Excavators299.99	0.12	0.54	1.09	0.02	0.02	0.00	528.08	0.02	0.0043
2034	Hydraulic Power Pack APE Model 595	Other Construction Equipment	595	599.99	4Other Construction Equipment599.99	0.13	0.77	1.24	0.03	0.03	0.00	529.81	0.02	0.0043
2034	Concrete pumper	Pumps	10	24.99	2034Pumps24.99	0.56	4.23	2.97	0.16	0.15	0.01	568.34	0.02	0.0046
2034	Diesel air compressor	Air Compressors	37	49.99	2034Air Compressors49.99	0.39	3.23	4.68	0.03	0.02	0.01	568.40	0.02	0.0046

Table G-12. Horsepower and Load Factors for Construction Equipment by Fuel Type

Equipment	Fuel	Horsepower	Load Factor
Aerial Lifts	Diesel	46	0.31
Air Compressors	Diesel	37	0.48
Bore/Drill Rigs	Diesel	83	0.50
Cement and Mortar Mixers	Diesel	10	0.56
Concrete/Industrial Saws	Diesel	33	0.73
Cranes	Diesel	367	0.29
Crawler Tractors	Diesel	87	0.43
Dumpers/Tenders	Diesel	16	0.38
Excavators	Diesel	36	0.38
Forklifts	Diesel	82	0.20
Generator Sets	Diesel	14	0.74
Graders	Diesel	148	0.41
Off-Highway Tractors	Diesel	38	0.44
Off-Highway Trucks	Diesel	376	0.38
Other Construction Equipment	Diesel	82	0.42
Other General Industrial Equipment	Diesel	35	0.34
Other Material Handling Equipment	Diesel	93	0.40
Pavers	Diesel	81	0.42
Paving Equipment	Diesel	89	0.36
Plate Compactors	Diesel	8	0.43
Pressure Washers	Diesel	14	0.30
Pumps	Diesel	11	0.74
Rollers	Diesel	36	0.38
Rough Terrain Forklifts	Diesel	96	0.40
Rubber Tired Dozers	Diesel	367	0.40
Rubber Tired Loaders	Diesel	150	0.36
Scrapers	Diesel	423	0.48
Signal Boards	Diesel	6	0.82
Skid Steer Loaders	Diesel	71	0.37
Surfacing Equipment	Diesel	399	0.30
Sweepers/Scrubbers	Diesel	36	0.46
Tractors/Loaders/Backhoes	Diesel	84	0.37
Trenchers	Diesel	40	0.50
Welders	Diesel	46	0.45

Source:Caleemod 2022, Appx G, Table G-12

EMFAC Summary

		Running (RUNEX, PMTW, PMBW) grams per mile												Process (IDLEX, STREX, TOTEX, DIURN, HTSK, RUNLS, RESTL) grams per trip												Fuel		per mi	per trip
Type	Yr	ROG	TOG	CO	NOx	CO2	CH4	PM10 Ex	PM10 D	PM2.5 Ex	PM2.5 D	SOX	N2O	ROG	TOG	CO	NOx	CO2	CH4	PM10 Ex	PM10 D	PM2.5 Ex	PM2.5 D	SOX	N2O	gal/mi	mpg	DPM	DPM
Worker Commute	2024	0.0199	0.0290	1.0062	0.0784	318.8	0.0047	0.0019	0.0161	0.0018	0.0048	0.0032	0.0067	1.2370	1.2745	3.7692	0.3070	76.49	0.0818	0.0023	0.0000	0.0021	0.0000	0.0008	0.0346	0.0381	26.7650		
Aggregate Rates	2025	0.0180	0.0263	0.9427	0.0714	310.4	0.0043	0.0018	0.0160	0.0017	0.0048	0.0031	0.0063	1.1860	1.2211	3.5500	0.2907	74.43	0.0772	0.0022	0.0000	0.0021	0.0000	0.0007	0.0335	0.0371	27.5365		
	2026	0.0163	0.0237	0.8823	0.0653	302.4	0.0040	0.0017	0.0159	0.0016	0.0048	0.0030	0.0059	1.1365	1.1694	3.3519	0.2766	72.55	0.0730	0.0022	0.0000	0.0020	0.0000	0.0007	0.0326	0.0361	28.2964		
	2027	0.0150	0.0218	0.8381	0.0599	295.7	0.0037	0.0016	0.0161	0.0015	0.0048	0.0029	0.0056	1.0961	1.1270	3.1712	0.2640	70.78	0.0691	0.0021	0.0000	0.0019	0.0000	0.0007	0.0317	0.0353	28.9601		
	2028	0.0137	0.0199	0.7944	0.0551	289.1	0.0034	0.0015	0.0160	0.0014	0.0048	0.0029	0.0053	1.0619	1.0910	3.0085	0.2527	69.13	0.0656	0.0020	0.0000	0.0018	0.0000	0.0007	0.0309	0.0345	29.6491		
	2029	0.0125	0.0182	0.7541	0.0507	283.0	0.0031	0.0014	0.0160	0.0013	0.0048	0.0028	0.0050	1.0158	1.0431	2.8555	0.2423	67.57	0.0622	0.0019	0.0000	0.0017	0.0000	0.0007	0.0302	0.0338	30.3154		
	2030	0.0114	0.0167	0.7168	0.0464	277.3	0.0029	0.0013	0.0160	0.0012	0.0048	0.0027	0.0048	0.9753	1.0010	2.7084	0.2325	66.09	0.0590	0.0018	0.0000	0.0016	0.0000	0.0007	0.0296	0.0331	30.9576		
	2031	0.0103	0.0150	0.6783	0.0424	271.2	0.0027	0.0012	0.0159	0.0011	0.0048	0.0027	0.0045	0.9345	0.9586	2.5702	0.2234	64.72	0.0560	0.0017	0.0000	0.0015	0.0000	0.0006	0.0290	0.0324	31.6595		
	2032	0.0094	0.0137	0.6480	0.0388	266.5	0.0025	0.0011	0.0159	0.0011	0.0048	0.0026	0.0043	0.8985	0.9212	2.4429	0.2152	63.44	0.0531	0.0016	0.0000	0.0014	0.0000	0.0006	0.0284	0.0318	32.2256		
	2033	0.0087	0.0127	0.6270	0.0359	263.0	0.0023	0.0011	0.0160	0.0010	0.0048	0.0026	0.0042	0.8693	0.8906	2.3281	0.2079	62.28	0.0505	0.0015	0.0000	0.0013	0.0000	0.0006	0.0279	0.0314	32.6665		
	2034	0.0080	0.0116	0.6016	0.0332	259.2	0.0022	0.0010	0.0160	0.0009	0.0048	0.0026	0.0040	0.8303	0.8503	2.2169	0.2013	61.20	0.0480	0.0014	0.0000	0.0013	0.0000	0.0006	0.0275	0.0309	33.1438		
Trucks	2024	0.0199	0.1032	0.5612	1.9662	1623.8	0.0809	0.0268	0.1175	0.0257	0.0376	0.0149	0.2583	0.3541	0.5129	5.4509	7.1510	871.67	0.1257	0.0024	0.0000	0.0023	0.0000	0.0078	0.1394	0.1717	5.8254	0.0267	0.0023
Aggregate Rates	2025	0.0188	0.0977	0.5553	1.8678	1590.5	0.0767	0.0263	0.1174	0.0251	0.0376	0.0145	0.2531	0.3508	0.5078	5.4255	7.0452	851.68	0.1242	0.0023	0.0000	0.0022	0.0000	0.0076	0.1364	0.1683	5.9410	0.0262	0.0022
For Haul Trucks	2026	0.0178	0.0921	0.5457	1.7826	1556.7	0.0721	0.0260	0.1176	0.0248	0.0376	0.0142	0.2478	0.3476	0.5023	5.3966	6.9263	832.00	0.1222	0.0021	0.0000	0.0020	0.0000	0.0074	0.1333	0.1649	6.0645	0.0259	0.0021
	2027	0.0170	0.0868	0.5344	1.7076	1519.6	0.0678	0.0256	0.1179	0.0245	0.0377	0.0139	0.2419	0.3443	0.4961	5.3604	6.7853	812.10	0.1196	0.0021	0.0000	0.0020	0.0000	0.0072	0.1302	0.1611	6.2076	0.0255	0.0020
	2028	0.0162	0.0814	0.5222	1.6346	1479.0	0.0634	0.0253	0.1182	0.0242	0.0378	0.0135	0.2355	0.3407	0.4889	5.3161	6.6223	791.35	0.1164	0.0020	0.0000	0.0019	0.0000	0.0070	0.1269	0.1569	6.3730	0.0252	0.0019
	2029	0.0154	0.0760	0.5081	1.5621	1436.8	0.0588	0.0249	0.1183	0.0238	0.0379	0.0131	0.2289	0.3367	0.4810	5.2639	6.4551	770.62	0.1129	0.0019	0.0000	0.0018	0.0000	0.0068	0.1237	0.1525	6.5553	0.0248	0.0018
	2030	0.0148	0.0708	0.4920	1.4973	1394.6	0.0543	0.0245	0.1183	0.0234	0.0379	0.0127	0.2222	0.3324	0.4725	5.2053	6.3022	750.22	0.1090	0.0018	0.0000	0.0017	0.0000	0.0066	0.1204	0.1482	6.7495	0.0244	0.0017
	2031	0.0141	0.0650	0.4690	1.4376	1352.6	0.0493	0.0241	0.1181	0.0231	0.0378	0.0123	0.2155	0.3285	0.4632	5.1450	6.1648	730.72	0.1040	0.0017	0.0000	0.0016	0.0000	0.0065	0.1173	0.1437	6.9587	0.0240	0.0016
	2032	0.0135	0.0595	0.4449	1.3850	1313.3	0.0446	0.0237	0.1179	0.0227	0.0377	0.0120	0.2092	0.3248	0.4539	5.0834	6.0348	712.33	0.0988	0.0017	0.0000	0.0016	0.0000	0.0063	0.1143	0.1395	7.1678	0.0236	0.0016
	2033	0.0129	0.0547	0.4212	1.3346	1277.1	0.0403	0.0233	0.1177	0.0223	0.0377	0.0116	0.2034	0.3214	0.4450	5.0262	5.9154	695.67	0.0937	0.0016	0.0000	0.0015	0.0000	0.0062	0.1116	0.1356	7.3723	0.0233	0.0015
	2034	0.0124	0.0502	0.3980	1.2899	1244.7	0.0365	0.0230	0.1174	0.0220	0.0376	0.0113	0.1982	0.3185	0.4369	4.9748	5.8085	680.91	0.0888	0.0016	0.0000	0.0015	0.0000	0.0060	0.1092	0.1322	7.5661	0.0229	0.0015
Trucks	2024	0.5601	0.6377	1.4071	17.3545	3461.3	0.0260	0.1032	0.1549	0.0987	0.0542	0.0328	0.5453	0.3541	0.5129	5.4509	7.1510	871.67	0.1257	0.0024	0.0000	0.0023	0.0000	0.0078	0.1394	0.3408	2.9340	0.1032	0.0023
5 mph	2025	0.5286	0.6018	1.3686	16.3517	3420.3	0.0246	0.0942	0.1536	0.0902	0.0538	0.0324	0.5389	0.3508	0.5078	5.4255	7.0452	851.68	0.1242	0.0023	0.0000	0.0022	0.0000	0.0076	0.1364	0.3368	2.9692	0.0942	0.0022
for Site Trucks	2026	0.4972	0.5660	1.3292	15.3911	3380.1	0.0231	0.0856	0.1530	0.0819	0.0536	0.0320	0.5325	0.3476	0.5023	5.3966	6.9263	832.00	0.1222	0.0021	0.0000	0.0020	0.0000	0.0074	0.1333	0.3328	3.0045	0.0856	0.0021
	2027	0.4761	0.5420	1.3034	14.7087	3347.9	0.0221	0.0805	0.1527	0.0770	0.0535	0.0317	0.5275	0.3443	0.4961	5.3604	6.7853	812.10	0.1196	0.0021	0.0000	0.0020	0.0000	0.0072	0.1302	0.3297	3.0334	0.0805	0.0020
	2028	0.4547	0.5176	1.2763	14.0376	3316.9	0.0211	0.0752	0.1524	0.0720	0.0533	0.0314	0.5226	0.3407	0.4889	5.3161	6.6223	791.35	0.1164	0.0020	0.0000	0.0019	0.0000	0.0070	0.1269	0.3266	3.0618	0.0752	0.0019
	2029	0.4317	0.4914	1.2461	13.3839	3286.2	0.0201	0.0693	0.1519	0.0663	0.0532	0.0311	0.5177	0.3367	0.4810	5.2639	6.4551	770.62	0.1129	0.0019	0.0000	0.0018	0.0000	0.0068	0.1237	0.3236	3.0904	0.0693	0.0018
	2030	0.4088	0.4653	1.2149	12.7830	3256.4	0.0190	0.0633	0.1515	0.0606	0.0530	0.0308	0.5130	0.3324	0.4725	5.2053	6.3022	750.22	0.1090	0.0018	0.0000	0.0017	0.0000	0.0066	0.1204	0.3207	3.1186	0.0633	0.0017
	2031	0.3871	0.4406	1.1840	12.2441	3227.8	0.0180	0.0577	0.1510	0.0552	0.0529	0.0306	0.5085	0.3285	0.4632	5.1450	6.1648	730.72	0.1040	0.0017	0.0000	0.0016	0.0000	0.0065	0.1173	0.3178	3.1463	0.0577	0.0016
	2032	0.3646	0.4150	1.1511	11.7123	3199.4	0.0169	0.0517	0.1506	0.0495	0.0527	0.0303	0.5041	0.3248	0.4539	5.0834	6.0348	712.33	0.0988	0.0017	0.0000	0.0016	0.0000	0.0063	0.1143	0.3150	3.1742	0.0517	0.0016
	2033	0.3406	0.3877	1.1150	11.1764	3170.3	0.0158	0.0452	0.1501	0.0432	0.0525	0.0300	0.4995	0.3214	0.4450	5.0262	5.9154	695.67	0.0937	0.0016	0.0000	0.0015	0.0000	0.0062	0.1116	0.3122	3.2033	0.0452	0.0015
	2034	0.3178	0.3618	1.0802	10.6887	3142.0	0.0148	0.0391	0.1497	0.0374	0.0524	0.0298	0.4950	0.3185	0.4369	4.9748	5.8085	680.91	0.0888	0.0016	0.0000	0.0015	0.0000	0.0060	0.1092	0.3094	3.2321	0.0391	0.0015

Marine Equipment

Emission Rate Calculation

Emissions calculated on a per hour basis from CARB's CHC Inventory embedded in EMFAC web tool

All are diesel except pushboat, which is 50 hp gasoline outboard

All are based on 2024 CY equipment

					lbs per activity hour (or gallons)										lbs per hour (calculated from fuel)	
			Engines	HP	VOC	NOX	CO	PM10e	PM10d	PM2.5e	PM2.5d	SO2	CO2	Fuel	ch4	n2o
Derrick Barge	Aux 1	*Derrick BargeAux 1*	1	600	0.046606	0.843952	0.256108	0.032161		0.03075		0.0000	122	5.416285	0.0767	0.0020
	Aux 2	*Derrick BargeAux 2*	1	462	0.0466	0.8440	0.2561	0.0322		0.0308		0.0000	122	5.416285	0.0767	0.0020
	Aux 3	*Derrick BargeAux 3*	1	211	0.0429	0.6820	0.1938	0.0232		0.0222		0.0000	79	3.499405	0.0495	0.0013
Spud Barge	Aux 1	*Spud BargeAux 1*	1	240	0.0429	0.6820	0.1938	0.0232		0.0222		0.0000	79	3.499405	0.0495	0.0013
	Aux 2	*Spud BargeAux 2*	1	240	0.0429	0.6820	0.1938	0.0232		0.0222		0.0000	79	3.499405	0.0495	0.0013
Tugboat	Main	*TugboatMain*	2	500	0.0857	1.5669	0.2896	0.0361		0.0345		0.0000	167	7.421853	0.1050	0.0028
	Aux	*TugboatAux*	1	127	0.0244	0.3937	0.1233	0.0144		0.0138		0.0000	54	2.40166	0.0340	0.0009
Pushboat	Main	*PushboatMain*	1	50	1.3639	0.1417	3.6512	0.0945		0.0714		0.0003	16.2	1.360458	0.0067	0.00003

Climate Registry 2022 Efs, per gallon, ships and boats (Table 2.7)

	diesel	gas 4 stroke	
CH4	6.42	2.24	g/gallon
N2O	0.17	0.01	g/gallon
g per lb	453.59		

Fugitive Dust Emission Factors

Daily Paved Road Dust EF[1]

$$E_{ext} = [\ k\ (sL)^{0.91} \times (W)^{1.02}\ ]$$

EF_{paved}	Annual or other long-term average emission factor in the same units as k
k	particle size multiplier for particle size range and units of interest
sL	road surface silt loading (g/m^2)
W	average weight (tons) of all the vehicles raveling the road (2.4 tons)
P	Number of "wet' days with at least 0.254 (0.01 in) of precipitation during the averaging period
N	Number of days in the averaging period (e.g. 365 for annual, 91 for seasonal, 30 for monthly)

Parameters	**PM10**	**PM2.5**
k $(lb/VMT)^2$	0.0022	0.00054
sL (g/m^2)	0.1	0.1
W (tons)	2.4	2.4
EF (lb/mi)	6.61E-04	1.62E-04
EF (g/mi)	0.30	0.07

1) CalEEMod User's Guide, Appendix A, p. 29
2) AP42: Chapter 13: Miscellaneous Sources, 13.2.1 Paved Roads, Table 13.2.1-1

Equipment Match to OFFROAD and EMFAC

Equipment	Engine	OFFROAD/EMFAC Match	Source	HP	Hrs/day	Source
Derrick Barge(Barge Aux engines)	Aux	-	CARB CHC	600	8	client
Derrick Barge(Barge Aux engines)	Aux	-	CARB CHC	463	8	client
	Aux		CARB CHC	211	8	client
150 ton Crane	-	Cranes	OFFROAD	367	8	Caleemod
Spud Barge	Aux	-	CARB CHC	240	8	client
	Aux	-	CARB CHC	240	8	client
Tugboat	Main	-	CARB CHC	1000	1	client
Excavator (PC300)	-	Excavators	OFFROAD	180	4	1
Impact Hammer Ape Model D46-32	no emissions - powered by Power Pack					
Vibratory Hammer APE Model 200	no emissions - powered by Power Pack					
Hydraulic Power Pack APE Model 595	-	Generator Sets	OFFROAD	595	4	2
Concrete pumper	-	Pumps	OFFROAD	10	8	Caleemod
Diesel air compressor	-	Air Compressors	OFFROAD	37	8	Caleemod
Site Truck	-	HHDT	EMFAC	-	2	
Clam Shell Bucket	no emissions - fits onto crane					

1 https://www.ritchiespecs.com/model/komatsu-pc300-1-hydraulic-excavator
2 https://www.americanpiledriving.com/manuals/APE/Vibratory_Hammers/APE-VIBRO-200-595-20191118.pdf

General Assumptions

lbs/gram	0.002204634	Standard	
kg/mt	1000	Standard	
mt/gram	0.000001	Standard	
mt/lbs	0.000453592	Standard	
ton/lbs	0.0005	Standard	
g to ton	1.10231E-06	Standard	
t to mt	0.907184741	Standard	
Gallons per acre-foot	325851	Standard	
MWh to mmBTU	3.41	Standard	
ton per cy conversion	1.2641662	CalEEMod	
ton per SF conversion	0.046	CalEEMod	
acre per SF conversion	2.29568E-05	Standard	
lbs CO2 per gallon of diesel	22.5091702	Climate Registry 2018	
lbs CO2 per gallon of gas	19.3565636	Climate Registry 2018	
HP to KW	0.7457		
MW/KW	0.001		
CH4 GWP	25	AR4	
N2O GWP	298	AR4	
Single trips per vehicle	2		
Employee one-way commute	11.97	miles/trip	caleemod default, worker, non-residential home-work trip, san diego county
Vendor truck one-way trip dis	7.63	miles	caleemod default, vendor, non-residential work-other trip, san diego county
Truck one-way trip distance o	20	miles	caleemod default
workers per day	10	all construction phases	
	1	tug operator for mobilization	

1. EMFAC OFFROAD OUTPUT

Model Output: OFFROAD2021 (v1.0.3) Emissions Inventory
Region Type: Statewide
Region: California
Calendar Year: 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2021 Equipment Types
Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Region	Calendar Year	Vehicle Category	Model Year	Horsepower Bin	Fuel	HC_tpd	ROG_tpd	TOG_tpd	CO_tpd	NOx_tpd	CO2_tpd	PM10_tpd	PM2.5_tpd	SOx_tpd	NH3_tpd	Fuel Consumption	Total_Activity_hpy	Total_Population	Horsepower_Hours_hhpy
Statewide	2024	Commercial Harbor Craft - AE - Barge-ATB	Aggregate	100	Diesel	0.000207216	0.000250727	0.000298191	0.000768692	0.001538808	0.18002	0.000145343	0.000138875	0	0	5855.5981	3531.093	7.307693	102313.4358
Statewide	2024	Commercial Harbor Craft - AE - Barge-ATB	Aggregate	175	Diesel	0.000214551	0.000259445	0.000308689	0.001239058	0.005647101	0.6459	0.000172916	0.000165252	0	0	21008.988	8514.328	17.53846	398230.8994
Statewide	2024	Commercial Harbor Craft - AE - Barge-ATB	Aggregate	300	Diesel	0.000414692	0.000501731	0.000596972	0.00202156	0.008077694	0.85894	0.000273322	0.000261168	0	0	27938.512	6482.121	17.53846	540700.3478
Statewide	2024	Commercial Harbor Craft - AE - Barge-ATB	Aggregate	50	Diesel	0.0000115	0.00001392	0.00001656	0.000068	0.000226764	0.03293	0.00001006	0.00000962	0	0	1071.0701	1250.665	1.461538	17546.83
Statewide	2024	Commercial Harbor Craft - AE - Barge-ATB	Aggregate	600	Diesel	0.001693063	0.002048514	0.002438126	0.010032104	0.03610092	4.69651	0.001321347	0.001263172	0	0	152762.16	25608.18	61.38462	2956218.797
Statewide	2024	Commercial Harbor Craft - AE - Barge-ATB	Aggregate	75	Diesel	2.82E-05	3.4E-05	4.06E-05	0.0001298	0.000701776	0.09443	3.34E-05	3.18E-05	0	0	3071.5682	2501.329	2.923076	53403.37156
Statewide	2024	Commercial Harbor Craft - AE - Barge-ATB	Aggregate	800	Diesel	0.00026816	0.000324474	0.00038615	0.001815692	0.007011992	1.08914	0.0001808	0.0001728	0	0	35426.298	3751.995	4.384616	686615.116
Statewide	2024	Commercial Harbor Craft - AE - Barge-ATB	Aggregate	9999	Diesel	0.001657191	0.002005096	0.002386319	0.00772934	0.048080366	4.55522	0.00100644	0.000962067	0	0	148166.49	5002.658	5.846152	2899040.315
Statewide	2024	Commercial Harbor Craft - AE - Barge-Bunker	Aggregate	100	Diesel	0.000039125	0.00004731	5.635E-05	0.000224767	0.000972793	0.13899	0.000033235	3.1779E-05	0	0	4520.7619	3231.561	2	83778.2091
Statewide	2024	Commercial Harbor Craft - AE - Barge-Bunker	Aggregate	175	Diesel	0.000281149	0.000340269	0.000404812	0.002072017	0.006683867	1.02945	0.000270512	0.000258632	0	0	33484.63	15114.73	34	646889.6772
Statewide	2024	Commercial Harbor Craft - AE - Barge-Bunker	Aggregate	300	Diesel	0.00013415	0.000162472	0.000193308	0.000962446	0.003360362	0.50909	0.000120173	0.000114791	0	0	16559.128	5410.935	7	320313.3715
Statewide	2024	Commercial Harbor Craft - AE - Barge-Bunker	Aggregate	50	Diesel	0.000105069	0.000127133	0.000151318	0.000851856	0.002055888	0.26633	9.58856E-05	9.1553E-05	0	0	8662.8096	18722.37	12.5	149465.4778
Statewide	2024	Commercial Harbor Craft - AE - Barge-Bunker	Aggregate	600	Diesel	0.001910613	0.00231184	0.002751276	0.013872676	0.041555894	6.29713	0.001954856	0.00186884	0	0	204825.16	37303.85	24	3959049.023
Statewide	2024	Commercial Harbor Craft - AE - Barge-Bunker	Aggregate	75	Diesel	1.2391E-05	1.5005E-05	1.7849E-05	7.145E-05	0.000311814	0.04506	1.056E-05	1.0094E-05	0	0	1465.5799	1615.78	1	27104.71587
Statewide	2024	Commercial Harbor Craft - AE - Barge-Other	Aggregate	100	Diesel	0.000347168	0.000420047	0.000499928	0.001197906	0.002932252	0.16079	0.000189305	0.000180955	0	0	5230.1199	3275.091	16.4	92202.88992
Statewide	2024	Commercial Harbor Craft - AE - Barge-Other	Aggregate	175	Diesel	0.000484253	0.000586053	0.000697544	0.002705432	0.008262527	0.967	0.00033223	0.000317662	0	0	31453.411	13261.25	51.2	601902.6437
Statewide	2024	Commercial Harbor Craft - AE - Barge-Other	Aggregate	25	Diesel	0.00003555	0.00004306	0.00005111	0.0002339	0.000737285	0.1112	0.00003212	0.00003065	0	0	3616.8804	11335.8	11	56701.683
Statewide	2024	Commercial Harbor Craft - AE - Barge-Other	Aggregate	300	Diesel	0.001197587	0.00144896	0.001724539	0.006550824	0.023058265	2.65521	0.000783806	0.000749227	0	0	86365.373	24680.02	56.6	1672281.145
Statewide	2024	Commercial Harbor Craft - AE - Barge-Other	Aggregate	50	Diesel	3.09836E-05	3.74466E-05	4.45526E-05	0.000157151	0.000414268	0.05677	2.02598E-05	1.93649E-05	0	0	1846.7052	2957.452	10.8	30656.76574
Statewide	2024	Commercial Harbor Craft - AE - Barge-Other	Aggregate	600	Diesel	0.000802872	0.00097132	0.001155869	0.005337577	0.017588876	2.5334	0.000670261	0.000640868	0	0	82403.332	15214	23.8	1594515.858
Statewide	2024	Commercial Harbor Craft - AE - Barge-Other	Aggregate	75	Diesel	3.18673E-05	3.85545E-05	4.58655E-05	0.000158995	0.000570921	0.08143	2.44143E-05	2.3351E-05	0	0	2648.7797	2443.747	4.4	48770.43088
Statewide	2024	Commercial Harbor Craft - AE - Barge-Other	Aggregate	800	Diesel	0.000323791	0.000391715	0.000466156	0.002339309	0.007070303	1.06341	0.000316531	0.000302509	0	0	34589.265	3554.541	6.4	668566.3099
Statewide	2024	Commercial Harbor Craft - AE - Barge-Other	Aggregate	9999	Diesel	0.000747779	0.00090482	0.00107681	0.003143864	0.011220578	1.05462	0.000340843	0.000325847	0	0	34303.394	2620.333	6.6	682448.3397
Statewide	2024	Commercial Harbor Craft - AE - Barge-Towed Petrochemical	Aggregate	175	Diesel	0.00000237	0.00000287	0.00000342	0.000018	0.0000547	0.0088	0.00000225	0.00000216	0	0	286.16388	117	1	5531.1753
Statewide	2024	Commercial Harbor Craft - AE - Barge-Towed Petrochemical	Aggregate	50	Diesel	4.334E-05	0.0000524	0.0000623	0.000339604	0.000857502	0.1131	0.00003936	0.00003769	0	0	3678.8229	7721.318	4	62996.301
Statewide	2024	Commercial Harbor Craft - AE - Barge-Towed Petrochemical	Aggregate	600	Diesel	0.006914234	0.008366233	0.009956646	0.045543184	0.170688961	25.6005	0.004845704	0.004632538	0	0	832701.42	133195.4	70	16132044.04
Statewide	2024	Commercial Harbor Craft - AE - Barge-Towed Petrochemical	Aggregate	75	Diesel	2.38371E-05	2.88499E-05	3.43305E-05	0.000121534	0.000448966	0.06262	1.86314E-05	1.7806E-05	0	0	2036.7098	1930.329	1	37680.03243
Statewide	2024	Commercial Harbor Craft - AE - Barge-Towed Petrochemical	Aggregate	800	Diesel	0.000298637	0.000361337	0.000429941	0.002033645	0.007981182	1.24229	0.000201474	0.00019278	0	0	40407.786	3860.659	2	783038.1213
Statewide	2024	Commercial Harbor Craft - AE - Commercial Fishing	Aggregate	100	Diesel	0.018787418	0.022732847	0.02705371	0.06779201	0.160933494	12.0219	0.011607693	0.011097015	0	0	391032.29	181784.9	152.7605	6868577.54
Statewide	2024	Commercial Harbor Craft - AE - Commercial Fishing	Aggregate	175	Diesel	0.005260685	0.006365244	0.007574898	0.026572967	0.083540934	7.70287	0.003353934	0.003206385	0	0	250549.49	85089.28	71.50362	4808520.851
Statewide	2024	Commercial Harbor Craft - AE - Commercial Fishing	Aggregate	25	Diesel	0.000949414	0.001148825	0.001367231	0.003695835	0.005782604	0.54707	0.000436567	0.000417579	0	0	17794.302	52760.66	44.33671	304793.4692
Statewide	2024	Commercial Harbor Craft - AE - Commercial Fishing	Aggregate	300	Diesel	0.004573314	0.005533725	0.006585537	0.021355889	0.063766262	6.01058	0.002695269	0.002576745	0	0	195504.77	36793.27	30.91872	3779446.267
Statewide	2024	Commercial Harbor Craft - AE - Commercial Fishing	Aggregate	50	Diesel	0.00811175	0.009815613	0.01168092	0.028496039	0.044425182	4.69442	0.00305521	0.002920353	0	0	152694.37	168693.2	141.7591	2605442.068
Statewide	2024	Commercial Harbor Craft - AE - Commercial Fishing	Aggregate	600	Diesel	0.002916708	0.003529202	0.004200055	0.014045653	0.042721294	4.59775	0.001832321	0.001751698	0	0	149549.84	17950.17	15.08418	2891929.261
Statewide	2024	Commercial Harbor Craft - AE - Commercial Fishing	Aggregate	75	Diesel	0.006360307	0.007696149	0.009158895	0.023519212	0.058178778	4.85538	0.004057292	0.003878252	0	0	157929.77	110379.8	92.75616	2786539.715
Statewide	2024	Commercial Harbor Craft - AE - Commercial Passenger Fishing	Aggregate	100	Diesel	0.001395123	0.001688073	0.002008948	0.004999699	0.00867167	0.80836	0.000876613	0.00083799	0	0	26293.454	12150.5	7.362445	463083.3679
Statewide	2024	Commercial Harbor Craft - AE - Commercial Passenger Fishing	Aggregate	175	Diesel	0.002397692	0.002901169	0.003452644	0.011453726	0.039689239	2.95337	0.001552554	0.001484089	0	0	96063.729	28761.94	17.42795	1845184.416
Statewide	2024	Commercial Harbor Craft - AE - Commercial Passenger Fishing	Aggregate	25	Diesel	0.000452251	0.00054732	0.000651194	0.002279205	0.004099174	0.461	0.00026309	0.0002514	0	0	14994.938	33150.81	20.08733	256960.5852
Statewide	2024	Commercial Harbor Craft - AE - Commercial Passenger Fishing	Aggregate	300	Diesel	0.001360624	0.001646363	0.001959312	0.007537283	0.029830685	3.21585	0.001023278	0.00097825	0	0	104601.28	17137.53	10.38428	2021909.566
Statewide	2024	Commercial Harbor Craft - AE - Commercial Passenger Fishing	Aggregate	50	Diesel	0.005139959	0.006219419	0.007401226	0.020720802	0.034575145	3.86868	0.002240053	0.002141441	0	0	125835.59	129338.6	78.37118	2155305.979
Statewide	2024	Commercial Harbor Craft - AE - Commercial Passenger Fishing	Aggregate	600	Diesel	0.000223006	0.000269837	0.000321129	0.001638247	0.004916813	0.75889	0.000216013	0.000206508	0	0	24684.34	2212.456	1.340611	477116.2068
Statewide	2024	Commercial Harbor Craft - AE - Commercial Passenger Fishing	Aggregate	75	Diesel	0.009418721	0.011396744	0.01356275	0.036033953	0.090140161	9.35118	0.006359982	0.006080342	0	0	304163.62	190091.1	115.1834	5367483.422
Statewide	2024	Commercial Harbor Craft - AE - Crew/Supply	Aggregate	100	Diesel	0.000265032	0.000320689	0.000381646	0.001229214	0.006648337	0.90112	0.000312619	0.000298864	0	0	29310.473	15178.03	7.213346	509602.25
Statewide	2024	Commercial Harbor Craft - AE - Crew/Supply	Aggregate	175	Diesel	0.000279727	0.000338423	0.000402736	0.001770444	0.006507233	0.99842	0.000178363	0.000170491	0	0	32475.3	13224.54	12	604673.9949
Statewide	2024	Commercial Harbor Craft - AE - Crew/Supply	Aggregate	25	Diesel	0.000200467	0.000242544	0.000288717	0.000800293	0.001602815	0.19193	0.000101707	9.7261E-05	0	0	6242.7343	18687.09	11.21335	99455.831
Statewide	2024	Commercial Harbor Craft - AE - Crew/Supply	Aggregate	300	Diesel	0.001779996	0.002153796	0.002563196	0.006503698	0.017177204	1.16288	0.000835008	0.000798268	0	0	37824.855	7493.52	7.213346	731105.2407
Statewide	2024	Commercial Harbor Craft - AE - Crew/Supply	Aggregate	50	Diesel	0.001407851	0.001703412	0.002027367	0.008378558	0.026441382	3.77933	0.001153811	0.001102871	0	0	122929.45	139868	70.92011	2027736.408
Statewide	2024	Commercial Harbor Craft - AE - Crew/Supply	Aggregate	600	Diesel	0.002335104	0.002825507	0.00336258	0.009351482	0.025161839	1.11233	0.001266552	0.001210878	0	0	36180.498	4758.059	19.42669	699420.6053
Statewide	2024	Commercial Harbor Craft - AE - Crew/Supply	Aggregate	75	Diesel	0.000788722	0.000954279	0.001135758	0.004131743	0.016845832	2.21956	0.000612979	0.000585926	0	0	72195.143	60508.64	36.64004	1337989.955
Statewide	2024	Commercial Harbor Craft - AE - Crew/Supply	Aggregate	800	Diesel	0.00245245	0.002967465	0.003531528	0.008583034	0.022328599	1.42418	0.00118597	0.001133787	0	0	46323.964	3746.76	3.606673	895382.0008
Statewide	2024	Commercial Harbor Craft - AE - Dredge	Aggregate	175	Diesel	0.000226528	0.000274088	0.000326253	0.001701944	0.005415561	0.88505	0.000210296	0.000201043	0	0	28787.838	7063.802	3.588235	551926.3214
Statewide	2024	Commercial Harbor Craft - AE - Dredge	Aggregate	300	Diesel	0.001527009	0.001847677	0.002198879	0.008364329	0.029388394	4.02784	0.00090525	0.000865398	0	0	131012.76	19901.67	13.94118	2538194.506
Statewide	2024	Commercial Harbor Craft - AE - Dredge	Aggregate	50	Diesel	0.0000377	0.0000456	5.43E-05	0.00022119	0.000712589	0.10264	0.0000325	0.0000311	0	0	3338.5354	1968.601	1	54693.633
Statewide	2024	Commercial Harbor Craft - AE - Dredge	Aggregate	600	Diesel	0.004666786	0.005646845	0.006720127	0.032296652	0.114876982	17.5972	0.0037239	0.003560116	0	0	572380.99	55399.57	35.64706	11083895.74
Statewide	2024	Commercial Harbor Craft - AE - Dredge	Aggregate	800	Diesel	0.000977909	0.00118327	0.001408189	0.00639641	0.024500267	3.62029	0.000682254	0.000652235	0	0	117756.22	5095.201	2.588235	2282293.287
Statewide	2024	Commercial Harbor Craft - AE - Dredge	Aggregate	9999	Diesel	0.005291092	0.006402213	0.007619164	0.012132129	0.068938139	6.87503	0.002324348	0.002222098	0	0	223622.36	7638.274	6.17647	4426909.28
Statewide	2024	Commercial Harbor Craft - AE - Excursion	Aggregate	100	Diesel	0.001320638	0.001597854	0.00190151	0.006063661	0.021435634	2.69808	0.001004887	0.000960554	0	0	87759.681	46197.98	66.78032	1604392.884

1. EMFAC OFFROAD OUTPUT

Model Output: OFFROAD2021 (v1.0.3) Emissions Inventory
Region Type: Statewide
Region: California
Calendar Year: 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2021 Equipment Types
Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Region	Calendar Year	Vehicle Category	Model Year	Horsepower Bin	Fuel	HC_tpd	ROG_tpd	TOG_tpd	CO_tpd	NOx_tpd	CO2_tpd	PM10_tpd	PM2.5_tpd	SOx_tpd	NH3_tpd	Fuel Consumption	Total_Activity_hpy	Total_Population	Horsepower_Hours_hhpy
Statewide	2024	Commercial Harbor Craft - AE - Excursion	Aggregate	175	Diesel	0.002666011	0.003225951	0.003839291	0.014400886	0.049299076	5.25708	0.001870659	0.00178878	0	0	170995.8	65852.16	102.9461	3261501.232
Statewide	2024	Commercial Harbor Craft - AE - Excursion	Aggregate	25	Diesel	0.00012939	0.000156577	0.00018631	0.000492007	0.000893369	0.09871	6.12449E-05	5.85884E-05	0	0	3210.754	7958.64	13.75607	51778.70561
Statewide	2024	Commercial Harbor Craft - AE - Excursion	Aggregate	300	Diesel	0.002419968	0.002928283	0.003484896	0.012878284	0.044256752	5.51262	0.00151951	0.001452444	0	0	179307.63	38121.07	48.47305	3471699.524
Statewide	2024	Commercial Harbor Craft - AE - Excursion	Aggregate	50	Diesel	0.001191364	0.001441348	0.001715536	0.004502725	0.008128932	0.946	0.000509279	0.00048716	0	0	30770.381	38093.53	69.88275	517645.0619
Statewide	2024	Commercial Harbor Craft - AE - Excursion	Aggregate	600	Diesel	0.001882483	0.00227778	0.002710669	0.009696068	0.032432668	3.97479	0.001263163	0.00120758	0	0	129286.96	17226.05	22.96092	2502108.354
Statewide	2024	Commercial Harbor Craft - AE - Excursion	Aggregate	75	Diesel	0.001420277	0.001718749	0.002045444	0.006291174	0.020250511	2.50331	0.001041137	0.000995319	0	0	81424.505	62629.18	88.74124	1487651.832
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Catamaran	Aggregate	100	Diesel	0.000728941	0.000881925	0.001049762	0.003620587	0.016548849	2.23023	0.000707804	0.000676709	0	0	72542.302	38241.31	22.01411	1303151.738
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Catamaran	Aggregate	175	Diesel	0.000911942	0.001103317	0.001313004	0.00655286	0.022860968	3.72746	0.000734668	0.00070235	0	0	121242.35	41153.01	25.26058	2288528.91
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Catamaran	Aggregate	25	Diesel	0.000026672	3.2287E-05	0.000038437	0.00018427	0.000544021	0.07964	0.000024086	2.3028E-05	0	0	2590.5407	5323.215	3	41308.15245
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Catamaran	Aggregate	300	Diesel	0.000380966	0.000461011	0.000548608	0.002785889	0.009541944	1.53186	0.000316002	0.000302098	0	0	49826.296	11983.5	6.753528	964342.7195
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Catamaran	Aggregate	50	Diesel	6.8108E-06	8.2385E-06	9.8075E-06	6.57993E-05	0.000132361	0.01712	7.35714E-06	7.03454E-06	0	0	556.9369	953.7651	1	9621.582759
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Monohull	Aggregate	100	Diesel	0.000156834	0.00018972	0.000225777	0.000660991	0.002229846	0.23186	0.000100473	9.60151E-05	0	0	7541.6486	4755.259	3.376764	138698.1117
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Monohull	Aggregate	175	Diesel	0.000418504	0.000506483	0.000602732	0.002687112	0.008792991	1.28881	0.00030942	0.000295662	0	0	41920.74	15923.35	10.13029	794873.5175
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Monohull	Aggregate	25	Diesel	1.80937E-05	2.19071E-05	2.60483E-05	0.00017511	0.000352211	0.04594	1.95783E-05	1.87154E-05	0	0	1494.1347	3299.522	4	25604.28967
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Monohull	Aggregate	300	Diesel	2.13768E-05	2.58768E-05	3.07864E-05	9.04664E-05	0.000236536	0.01118	1.12277E-05	1.07133E-05	0	0	363.79765	94.43453	1	7034.995008
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Monohull	Aggregate	50	Diesel	8.61705E-05	0.000104283	0.000124052	0.000510015	0.001651543	0.23829	7.19887E-05	6.88168E-05	0	0	7750.9592	8268.34	5	127041.4071
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Monohull	Aggregate	75	Diesel	3.99676E-05	0.000048376	0.000057537	0.000194425	0.000726393	0.09544	2.99466E-05	2.86096E-05	0	0	3104.1947	2301.862	4.753528	57095.02463
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Short Run	Aggregate	100	Diesel	0.0000429	0.0000519	0.0000618	0.000241552	0.001032951	0.14224	0.0000371	0.0000354	0	0	4626.4761	2604.983	1	85912.36
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Short Run	Aggregate	25	Diesel	2.4326E-05	2.95123E-05	3.50286E-05	0.000120947	0.000335272	0.04871	1.69429E-05	1.61707E-05	0	0	1584.3093	3071.498	3.188382	24381.87277
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Short Run	Aggregate	50	Diesel	0.000101312	0.000122554	0.000145901	0.00068551	0.001644831	0.21706	8.18871E-05	7.82985E-05	0	0	7060.4021	7010.136	5.188382	119727.3951
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Short Run	Aggregate	75	Diesel	0.000129933	0.000157105	0.00018708	0.00071661	0.00324981	0.46104	0.000118749	0.000113534	0	0	14996.028	12382.86	4.753528	273859.3753
Statewide	2024	Commercial Harbor Craft - AE - Pilot Boat	Aggregate	100	Diesel	0.000840927	0.001017458	0.001210884	0.0031508	0.005696735	0.65487	0.000558141	0.000533592	0	0	21300.698	13583.2	7.2	380519.7618
Statewide	2024	Commercial Harbor Craft - AE - Pilot Boat	Aggregate	50	Diesel	0.0000354	0.0000429	0.000051	0.00029639	0.000688728	0.08765	0.0000324	0.0000309	0	0	2851.0652	4527.733	2.4	49569.63
Statewide	2024	Commercial Harbor Craft - AE - Pilot Boat	Aggregate	75	Diesel	0.000143122	0.00017318	0.000206097	0.000511924	0.000742795	0.0788	9.26762E-05	8.86163E-05	0	0	2563.1511	1886.556	1	44800.97561
Statewide	2024	Commercial Harbor Craft - AE - Research Boat	Aggregate	100	Diesel	0.000228367	0.000276325	0.000328847	0.000820142	0.00183579	0.13073	0.000148148	0.000141628	0	0	4252.3252	2073.91	2	74486.56135
Statewide	2024	Commercial Harbor Craft - AE - Research Boat	Aggregate	175	Diesel	0.000236379	0.000285858	0.000340033	0.001186082	0.003769264	0.3652	0.000143011	0.00013685	0	0	11878.661	4212.631	4.0625	226766.7487
Statewide	2024	Commercial Harbor Craft - AE - Research Boat	Aggregate	25	Diesel	0.000167261	0.000202287	0.000240812	0.000603572	0.00087718	0.07372	7.17448E-05	6.85656E-05	0	0	2397.8664	5444.015	5.25	41231.6078
Statewide	2024	Commercial Harbor Craft - AE - Research Boat	Aggregate	300	Diesel	0.000547984	0.000663026	0.00078912	0.002405966	0.006449892	0.44393	0.000297768	0.000284616	0	0	14439.518	2527.578	2.4375	279168.4952
Statewide	2024	Commercial Harbor Craft - AE - Research Boat	Aggregate	50	Diesel	0.00001798	0.00002177	0.00002588	0.0001507	0.000381016	0.05276	0.00001816	0.00001737	0	0	1716.1426	2300.744	2.21875	29238.247
Statewide	2024	Commercial Harbor Craft - AE - Research Boat	Aggregate	600	Diesel	0.000558456	0.000675752	0.000804185	0.002204019	0.005880211	0.31244	0.000295092	0.000282111	0	0	10162.674	1263.789	1.21875	196506.5749
Statewide	2024	Commercial Harbor Craft - AE - Research Boat	Aggregate	75	Diesel	0.000366686	0.000443647	0.000527999	0.001330785	0.002841246	0.22833	0.000227688	0.000217716	0	0	7426.8231	5411.61	5.21875	131274.0539
Statewide	2024	Commercial Harbor Craft - AE - Research Boat	Aggregate	9999	Diesel	0.001498899	0.001813664	0.002158411	0.005261438	0.013725655	0.89328	0.000724854	0.000692959	0	0	29055.66	1263.789	1.21875	562396.2661
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-ATB	Aggregate	100	Diesel	0.000177305	0.000214484	0.000255299	0.001029951	0.004429634	0.63758	0.000147669	0.00014117	0	0	20738.413	7779.929	1.727273	385106.5
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-ATB	Aggregate	175	Diesel	0.000985881	0.001192977	0.001419795	0.004211488	0.01131233	0.57803	0.000526241	0.000503136	0	0	18801.495	4517.026	15.54545	361099.6412
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-ATB	Aggregate	300	Diesel	0.003619217	0.004379165	0.005211637	0.023899152	0.098546964	13.315	0.003028466	0.002895166	0	0	433094.6	61475.48	17.27273	8382720.301
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-ATB	Aggregate	600	Diesel	0.005447821	0.006592039	0.007844877	0.030817057	0.107858475	14.6199	0.003655602	0.003494653	0	0	475538.31	50889.83	20.72727	9209333.493
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-ATB	Aggregate	9999	Diesel	0.00434677	0.005259591	0.006259349	0.017717015	0.109804619	9.8997	0.002473199	0.002364378	0	0	322005.3	15559.86	3.454545	6223943.022
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Escort/Ship Assist	Aggregate	175	Diesel	0.003418103	0.004135839	0.004922115	0.024954857	0.085026217	13.9349	0.002818971	0.002694784	0	0	453258.72	176308.3	90.3125	8600412.095
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Escort/Ship Assist	Aggregate	300	Diesel	0.001965442	0.002378338	0.002830394	0.014289798	0.051026445	8.28216	0.001532028	0.001464677	0	0	269391.9	62101.18	27.375	5215830.386
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Escort/Ship Assist	Aggregate	600	Diesel	0.001313979	0.001589965	0.00189213	0.009303181	0.031229666	4.81839	0.001130117	0.001080356	0	0	156726.65	21986	10.25	3033251.04
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Escort/Ship Assist	Aggregate	75	Diesel	0.000277978	0.000336356	0.00040028	0.001110362	0.002501911	0.30985	0.000191607	0.000183146	0	0	10078.392	8288.026	5.312501	182807.05
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Push/Tow	Aggregate	100	Diesel	0.001800032	0.00217804	0.0025922	0.008208589	0.027243354	3.65422	0.001407022	0.001344751	0	0	118859.85	64553.81	42	2165227.799
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Push/Tow	Aggregate	175	Diesel	0.002669592	0.003230339	0.003844081	0.016300348	0.052042724	7.12568	0.001904041	0.001820286	0	0	231775.35	96506.31	72.16667	4402706.223
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Push/Tow	Aggregate	25	Diesel	7.2107E-05	8.7211E-05	0.000103785	0.00044755	0.001553366	0.2443	6.5942E-05	6.2985E-05	0	0	7946.4317	22796.27	15.33333	121969.8976
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Push/Tow	Aggregate	300	Diesel	0.000796688	0.000964075	0.00114756	0.004692474	0.01576615	2.13331	0.000510419	0.0004881	0	0	69389.68	17701.8	13.70833	1343814.083
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Push/Tow	Aggregate	50	Diesel	0.000842094	0.001018961	0.001212625	0.004695751	0.011522237	1.51819	0.000563973	0.000539159	0	0	49381.916	56943.3	42.45833	833486.3305
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Push/Tow	Aggregate	600	Diesel	7.53E-05	9.11E-05	0.00010846	0.000263601	0.000685754	0.04374	3.64E-05	3.48E-05	0	0	1422.697	235.9407	1.541667	27498.88328
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Push/Tow	Aggregate	75	Diesel	0.000792311	0.00095899	0.00114109	0.003701657	0.013071138	1.71856	0.000614349	0.000587219	0	0	55899.361	45765.98	32.75	1022164.635
Statewide	2024	Commercial Harbor Craft - AE - Work Boat	Aggregate	100	Diesel	0.00063064	0.000763109	0.000908112	0.002332565	0.007040209	0.58897	0.000387112	0.000370111	0	0	19157.238	11672.58	16.27209	339284.8774
Statewide	2024	Commercial Harbor Craft - AE - Work Boat	Aggregate	175	Diesel	0.001085909	0.001313965	0.00156393	0.005568008	0.020222594	1.8827	0.000746577	0.000713787	0	0	61238.221	25497.17	35.54418	1174872.402
Statewide	2024	Commercial Harbor Craft - AE - Work Boat	Aggregate	25	Diesel	0.000372386	0.000450618	0.000536334	0.001411227	0.002090527	0.18641	0.000166182	0.000158906	0	0	6063.465	19660.88	27.40814	104499.8923
Statewide	2024	Commercial Harbor Craft - AE - Work Boat	Aggregate	300	Diesel	0.003760215	0.004549879	0.005414787	0.017799822	0.057132836	4.95768	0.002305948	0.002204336	0	0	161257.18	43152.43	60.15639	3118164.327
Statewide	2024	Commercial Harbor Craft - AE - Work Boat	Aggregate	50	Diesel	0.000457345	0.000553567	0.000658749	0.002573067	0.005027656	0.62343	0.000286516	0.000273536	0	0	20278.131	32963.32	45.95232	348740.9114
Statewide	2024	Commercial Harbor Craft - AE - Work Boat	Aggregate	600	Diesel	0.004781864	0.005786007	0.006885919	0.019145275	0.0568127	4.20132	0.002665036	0.002547654	0	0	136655.36	22432.64	31.27209	2641853.72
Statewide	2024	Commercial Harbor Craft - AE - Work Boat	Aggregate	75	Diesel	0.001173136	0.00141949	0.00168945	0.004214284	0.009319655	0.71523	0.000717332	0.000685895	0	0	23264.012	21764.1	30.34011	406813.5896
Statewide	2024	Commercial Harbor Craft - AE - Work Boat	Aggregate	800	Diesel	0.004904096	0.005933994	0.007061976	0.02371494	0.076373947	8.04869	0.00315891	0.003019959	0	0	261797.85	23296.36	32.47616	5060521.759
Statewide	2024	Commercial Harbor Craft - AE - Work Boat	Aggregate	9999	Diesel	0.004438052	0.005370061	0.006390812	0.010287861	0.041578894	2.79102	0.002121752	0.002028395	0	0	90782.831	4352.82	6.068023	1758153.88

1. EMFAC OFFROAD OUTPUT

Model Output: OFFROAD2021 (v1.0.3) Emissions Inventory
Region Type: Statewide
Region: California
Calendar Year: 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2021 Equipment Types
Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Region	Calendar Year	Vehicle Category	Model Year	Horsepower Bin	Fuel	HC_tpd	ROG_tpd	TOG_tpd	CO_tpd	NOx_tpd	CO2_tpd	PM10_tpd	PM2.5_tpd	SOx_tpd	NH3_tpd	Fuel Consumption	Total_Activity_hpy	Total_Population	Horsepower_Hours_hhpy
Statewide	2024	Commercial Harbor Craft - ME - Commercial Fishing	Aggregate	100	Diesel	0.004045713	0.004895299	0.005825823	0.014312469	0.03458869	2.21259	0.002375879	0.002271043	0	0	71968.396	55254.38	55.42089	1262973.223
Statewide	2024	Commercial Harbor Craft - ME - Commercial Fishing	Aggregate	175	Diesel	0.01342731	0.016247135	0.019335451	0.058499344	0.17361472	9.61512	0.007395014	0.007068915	0	0	312748.81	155791.8	156.2612	6010362.029
Statewide	2024	Commercial Harbor Craft - ME - Commercial Fishing	Aggregate	25	Diesel	7.12952E-05	8.62176E-05	0.000102597	0.000232045	0.000298057	0.02053	2.76342E-05	2.64597E-05	0	0	667.61825	3157.393	3.166908	11508.69937
Statewide	2024	Commercial Harbor Craft - ME - Commercial Fishing	Aggregate	300	Diesel	0.040051584	0.04846246	0.057674511	0.167952316	0.556075322	41.4873	0.020091318	0.019207174	0	0	1349447.2	420263.3	421.5297	26096043.26
Statewide	2024	Commercial Harbor Craft - ME - Commercial Fishing	Aggregate	50	Diesel	0.000424107	0.000513266	0.000610932	0.001486939	0.002225819	0.22802	0.000157967	0.000151057	0	0	7416.7722	12629.57	12.66763	127021.933
Statewide	2024	Commercial Harbor Craft - ME - Commercial Fishing	Aggregate	600	Diesel	0.085362578	0.103288629	0.122922328	0.335888314	1.158741398	92.3856	0.042905723	0.041018127	0	0	3005003.7	572645.9	574.3715	58122379.42
Statewide	2024	Commercial Harbor Craft - ME - Commercial Fishing	Aggregate	75	Diesel	0.002311861	0.00279729	0.003329008	0.008099038	0.019081583	1.16281	0.001337466	0.001278639	0	0	37822.408	39882.71	40.0029	663149.8651
Statewide	2024	Commercial Harbor Craft - ME - Commercial Fishing	Aggregate	800	Diesel	0.008285254	0.010024981	0.011930615	0.034990401	0.146683242	13.9455	0.004169123	0.003985579	0	0	453600.97	51431.37	51.58636	8778924.615
Statewide	2024	Commercial Harbor Craft - ME - Commercial Fishing	Aggregate	9999	Diesel	0.017311625	0.020947066	0.02492874	0.067341012	0.200572894	11.2835	0.008982123	0.008586976	0	0	367016.22	14623.57	14.66763	7111549.636
Statewide	2024	Commercial Harbor Craft - ME - Commercial Passenger Fishing	Aggregate	100	Diesel	0.000137672	0.000166583	0.000198248	0.000462093	0.00114383	0.04861	0.0000713	6.81E-05	0	0	1581.0038	1193.051	1	27487.893
Statewide	2024	Commercial Harbor Craft - ME - Commercial Passenger Fishing	Aggregate	175	Diesel	0.000767495	0.000928716	0.001105146	0.003235812	0.010145222	0.62143	0.000409904	0.000391841	0	0	20212.95	10383.19	8.703055	388958.1434
Statewide	2024	Commercial Harbor Craft - ME - Commercial Passenger Fishing	Aggregate	300	Diesel	0.011576201	0.014007289	0.016669866	0.048902281	0.19179968	16.5762	0.005818375	0.005562443	0	0	539170.45	145088.5	121.6114	10426124.69
Statewide	2024	Commercial Harbor Craft - ME - Commercial Passenger Fishing	Aggregate	50	Diesel	0.00011907	0.000144075	0.000171461	0.000343163	0.000383875	0.02851	3.44E-05	3.29E-05	0	0	927.28621	1599.417	1.340611	16122.12723
Statewide	2024	Commercial Harbor Craft - ME - Commercial Passenger Fishing	Aggregate	600	Diesel	0.05568792	0.067382363	0.080190612	0.232814891	1.02493123	91.6583	0.029172722	0.027888973	0	0	2981348.2	487431.7	408.559	57664076.45
Statewide	2024	Commercial Harbor Craft - ME - Commercial Passenger Fishing	Aggregate	800	Diesel	0.01964336	0.02376848	0.028286358	0.081834719	0.309847491	24.1469	0.010388743	0.00993165	0	0	785419.39	82711.26	69.32751	15190865.66
Statewide	2024	Commercial Harbor Craft - ME - Commercial Passenger Fishing	Aggregate	9999	Diesel	0.0090507	0.010951347	0.013033007	0.036606007	0.123583716	9.52677	0.004720655	0.004512989	0	0	309875.07	19193.01	16.08734	6093244.187
Statewide	2024	Commercial Harbor Craft - ME - Crew/Supply	Aggregate	100	Diesel	0.000241301	0.000291975	0.000347474	0.000856555	0.001861818	0.12392	0.000155749	0.000148896	0	0	4030.6421	3455.531	3.606673	70078.17015
Statewide	2024	Commercial Harbor Craft - ME - Crew/Supply	Aggregate	175	Diesel	0.000277451	0.000335773	0.000399594	0.001193066	0.006553139	0.71272	0.0001466	0.00014016	0	0	23182.379	13808.52	10.82002	441251.647
Statewide	2024	Commercial Harbor Craft - ME - Crew/Supply	Aggregate	300	Diesel	0.002056876	0.002489038	0.002961934	0.008777163	0.048319395	4.75601	0.001132093	0.001082278	0	0	154697.62	44053.93	40.85338	2991017.223
Statewide	2024	Commercial Harbor Craft - ME - Crew/Supply	Aggregate	600	Diesel	0.032342733	0.039134618	0.046573607	0.128955837	0.691983324	68.1631	0.017166229	0.016411234	0	0	2217124.3	355079.3	221.9403	42887252.86
Statewide	2024	Commercial Harbor Craft - ME - Crew/Supply	Aggregate	75	Diesel	0.000045	0.0000544	0.0000647	0.00025309	0.001082291	0.14903	0.0000388	0.0000371	0	0	4847.4609	6532.365	3.606673	90015.984
Statewide	2024	Commercial Harbor Craft - ME - Crew/Supply	Aggregate	800	Diesel	0.006132549	0.007420591	0.008831038	0.025396619	0.154254897	17.5775	0.003085979	0.002950269	0	0	571739.6	69749.62	53.06673	11068650.16
Statewide	2024	Commercial Harbor Craft - ME - Crew/Supply	Aggregate	9999	Diesel	0.017974009	0.021748597	0.025882621	0.067870796	0.248297701	19.2304	0.009209093	0.008803945	0	0	625504.32	27145.36	20.21335	12142946.94
Statewide	2024	Commercial Harbor Craft - ME - Dredge	Aggregate	175	Diesel	0.000194654	0.000235579	0.000280363	0.000827765	0.005172457	0.62068	9.7679E-05	9.3346E-05	0	0	20188.627	6350.235	5.17647	383465.2318
Statewide	2024	Commercial Harbor Craft - ME - Dredge	Aggregate	300	Diesel	0.00119453	0.001445463	0.001719958	0.004923147	0.025972196	2.94234	0.000573947	0.000548782	0	0	95704.69	17663.1	15.52941	1852573.304
Statewide	2024	Commercial Harbor Craft - ME - Dredge	Aggregate	600	Diesel	0.000857245	0.001037157	0.001234403	0.004014443	0.023407752	2.75685	0.000419721	0.00040095	0	0	89671.365	11877.43	12.94118	1736518.486
Statewide	2024	Commercial Harbor Craft - ME - Dredge	Aggregate	800	Diesel	9.89164E-05	0.000119665	0.000142411	0.000563686	0.002588451	0.2349	4.83998E-05	4.62779E-05	0	0	7640.4705	564.5587	2.588235	147688.5659
Statewide	2024	Commercial Harbor Craft - ME - Dredge	Aggregate	9999	Diesel	0.000969489	0.001173082	0.001396064	0.004128478	0.021808788	2.39721	0.000435305	0.000416152	0	0	77973.479	2453.5	2	1537731.15
Statewide	2024	Commercial Harbor Craft - ME - Excursion	Aggregate	100	Diesel	0.000156034	0.000188908	0.000224757	0.000598242	0.001524309	0.15488	0.000101754	9.73035E-05	0	0	5037.775	4124.417	15.30728	89116.73712
Statewide	2024	Commercial Harbor Craft - ME - Excursion	Aggregate	175	Diesel	0.001508643	0.001825486	0.002172247	0.006595546	0.027920913	2.61951	0.000800018	0.000764916	0	0	85204.118	44012.43	65.78033	1617652.772
Statewide	2024	Commercial Harbor Craft - ME - Excursion	Aggregate	300	Diesel	0.006231021	0.007539689	0.008972602	0.025852535	0.111092378	10.8776	0.003093078	0.002957116	0	0	353813.84	100989.6	146.3167	6847791.152
Statewide	2024	Commercial Harbor Craft - ME - Excursion	Aggregate	50	Diesel	0.00000264	0.00000319	0.0000038	0.0000245	0.0000501	0.00658	0.00000269	0.00000257	0	0	214.06633	514.3495	2.551213	3721.833
Statewide	2024	Commercial Harbor Craft - ME - Excursion	Aggregate	600	Diesel	0.024417334	0.029544834	0.03516081	0.099765789	0.499787338	51.925	0.012447155	0.011899265	0	0	1688953.5	293642	376.5162	32692670.27
Statewide	2024	Commercial Harbor Craft - ME - Excursion	Aggregate	75	Diesel	4.74607E-05	5.73476E-05	6.8262E-05	0.0002241	0.00084454	0.1015	3.43734E-05	3.28954E-05	0	0	3301.3755	3245.131	5.102426	61049.14983
Statewide	2024	Commercial Harbor Craft - ME - Excursion	Aggregate	800	Diesel	0.007907109	0.009567693	0.011386198	0.031717498	0.12722083	11.6198	0.004000017	0.00382378	0	0	377955	42019.97	65.22912	7317427.001
Statewide	2024	Commercial Harbor Craft - ME - Excursion	Aggregate	9999	Diesel	0.008708525	0.010537287	0.012540249	0.036675501	0.147130798	18.1778	0.004292024	0.004103207	0	0	591265.18	41101.59	53.02426	11775672.32
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Catamaran	Aggregate	800	Diesel	0.001577598	0.001908894	0.002271741	0.006095842	0.037425589	3.6016	0.000869731	0.000831463	0	0	117148.39	9488.459	4	2264326
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Catamaran	Aggregate	9999	Diesel	0.070876714	0.085760805	0.102062556	0.282102157	1.552407877	168.688	0.036025135	0.034440014	0	0	5486891.5	188080.1	83.4191	107956929.9
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Monohull	Aggregate	175	Diesel	0.000334358	0.000404574	0.000481478	0.001397247	0.003769763	0.1833	0.000173535	0.000165899	0	0	5962.2884	2319.859	2.000001	114364.438
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Monohull	Aggregate	300	Diesel	6.28443E-05	7.61026E-05	0.000090511	0.000264497	0.000802316	0.05285	3.20557E-05	3.06114E-05	0	0	1718.8824	442.5054	3.376764	33269.69486
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Monohull	Aggregate	600	Diesel	0.001252149	0.001515063	0.001803003	0.005228583	0.023605342	2.40168	0.000628352	0.000600859	0	0	78119.044	11042.82	9.376764	1512926.704
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Monohull	Aggregate	800	Diesel	0.000491419	0.000594612	0.00070766	0.00209104	0.01283826	1.6532	0.000216013	0.000206522	0	0	53773.277	5531.529	2.376764	1042140.066
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Monohull	Aggregate	9999	Diesel	0.023487712	0.02841978	0.033821671	0.079255544	0.443119266	42.6839	0.012161502	0.01162637	0	0	1388369.7	47701.57	23.88382	27135791.5
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Short Run	Aggregate	100	Diesel	0.0000347	0.000042	0.00005	0.000197492	0.000846061	0.11817	0.0000297	0.0000284	0	0	3843.6956	2674.273	1	71376.34
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Short Run	Aggregate	175	Diesel	0.000207546	0.000251131	0.000298866	0.000841824	0.005252539	0.54094	0.000115475	0.000110394	0	0	17594.939	8022.818	3	340087.28
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Short Run	Aggregate	300	Diesel	0.00047925	0.000579905	0.000690156	0.00203866	0.01269905	1.53256	0.00022887	0.00021883	0	0	49849.189	11704.66	4.376764	965059.7959
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Short Run	Aggregate	600	Diesel	0.001448108	0.001752136	0.002085173	0.006224314	0.037965176	4.63951	0.000689266	0.000658851	0	0	150908.27	23409.32	8.753528	2922440.878
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Short Run	Aggregate	800	Diesel	0.002517118	0.003045779	0.003624716	0.010449927	0.06372767	7.17524	0.001278746	0.001222473	0	0	233387.42	23409.32	8.753528	4516825.133
Statewide	2024	Commercial Harbor Craft - ME - Pilot Boat	Aggregate	300	Diesel	0.000173788	0.000210283	0.000250255	0.000768248	0.004770565	0.64734	0.0000735	0.0000703	0	0	21055.959	5446.73	2.4	408096.28
Statewide	2024	Commercial Harbor Craft - ME - Pilot Boat	Aggregate	600	Diesel	0.001003772	0.001214564	0.001445432	0.00402247	0.024795848	2.6187	0.000542426	0.000518526	0	0	85177.859	9077.883	4	1647499.48
Statewide	2024	Commercial Harbor Craft - ME - Pilot Boat	Aggregate	800	Diesel	0.001137688	0.001376583	0.001638262	0.005875185	0.032745128	2.8148	0.000751012	0.000717995	0	0	91556.359	6808.412	3	1770036.36
Statewide	2024	Commercial Harbor Craft - ME - Pilot Boat	Aggregate	9999	Diesel	0.011763802	0.01423433	0.016939781	0.022324709	0.151929175	11.9369	0.005915162	0.005654879	0	0	388269.05	21786.92	9.6	7527108.862
Statewide	2024	Commercial Harbor Craft - ME - Research Boat	Aggregate	175	Diesel	0.0000609	0.0000738	0.0000878	0.000320714	0.001838887	0.18297	0.0000369	0.00003528	0	0	5951.5397	2511.702	2.625	113772.338
Statewide	2024	Commercial Harbor Craft - ME - Research Boat	Aggregate	300	Diesel	0.000594052	0.000718611	0.000855348	0.002410745	0.009105407	0.77502	0.000299032	0.000285833	0	0	25209.049	6189.551	6.46875	487492.2365
Statewide	2024	Commercial Harbor Craft - ME - Research Boat	Aggregate	50	Diesel	0.00000234	0.00000284	0.00000337	0.0000141	0.000051	0.00754	0.00000213	0.00000204	0	0	245.24712	388.7158	0.40625	4017.7664
Statewide	2024	Commercial Harbor Craft - ME - Research Boat	Aggregate	600	Diesel	0.005977398	0.007232667	0.00860722	0.023284411	0.068156705	4.15215	0.003075227	0.002940035	0	0	135056.08	19286.28	20.15625	2611557.981
Statewide	2024	Commercial Harbor Craft - ME - Research Boat	Aggregate	800	Diesel	0.003386374	0.004097546	0.004876401	0.013418599	0.046349199	3.832	0.001707143	0.001631832	0	0	124642.75	11183.05	11.6875	2413045.564

1. EMFAC OFFROAD OUTPUT

Model Output: OFFROAD2021 (v1.0.3) Emissions Inventory
Region Type: Statewide
Region: California
Calendar Year: 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2021 Equipment Types
Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Region	Calendar Year	Vehicle Category	Model Year	Horsepower Bin	Fuel	HC_tpd	ROG_tpd	TOG_tpd	CO_tpd	NOx_tpd	CO2_tpd	PM10_tpd	PM2.5_tpd	SOx_tpd	NH3_tpd	Fuel Consumption	Total_Activity_hpy	Total_Population	Horsepower_Hours_hhpy
Statewide	2024	Commercial Harbor Craft - ME - Research Boat	Aggregate	9999	Diesel	0.00537506	0.00650382	0.007740091	0.020176754	0.057080362	4.35628	0.002597111	0.002482836	0	0	141695.7	4664.589	4.875	2782428.928
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-ATB	Aggregate	9999	Diesel	0.07753044	0.093811853	0.111643873	0.330733513	1.842909319	184.36	0.041273363	0.039457396	0	0	5996634.8	53289.96	38	117285925.4
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-Escort/Ship Assist	Aggregate	300	Diesel	0.0000365	0.0000442	0.0000526	0.000198621	0.001117512	0.09875	0.0000239	0.0000228	0	0	3211.9556	1493.635	2	62082.92
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-Escort/Ship Assist	Aggregate	9999	Diesel	0.061052905	0.073873572	0.087915534	0.273591257	1.321985964	165.124	0.031813601	0.030414039	0	0	5370939	270591.2	125	106753353.3
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-Push/Tow	Aggregate	100	Diesel	5.17467E-05	6.26743E-05	7.45482E-05	0.000178947	0.000464865	0.0251	2.74836E-05	2.62296E-05	0	0	816.50792	471.4466	3.083334	14486.61035
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-Push/Tow	Aggregate	175	Diesel	0.000145683	0.00017632	0.0002097	0.000711019	0.002945728	0.22545	8.57022E-05	8.19641E-05	0	0	7333.3053	2793.618	9.708335	141534.8798
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-Push/Tow	Aggregate	300	Diesel	0.002176793	0.002634071	0.003134565	0.009549911	0.039924643	3.62148	0.001133316	0.001083274	0	0	117795.2	28023.05	32.20833	2279550.82
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-Push/Tow	Aggregate	50	Diesel	1.95E-06	2.36E-06	2.81E-06	1.15E-05	3.69E-05	0.00532	1.68E-06	1.61E-06	0	0	173.0098	235.7233	1.541667	2834.337028
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-Push/Tow	Aggregate	600	Diesel	0.010797668	0.013064791	0.01554841	0.044150526	0.238896023	25.3952	0.005506253	0.005264129	0	0	826024.12	111296.2	90.91666	15987152.28
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-Push/Tow	Aggregate	800	Diesel	0.009260007	0.011204706	0.013334508	0.039042037	0.233520412	26.9782	0.004561213	0.004360114	0	0	877512.57	75919.03	53.70833	16992042.9
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-Push/Tow	Aggregate	9999	Diesel	0.044312645	0.053618414	0.063810602	0.177071838	0.775581538	76.555	0.023875099	0.022824649	0	0	2490086.3	114326.6	96.20833	49094458.9
Statewide	2024	Commercial Harbor Craft - ME - Work Boat	Aggregate	175	Diesel	0.002890413	0.003497216	0.004162253	0.012646555	0.044844824	3.41769	0.001504748	0.001438557	0	0	111166.4	48108.87	75.29243	2129624.195
Statewide	2024	Commercial Harbor Craft - ME - Work Boat	Aggregate	300	Diesel	0.012375248	0.014974025	0.017820482	0.048233441	0.145197077	10.5315	0.006022307	0.005757392	0	0	342555.46	91236.45	142.7889	6625171.684
Statewide	2024	Commercial Harbor Craft - ME - Work Boat	Aggregate	50	Diesel	1.86E-05	2.25E-05	2.68E-05	0.000111647	0.000398791	0.0588	1.68E-05	1.61E-05	0	0	1912.6571	1960.345	3.068023	31334.15034
Statewide	2024	Commercial Harbor Craft - ME - Work Boat	Aggregate	600	Diesel	0.02862166	0.034632075	0.041215344	0.122974337	0.534414403	47.878	0.015105112	0.014440938	0	0	1557316.1	229086.5	358.5302	30124951.61
Statewide	2024	Commercial Harbor Craft - ME - Work Boat	Aggregate	75	Diesel	0.000137585	0.000166464	0.000198143	0.000507605	0.001629441	0.1404	8.69278E-05	8.31125E-05	0	0	4566.803	3920.689	6.136046	80293.76225
Statewide	2024	Commercial Harbor Craft - ME - Work Boat	Aggregate	800	Diesel	0.009175948	0.011102865	0.013213325	0.040778346	0.203041648	18.236	0.00518421	0.004956258	0	0	593158.89	50156.14	78.4965	11469949.51
Statewide	2024	Commercial Harbor Craft - ME - Work Boat	Aggregate	9999	Diesel	0.045330735	0.054850197	0.065276361	0.16229621	0.607037645	42.754	0.023081415	0.022065809	0	0	1390648.5	57997.52	90.76859	27019376.01

1. EMFAC OFFROAD OUTPUT

2. CALCULATION OF HOURLY EMISSIONS BY TYPE BY BIN

Model Output: OFFROAD2021 (v1.0.3) Emissions Inventory
Region Type: Statewide
Region: California
Calendar Year: 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2021 Equipment Types
Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsep

equation:
daily tons x 365 * 2000

ROG = VOC
PM10e = DPM

equation:
annual lbs / annual hours

			lbs per year									lbs per hour								row assignment
Region	Calendar Year	Vehicle Category	VOC	NOX	CO	PM10	PM2.5	SO2	CO2	Fuel (gpy)	Hours	VOC	NOX	CO	PM10	PM2.5	SO2	CO2	Fuel (gph)	
Statewide	2024	Commercial Harbor Craft - AE - Barge-ATB	183	1,123	561	106	101	0	131,417	5,856	3531	0.1	0.3	0.2	0.030	0.03	0.0	37.2	1.7	
Statewide	2024	Commercial Harbor Craft - AE - Barge-ATB	189	4,122	905	126	121	0	471,506	21,009	8514	0.022244	0.5	0.1	0.015	0.0	0.0	55.4	2.5	
Statewide	2024	Commercial Harbor Craft - AE - Barge-ATB	366	5,897	1,476	200	191	0	627,025	27,939	6482	0.056504	0.9	0.2	0.031	0.0	0.0	96.7	4.3	
Statewide	2024	Commercial Harbor Craft - AE - Barge-ATB	10	166	50	7	7	0	24,038	1,071	1251	0.008125	0.1	0.0	0.006	0.0	0.0	19.2	0.9	
Statewide	2024	Commercial Harbor Craft - AE - Barge-ATB	1,495	26,354	7,323	965	922	0	3,428,449	152,762	25608	0.058396	1.0	0.3	0.038	0.0	0.0	133.9	6.0	
Statewide	2024	Commercial Harbor Craft - AE - Barge-ATB	25	512	95	24	23	0	68,935	3,072	2501	0.009923	0.2	0.0	0.010	0.0	0.0	27.6	1.2	
Statewide	2024	Commercial Harbor Craft - AE - Barge-ATB	237	5,119	1,325	132	126	0	795,074	35,426	3752	0.063131	1.4	0.4	0.035	0.0	0.0	211.9	9.4	
Statewide	2024	Commercial Harbor Craft - AE - Barge-ATB	1,464	35,099	5,642	735	702	0	3,325,308	148,166	5003	0.292588	7.0	1.1	0.147	0.1	0.0	664.7	29.6	
Statewide	2024	Commercial Harbor Craft - AE - Barge-Bunker	35	710	164	24	23	0	101,460	4,521	3232	0.010687	0.2	0.1	0.008	0.0	0.0	31.4	1.4	
Statewide	2024	Commercial Harbor Craft - AE - Barge-Bunker	248	4,879	1,513	197	189	0	751,497	33,485	15115	0.016434	0.3	0.1	0.013	0.0	0.0	49.7	2.2	
Statewide	2024	Commercial Harbor Craft - AE - Barge-Bunker	119	2,453	703	88	84	0	371,637	16,559	5411	0.021919	0.5	0.1	0.016	0.0	0.0	68.7	3.1	
Statewide	2024	Commercial Harbor Craft - AE - Barge-Bunker	93	1,501	622	70	67	0	194,420	8,663	18722	0.004957	0.1	0.0	0.004	0.0	0.0	10.4	0.5	
Statewide	2024	Commercial Harbor Craft - AE - Barge-Bunker	1,688	30,336	10,127	1,427	1,364	0	4,596,902	204,825	37304	0.04524	0.8	0.3	0.038	0.0	0.0	123.2	5.5	
Statewide	2024	Commercial Harbor Craft - AE - Barge-Bunker	11	228	52	8	7	0	32,892	1,466	1616	0.006779	0.1	0.0	0.005	0.0	0.0	20.4	0.9	
Statewide	2024	Commercial Harbor Craft - AE - Barge-Other	307	2,141	874	138	132	0	117,380	5,230	3275	0.09	0.65	0.27	0.042	0.04	0.00	35.84	1.60	
Statewide	2024	Commercial Harbor Craft - AE - Barge-Other	428	6,032	1,975	243	232	0	705,911	31,453	13261	0.03	0.45	0.15	0.018	0.02	0.00	53.23	2.37	
Statewide	2024	Commercial Harbor Craft - AE - Barge-Other	31	538	171	23	22	0	81,174	3,617	11336	0.00	0.05	0.02	0.002	0.00	0.00	7.16	0.32	
Statewide	2024	Commercial Harbor Craft - AE - Barge-Other	1,058	16,833	4,782	572	547	0	1,938,303	86,365	24680	0.04	0.68	0.19	0.023	0.02	0.00	78.54	3.50	3
Statewide	2024	Commercial Harbor Craft - AE - Barge-Other	27	302	115	15	14	0	41,446	1,847	2957	0.01	0.10	0.04	0.005	0.00	0.00	14.01	0.62	
Statewide	2024	Commercial Harbor Craft - AE - Barge-Other	709	12,840	3,896	489	468	0	1,849,382	82,403	15214	0.05	0.84	0.26	0.032	0.03	0.00	121.56	5.42	2
Statewide	2024	Commercial Harbor Craft - AE - Barge-Other	28	417	116	18	17	0	59,447	2,649	2444	0.01	0.17	0.05	0.007	0.01	0.00	24.33	1.08	
Statewide	2024	Commercial Harbor Craft - AE - Barge-Other	286	5,161	1,708	231	221	0	776,289	34,589	3555	0.08	1.45	0.48	0.065	0.06	0.00	218.39	9.73	1
Statewide	2024	Commercial Harbor Craft - AE - Barge-Other	661	8,191	2,295	249	238	0	769,873	34,303	2620	0.25	3.13	0.88	0.095	0.09	0.00	293.81	13.09	
Statewide	2024	Commercial Harbor Craft - AE - Barge-Towed Petrochemical	2	40	13	2	2	0	6,422	286	117	0.017907	0.3	0.1	0.014	0.0	0.0	54.9	2.4	
Statewide	2024	Commercial Harbor Craft - AE - Barge-Towed Petrochemical	38	626	248	29	28	0	82,564	3,679	7721	0.004954	0.1	0.0	0.004	0.0	0.0	10.7	0.5	
Statewide	2024	Commercial Harbor Craft - AE - Barge-Towed Petrochemical	6,107	124,603	33,247	3,537	3,382	0	18,688,361	832,701	133195	0.045853	0.9	0.2	0.027	0.0	0.0	140.3	6.3	
Statewide	2024	Commercial Harbor Craft - AE - Barge-Towed Petrochemical	21	328	89	14	13	0	45,710	2,037	1930	0.01091	0.2	0.0	0.007	0.0	0.0	23.7	1.1	
Statewide	2024	Commercial Harbor Craft - AE - Barge-Towed Petrochemical	264	5,826	1,485	147	141	0	906,874	40,408	3861	0.068324	1.5	0.4	0.038	0.0	0.0	234.9	10.5	
Statewide	2024	Commercial Harbor Craft - AE - Commercial Fishing	16,595	117,481	49,488	8,474	8,101	0	8,775,958	391,032	181785	0.091289	0.6	0.3	0.047	0.0	0.0	48.3	2.2	
Statewide	2024	Commercial Harbor Craft - AE - Commercial Fishing	4,647	60,985	19,398	2,448	2,341	0	5,623,095	250,549	85089	0.054609	0.7	0.2	0.029	0.0	0.0	66.1	2.9	
Statewide	2024	Commercial Harbor Craft - AE - Commercial Fishing	839	4,221	2,698	319	305	0	399,358	17,794	52761	0.015895	0.1	0.1	0.006	0.0	0.0	7.6	0.3	
Statewide	2024	Commercial Harbor Craft - AE - Commercial Fishing	4,040	46,549	15,590	1,968	1,881	0	4,387,724	195,505	36793	0.109792	1.3	0.4	0.053	0.1	0.0	119.3	5.3	
Statewide	2024	Commercial Harbor Craft - AE - Commercial Fishing	7,165	32,430	20,802	2,230	2,132	0	3,426,928	152,694	168693	0.042476	0.2	0.1	0.013	0.0	0.0	20.3	0.9	
Statewide	2024	Commercial Harbor Craft - AE - Commercial Fishing	2,576	31,187	10,253	1,338	1,279	0	3,356,355	149,550	17950	0.143526	1.7	0.6	0.075	0.1	0.0	187.0	8.3	
Statewide	2024	Commercial Harbor Craft - AE - Commercial Fishing	5,618	42,471	17,169	2,962	2,831	0	3,544,426	157,930	110380	0.050899	0.4	0.2	0.027	0.0	0.0	32.1	1.4	
Statewide	2024	Commercial Harbor Craft - AE - Commercial Passenger Fishing	1,232	6,330	3,650	640	612	0	590,105	26,293	12150	0.101419	0.5	0.3	0.053	0.1	0.0	48.6	2.2	
Statewide	2024	Commercial Harbor Craft - AE - Commercial Passenger Fishing	2,118	28,973	8,361	1,133	1,083	0	2,155,963	96,064	28762	0.073634	1.0	0.3	0.039	0.0	0.0	75.0	3.3	
Statewide	2024	Commercial Harbor Craft - AE - Commercial Passenger Fishing	400	2,992	1,664	192	184	0	336,532	14,995	33151	0.012052	0.1	0.1	0.006	0.0	0.0	10.2	0.5	
Statewide	2024	Commercial Harbor Craft - AE - Commercial Passenger Fishing	1,202	21,776	5,502	747	714	0	2,347,572	104,601	17138	0.070129	1.3	0.3	0.044	0.0	0.0	137.0	6.1	
Statewide	2024	Commercial Harbor Craft - AE - Commercial Passenger Fishing	4,540	25,240	15,126	1,635	1,563	0	2,824,135	125,836	129339	0.035103	0.2	0.1	0.013	0.0	0.0	21.8	1.0	
Statewide	2024	Commercial Harbor Craft - AE - Commercial Passenger Fishing	197	3,589	1,196	158	151	0	553,992	24,684	2212	0.089033	1.6	0.5	0.071	0.1	0.0	250.4	11.2	
Statewide	2024	Commercial Harbor Craft - AE - Commercial Passenger Fishing	8,320	65,802	26,305	4,643	4,439	0	6,826,360	304,164	190091	0.043767	0.3	0.1	0.024	0.0	0.0	35.9	1.6	
Statewide	2024	Commercial Harbor Craft - AE - Crew/Supply	234	4,853	897	228	218	0	657,816	29,310	15178	0.015424	0.3	0.1	0.015	0.0	0.0	43.3	1.9	
Statewide	2024	Commercial Harbor Craft - AE - Crew/Supply	247	4,750	1,292	130	124	0	728,845	32,475	13225	0.018681	0.4	0.1	0.010	0.0	0.0	55.1	2.5	
Statewide	2024	Commercial Harbor Craft - AE - Crew/Supply	177	1,170	584	74	71	0	140,106	6,243	18687	0.009475	0.1	0.0	0.004	0.0	0.0	7.5	0.3	
Statewide	2024	Commercial Harbor Craft - AE - Crew/Supply	1,572	12,539	4,748	610	583	0	848,905	37,825	7494	0.209817	1.7	0.6	0.081	0.1	0.0	113.3	5.0	
Statewide	2024	Commercial Harbor Craft - AE - Crew/Supply	1,243	19,302	6,116	842	805	0	2,758,912	122,929	139868	0.00889	0.1	0.0	0.006	0.0	0.0	19.7	0.9	
Statewide	2024	Commercial Harbor Craft - AE - Crew/Supply	2,063	18,368	6,827	925	884	0	812,001	36,180	4758	0.4335	3.9	1.4	0.194	0.2	0.0	170.7	7.6	
Statewide	2024	Commercial Harbor Craft - AE - Crew/Supply	697	12,297	3,016	447	428	0	1,620,279	72,195	60509	0.011513	0.2	0.0	0.007	0.0	0.0	26.8	1.2	
Statewide	2024	Commercial Harbor Craft - AE - Crew/Supply	2,166	16,300	6,266	866	828	0	1,039,651	46,324	3747	0.578166	4.4	1.7	0.231	0.2	0.0	277.5	12.4	
Statewide	2024	Commercial Harbor Craft - AE - Dredge	200	3,953	1,242	154	147	0	646,087	28,788	7064	0.028325	0.6	0.2	0.022	0.0	0.0	91.5	4.1	
Statewide	2024	Commercial Harbor Craft - AE - Dredge	1,349	21,454	6,106	661	632	0	2,940,326	131,013	19902	0.067773	1.1	0.3	0.033	0.0	0.0	147.7	6.6	
Statewide	2024	Commercial Harbor Craft - AE - Dredge	33	520	161	24	23	0	74,927	3,339	1969	0.016909	0.3	0.1	0.012	0.0	0.0	38.1	1.7	
Statewide	2024	Commercial Harbor Craft - AE - Dredge	4,122	83,860	23,577	2,718	2,599	0	12,845,976	572,381	55400	0.074408	1.5	0.4	0.049	0.0	0.0	231.9	10.3	
Statewide	2024	Commercial Harbor Craft - AE - Dredge	864	17,885	4,669	498	476	0	2,642,809	117,756	5095	0.16953	3.5	0.9	0.098	0.1	0.0	518.7	23.1	
Statewide	2024	Commercial Harbor Craft - AE - Dredge	4,674	50,325	8,856	1,697	1,622	0	5,018,768	223,622	7638	0.611868	6.6	1.2	0.222	0.2	0.0	657.1	29.3	
Statewide	2024	Commercial Harbor Craft - AE - Excursion	1,166	15,648	4,426	734	701	0	1,969,595	87,760	46198	0.025249	0.3	0.1	0.016	0.0	0.0	42.6	1.9	

1. EMFAC OFFROAD OUTPUT | **2. CALCULATION OF HOURLY EMISSIONS BY TYPE BY BIN**

Model Output: OFFROAD2021 (v1.0.3) Emissions Inventory
Region Type: Statewide
Region: California
Calendar Year: 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2021 Equipment Types
Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsep

equation:
daily tons x 365 * 2000

ROG = VOC
PM10e = DPM

equation:
annual lbs / annual hours

			lbs per year									lbs per hour								row assignment
Region	Calendar Year	Vehicle Category	VOC	NOX	CO	PM10	PM2.5	SO2	CO2	Fuel (gpy)	Hours	VOC	NOX	CO	PM10	PM2.5	SO2	CO2	Fuel (gph)	
Statewide	2024	Commercial Harbor Craft - AE - Excursion	2,355	35,988	10,513	1,366	1,306	0	3,837,668	170,996	65852	0.035761	0.5	0.2	0.021	0.0	0.0	58.3	2.6	
Statewide	2024	Commercial Harbor Craft - AE - Excursion	114	652	359	45	43	0	72,059	3,211	7959	0.014362	0.1	0.0	0.006	0.0	0.0	9.1	0.4	
Statewide	2024	Commercial Harbor Craft - AE - Excursion	2,138	32,307	9,401	1,109	1,060	0	4,024,210	179,308	38121	0.056075	0.8	0.2	0.029	0.0	0.0	105.6	4.7	
Statewide	2024	Commercial Harbor Craft - AE - Excursion	1,052	5,934	3,287	372	356	0	690,581	30,770	38094	0.027621	0.2	0.1	0.010	0.0	0.0	18.1	0.8	
Statewide	2024	Commercial Harbor Craft - AE - Excursion	1,663	23,676	7,078	922	882	0	2,901,594	129,287	17226	0.096527	1.4	0.4	0.054	0.1	0.0	168.4	7.5	
Statewide	2024	Commercial Harbor Craft - AE - Excursion	1,255	14,783	4,593	760	727	0	1,827,414	81,425	62629	0.020034	0.2	0.1	0.012	0.0	0.0	29.2	1.3	
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Catamaran	644	12,081	2,643	517	494	0	1,628,071	72,542	38241	0.016835	0.3	0.1	0.014	0.0	0.0	42.6	1.9	
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Catamaran	805	16,689	4,784	536	513	0	2,721,048	121,242	41153	0.019571	0.4	0.1	0.013	0.0	0.0	66.1	2.9	
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Catamaran	24	397	135	18	17	0	58,140	2,591	5323	0.004428	0.1	0.0	0.003	0.0	0.0	10.9	0.5	
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Catamaran	337	6,966	2,034	231	221	0	1,118,254	49,826	11983	0.028083	0.6	0.2	0.019	0.0	0.0	93.3	4.2	
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Catamaran	6	97	48	5	5	0	12,499	557	954	0.006306	0.1	0.1	0.006	0.0	0.0	13.1	0.6	
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Monohull	138	1,628	483	73	70	0	169,258	7,542	4755	0.029125	0.3	0.1	0.015	0.0	0.0	35.6	1.6	
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Monohull	370	6,419	1,962	226	216	0	940,829	41,921	15923	0.02322	0.4	0.1	0.014	0.0	0.0	59.1	2.6	
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Monohull	16	257	128	14	14	0	33,533	1,494	3300	0.004847	0.1	0.0	0.004	0.0	0.0	10.2	0.5	
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Monohull	19	173	66	8	8	0	8,165	364	94	0.200033	1.8	0.7	0.087	0.1	0.0	86.5	3.9	
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Monohull	76	1,206	372	53	50	0	173,955	7,751	8268	0.009207	0.1	0.0	0.006	0.0	0.0	21.0	0.9	
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Monohull	35	530	142	22	21	0	69,668	3,104	2302	0.015342	0.2	0.1	0.009	0.0	0.0	30.3	1.3	
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Short Run	38	754	176	27	26	0	103,832	4,626	2605	0.014544	0.3	0.1	0.010	0.0	0.0	39.9	1.8	
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Short Run	22	245	88	12	12	0	35,557	1,584	3071	0.007014	0.1	0.0	0.004	0.0	0.0	11.6	0.5	
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Short Run	89	1,201	500	60	57	0	158,457	7,060	7010	0.012762	0.2	0.1	0.009	0.0	0.0	22.6	1.0	
Statewide	2024	Commercial Harbor Craft - AE - Ferry-Short Run	115	2,372	523	87	83	0	336,557	14,996	12383	0.009262	0.2	0.0	0.007	0.0	0.0	27.2	1.2	
Statewide	2024	Commercial Harbor Craft - AE - Pilot Boat	743	4,159	2,300	407	390	0	478,053	21,301	13583	0.054681	0.3	0.2	0.030	0.0	0.0	35.2	1.6	
Statewide	2024	Commercial Harbor Craft - AE - Pilot Boat	31	503	216	24	23	0	63,987	2,851	4528	0.006917	0.1	0.0	0.005	0.0	0.0	14.1	0.6	
Statewide	2024	Commercial Harbor Craft - AE - Pilot Boat	126	542	374	68	65	0	57,525	2,563	1887	0.067012	0.3	0.2	0.036	0.0	0.0	30.5	1.4	
Statewide	2024	Commercial Harbor Craft - AE - Research Boat	202	1,340	599	108	103	0	95,435	4,252	2074	0.097264	0.6	0.3	0.052	0.0	0.0	46.0	2.1	
Statewide	2024	Commercial Harbor Craft - AE - Research Boat	209	2,752	866	104	100	0	266,593	11,879	4213	0.049536	0.7	0.2	0.025	0.0	0.0	63.3	2.8	
Statewide	2024	Commercial Harbor Craft - AE - Research Boat	148	640	441	52	50	0	53,815	2,398	5444	0.027125	0.1	0.1	0.010	0.0	0.0	9.9	0.4	
Statewide	2024	Commercial Harbor Craft - AE - Research Boat	484	4,708	1,756	217	208	0	324,067	14,440	2528	0.191491	1.9	0.7	0.086	0.1	0.0	128.2	5.7	
Statewide	2024	Commercial Harbor Craft - AE - Research Boat	16	278	110	13	13	0	38,515	1,716	2301	0.006907	0.1	0.0	0.006	0.0	0.0	16.7	0.7	
Statewide	2024	Commercial Harbor Craft - AE - Research Boat	493	4,293	1,609	215	206	0	228,081	10,163	1264	0.390333	3.4	1.3	0.170	0.2	0.0	180.5	8.0	
Statewide	2024	Commercial Harbor Craft - AE - Research Boat	324	2,074	971	166	159	0	166,681	7,427	5412	0.059846	0.4	0.2	0.031	0.0	0.0	30.8	1.4	
Statewide	2024	Commercial Harbor Craft - AE - Research Boat	1,324	10,020	3,841	529	506	0	652,098	29,056	1264	1.047623	7.9	3.0	0.419	0.4	0.0	516.0	23.0	
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-ATB	157	3,234	752	108	103	0	465,433	20,738	7780	0.020125	0.4	0.1	0.014	0.0	0.0	59.8	2.7	
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-ATB	871	8,258	3,074	384	367	0	421,963	18,801	4517	0.192798	1.8	0.7	0.085	0.1	0.0	93.4	4.2	
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-ATB	3,197	71,939	17,446	2,211	2,113	0	9,719,965	433,095	61475	0.052001	1.2	0.3	0.036	0.0	0.0	158.1	7.0	
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-ATB	4,812	78,737	22,496	2,669	2,551	0	10,672,531	475,538	50890	0.094561	1.5	0.4	0.052	0.1	0.0	209.7	9.3	
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-ATB	3,840	80,157	12,933	1,805	1,726	0	7,226,782	322,005	15560	0.246757	5.2	0.8	0.116	0.1	0.0	464.5	20.7	
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Escort/Ship Assist	3,019	62,069	18,217	2,058	1,967	0	10,172,509	453,259	176308	0.017124	0.4	0.1	0.012	0.0	0.0	57.7	2.6	
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Escort/Ship Assist	1,736	37,249	10,432	1,118	1,069	0	6,045,976	269,392	62101	0.027957	0.6	0.2	0.018	0.0	0.0	97.4	4.3	
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Escort/Ship Assist	1,161	22,798	6,791	825	789	0	3,517,424	156,727	21986	0.052792	1.0	0.3	0.038	0.0	0.0	160.0	7.1	
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Escort/Ship Assist	246	1,826	811	140	134	0	226,190	10,078	8288	0.029626	0.2	0.1	0.017	0.0	0.0	27.3	1.2	
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Push/Tow	1,590	19,888	5,992	1,027	982	0	2,667,578	118,860	64554	0.02463	0.3	0.1	0.016	0.0	0.0	41.3	1.8	7
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Push/Tow	2,358	37,991	11,899	1,390	1,329	0	5,201,746	231,775	96506	0.024435	0.4	0.1	0.014	0.0	0.0	53.9	2.4	4
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Push/Tow	64	1,134	327	48	46	0	178,342	7,946	22796	0.002793	0.0	0.0	0.002	0.0	0.0	7.8	0.3	
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Push/Tow	704	11,509	3,426	373	356	0	1,557,316	69,390	17702	0.039757	0.7	0.2	0.021	0.0	0.0	88.0	3.9	
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Push/Tow	744	8,411	3,428	412	394	0	1,108,281	49,382	56943	0.013063	0.1	0.1	0.007	0.0	0.0	19.5	0.9	
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Push/Tow	67	501	192	27	25	0	31,930	1,423	236	0.281863	2.1	0.8	0.113	0.1	0.0	135.3	6.0	
Statewide	2024	Commercial Harbor Craft - AE - Tugboat-Push/Tow	700	9,542	2,702	448	429	0	1,254,552	55,899	45766	0.015297	0.2	0.1	0.010	0.0	0.0	27.4	1.2	
Statewide	2024	Commercial Harbor Craft - AE - Work Boat	557	5,139	1,703	283	270	0	429,947	19,157	11673	0.047725	0.4	0.1	0.024	0.0	0.0	36.8	1.6	
Statewide	2024	Commercial Harbor Craft - AE - Work Boat	959	14,762	4,065	545	521	0	1,374,373	61,238	25497	0.03762	0.6	0.2	0.021	0.0	0.0	53.9	2.4	
Statewide	2024	Commercial Harbor Craft - AE - Work Boat	329	1,526	1,030	121	116	0	136,083	6,063	19661	0.016731	0.1	0.1	0.006	0.0	0.0	6.9	0.3	
Statewide	2024	Commercial Harbor Craft - AE - Work Boat	3,321	41,707	12,994	1,683	1,609	0	3,619,103	161,257	43152	0.076969	1.0	0.3	0.039	0.0	0.0	83.9	3.7	
Statewide	2024	Commercial Harbor Craft - AE - Work Boat	404	3,670	1,878	209	200	0	455,103	20,278	32963	0.012259	0.1	0.1	0.006	0.0	0.0	13.8	0.6	
Statewide	2024	Commercial Harbor Craft - AE - Work Boat	4,224	41,473	13,976	1,945	1,860	0	3,066,963	136,655	22433	0.188287	1.8	0.6	0.087	0.1	0.0	136.7	6.1	
Statewide	2024	Commercial Harbor Craft - AE - Work Boat	1,036	6,803	3,076	524	501	0	522,115	23,264	21764	0.047612	0.3	0.1	0.024	0.0	0.0	24.0	1.1	
Statewide	2024	Commercial Harbor Craft - AE - Work Boat	4,332	55,753	17,312	2,306	2,205	0	5,875,543	261,798	23296	0.185944	2.4	0.7	0.099	0.1	0.0	252.2	11.2	
Statewide	2024	Commercial Harbor Craft - AE - Work Boat	3,920	30,353	7,510	1,549	1,481	0	2,037,444	90,783	4353	0.900599	7.0	1.7	0.356	0.3	0.0	468.1	20.9	

1. EMFAC OFFROAD OUTPUT

2. CALCULATION OF HOURLY EMISSIONS BY TYPE BY BIN

Model Output: OFFROAD2021 (v1.0.3) Emissions Inventory
Region Type: Statewide
Region: California
Calendar Year: 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2021 Equipment Types
Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsep

equation:
daily tons x 365 * 2000

ROG = VOC
PM10e = DPM

equation:
annual lbs / annual hours

			lbs per year									lbs per hour								row assignment
Region	Calendar Year	Vehicle Category	VOC	NOX	CO	PM10	PM2.5	SO2	CO2	Fuel (gpy)	Hours	VOC	NOX	CO	PM10	PM2.5	SO2	CO2	Fuel (gph)	
Statewide	2024	Commercial Harbor Craft - ME - Commercial Fishing	3,574	25,250	10,448	1,734	1,658	0	1,615,190	71,968	55254	0.064675	0.5	0.2	0.031	0.0	0.0	29.2	1.3	
Statewide	2024	Commercial Harbor Craft - ME - Commercial Fishing	11,860	126,739	42,705	5,398	5,160	0	7,019,038	312,749	155792	0.07613	0.8	0.3	0.035	0.0	0.0	45.1	2.0	
Statewide	2024	Commercial Harbor Craft - ME - Commercial Fishing	63	218	169	20	19	0	14,983	668	3157	0.019934	0.1	0.1	0.006	0.0	0.0	4.7	0.2	
Statewide	2024	Commercial Harbor Craft - ME - Commercial Fishing	35,378	405,935	122,605	14,667	14,021	0	30,285,712	1,349,447	420263	0.08418	1.0	0.3	0.035	0.0	0.0	72.1	3.2	
Statewide	2024	Commercial Harbor Craft - ME - Commercial Fishing	375	1,625	1,085	115	110	0	166,455	7,417	12630	0.029667	0.1	0.1	0.009	0.0	0.0	13.2	0.6	
Statewide	2024	Commercial Harbor Craft - ME - Commercial Fishing	75,401	845,881	245,198	31,321	29,943	0	67,441,454	3,005,004	572646	0.131671	1.5	0.4	0.055	0.1	0.0	117.8	5.2	
Statewide	2024	Commercial Harbor Craft - ME - Commercial Fishing	2,042	13,930	5,912	976	933	0	848,850	37,822	39883	0.051201	0.3	0.1	0.024	0.0	0.0	21.3	0.9	
Statewide	2024	Commercial Harbor Craft - ME - Commercial Fishing	7,318	107,079	25,543	3,043	2,909	0	10,180,190	453,601	51431	0.142291	2.1	0.5	0.059	0.1	0.0	197.9	8.8	
Statewide	2024	Commercial Harbor Craft - ME - Commercial Fishing	15,291	146,418	49,159	6,557	6,268	0	8,236,964	367,016	14624	1.045666	10.0	3.4	0.448	0.4	0.0	563.3	25.1	
Statewide	2024	Commercial Harbor Craft - ME - Commercial Passenger Fishing	122	835	337	52	50	0	35,483	1,581	1193	0.101928	0.7	0.3	0.044	0.0	0.0	29.7	1.3	
Statewide	2024	Commercial Harbor Craft - ME - Commercial Passenger Fishing	678	7,406	2,362	299	286	0	453,640	20,213	10383	0.065294	0.7	0.2	0.029	0.0	0.0	43.7	1.9	
Statewide	2024	Commercial Harbor Craft - ME - Commercial Passenger Fishing	10,225	140,014	35,699	4,247	4,061	0	12,100,630	539,170	145089	0.070476	1.0	0.2	0.029	0.0	0.0	83.4	3.7	
Statewide	2024	Commercial Harbor Craft - ME - Commercial Passenger Fishing	105	280	251	25	24	0	20,811	927	1599	0.065758	0.2	0.2	0.016	0.0	0.0	13.0	0.6	
Statewide	2024	Commercial Harbor Craft - ME - Commercial Passenger Fishing	49,189	748,200	169,955	21,296	20,359	0	66,910,552	2,981,348	487432	0.100915	1.5	0.3	0.044	0.0	0.0	137.3	6.1	
Statewide	2024	Commercial Harbor Craft - ME - Commercial Passenger Fishing	17,351	226,189	59,739	7,584	7,250	0	17,627,208	785,419	82711	0.209778	2.7	0.7	0.092	0.1	0.0	213.1	9.5	
Statewide	2024	Commercial Harbor Craft - ME - Commercial Passenger Fishing	7,994	90,216	26,722	3,446	3,294	0	6,954,542	309,875	19193	0.416531	4.7	1.4	0.180	0.2	0.0	362.3	16.1	
Statewide	2024	Commercial Harbor Craft - ME - Crew/Supply	213	1,359	625	114	109	0	90,460	4,031	3456	0.061681	0.4	0.2	0.033	0.0	0.0	26.2	1.2	
Statewide	2024	Commercial Harbor Craft - ME - Crew/Supply	245	4,784	871	107	102	0	520,283	23,182	13809	0.017751	0.3	0.1	0.008	0.0	0.0	37.7	1.7	
Statewide	2024	Commercial Harbor Craft - ME - Crew/Supply	1,817	35,273	6,407	826	790	0	3,471,887	154,698	44054	0.041245	0.8	0.1	0.019	0.0	0.0	78.8	3.5	
Statewide	2024	Commercial Harbor Craft - ME - Crew/Supply	28,568	505,148	94,138	12,531	11,980	0	49,759,036	2,217,124	355079	0.080456	1.4	0.3	0.035	0.0	0.0	140.1	6.2	
Statewide	2024	Commercial Harbor Craft - ME - Crew/Supply	40	790	185	28	27	0	108,792	4,847	6532	0.006079	0.1	0.0	0.004	0.0	0.0	16.7	0.7	
Statewide	2024	Commercial Harbor Craft - ME - Crew/Supply	5,417	112,606	18,540	2,253	2,154	0	12,831,581	571,740	69750	0.077664	1.6	0.3	0.032	0.0	0.0	184.0	8.2	
Statewide	2024	Commercial Harbor Craft - ME - Crew/Supply	15,876	181,257	49,546	6,723	6,427	0	14,038,226	625,504	27145	0.584869	6.7	1.8	0.248	0.2	0.0	517.2	23.0	
Statewide	2024	Commercial Harbor Craft - ME - Dredge	172	3,776	604	71	68	0	453,094	20,189	6350	0.027081	0.6	0.1	0.011	0.0	0.0	71.4	3.2	
Statewide	2024	Commercial Harbor Craft - ME - Dredge	1,055	18,960	3,594	419	401	0	2,147,905	95,705	17663	0.05974	1.1	0.2	0.024	0.0	0.0	121.6	5.4	
Statewide	2024	Commercial Harbor Craft - ME - Dredge	757	17,088	2,931	306	293	0	2,012,499	89,671	11877	0.063745	1.4	0.2	0.026	0.0	0.0	169.4	7.5	
Statewide	2024	Commercial Harbor Craft - ME - Dredge	87	1,890	411	35	34	0	171,475	7,640	565	0.154732	3.3	0.7	0.063	0.1	0.0	303.7	13.5	
Statewide	2024	Commercial Harbor Craft - ME - Dredge	856	15,920	3,014	318	304	0	1,749,963	77,973	2454	0.349032	6.5	1.2	0.130	0.1	0.0	713.3	31.8	
Statewide	2024	Commercial Harbor Craft - ME - Excursion	138	1,113	437	74	71	0	113,063	5,038	4124	0.033436	0.3	0.1	0.018	0.0	0.0	27.4	1.2	
Statewide	2024	Commercial Harbor Craft - ME - Excursion	1,333	20,382	4,815	584	558	0	1,912,240	85,204	44012	0.030278	0.5	0.1	0.013	0.0	0.0	43.4	1.9	
Statewide	2024	Commercial Harbor Craft - ME - Excursion	5,504	81,097	18,872	2,258	2,159	0	7,940,662	353,814	100990	0.0545	0.8	0.2	0.022	0.0	0.0	78.6	3.5	
Statewide	2024	Commercial Harbor Craft - ME - Excursion	2	37	18	2	2	0	4,804	214	514	0.004527	0.1	0.0	0.004	0.0	0.0	9.3	0.4	
Statewide	2024	Commercial Harbor Craft - ME - Excursion	21,568	364,845	72,829	9,086	8,686	0	37,905,272	1,688,954	293642	0.073449	1.2	0.2	0.031	0.0	0.0	129.1	5.8	
Statewide	2024	Commercial Harbor Craft - ME - Excursion	42	617	164	25	24	0	74,093	3,301	3245	0.0129	0.2	0.1	0.008	0.0	0.0	22.8	1.0	
Statewide	2024	Commercial Harbor Craft - ME - Excursion	6,984	92,871	23,154	2,920	2,791	0	8,482,464	377,955	42020	0.166217	2.2	0.6	0.069	0.1	0.0	201.9	9.0	
Statewide	2024	Commercial Harbor Craft - ME - Excursion	7,692	107,405	26,773	3,133	2,995	0	13,269,795	591,265	41102	0.187151	2.6	0.7	0.076	0.1	0.0	322.9	14.4	
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Catamaran	1,393	27,321	4,450	635	607	0	2,629,167	117,148	9488	0.146862	2.9	0.5	0.067	0.1	0.0	277.1	12.3	
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Catamaran	62,605	1,133,258	205,935	26,298	25,141	0	123,142,590	5,486,891	188080	0.332866	6.0	1.1	0.140	0.1	0.0	654.7	29.2	
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Monohull	295	2,752	1,020	127	121	0	133,812	5,962	2320	0.127309	1.2	0.4	0.055	0.1	0.0	57.7	2.6	
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Monohull	56	586	193	23	22	0	38,577	1,719	443	0.125546	1.3	0.4	0.053	0.1	0.0	87.2	3.9	
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Monohull	1,106	17,232	3,817	459	439	0	1,753,230	78,119	11043	0.100155	1.6	0.3	0.042	0.0	0.0	158.8	7.1	
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Monohull	434	9,372	1,526	158	151	0	1,206,836	53,773	5532	0.078471	1.7	0.3	0.029	0.0	0.0	218.2	9.7	
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Monohull	20,746	323,477	57,857	8,878	8,487	0	31,159,252	1,388,370	47702	0.434922	6.8	1.2	0.186	0.2	0.0	653.2	29.1	
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Short Run	31	618	144	22	21	0	86,264	3,844	2674	0.011465	0.2	0.1	0.008	0.0	0.0	32.3	1.4	
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Short Run	183	3,834	615	84	81	0	394,884	17,595	8023	0.022851	0.5	0.1	0.011	0.0	0.0	49.2	2.2	
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Short Run	423	9,270	1,488	167	160	0	1,118,768	49,849	11705	0.036168	0.8	0.1	0.014	0.0	0.0	95.6	4.3	
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Short Run	1,279	27,715	4,544	503	481	0	3,386,842	150,908	23409	0.054639	1.2	0.2	0.021	0.0	0.0	144.7	6.4	
Statewide	2024	Commercial Harbor Craft - ME - Ferry-Short Run	2,223	46,521	7,628	933	892	0	5,237,926	233,387	23409	0.09498	2.0	0.3	0.040	0.0	0.0	223.8	10.0	
Statewide	2024	Commercial Harbor Craft - ME - Pilot Boat	154	3,483	561	54	51	0	472,560	21,056	5447	0.028183	0.6	0.1	0.010	0.0	0.0	86.8	3.9	
Statewide	2024	Commercial Harbor Craft - ME - Pilot Boat	887	18,101	2,936	396	379	0	1,911,651	85,178	9078	0.097669	2.0	0.3	0.044	0.0	0.0	210.6	9.4	
Statewide	2024	Commercial Harbor Craft - ME - Pilot Boat	1,005	23,904	4,289	548	524	0	2,054,804	91,556	6808	0.147598	3.5	0.6	0.081	0.1	0.0	301.8	13.4	
Statewide	2024	Commercial Harbor Craft - ME - Pilot Boat	10,391	110,908	16,297	4,318	4,128	0	8,713,942	388,269	21787	0.47694	5.1	0.7	0.198	0.2	0.0	400.0	17.8	
Statewide	2024	Commercial Harbor Craft - ME - Research Boat	54	1,342	234	27	26	0	133,571	5,952	2512	0.021449	0.5	0.1	0.011	0.0	0.0	53.2	2.4	
Statewide	2024	Commercial Harbor Craft - ME - Research Boat	525	6,647	1,760	218	209	0	565,768	25,209	6190	0.084754	1.1	0.3	0.035	0.0	0.0	91.4	4.1	
Statewide	2024	Commercial Harbor Craft - ME - Research Boat	2	37	10	2	1	0	5,504	245	389	0.005333	0.1	0.0	0.004	0.0	0.0	14.2	0.6	
Statewide	2024	Commercial Harbor Craft - ME - Research Boat	5,280	49,754	16,998	2,245	2,146	0	3,031,071	135,056	19286	0.273762	2.6	0.9	0.116	0.1	0.0	157.2	7.0	
Statewide	2024	Commercial Harbor Craft - ME - Research Boat	2,991	33,835	9,796	1,246	1,191	0	2,797,364	124,643	11183	0.267477	3.0	0.9	0.111	0.1	0.0	250.1	11.1	

1. EMFAC OFFROAD OUTPUT | **2. CALCULATION OF HOURLY EMISSIONS BY TYPE BY BIN**

Model Output: OFFROAD2021 (v1.0.3) Emissions Inventory
Region Type: Statewide
Region: California
Calendar Year: 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2021 Equipment Types
Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsep

equation:
daily tons x 365 * 2000

ROG = VOC
PM10e = DPM

equation:
annual lbs / annual hours

			lbs per year								lbs per hour								
Region	Calendar Year	Vehicle Category	VOC	NOX	CO	PM10	PM2.5	SO2	CO2	Fuel (gpy)	Hours	VOC	NOX	CO	PM10	PM2.5	SO2	CO2	Fuel (gph)	row assignment
Statewide	2024	Commercial Harbor Craft - ME - Research Boat	4,748	41,669	14,729	1,896	1,812	0	3,180,084	141,696	4665	1.017836	8.9	3.2	0.406	0.4	0.0	681.7	30.4	
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-ATB	68,483	1,345,324	241,435	30,130	28,804	0	134,582,787	5,996,635	53290	1.285095	25.2	4.5	0.565	0.5	0.0	2525.5	112.5	
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-Escort/Ship Assist	32	816	145	17	17	0	72,086	3,212	1494	0.021602	0.5	0.1	0.012	0.0	0.0	48.3	2.2	
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-Escort/Ship Assist	53,928	965,050	199,722	23,224	22,202	0	120,540,262	5,370,939	270591	0.199296	3.6	0.7	0.086	0.1	0.0	445.5	19.8	
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-Push/Tow	46	339	131	20	19	0	18,325	817	471	0.097046	0.7	0.3	0.043	0.0	0.0	38.9	1.7	
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-Push/Tow	129	2,150	519	63	60	0	164,582	7,333	2794	0.046074	0.8	0.2	0.022	0.0	0.0	58.9	2.6	
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-Push/Tow	1,923	29,145	6,971	827	791	0	2,643,684	117,795	28023	0.068618	1.0	0.2	0.030	0.0	0.0	94.3	4.2	6
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-Push/Tow	2	27	8	1	1	0	3,883	173	236	0.007309	0.1	0.0	0.005	0.0	0.0	16.5	0.7	
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-Push/Tow	9,537	174,394	32,230	4,020	3,843	0	18,538,502	826,024	111296	0.085693	1.6	0.3	0.036	0.0	0.0	166.6	7.4	5
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-Push/Tow	8,179	170,470	28,501	3,330	3,183	0	19,694,060	877,513	75919	0.107739	2.2	0.4	0.044	0.0	0.0	259.4	11.6	
Statewide	2024	Commercial Harbor Craft - ME - Tugboat-Push/Tow	39,141	566,175	129,262	17,429	16,662	0	55,885,137	2,490,086	114327	0.342365	5.0	1.1	0.152	0.1	0.0	488.8	21.8	
Statewide	2024	Commercial Harbor Craft - ME - Work Boat	2,553	32,737	9,232	1,098	1,050	0	2,494,913	111,166	48109	0.053066	0.7	0.2	0.023	0.0	0.0	51.9	2.3	
Statewide	2024	Commercial Harbor Craft - ME - Work Boat	10,931	105,994	35,210	4,396	4,203	0	7,687,990	342,555	91236	0.11981	1.2	0.4	0.048	0.0	0.0	84.3	3.8	
Statewide	2024	Commercial Harbor Craft - ME - Work Boat	16	291	82	12	12	0	42,926	1,913	1960	0.008379	0.1	0.0	0.006	0.0	0.0	21.9	1.0	
Statewide	2024	Commercial Harbor Craft - ME - Work Boat	25,281	390,123	89,771	11,027	10,542	0	34,950,926	1,557,316	229087	0.110357	1.7	0.4	0.048	0.0	0.0	152.6	6.8	
Statewide	2024	Commercial Harbor Craft - ME - Work Boat	122	1,189	371	63	61	0	102,493	4,567	3921	0.030994	0.3	0.1	0.016	0.0	0.0	26.1	1.2	
Statewide	2024	Commercial Harbor Craft - ME - Work Boat	8,105	148,220	29,768	3,784	3,618	0	13,312,296	593,159	50156	0.161597	3.0	0.6	0.075	0.1	0.0	265.4	11.8	
Statewide	2024	Commercial Harbor Craft - ME - Work Boat	40,041	443,137	118,476	16,849	16,108	0	31,210,396	1,390,648	57998	0.690385	7.6	2.0	0.291	0.3	0.0	538.1	24.0	

1. EMFAC OFFROAD OUTPUT

3. ASSIGNING HOURLY RATES TO CALCULATE DAILY EMISSIONS

Model Output: OFFROAD2021 (v1.0.3) Emissions Inventory
Region Type: Statewide
Region: California
Calendar Year: 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2021 Equipment Types
Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepc

g to lb 453.59
lb to ton 0.0005

Emission Rate Calculation

Region	Calendar Year	Vehicle Category			row assignment	Engines Assumed	HP each	lbs per activity hour (or gallons) VOC	NOX	CO	PM10	PM2.5	SO2	CO2	Fuel	lbs per hour (calculated from fuel) ch4	n2o
Statewid	2024	Commercial Harbor Craft - AE - Barge-ATB															
Statewid	2024	Commercial Harbor Craft - AE - Barge-ATB	Derrick Barge	Aux 1	2	1	600	0.047	0.844	0.256	0.032	0.031	0.000	122	5.42	0.077	0.002
Statewid	2024	Commercial Harbor Craft - AE - Barge-ATB		Aux 2	2	1	462	0.047	0.844	0.256	0.032	0.031	0.000	122	5.42	0.077	0.002
Statewid	2024	Commercial Harbor Craft - AE - Barge-ATB		Aux 3	3	1	211	0.043	0.682	0.194	0.023	0.022	0.000	79	3.50	0.050	0.001
Statewid	2024	Commercial Harbor Craft - AE - Barge-ATB	Spud Barge	Aux 1	3	1	240	0.043	0.682	0.194	0.023	0.022	0.000	79	3.50	0.050	0.001
Statewid	2024	Commercial Harbor Craft - AE - Barge-ATB		Aux 2	3	1	240	0.043	0.682	0.194	0.023	0.022	0.000	79	3.50	0.050	0.001
Statewid	2024	Commercial Harbor Craft - AE - Barge-ATB	Tugboat	Main	5	2	500.0	0.086	1.567	0.290	0.036	0.035	0.000	167	7.42	0.105	0.003
Statewid	2024	Commercial Harbor Craft - AE - Barge-ATB		Aux	4	1	127	0.024	0.394	0.123	0.014	0.014	0.000	54	2.40	0.034	0.001
Statewid	2024	Commercial Harbor Craft - AE - Barge-Bunker	Pushboat	Main	6	2	365.5	0.069	1.040	0.249	0.030	0.028	0.000	94	4.20	0.059	0.002
Statewid	2024	Commercial Harbor Craft - AE - Barge-Bunker		Aux	7	1	93	0.025	0.308	0.093	0.016	0.015	0.000	41	1.84	0.026	0.001
Statewid	2024	Commercial Harbor Craft - AE - Barge-Bunker	Crane covered in offroad sheet														
Statewid	2024	Commercial Harbor Craft - AE - Barge-Bunker	Tug is 1000 hp. Average tug in CARB database has 2 main engines. Assumes this tug is 500hp x 2engines.														
Statewid	2024	Commercial Harbor Craft - AE - Barge-Bunker															
Statewid	2024	Commercial Harbor Craft - AE - Barge-Bunker	CR2022 per gallon, ships and boats, diesel(Table 2.7)														
Statewid	2024	Commercial Harbor Craft - AE - Barge-Other		CH4	6.42	g/gallon											
Statewid	2024	Commercial Harbor Craft - AE - Barge-Other		N2O	0.17	g/gallon											

Tugboat Aux Engine Sizing Estimate

CARB CHC Documentation (Sept 2021)

https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2021/chc2021/apph.pdf

	Table H-1 of CARB 2021	NASSCO project
main	731	1000
aux	93	127.223
ratio	0.127222982	0.127223

127 HP based on ratio of aux to main for Tug - Push/Tow in CARB documenation

Pushboat estimate

Table H-2 from CARB 2021 CHC methods:

Vessel Type	Vessel Count	Auxiliary Engine Count	Auxiliary Engine Average HP	Auxiliar Engine Average MY	Main Engine Count	Main Engine Average HP	Main Engine Average MY
Crew/Supply	71	77	107	2003	156	570	2006
Dredge	20	28	390	2009	16	441	2007
Excursion	177	170	109	2001	311	412	2000
Ferry-Catamaran	32	52	121	2010	78	1810	2010
Ferry-Monohull	19	26	80	2003	38	1194	2000
Ferry-Short Run	16	14	44	2002	26	400	2010
Pilot Vessel	9	9	74	2004	17	781	2007
Research Vessel	44	45	171	1998	86	635	1996
Tugboat-ATB	11	34	296	2005	22	4395	2006
Tugboat-Escort/Ship Assist	58	122	179	2009	117	2450	2008
Tugboat-Push/Tow	108	162	93	2003	211	731	2002
Workboat	204	149	247	1998	327	471	2000

	Vess #	Engine #	Engines per
Aux	108	162	1.5
Main	108	211	1.95

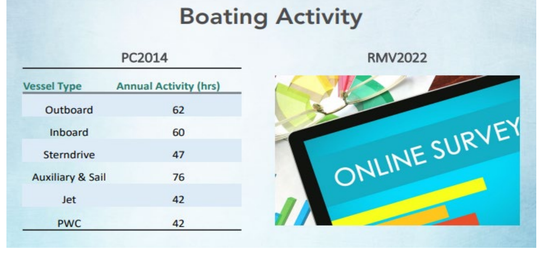
Pushboat Calc

Model Output: OFFROAD2021 (v1.0.3) Emissions Inventory
Region Type: Statewide
Region: California
Calendar Year: 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2021 Equipment Types
Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Region	Calendar Year	Vehicle Category	Model Year	Horsepower Bin	Fuel	HC_tpd	ROG_tpd	TOG_tpd	CO_tpd	NOx_tpd	CO2_tpd	PM10_tpd	PM2.5_tpd	SOx_tpd	NH3_tpd	Fuel Consumption	Total_Activity_hpy	Total_Population	Horsepower_Hours_hhpy	Total hours (calculated, pop * 62)
Statewide Totals	2024	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	4.712548527	4.759674013	5.185872189	12.74211973	0.494635064	56.45844426	0.329625831	0.249050623	0.000910842	0.001257299	3465882.507	0	41090.07079	0	2547584.389
Statewide Totals	2025	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	4.417649739	4.461826249	4.861354054	12.39752897	0.484539821	55.63333002	0.313867127	0.237144057	0.000886956	0.001224328	3376533.116	0	40328.47541	0	2500365.476
Statewide Totals	2026	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	4.124431726	4.165676042	4.538685525	12.05405399	0.474488246	54.80621422	0.29817371	0.225286802	0.000863089	0.001191383	3287393.203	0	39566.93969	0	2453150.261
Statewide Totals	2027	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	3.849326532	3.8878198	4.235949044	11.74010155	0.465371169	54.08425655	0.283583821	0.214263336	0.000841327	0.001161344	3206262.968	0	38888.157	0	2411065.734
Statewide Totals	2028	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	3.591978867	3.627898653	3.952753631	11.45454003	0.457088529	53.46154135	0.270075629	0.20405714	0.000821586	0.001134094	3132809.208	0	38287.56073	0	2373828.765
Statewide Totals	2029	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	3.347914847	3.381394005	3.68417607	11.1898829	0.449413981	52.91002746	0.257365637	0.194454033	0.000803315	0.001108873	3064965.038	0	37743.51648	0	2340098.021
Statewide Totals	2030	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	3.115234577	3.146386924	3.428125621	10.94196167	0.442224245	52.41387984	0.245332049	0.185361985	0.000786228	0.001085286	3001648.273	0	37244.1513	0	2309137.381
Statewide Totals	2031	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	2.894247149	2.923189625	3.184942444	10.71185757	0.435550889	51.97748271	0.233995711	0.176796765	0.000770398	0.001063435	2943126.035	0	36792.60936	0	2281141.78
Statewide Totals	2032	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	2.69394017	2.72087957	2.964516827	10.51430114	0.429793445	51.65536016	0.22393369	0.169194346	0.000756915	0.001044824	2893464.951	0	36431.17467	0	2258732.829
Statewide Totals	2033	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	2.504250521	2.529293028	2.755774939	10.33208317	0.4244415	51.38320064	0.214505119	0.162070552	0.000744518	0.001027711	2847948.101	0	36110.12493	0	2238827.745
Statewide Totals	2034	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	2.322150543	2.345372048	2.555385019	10.15949694	0.419269127	51.1384584	0.20552376	0.155284627	0.000732788	0.001011518	2805006.086	0	35812.14691	0	2220353.108

Pushboat for NASSCO
50 hp gasoline outboard
unsure specific MY - use the fleet average by CY
Hours not in OFFROAD. Use the PC2014 assumption of 62 hours per year per engine

hrs/each
62



Pounds per Year

					lbs per year								
					VOC	NOX	CO	PM10	PM2.5	SO2	CO2	Fuel (gpy)	Hours
2024	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	3474562.029	361083.5967	9301747.405	240626.8567	181806.9552	664.9143745	41214664.31	3465882.507	2547584.389
2025	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	3257133.162	353714.0691	9050196.148	229123.0024	173115.1613	647.4780165	40612330.92	3376533.116	2500365.476
2026	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	3040943.511	346376.4199	8799459.411	217666.8082	164459.3658	630.0547551	40008536.38	3287393.203	2453150.261
2027	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	2838108.454	339720.9535	8570274.129	207016.1894	156412.2351	614.1689668	39481507.28	3206262.968	2411065.734
2028	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	2648366.017	33674.626	8361814.219	197155.2093	148961.7119	599.7580111	39026925.18	3132809.208	2373828.765
2029	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	2468417.623	328072.2063	8168614.514	187876.9149	141951.4442	586.4201369	38624320.05	3064965.038	2340098.021
2030	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	2296862.455	322823.6989	7987632.02	179092.3956	135314.2489	573.9462724	38262132.28	3001648.273	2309137.381
2031	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	2133928.426	317952.1492	7819656.028	170816.8689	129061.6383	562.3903429	37943562.38	2943126.035	2281141.78
2032	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	1986242.086	313749.2146	7675439.833	163471.5938	123511.8724	552.5479799	37708412.91	2893464.951	2258732.829
2033	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	1846383.91	309842.2952	7542420.717	156588.7366	118311.5032	543.4984038	37509736.47	2847948.101	2238827.745
2034	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	1712121.595	306066.4628	7416432.763	150032.3446	113357.7774	534.934951	37331074.63	2805006.086	2220353.108

Calculated Pounds per Engine Hour

					lbs per hr							
					VOC	NOX	CO	PM10	PM2.5	SO2	CO2	Fuel (gpy)
2024	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	1.3639	0.1417	3.6512	0.0945	0.0714	0.0003	16.1779	1.3605
2025	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	1.2785	0.1388	3.5525	0.0899	0.0680	0.0003	15.9415	1.3254
2026	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	1.1937	0.1360	3.4540	0.0854	0.0646	0.0002	15.7045	1.2904
2027	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	1.1140	0.1334	3.3641	0.0813	0.0614	0.0002	15.4976	1.2586
2028	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	1.0396	0.1310	3.2823	0.0774	0.0585	0.0002	15.3192	1.2297
2029	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	0.9689	0.1288	3.2064	0.0737	0.0557	0.0002	15.1612	1.2031
2030	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	0.9016	0.1267	3.1354	0.0703	0.0531	0.0002	15.0190	1.1782
2031	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	0.8376	0.1248	3.0694	0.0671	0.0507	0.0002	14.8939	1.1553
2032	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	0.7797	0.1232	3.0128	0.0642	0.0485	0.0002	14.8016	1.1358
2033	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	0.7248	0.1216	2.9606	0.0615	0.0464	0.0002	14.7236	1.1179
2034	Pleasure Craft - Vessels W/Outboard Engines	Aggregate	50	Gasoline	0.6721	0.1201	2.9112	0.0589	0.0445	0.0002	14.6535	1.1010

HRA Files

1. DPM Summary
2. AERMOD Outputs
3. HARP Outputs

DPM Summary for HRA

g/s summary

		Equipment	Harbor Craft	Trucks Surface	Trucks Freeway
Unmitigated	3rd tri	2.94E-03	1.34E-03	9.39E-07	5.47E-07
	0>2	2.83E-03	1.87E-03	1.29E-06	7.52E-07
	2>16	2.92E-04	5.61E-04	2.45E-07	1.42E-07
	Average Overall	8.65E-04	8.42E-04	4.71E-07	2.74E-07

DPM Summary by Source by Year for HRA

DPM By Phase from Modeling Files

conc	#	phase	year	OFFROAD	TRUCKS	SITE TRUCKS	MARINE
1a_2024	1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	8.03E-02	0.000341	0.00065685	0.023152316
1b_2024	1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2024	0.021186234	0.000090	0.00017333	0.023152316
1b_2025	1b	Floating Dry Dock Replacement and Modification - Dry Dock Infrastructure	2025	0.066236825	0.000301	0.00054147	0.023152316
2_2025	2	Repair Complex Wharf Improvements	2025	0.026749487	0.000122	0.00021867	0.023152316
2_2026	2	Repair Complex Wharf Improvements	2026	0.044629677	0.000219	0.00036129	0.023152316
3_2025	3	Quay Wall Revetment Repairs (Berths 2-5)	2025	0.006114168	0.000297	4.9982E-05	0.023152316
4_2026	4	As-needed Quay Wall Revetment Repairs	2026	0.002959734	0.000155	2.396E-05	0.007331567
4_2027	4	As-needed Quay Wall Revetment Repairs	2027	0.002798169	0.000153	2.2535E-05	0.007331567
4_2028	4	As-needed Quay Wall Revetment Repairs	2028	0.002589818	0.000151	2.1063E-05	0.007331567
5_2025	5	Structural Pile Repair and Replacement	2025	0.006368926	0.000039	5.2064E-05	0.014470197
5_2026	5	Structural Pile Repair and Replacement	2026	0.005841581	0.000039	4.7289E-05	0.014470197
5_2027	5	Structural Pile Repair and Replacement	2027	0.005522703	0.000038	4.4477E-05	0.014470197
5_2028	5	Structural Pile Repair and Replacement	2028	0.005111483	0.000038	4.1572E-05	0.014470197
5_2029	5	Structural Pile Repair and Replacement	2029	0.004954653	0.000037	3.8314E-05	0.014470197
5_2030	5	Structural Pile Repair and Replacement	2030	0.004625124	0.000037	3.5004E-05	0.014470197
5_2031	5	Structural Pile Repair and Replacement	2031	0.004501751	0.000036	3.192E-05	0.014470197
5_2032	5	Structural Pile Repair and Replacement	2032	0.004114049	0.000036	2.8609E-05	0.014470197
5_2033	5	Structural Pile Repair and Replacement	2033	0.003786151	0.000035	2.4995E-05	0.014470197
5_2034	5	Structural Pile Repair and Replacement	2034	0.00349373	0.000034	2.1609E-05	0.014470197
6_2024	6	Mobilization/Demobilization	2024	0	0.000000	0	0.000173269
6_2025	6	Mobilization/Demobilization	2025	0	0.000000	0	0.000173269
6_2026	6	Mobilization/Demobilization	2026	0	0.000000	0	0.000173269
6_2027	6	Mobilization/Demobilization	2027	0	0.000000	0	0.000173269
6_2028	6	Mobilization/Demobilization	2028	0	0.000000	0	0.000173269
6_2029	6	Mobilization/Demobilization	2029	0	0.000000	0	0.000173269
6_2030	6	Mobilization/Demobilization	2030	0	0.000000	0	0.000173269
6_2031	6	Mobilization/Demobilization	2031	0	0.000000	0	0.000173269
6_2032	6	Mobilization/Demobilization	2032	0	0.000000	0	0.000173269
6_2033	6	Mobilization/Demobilization	2033	0	0.000000	0	0.000173269
6_2034	6	Mobilization/Demobilization	2034	0	0.000000	0	0.000173269

t to g 907184.74

Scale trucks down to surface and freeway and remove DPM outside HRA domain

#	phase	year	TOTAL TRUCKS	TRUCKS SURFACE	TRUCKS FWY
1a	Floating Dry Dock Replacement and Modification - Lot 20	2024	0.000341	0.000026	0.000015
1b	ng Dry Dock Replacement and Modification - Dry Dock Infrastru	2024	0.000090	0.000007	0.000004
1b	ng Dry Dock Replacement and Modification - Dry Dock Infrastru	2025	0.000301	0.000023	0.000013
2	Repair Complex Wharf Improvements	2025	0.000122	0.000009	0.000005
2	Repair Complex Wharf Improvements	2026	0.000219	0.000017	0.000010
3	Quay Wall Revetment Repairs (Berths 2-5)	2025	0.000297	0.000022	0.000013
4	As-needed Quay Wall Revetment Repairs	2026	0.000155	0.000012	0.000007
4	As-needed Quay Wall Revetment Repairs	2027	0.000153	0.000012	0.000007
4	As-needed Quay Wall Revetment Repairs	2028	0.000151	0.000011	0.000007
5	Structural Pile Repair and Replacement	2025	0.000039	0.000003	0.000002
5	Structural Pile Repair and Replacement	2026	0.000039	0.000003	0.000002
5	Structural Pile Repair and Replacement	2027	0.000038	0.000003	0.000002
5	Structural Pile Repair and Replacement	2028	0.000038	0.000003	0.000002
5	Structural Pile Repair and Replacement	2029	0.000037	0.000003	0.000002
5	Structural Pile Repair and Replacement	2030	0.000037	0.000003	0.000002
5	Structural Pile Repair and Replacement	2031	0.000036	0.000003	0.000002
5	Structural Pile Repair and Replacement	2032	0.000036	0.000003	0.000002
5	Structural Pile Repair and Replacement	2033	0.000035	0.000003	0.000002
5	Structural Pile Repair and Replacement	2034	0.000034	0.000003	0.000002
6	Mobilization/Demobilization	2024	0.000000	0.000000	0.000000
6	Mobilization/Demobilization	2025	0.000000	0.000000	0.000000
6	Mobilization/Demobilization	2026	0.000000	0.000000	0.000000
6	Mobilization/Demobilization	2027	0.000000	0.000000	0.000000
6	Mobilization/Demobilization	2028	0.000000	0.000000	0.000000
6	Mobilization/Demobilization	2029	0.000000	0.000000	0.000000
6	Mobilization/Demobilization	2030	0.000000	0.000000	0.000000
6	Mobilization/Demobilization	2031	0.000000	0.000000	0.000000
6	Mobilization/Demobilization	2032	0.000000	0.000000	0.000000
6	Mobilization/Demobilization	2033	0.000000	0.000000	0.000000
6	Mobilization/Demobilization	2034	0.000000	0.000000	0.000000

Scaling for Trucks

Trip Length in CalEEMod (m)		32186.88 meters	20 miles
Trip Length in AERMOD	surface	2439.5 meters	1.52 miles
	freeway	1419.9 meters	0.88 miles
	total	3859.4 meters	2.4 miles
scalars	surface	0.075791751	**1.52/20**
	freeway	0.044114248	**0.88/20**

DPM by Year
in grams

	OFFROAD + SITE TRUCKS	MARINE	TRUCKS SURFACE	TRUCKS FWY
2024	92,806	42,164	30	17
2025	96,462	76,295	52	30
2026	48,864	40,939	28	16
2027	7,609	19,935	13	8
2028	7,043	19,935	13	8
2029	4,530	13,284	3	1
2030	4,228	13,284	3	1
2031	4,113	13,284	2	1
2032	3,758	13,284	2	1
2033	3,457	13,284	2	1
2034	3,189	13,284	2	1
Total	276,060	278,974	151	88

DPM By Year by Bin by Source

pg. 1

Converting tons and lbs to grams here for the sake of excel calcs. Converting back to lbs at the end for ADMRT only.

This feeds into HRA sheet - g/s used to scale unitized rates from AERMO

	Total Grams of DPM by Source by Year				Total Grams of DPM, by Age Bin, by Source															
					3rd tri				0>2				2>16				Average Overall			
year	Equipment	Harbor Craft	Trucks Surface	Trucks Freeway	Equipment	Harbor Craft	Trucks Surface	Trucks Freeway	Equipment	Harbor Craft	Trucks Surface	Trucks Freeway	Equipment	Harbor Craft	Trucks Surface	Trucks Freeway	Equipment	Harbor Craft	Trucks Surface	Trucks Freeway
2024	92806	42164	30	17	23,201	10,541	7	4	69,604	31,623	22	13					92,806	42,164	30	17
2025	96462	76295	52	30					96,462	76,295	52	30					96,462	76,295	52	30
2026	48864	40939	28	16					12,216	10,235	7	4	36,648	30,704	21	12	48,864	40,939	28	16
2027	7609	19935	13	8									7,609	19,935	13	8	7,609	19,935	13	8
2028	7043	19935	13	8									7,043	19,935	13	8	7,043	19,935	13	8
2029	4530	13284	3	1									4,530	13,284	3	1	4,530	13,284	3	1
2030	4228	13284	3	1									4,228	13,284	3	1	4,228	13,284	3	1
2031	4113	13284	2	1									4,113	13,284	2	1	4,113	13,284	2	1
2032	3758	13284	2	1									3,758	13,284	2	1	3,758	13,284	2	1
2033	3457	13284	2	1									3,457	13,284	2	1	3,457	13,284	2	1
2034	3189	13284	2	1													0	0	0	0

Trucks scaled by AERMOD distance

Rationale/Timeframe -->	3 months of 2024 only	9 months for 2024, all of 2025, 3 months of 2026	April 2026 onward	Average Overall
bin years counted by year	2024 0.25	0.75	0	1
	2025 0	1	0	1
	2026 0	0.25	0.75	1
	2027 0	0	1	1
	2028 0	0	1	1
	2029 0	0	1	1
	2030 0	0	1	1
	2031 0	0	1	1
	2032 0	0	1	1
	2033 0	0	1	1
	2034 0	0		
	Total **0.25**	**2**	**7.75**	**10.00**

86400 seconds per day
453.59237 g per lb
365 days per year

DPM Pounds per year and grams per second for ADMRT and Excel Sheet
pg. 2
Calculating grams per second based on emissions and the timing of those emissions by source

	3rd tri				0>2				2>16				Average Overall			
	Equipment	Harbor Craft	Trucks Surface	Trucks Freeway	Equipment	Harbor Craft	Trucks Surface	Trucks Freeway	Equipment	Harbor Craft	Trucks Surface	Trucks Freeway	Equipment	Harbor Craft	Trucks Surface	Trucks Freeway
days	91.25	91.25	91.25	91.25	730	730	730	730	2828.75	2828.75	2828.75	2828.75	3650	3650	3650	3650
seconds per day	86400	86400	86400	86400	86400	86400	86400	86400	86400	86400	86400	86400	86400	86400	86400	86400
seconds	7884000	7884000	7884000	7884000	63072000	63072000	63072000	63072000	244404000	244404000	244404000	244404000	315360000	315360000	315360000	315360000
grams	23,201	10,541	7	4	178,283	118,152	82	47	71,386	136,997	60	35	272,871	265,690	149	87
grams per second	0.002942858	0.001337013	9.39271E-07	5.46698E-07	0.002826657	0.001873293	1.29236E-06	7.52213E-07	0.000292084	0.000560533	2.44534E-07	1.4233E-07	0.000865268	0.000842497	4.71468E-07	2.74416E-07
# of sources	249	117	1	1	249	117	1	1	249	117	1	1	249	117	1	1
g/s per source	1.18187E-05	1.14275E-05	9.39271E-07	5.46698E-07	1.14E-05	1.60111E-05	1.29236E-06	7.52213E-07	1.17E-06	4.79088E-06	2.44534E-07	1.4233E-07	3.47E-06	7.20083E-06	4.71468E-07	2.74416E-07
total lbs (entire bin length)	51.15	23.24	0.02	0.01	393.05	260.48	0.18	0.10	157.38	302.03	0.13	0.08				
total annual lbs for ADMRT	204.602174	92.955801	0.065303	0.038009	196.523290	130.240677	0.089851	0.052298	20.307107	38.971074	0.017001	0.009895				
multiplier for annual	4	4	4	4	0.5	0.5	0.5	0.5	0.129	0.129	0.129	0.129				
g to lb	*0.002204623*															

for Excel Sheet	Equipment	Harbor Craft	Trucks Surface	Trucks Freeway
3rd tri	2.9429E-03	1.3370E-03	9.3927E-07	5.4670E-07
0>2	2.8267E-03	1.8733E-03	1.2924E-06	7.5221E-07
2>16	2.9208E-04	5.6053E-04	2.4453E-07	1.4233E-07
Average Overall	8.6527E-04	8.4250E-04	4.7147E-07	2.7442E-07
=max				

for parks	put 3rd tri emissions in 0>2			
	Equipment	Harbor Craft	Trucks Surface	Trucks Freeway
total grams				
0>2	201,484	128,693	89	52
2>16	71,386	136,997	60	35
total seconds				
0>2	70956000	70956000	70956000	70956000
2>16	244404000	244404000	244404000	244404000
g/s				
0>2	2.840E-03	1.814E-03	1.253E-06	7.294E-07
2>16	2.921E-04	5.605E-04	2.445E-07	1.423E-07
total lbs				
0>2	444.1994442	283.7217863	0.196029544	0.114098114
2>16	157.3808984	302.0273984	0.13175989	0.076690251
lbs/yr (for ADMRT)				
0>2	222.09972211	141.86089314	0.09801477	0.05704906
2>16	19.67261230	37.75342480	0.01646999	0.00958628

for ADMRT (total annual lbs)	**3rd Tri**	**0>2**	**2>16**	**Total**	**Total Annual**
Equipment	204.602174492	196.523289833	20.307106590	608.6078768	60.860787677642
Harbor Craft	92.955801438	130.240676741	38.971073586	615.0330570	61.503305700881
Trucks Surface	0.065302799	0.089851410	0.017001187	0.3330084	0.033300840180
Trucks Freeway	0.038009201	0.052297609	0.009895465	0.1938260	0.019382604211

Notes about multipliers for lbs/year inputs for ADMRT:

4 muliplier for 3rd tri b/c ADMRT request tons per year, but 3rd tri bin is only 3 months (0.25 of a year). 0.25 duration handled in Risk Analysis - User Defined (0.25 years) portion of ADMRT
0.5 muliplier for 0>2 bin b/c emission estimate is for the entire bin (2 years); dividing by 2 (or multiplying by 0.5) to get the annual input
0.103 (365 days / 3558.75 days) muliplier for 2>16 bin for same reason as 0>2 bin above; because emission estimate is for the entire bin (14 years bin length, but 9.75 years of construction)
10 years assumed for school
School g/s based on "total annual" because only one age bin assumed

AERMOD Outputs

```
** Lakes Environmental AERMOD MPI
**
**************************************
**
** AERMOD INPUT PRODUCED BY:
** AERMOD VIEW VER. 11.0.1
** LAKES ENVIRONMENTAL SOFTWARE INC.
** DATE: 3/17/2023
** FILE: C:\LAKES\AERMOD
VIEW\PROJECTS\NASSCO\POSD_NASSCO_JUNE2022_URBAN\POSD_NASSCO_JUNE2022_URBAN.ADI
**
**************************************
**
**
**************************************
** AERMOD CONTROL PATHWAY
**************************************
**
**
CO STARTING
   TITLEONE NASSCO DPM CONSTRUCTION HRA
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 3000000 SD_REGION_POP
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL POSD_NASSCO_JUNE2022_URBAN.ERR
CO FINISHED
**
**************************************
** AERMOD SOURCE PATHWAY
**************************************
**
**
SO STARTING
** SOURCE LOCATION **
** SOURCE ID - TYPE - X COORD. - Y COORD. **
   LOCATION VOL1         VOLUME     486609.961  3616972.560        1.890
** DESCRSRC EQUIPMENT
   LOCATION VOL2         VOLUME     486625.578  3616963.116        2.080
** DESCRSRC EQUIPMENT
   LOCATION VOL3         VOLUME     486653.428  3616947.808        3.410
** DESCRSRC EQUIPMENT
   LOCATION VOL4         VOLUME     486692.622  3616939.235        3.190
** DESCRSRC EQUIPMENT
   LOCATION VOL5         VOLUME     487110.478  3616738.134        3.370
** DESCRSRC EQUIPMENT
   LOCATION VOL6         VOLUME     487133.525  3616743.362        3.370
** DESCRSRC EQUIPMENT
   LOCATION VOL7         VOLUME     487155.901  3616749.982        3.360
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** DESCRSRC EQUIPMENT
   LOCATION VOL8         VOLUME     487180.704  3616755.861        3.320
** DESCRSRC EQUIPMENT
   LOCATION VOL9         VOLUME     487203.751  3616761.089        3.320
** DESCRSRC EQUIPMENT
   LOCATION VOL10        VOLUME     487226.127  3616767.709        3.370
** DESCRSRC EQUIPMENT
   LOCATION VOL11        VOLUME     487248.203  3616774.269        3.380
** DESCRSRC EQUIPMENT
   LOCATION VOL12        VOLUME     487271.250  3616779.497        3.370
** DESCRSRC EQUIPMENT
   LOCATION VOL13        VOLUME     487293.626  3616786.117        3.350
** DESCRSRC EQUIPMENT
   LOCATION VOL14        VOLUME     487314.680  3616793.701        3.350
** DESCRSRC EQUIPMENT
   LOCATION VOL15        VOLUME     487337.726  3616798.929        3.380
** DESCRSRC EQUIPMENT
   LOCATION VOL16        VOLUME     487360.103  3616805.549        3.370
** DESCRSRC EQUIPMENT
   LOCATION VOL17        VOLUME     487379.111  3616809.042        3.360
** DESCRSRC EQUIPMENT
   LOCATION VOL18        VOLUME     487402.157  3616814.270        3.310
** DESCRSRC EQUIPMENT
   LOCATION VOL19        VOLUME     487205.146  3616737.495        3.360
** DESCRSRC EQUIPMENT
   LOCATION VOL20        VOLUME     487227.522  3616744.115        3.370
** DESCRSRC EQUIPMENT
   LOCATION VOL21        VOLUME     487249.599  3616750.675        3.370
** DESCRSRC EQUIPMENT
   LOCATION VOL22        VOLUME     487272.645  3616755.903        3.370
** DESCRSRC EQUIPMENT
   LOCATION VOL23        VOLUME     487295.021  3616762.523        3.370
** DESCRSRC EQUIPMENT
   LOCATION VOL24        VOLUME     487316.075  3616770.107        3.370
** DESCRSRC EQUIPMENT
   LOCATION VOL25        VOLUME     487339.121  3616775.335        3.400
** DESCRSRC EQUIPMENT
   LOCATION VOL26        VOLUME     487361.498  3616781.955        3.430
** DESCRSRC EQUIPMENT
   LOCATION VOL27        VOLUME     487380.506  3616785.448        3.370
** DESCRSRC EQUIPMENT
   LOCATION VOL28        VOLUME     487403.552  3616790.676        3.310
** DESCRSRC EQUIPMENT
   LOCATION VOL29        VOLUME     487111.873  3616714.540        2.440
** DESCRSRC EQUIPMENT
   LOCATION VOL30        VOLUME     487134.920  3616719.768        3.360
** DESCRSRC EQUIPMENT
   LOCATION VOL31        VOLUME     487157.296  3616726.388        3.380
** DESCRSRC EQUIPMENT
   LOCATION VOL32        VOLUME     487182.100  3616732.267        3.360
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** DESCRSRC EQUIPMENT
   LOCATION VOL33        VOLUME     487207.191  3616713.972        3.370
** DESCRSRC EQUIPMENT
   LOCATION VOL34        VOLUME     487229.568  3616720.592        3.350
** DESCRSRC EQUIPMENT
   LOCATION VOL35        VOLUME     487251.644  3616727.153        3.340
** DESCRSRC EQUIPMENT
   LOCATION VOL36        VOLUME     487274.690  3616732.381        3.360
** DESCRSRC EQUIPMENT
   LOCATION VOL37        VOLUME     487297.067  3616739.001        3.360
** DESCRSRC EQUIPMENT
   LOCATION VOL38        VOLUME     487318.120  3616746.585        3.380
** DESCRSRC EQUIPMENT
   LOCATION VOL39        VOLUME     487341.166  3616751.812        3.380
** DESCRSRC EQUIPMENT
   LOCATION VOL40        VOLUME     487363.543  3616758.433        3.370
** DESCRSRC EQUIPMENT
   LOCATION VOL41        VOLUME     487382.551  3616761.925        3.370
** DESCRSRC EQUIPMENT
   LOCATION VOL42        VOLUME     487405.597  3616767.153        3.340
** DESCRSRC EQUIPMENT
   LOCATION VOL43        VOLUME     487113.919  3616691.017        2.040
** DESCRSRC EQUIPMENT
   LOCATION VOL44        VOLUME     487136.965  3616696.245        3.290
** DESCRSRC EQUIPMENT
   LOCATION VOL45        VOLUME     487159.342  3616702.865        3.350
** DESCRSRC EQUIPMENT
   LOCATION VOL46        VOLUME     487184.145  3616708.744        3.360
** DESCRSRC EQUIPMENT
   LOCATION VOL47        VOLUME     487233.782  3616675.109        3.350
** DESCRSRC EQUIPMENT
   LOCATION VOL48        VOLUME     487256.158  3616681.729        3.380
** DESCRSRC EQUIPMENT
   LOCATION VOL49        VOLUME     487278.234  3616688.290        3.150
** DESCRSRC EQUIPMENT
   LOCATION VOL50        VOLUME     487301.281  3616693.518        2.760
** DESCRSRC EQUIPMENT
   LOCATION VOL51        VOLUME     487323.657  3616700.138        3.240
** DESCRSRC EQUIPMENT
   LOCATION VOL52        VOLUME     487344.711  3616707.722        3.380
** DESCRSRC EQUIPMENT
   LOCATION VOL53        VOLUME     487367.757  3616712.949        3.390
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   LOCATION VOL282       VOLUME     486880.169  3616816.719       -0.340
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   LOCATION VOL332       VOLUME     486541.747  3616699.819        0.620
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** DESCRSRC HARBORCRAFT
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** PREFIX
** LENGTH OF SIDE = 9.30
** CONFIGURATION = ADJACENT
** EMISSION RATE = 1.0
** VERTICAL DIMENSION = 6.80
** SZINIT = 3.16
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LOCATION L0000149 VOLUME 487264.536 3617084.783 3.84
LOCATION L0000150 VOLUME 487273.576 3617082.603 3.92
LOCATION L0000151 VOLUME 487282.617 3617080.422 3.98
LOCATION L0000152 VOLUME 487291.658 3617078.242 3.93
LOCATION L0000153 VOLUME 487300.699 3617076.062 3.86
LOCATION L0000154 VOLUME 487309.739 3617073.881 3.79

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LOCATION L0000155     VOLUME   487318.780 3617071.701 3.77
LOCATION L0000156     VOLUME   487327.821 3617069.520 3.78
LOCATION L0000157     VOLUME   487336.862 3617067.340 3.79
LOCATION L0000158     VOLUME   487345.903 3617065.160 3.77
LOCATION L0000159     VOLUME   487354.943 3617062.979 3.74
LOCATION L0000160     VOLUME   487363.984 3617060.799 3.76
LOCATION L0000161     VOLUME   487373.025 3617058.618 3.81
LOCATION L0000162     VOLUME   487382.066 3617056.438 3.85
LOCATION L0000163     VOLUME   487391.107 3617054.257 3.78
LOCATION L0000164     VOLUME   487400.147 3617052.077 3.67
LOCATION L0000165     VOLUME   487409.188 3617049.897 3.54
LOCATION L0000166     VOLUME   487418.229 3617047.716 3.52
LOCATION L0000167     VOLUME   487427.270 3617045.536 3.52
LOCATION L0000168     VOLUME   487436.310 3617043.355 3.51
LOCATION L0000169     VOLUME   487445.351 3617041.175 3.54
LOCATION L0000170     VOLUME   487454.392 3617038.994 3.58
LOCATION L0000171     VOLUME   487463.433 3617036.814 3.63
LOCATION L0000172     VOLUME   487469.610 3617038.164 3.65
LOCATION L0000173     VOLUME   487469.342 3617047.460 3.66
LOCATION L0000174     VOLUME   487469.075 3617056.756 3.67
LOCATION L0000175     VOLUME   487468.807 3617066.052 3.68
LOCATION L0000176     VOLUME   487468.539 3617075.349 4.02
LOCATION L0000177     VOLUME   487468.272 3617084.645 4.42
LOCATION L0000178     VOLUME   487468.004 3617093.941 4.82
LOCATION L0000179     VOLUME   487467.736 3617103.237 5.12
LOCATION L0000180     VOLUME   487467.469 3617112.533 5.32
LOCATION L0000181     VOLUME   487467.201 3617121.829 5.52
LOCATION L0000182     VOLUME   487466.933 3617131.126 5.78
LOCATION L0000183     VOLUME   487466.665 3617140.422 6.25
LOCATION L0000184     VOLUME   487466.398 3617149.718 6.71
LOCATION L0000185     VOLUME   487466.130 3617159.014 7.16
LOCATION L0000186     VOLUME   487465.862 3617168.310 7.60
LOCATION L0000187     VOLUME   487465.595 3617177.606 8.04
LOCATION L0000188     VOLUME   487465.327 3617186.902 8.48
LOCATION L0000189     VOLUME   487465.059 3617196.199 8.90
LOCATION L0000190     VOLUME   487464.792 3617205.495 9.30
LOCATION L0000191     VOLUME   487464.524 3617214.791 9.71
LOCATION L0000192     VOLUME   487464.256 3617224.087 10.10
LOCATION L0000193     VOLUME   487463.989 3617233.383 10.39
LOCATION L0000194     VOLUME   487463.721 3617242.679 10.69
LOCATION L0000195     VOLUME   487463.453 3617251.975 10.98
LOCATION L0000196     VOLUME   487463.185 3617261.272 11.30
LOCATION L0000197     VOLUME   487462.918 3617270.568 11.62
LOCATION L0000198     VOLUME   487462.650 3617279.864 11.93
LOCATION L0000199     VOLUME   487462.382 3617289.160 12.30
LOCATION L0000200     VOLUME   487462.115 3617298.456 12.69
LOCATION L0000201     VOLUME   487461.847 3617307.752 13.10
LOCATION L0000202     VOLUME   487461.579 3617317.048 13.48
LOCATION L0000203     VOLUME   487461.312 3617326.345 13.81
LOCATION L0000204     VOLUME   487461.044 3617335.641 14.12
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LOCATION L0000205 VOLUME 487460.776 3617344.937 14.43
LOCATION L0000206 VOLUME 487460.509 3617354.233 14.64
LOCATION L0000207 VOLUME 487460.241 3617363.529 14.85
LOCATION L0000208 VOLUME 487459.973 3617372.825 15.07
LOCATION L0000209 VOLUME 487459.706 3617382.121 15.34
LOCATION L0000210 VOLUME 487459.438 3617391.418 15.63
LOCATION L0000211 VOLUME 487459.170 3617400.714 15.92
LOCATION L0000212 VOLUME 487458.902 3617410.010 16.22
LOCATION L0000213 VOLUME 487458.635 3617419.306 16.51
LOCATION L0000214 VOLUME 487458.367 3617428.602 16.80
LOCATION L0000215 VOLUME 487458.099 3617437.898 16.95
LOCATION L0000216 VOLUME 487457.832 3617447.195 15.39
LOCATION L0000217 VOLUME 487457.564 3617456.491 13.85
LOCATION L0000218 VOLUME 487457.296 3617465.787 12.32
LOCATION L0000219 VOLUME 487457.029 3617475.083 11.41
LOCATION L0000220 VOLUME 487456.761 3617484.379 10.67
LOCATION L0000221 VOLUME 487456.493 3617493.675 9.92
LOCATION L0000222 VOLUME 487456.226 3617502.971 10.02
LOCATION L0000223 VOLUME 487455.958 3617512.268 11.12
LOCATION L0000224 VOLUME 487455.690 3617521.564 12.18
LOCATION L0000225 VOLUME 487455.422 3617530.860 13.32
LOCATION L0000226 VOLUME 487457.391 3617539.267 15.39
LOCATION L0000227 VOLUME 487463.967 3617545.843 17.28
LOCATION L0000228 VOLUME 487470.543 3617552.419 18.28
LOCATION L0000229 VOLUME 487477.120 3617558.995 19.27
LOCATION L0000230 VOLUME 487483.696 3617565.571 19.57
LOCATION L0000231 VOLUME 487490.272 3617572.148 19.76
LOCATION L0000232 VOLUME 487498.383 3617571.432 19.69
LOCATION L0000233 VOLUME 487507.053 3617568.066 19.49
LOCATION L0000234 VOLUME 487515.723 3617564.701 19.27
LOCATION L0000235 VOLUME 487524.393 3617561.336 19.31
LOCATION L0000236 VOLUME 487533.062 3617557.970 19.24
LOCATION L0000237 VOLUME 487540.636 3617553.983 19.11
LOCATION L0000238 VOLUME 487539.083 3617544.813 18.23
LOCATION L0000239 VOLUME 487537.530 3617535.644 17.31
LOCATION L0000240 VOLUME 487535.977 3617526.474 16.37
LOCATION L0000241 VOLUME 487534.424 3617517.305 15.52
LOCATION L0000242 VOLUME 487532.876 3617508.135 14.72
LOCATION L0000243 VOLUME 487524.794 3617505.581 14.33
LOCATION L0000244 VOLUME 487515.620 3617504.056 14.06
LOCATION L0000245 VOLUME 487506.446 3617502.530 13.40
LOCATION L0000246 VOLUME 487497.272 3617501.004 12.68
LOCATION L0000247 VOLUME 487488.098 3617499.478 11.91
LOCATION L0000248 VOLUME 487479.808 3617501.791 11.31
LOCATION L0000249 VOLUME 487472.226 3617507.177 11.34
LOCATION L0000250 VOLUME 487464.644 3617512.562 11.69
LOCATION L0000251 VOLUME 487457.062 3617517.947 11.91
LOCATION L0000252 VOLUME 487449.480 3617523.333 11.43
LOCATION L0000253 VOLUME 487441.898 3617528.718 10.29
LOCATION L0000254 VOLUME 487434.316 3617534.103 10.70

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   LOCATION L0000255     VOLUME   487426.734 3617539.489 11.82
   LOCATION L0000256     VOLUME   487419.151 3617544.874 12.12
   LOCATION L0000257     VOLUME   487411.569 3617550.259 11.62
   LOCATION L0000258     VOLUME   487403.987 3617555.644 11.57
   LOCATION L0000259     VOLUME   487396.405 3617561.030 11.51
   LOCATION L0000260     VOLUME   487388.823 3617566.415 12.48
   LOCATION L0000261     VOLUME   487381.241 3617571.800 13.32
   LOCATION L0000262     VOLUME   487373.659 3617577.186 13.45
** END OF LINE VOLUME SOURCE ID = SLINE1
** ----------------------------------------------------------------
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE2
** DESCRSRC HAULTRUCKS_FWY
** PREFIX
** LENGTH OF SIDE = 17.10
** CONFIGURATION = ADJACENT
** EMISSION RATE = 1.0
** VERTICAL DIMENSION = 6.80
** SZINIT = 3.16
** NODES = 3
** 487360.355, 3617579.751, 12.20, 3.40, 7.95
** 486774.778, 3618064.340, 20.65, 3.40, 7.95
** 486267.474, 3618486.217, 19.30, 3.40, 7.95
** ----------------------------------------------------------------
   LOCATION L0027898     VOLUME   487353.768 3617585.202 11.45
   LOCATION L0027899     VOLUME   487340.594 3617596.104 12.23
   LOCATION L0027900     VOLUME   487327.420 3617607.006 12.79
   LOCATION L0027901     VOLUME   487314.246 3617617.909 12.65
   LOCATION L0027902     VOLUME   487301.072 3617628.811 12.57
   LOCATION L0027903     VOLUME   487287.898 3617639.713 12.74
   LOCATION L0027904     VOLUME   487274.724 3617650.615 12.72
   LOCATION L0027905     VOLUME   487261.550 3617661.517 13.43
   LOCATION L0027906     VOLUME   487248.376 3617672.419 13.05
   LOCATION L0027907     VOLUME   487235.202 3617683.321 13.33
   LOCATION L0027908     VOLUME   487222.028 3617694.223 14.31
   LOCATION L0027909     VOLUME   487208.854 3617705.125 14.23
   LOCATION L0027910     VOLUME   487195.680 3617716.027 14.24
   LOCATION L0027911     VOLUME   487182.506 3617726.929 14.92
   LOCATION L0027912     VOLUME   487169.332 3617737.831 14.38
   LOCATION L0027913     VOLUME   487156.158 3617748.733 14.97
   LOCATION L0027914     VOLUME   487142.984 3617759.635 15.47
   LOCATION L0027915     VOLUME   487129.810 3617770.537 15.37
   LOCATION L0027916     VOLUME   487116.636 3617781.439 15.98
   LOCATION L0027917     VOLUME   487103.462 3617792.341 16.04
   LOCATION L0027918     VOLUME   487090.287 3617803.243 15.62
   LOCATION L0027919     VOLUME   487077.113 3617814.145 16.15
   LOCATION L0027920     VOLUME   487063.939 3617825.047 15.95
   LOCATION L0027921     VOLUME   487050.765 3617835.949 16.26
   LOCATION L0027922     VOLUME   487037.591 3617846.851 17.13
   LOCATION L0027923     VOLUME   487024.417 3617857.754 16.99
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LOCATION L0027924 VOLUME 487011.243 3617868.656 16.94
LOCATION L0027925 VOLUME 486998.069 3617879.558 17.65
LOCATION L0027926 VOLUME 486984.895 3617890.460 17.60
LOCATION L0027927 VOLUME 486971.721 3617901.362 17.87
LOCATION L0027928 VOLUME 486958.547 3617912.264 18.05
LOCATION L0027929 VOLUME 486945.373 3617923.166 18.25
LOCATION L0027930 VOLUME 486932.199 3617934.068 18.52
LOCATION L0027931 VOLUME 486919.025 3617944.970 18.71
LOCATION L0027932 VOLUME 486905.851 3617955.872 18.90
LOCATION L0027933 VOLUME 486892.677 3617966.774 19.25
LOCATION L0027934 VOLUME 486879.503 3617977.676 19.38
LOCATION L0027935 VOLUME 486866.329 3617988.578 19.41
LOCATION L0027936 VOLUME 486853.155 3617999.480 20.05
LOCATION L0027937 VOLUME 486839.981 3618010.382 19.76
LOCATION L0027938 VOLUME 486826.807 3618021.284 19.91
LOCATION L0027939 VOLUME 486813.633 3618032.186 20.18
LOCATION L0027940 VOLUME 486800.459 3618043.088 20.24
LOCATION L0027941 VOLUME 486787.284 3618053.990 20.55
LOCATION L0027942 VOLUME 486774.112 3618064.894 20.91
LOCATION L0027943 VOLUME 486760.964 3618075.828 20.87
LOCATION L0027944 VOLUME 486747.816 3618086.761 21.21
LOCATION L0027945 VOLUME 486734.669 3618097.695 21.37
LOCATION L0027946 VOLUME 486721.521 3618108.629 21.52
LOCATION L0027947 VOLUME 486708.373 3618119.563 21.77
LOCATION L0027948 VOLUME 486695.225 3618130.496 21.87
LOCATION L0027949 VOLUME 486682.078 3618141.430 22.13
LOCATION L0027950 VOLUME 486668.930 3618152.364 22.34
LOCATION L0027951 VOLUME 486655.782 3618163.298 22.55
LOCATION L0027952 VOLUME 486642.634 3618174.231 22.79
LOCATION L0027953 VOLUME 486629.487 3618185.165 22.84
LOCATION L0027954 VOLUME 486616.339 3618196.099 22.91
LOCATION L0027955 VOLUME 486603.191 3618207.033 23.35
LOCATION L0027956 VOLUME 486590.043 3618217.966 22.76
LOCATION L0027957 VOLUME 486576.896 3618228.900 23.49
LOCATION L0027958 VOLUME 486563.748 3618239.834 23.41
LOCATION L0027959 VOLUME 486550.600 3618250.768 20.88
LOCATION L0027960 VOLUME 486537.452 3618261.701 17.66
LOCATION L0027961 VOLUME 486524.305 3618272.635 17.44
LOCATION L0027962 VOLUME 486511.157 3618283.569 20.86
LOCATION L0027963 VOLUME 486498.009 3618294.503 23.20
LOCATION L0027964 VOLUME 486484.861 3618305.436 22.76
LOCATION L0027965 VOLUME 486471.714 3618316.370 22.64
LOCATION L0027966 VOLUME 486458.566 3618327.304 22.44
LOCATION L0027967 VOLUME 486445.418 3618338.238 21.81
LOCATION L0027968 VOLUME 486432.270 3618349.171 21.38
LOCATION L0027969 VOLUME 486419.123 3618360.105 21.74
LOCATION L0027970 VOLUME 486405.975 3618371.039 20.95
LOCATION L0027971 VOLUME 486392.827 3618381.973 20.93
LOCATION L0027972 VOLUME 486379.679 3618392.906 20.58
LOCATION L0027973 VOLUME 486366.532 3618403.840 20.21

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   LOCATION L0027974     VOLUME   486353.384 3618414.774 19.88
   LOCATION L0027975     VOLUME   486340.236 3618425.708 19.51
   LOCATION L0027976     VOLUME   486327.088 3618436.641 18.92
   LOCATION L0027977     VOLUME   486313.941 3618447.575 19.06
   LOCATION L0027978     VOLUME   486300.793 3618458.509 18.87
   LOCATION L0027979     VOLUME   486287.645 3618469.443 18.88
   LOCATION L0027980     VOLUME   486274.497 3618480.376 19.08
** END OF LINE VOLUME SOURCE ID = SLINE2
** SOURCE PARAMETERS **
   SRCPARAM VOL1         0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL2         0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL3         0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL4         0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL5         0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL6         0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL7         0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL8         0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL9         0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL10        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL11        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL12        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL13        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL14        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL15        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL16        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL17        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL18        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL19        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL20        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL21        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL22        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL23        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL24        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL25        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL26        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL27        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL28        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL29        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL30        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL31        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL32        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL33        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL34        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL35        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL36        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL37        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL38        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL39        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL40        0.0040160643     5.500     4.651     2.560
   SRCPARAM VOL41        0.0040160643     5.500     4.651     2.560
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SRCPARAM VOL42        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL43        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL44        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL45        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL46        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL47        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL48        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL49        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL50        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL51        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL52        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL53        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL54        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL55        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL56        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL57        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL58        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL59        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL60        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL61        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL62        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL63        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL64        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL65        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL66        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL67        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL68        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL69        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL70        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL71        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL72        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL73        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL74        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL75        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL76        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL77        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL78        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL79        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL80        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL81        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL82        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL83        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL84        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL85        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL86        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL87        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL88        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL89        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL90        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL91        0.0040160643     5.500     4.651     2.560
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SRCPARAM VOL92        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL93        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL94        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL95        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL96        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL97        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL98        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL99        0.0040160643     5.500     4.651     2.560
SRCPARAM VOL100       0.0040160643     5.500     4.651     2.560
SRCPARAM VOL101       0.0040160643     5.500     4.651     2.560
SRCPARAM VOL102       0.0040160643     5.500     4.651     2.560
SRCPARAM VOL103       0.0040160643     5.500     4.651     2.560
SRCPARAM VOL104       0.0040160643     5.500     4.651     2.560
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SRCPARAM VOL106       0.0040160643     5.500     4.651     2.560
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** LINE VOLUME SOURCE ID = SLINE1
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   SRCPARAM L0000008     0.0038167939      3.40      4.33      3.16
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   SRCPARAM L0000016     0.0038167939      3.40      4.33      3.16
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SRCPARAM L0027942     0.0120481928      3.40      7.95      3.16
SRCPARAM L0027943     0.0120481928      3.40      7.95      3.16
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SRCPARAM L0027948     0.0120481928      3.40      7.95      3.16
SRCPARAM L0027949     0.0120481928      3.40      7.95      3.16
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SRCPARAM L0027955     0.0120481928      3.40      7.95      3.16
SRCPARAM L0027956     0.0120481928      3.40      7.95      3.16
SRCPARAM L0027957     0.0120481928      3.40      7.95      3.16
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   SRCPARAM L0027961     0.0120481928      3.40      7.95      3.16
   SRCPARAM L0027962     0.0120481928      3.40      7.95      3.16
   SRCPARAM L0027963     0.0120481928      3.40      7.95      3.16
   SRCPARAM L0027964     0.0120481928      3.40      7.95      3.16
   SRCPARAM L0027965     0.0120481928      3.40      7.95      3.16
   SRCPARAM L0027966     0.0120481928      3.40      7.95      3.16
   SRCPARAM L0027967     0.0120481928      3.40      7.95      3.16
   SRCPARAM L0027968     0.0120481928      3.40      7.95      3.16
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   SRCPARAM L0027972     0.0120481928      3.40      7.95      3.16
   SRCPARAM L0027973     0.0120481928      3.40      7.95      3.16
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   SRCPARAM L0027977     0.0120481928      3.40      7.95      3.16
   SRCPARAM L0027978     0.0120481928      3.40      7.95      3.16
   SRCPARAM L0027979     0.0120481928      3.40      7.95      3.16
   SRCPARAM L0027980     0.0120481928      3.40      7.95      3.16
** ------------------------------------------------------------------
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   SRCGROUP TRUKFWY  L0027904 L0027905 L0027906 L0027907 L0027908 L0027909
   SRCGROUP TRUKFWY  L0027910 L0027911 L0027912 L0027913 L0027914 L0027915
   SRCGROUP TRUKFWY  L0027916 L0027917 L0027918 L0027919 L0027920 L0027921
   SRCGROUP TRUKFWY  L0027922 L0027923 L0027924 L0027925 L0027926 L0027927
   SRCGROUP TRUKFWY  L0027928 L0027929 L0027930 L0027931 L0027932 L0027933
   SRCGROUP TRUKFWY  L0027934 L0027935 L0027936 L0027937 L0027938 L0027939
   SRCGROUP TRUKFWY  L0027940 L0027941 L0027942 L0027943 L0027944 L0027945
   SRCGROUP TRUKFWY  L0027946 L0027947 L0027948 L0027949 L0027950 L0027951
   SRCGROUP TRUKFWY  L0027952 L0027953 L0027954 L0027955 L0027956 L0027957
   SRCGROUP TRUKFWY  L0027958 L0027959 L0027960 L0027961 L0027962 L0027963
   SRCGROUP TRUKFWY  L0027964 L0027965 L0027966 L0027967 L0027968 L0027969
   SRCGROUP TRUKFWY  L0027970 L0027971 L0027972 L0027973 L0027974 L0027975
   SRCGROUP TRUKFWY  L0027976 L0027977 L0027978 L0027979 L0027980
   SRCGROUP TRUKSURF L0000001 L0000002 L0000003 L0000004 L0000005 L0000006
   SRCGROUP TRUKSURF L0000007 L0000008 L0000009 L0000010 L0000011 L0000012
   SRCGROUP TRUKSURF L0000013 L0000014 L0000015 L0000016 L0000017 L0000018
   SRCGROUP TRUKSURF L0000019 L0000020 L0000021 L0000022 L0000023 L0000024
   SRCGROUP TRUKSURF L0000025 L0000026 L0000027 L0000028 L0000029 L0000030
   SRCGROUP TRUKSURF L0000031 L0000032 L0000033 L0000034 L0000035 L0000036
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   SRCGROUP TRUKSURF L0000061 L0000062 L0000063 L0000064 L0000065 L0000066
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SRCGROUP TRUKSURF L0000103 L0000104 L0000105 L0000106 L0000107 L0000108
SRCGROUP TRUKSURF L0000109 L0000110 L0000111 L0000112 L0000113 L0000114
SRCGROUP TRUKSURF L0000115 L0000116 L0000117 L0000118 L0000119 L0000120
SRCGROUP TRUKSURF L0000121 L0000122 L0000123 L0000124 L0000125 L0000126
SRCGROUP TRUKSURF L0000127 L0000128 L0000129 L0000130 L0000131 L0000132
SRCGROUP TRUKSURF L0000133 L0000134 L0000135 L0000136 L0000137 L0000138
SRCGROUP TRUKSURF L0000139 L0000140 L0000141 L0000142 L0000143 L0000144
SRCGROUP TRUKSURF L0000145 L0000146 L0000147 L0000148 L0000149 L0000150
SRCGROUP TRUKSURF L0000151 L0000152 L0000153 L0000154 L0000155 L0000156
SRCGROUP TRUKSURF L0000157 L0000158 L0000159 L0000160 L0000161 L0000162
SRCGROUP TRUKSURF L0000163 L0000164 L0000165 L0000166 L0000167 L0000168
SRCGROUP TRUKSURF L0000169 L0000170 L0000171 L0000172 L0000173 L0000174
SRCGROUP TRUKSURF L0000175 L0000176 L0000177 L0000178 L0000179 L0000180
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SRCGROUP TRUKSURF L0000235 L0000236 L0000237 L0000238 L0000239 L0000240
SRCGROUP TRUKSURF L0000241 L0000242 L0000243 L0000244 L0000245 L0000246
SRCGROUP TRUKSURF L0000247 L0000248 L0000249 L0000250 L0000251 L0000252
SRCGROUP TRUKSURF L0000253 L0000254 L0000255 L0000256 L0000257 L0000258
SRCGROUP TRUKSURF L0000259 L0000260 L0000261 L0000262
SRCGROUP EQUIPMEN VOL1 VOL2 VOL3 VOL4 VOL5 VOL6 VOL7 VOL8 VOL9 VOL10
SRCGROUP EQUIPMEN VOL11 VOL12 VOL13 VOL14 VOL15 VOL16 VOL17 VOL18 VOL19
SRCGROUP EQUIPMEN VOL20 VOL21 VOL22 VOL23 VOL24 VOL25 VOL26 VOL27 VOL28
SRCGROUP EQUIPMEN VOL29 VOL30 VOL31 VOL32 VOL33 VOL34 VOL35 VOL36 VOL37
SRCGROUP EQUIPMEN VOL38 VOL39 VOL40 VOL41 VOL42 VOL43 VOL44 VOL45 VOL46
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SRCGROUP EQUIPMEN VOL56 VOL57 VOL58 VOL59 VOL60 VOL61 VOL62 VOL63 VOL64
SRCGROUP EQUIPMEN VOL65 VOL66 VOL67 VOL68 VOL69 VOL70 VOL71 VOL72 VOL73
SRCGROUP EQUIPMEN VOL74 VOL75 VOL76 VOL77 VOL78 VOL79 VOL80 VOL81 VOL82
SRCGROUP EQUIPMEN VOL83 VOL84 VOL85 VOL86 VOL87 VOL88 VOL89 VOL90 VOL91
SRCGROUP EQUIPMEN VOL92 VOL93 VOL94 VOL95 VOL96 VOL97 VOL98 VOL99 VOL100
SRCGROUP EQUIPMEN VOL101 VOL102 VOL103 VOL104 VOL105 VOL106 VOL107 VOL108
SRCGROUP EQUIPMEN VOL109 VOL110 VOL111 VOL112 VOL113 VOL114 VOL115 VOL116
SRCGROUP EQUIPMEN VOL117 VOL118 VOL119 VOL120 VOL121 VOL122 VOL123 VOL124
SRCGROUP EQUIPMEN VOL125 VOL126 VOL127 VOL128 VOL129 VOL130 VOL131 VOL132
SRCGROUP EQUIPMEN VOL133 VOL134 VOL135 VOL136 VOL137 VOL138 VOL139 VOL140
SRCGROUP EQUIPMEN VOL141 VOL142 VOL143 VOL144 VOL145 VOL146 VOL147 VOL148
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   SRCGROUP EQUIPMEN VOL149 VOL150 VOL151 VOL152 VOL153 VOL154 VOL155 VOL156
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   SRCGROUP EQUIPMEN VOL165 VOL166 VOL167 VOL168 VOL169 VOL170 VOL171 VOL172
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   SRCGROUP EQUIPMEN VOL197 VOL198 VOL199 VOL200 VOL201 VOL202 VOL203 VOL204
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   SRCGROUP EQUIPMEN VOL229 VOL230 VOL231 VOL232 VOL233 VOL234 VOL235 VOL236
   SRCGROUP EQUIPMEN VOL237 VOL238 VOL239 VOL240 VOL241 VOL242 VOL243 VOL244
   SRCGROUP EQUIPMEN VOL245 VOL246 VOL247 VOL248 VOL249
   SRCGROUP MARINE   VOL250 VOL251 VOL252 VOL253 VOL254 VOL255 VOL256 VOL257
   SRCGROUP MARINE   VOL258 VOL259 VOL260 VOL261 VOL262 VOL263 VOL264 VOL265
   SRCGROUP MARINE   VOL266 VOL267 VOL268 VOL269 VOL270 VOL271 VOL272 VOL273
   SRCGROUP MARINE   VOL274 VOL275 VOL276 VOL277 VOL278 VOL279 VOL280 VOL281
   SRCGROUP MARINE   VOL282 VOL283 VOL284 VOL285 VOL286 VOL287 VOL288 VOL289
   SRCGROUP MARINE   VOL290 VOL291 VOL292 VOL293 VOL294 VOL295 VOL296 VOL297
   SRCGROUP MARINE   VOL298 VOL299 VOL300 VOL301 VOL302 VOL303 VOL304 VOL305
   SRCGROUP MARINE   VOL306 VOL307 VOL308 VOL309 VOL310 VOL311 VOL312 VOL313
   SRCGROUP MARINE   VOL314 VOL315 VOL316 VOL317 VOL318 VOL319 VOL320 VOL321
   SRCGROUP MARINE   VOL322 VOL323 VOL324 VOL325 VOL326 VOL327 VOL328 VOL329
   SRCGROUP MARINE   VOL330 VOL331 VOL332 VOL333 VOL334 VOL335 VOL336 VOL337
   SRCGROUP MARINE   VOL338 VOL339 VOL340 VOL341 VOL342 VOL343 VOL344 VOL345
   SRCGROUP MARINE   VOL346 VOL347 VOL348 VOL349 VOL350 VOL351 VOL352 VOL353
   SRCGROUP MARINE   VOL354 VOL355 VOL356 VOL357 VOL358 VOL359 VOL360 VOL361
   SRCGROUP MARINE   VOL362 VOL363 VOL364 VOL365 VOL366
SO FINISHED
**
**************************************
** AERMOD RECEPTOR PATHWAY
**************************************
**
**
RE STARTING
   INCLUDED POSD_NASSCO_JUNE2022_URBAN.ROU
RE FINISHED
**
**************************************
** AERMOD METEOROLOGY PATHWAY
**************************************
**
**
ME STARTING
   SURFFILE PES_2010_2012_SIGMA_V19191.SFC
   PROFFILE PES_2010_2012_SIGMA_V19191.PFL
   SURFDATA 23188 2010 SAN_DIEGO/PERKINS_ELEMENTARY
   UAIRDATA 3190 2010 LINDBERGH_FIELD
   PROFBASE 8.0 METERS
```

```
ME FINISHED
**
**************************************
** AERMOD OUTPUT PATHWAY
**************************************
**
**
OU STARTING
** AUTO-GENERATED PLOTFILES
   PLOTFILE   PERIOD TRUKFWY POSD_NASSCO_JUNE2022_URBAN.AD\PE00G001.PLT 31
   PLOTFILE   PERIOD TRUKSURF POSD_NASSCO_JUNE2022_URBAN.AD\PE00G002.PLT 32
   PLOTFILE   PERIOD EQUIPMEN POSD_NASSCO_JUNE2022_URBAN.AD\PE00G003.PLT 33
   PLOTFILE   PERIOD MARINE POSD_NASSCO_JUNE2022_URBAN.AD\PE00G004.PLT 34
   SUMMFILE POSD_NASSCO_JUNE2022_URBAN.SUM
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186    1999       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 MX W403    1999       PFLCNV: Turbulence data is being used w/o ADJ_U* option
 SigA Data

 **********************************
 *** SETUP Finishes Successfully ***
 **********************************

↑ *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                            ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***        12:24:23

                                    PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                              ***     MODEL SETUP OPTIONS SUMMARY
  ***
```

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 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for   711 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   3000000.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_10

 **Model Calculates PERIOD Averages Only

 **This Run Includes:    711 Source(s);       4 Source Group(s); and    1270
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:    711 VOLUME source(s)
                 and:      0 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total of     0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  19191
```

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 **Output Options Selected:
          Model Outputs Tables of PERIOD Averages by Receptor
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     8.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      4.1 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 **Detailed Error/Message File:   POSD_NASSCO_JUNE2022_URBAN.ERR

 **File for Summary of Results:   POSD_NASSCO_JUNE2022_URBAN.SUM

 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                            ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                           ***        12:24:23

                                     PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
```

VOL1		0	0.40161E-02	486610.0	3616972.6	1.9	5.50	4.65
2.56	YES							
VOL2		0	0.40161E-02	486625.6	3616963.1	2.1	5.50	4.65
2.56	YES							
VOL3		0	0.40161E-02	486653.4	3616947.8	3.4	5.50	4.65
2.56	YES							
VOL4		0	0.40161E-02	486692.6	3616939.2	3.2	5.50	4.65
2.56	YES							
VOL5		0	0.40161E-02	487110.5	3616738.1	3.4	5.50	4.65
2.56	YES							
VOL6		0	0.40161E-02	487133.5	3616743.4	3.4	5.50	4.65
2.56	YES							
VOL7		0	0.40161E-02	487155.9	3616750.0	3.4	5.50	4.65
2.56	YES							
VOL8		0	0.40161E-02	487180.7	3616755.9	3.3	5.50	4.65
2.56	YES							
VOL9		0	0.40161E-02	487203.8	3616761.1	3.3	5.50	4.65
2.56	YES							
VOL10		0	0.40161E-02	487226.1	3616767.7	3.4	5.50	4.65
2.56	YES							
VOL11		0	0.40161E-02	487248.2	3616774.3	3.4	5.50	4.65
2.56	YES							
VOL12		0	0.40161E-02	487271.2	3616779.5	3.4	5.50	4.65
2.56	YES							
VOL13		0	0.40161E-02	487293.6	3616786.1	3.3	5.50	4.65
2.56	YES							
VOL14		0	0.40161E-02	487314.7	3616793.7	3.3	5.50	4.65
2.56	YES							
VOL15		0	0.40161E-02	487337.7	3616798.9	3.4	5.50	4.65
2.56	YES							
VOL16		0	0.40161E-02	487360.1	3616805.5	3.4	5.50	4.65
2.56	YES							
VOL17		0	0.40161E-02	487379.1	3616809.0	3.4	5.50	4.65
2.56	YES							
VOL18		0	0.40161E-02	487402.2	3616814.3	3.3	5.50	4.65
2.56	YES							
VOL19		0	0.40161E-02	487205.1	3616737.5	3.4	5.50	4.65
2.56	YES							
VOL20		0	0.40161E-02	487227.5	3616744.1	3.4	5.50	4.65
2.56	YES							
VOL21		0	0.40161E-02	487249.6	3616750.7	3.4	5.50	4.65
2.56	YES							
VOL22		0	0.40161E-02	487272.6	3616755.9	3.4	5.50	4.65
2.56	YES							
VOL23		0	0.40161E-02	487295.0	3616762.5	3.4	5.50	4.65
2.56	YES							
VOL24		0	0.40161E-02	487316.1	3616770.1	3.4	5.50	4.65
2.56	YES							
VOL25		0	0.40161E-02	487339.1	3616775.3	3.4	5.50	4.65
2.56	YES							

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 VOL26            0   0.40161E-02  487361.5 3616782.0     3.4     5.50     4.65
2.56     YES
 VOL27            0   0.40161E-02  487380.5 3616785.4     3.4     5.50     4.65
2.56     YES
 VOL28            0   0.40161E-02  487403.6 3616790.7     3.3     5.50     4.65
2.56     YES
 VOL29            0   0.40161E-02  487111.9 3616714.5     2.4     5.50     4.65
2.56     YES
 VOL30            0   0.40161E-02  487134.9 3616719.8     3.4     5.50     4.65
2.56     YES
 VOL31            0   0.40161E-02  487157.3 3616726.4     3.4     5.50     4.65
2.56     YES
 VOL32            0   0.40161E-02  487182.1 3616732.3     3.4     5.50     4.65
2.56     YES
 VOL33            0   0.40161E-02  487207.2 3616714.0     3.4     5.50     4.65
2.56     YES
 VOL34            0   0.40161E-02  487229.6 3616720.6     3.3     5.50     4.65
2.56     YES
 VOL35            0   0.40161E-02  487251.6 3616727.2     3.3     5.50     4.65
2.56     YES
 VOL36            0   0.40161E-02  487274.7 3616732.4     3.4     5.50     4.65
2.56     YES
 VOL37            0   0.40161E-02  487297.1 3616739.0     3.4     5.50     4.65
2.56     YES
 VOL38            0   0.40161E-02  487318.1 3616746.6     3.4     5.50     4.65
2.56     YES
 VOL39            0   0.40161E-02  487341.2 3616751.8     3.4     5.50     4.65
2.56     YES
 VOL40            0   0.40161E-02  487363.5 3616758.4     3.4     5.50     4.65
2.56     YES
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***       12:24:23

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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VOL41		0	0.40161E-02	487382.6	3616761.9	3.4	5.50	4.65	
2.56	YES								
VOL42		0	0.40161E-02	487405.6	3616767.2	3.3	5.50	4.65	
2.56	YES								
VOL43		0	0.40161E-02	487113.9	3616691.0	2.0	5.50	4.65	
2.56	YES								
VOL44		0	0.40161E-02	487137.0	3616696.2	3.3	5.50	4.65	
2.56	YES								
VOL45		0	0.40161E-02	487159.3	3616702.9	3.3	5.50	4.65	
2.56	YES								
VOL46		0	0.40161E-02	487184.1	3616708.7	3.4	5.50	4.65	
2.56	YES								
VOL47		0	0.40161E-02	487233.8	3616675.1	3.3	5.50	4.65	
2.56	YES								
VOL48		0	0.40161E-02	487256.2	3616681.7	3.4	5.50	4.65	
2.56	YES								
VOL49		0	0.40161E-02	487278.2	3616688.3	3.1	5.50	4.65	
2.56	YES								
VOL50		0	0.40161E-02	487301.3	3616693.5	2.8	5.50	4.65	
2.56	YES								
VOL51		0	0.40161E-02	487323.7	3616700.1	3.2	5.50	4.65	
2.56	YES								
VOL52		0	0.40161E-02	487344.7	3616707.7	3.4	5.50	4.65	
2.56	YES								
VOL53		0	0.40161E-02	487367.8	3616712.9	3.4	5.50	4.65	
2.56	YES								
VOL54		0	0.40161E-02	487390.1	3616719.6	3.3	5.50	4.65	
2.56	YES								
VOL55		0	0.40161E-02	487409.1	3616723.1	3.3	5.50	4.65	
2.56	YES								
VOL56		0	0.40161E-02	487432.2	3616728.3	3.3	5.50	4.65	
2.56	YES								
VOL57		0	0.40161E-02	487140.5	3616652.2	3.4	5.50	4.65	
2.56	YES								
VOL58		0	0.40161E-02	487163.6	3616657.4	3.4	5.50	4.65	
2.56	YES								
VOL59		0	0.40161E-02	487185.9	3616664.0	3.4	5.50	4.65	
2.56	YES								
VOL60		0	0.40161E-02	487210.7	3616669.9	3.3	5.50	4.65	
2.56	YES								
VOL61		0	0.40161E-02	487210.3	3616691.5	3.3	5.50	4.65	
2.56	YES								
VOL62		0	0.40161E-02	487232.6	3616698.1	3.3	5.50	4.65	
2.56	YES								
VOL63		0	0.40161E-02	487254.7	3616704.7	3.3	5.50	4.65	
2.56	YES								
VOL64		0	0.40161E-02	487277.8	3616709.9	3.3	5.50	4.65	
2.56	YES								
VOL65		0	0.40161E-02	487300.1	3616716.5	3.3	5.50	4.65	
2.56	YES								

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 VOL66           0   0.40161E-02  487321.2 3616724.1     3.3     5.50     4.65
2.56     YES
 VOL67           0   0.40161E-02  487344.2 3616729.3     3.4     5.50     4.65
2.56     YES
 VOL68           0   0.40161E-02  487366.6 3616735.9     3.3     5.50     4.65
2.56     YES
 VOL69           0   0.40161E-02  487385.6 3616739.4     3.3     5.50     4.65
2.56     YES
 VOL70           0   0.40161E-02  487408.7 3616744.7     3.3     5.50     4.65
2.56     YES
 VOL71           0   0.40161E-02  487117.0 3616668.5     3.1     5.50     4.65
2.56     YES
 VOL72           0   0.40161E-02  487140.0 3616673.7     3.3     5.50     4.65
2.56     YES
 VOL73           0   0.40161E-02  487162.4 3616680.4     3.3     5.50     4.65
2.56     YES
 VOL74           0   0.40161E-02  487187.2 3616686.2     3.3     5.50     4.65
2.56     YES
 VOL75           0   0.40161E-02  487233.8 3616653.6     1.7     5.50     4.65
2.56     YES
 VOL76           0   0.40161E-02  487256.2 3616660.3     2.5     5.50     4.65
2.56     YES
 VOL77           0   0.40161E-02  487278.2 3616666.8     2.9     5.50     4.65
2.56     YES
 VOL78           0   0.40161E-02  487301.3 3616672.0     0.7     5.50     4.65
2.56     YES
 VOL79           0   0.40161E-02  487323.7 3616678.7     1.0     5.50     4.65
2.56     YES
 VOL80           0   0.40161E-02  487344.7 3616686.2     1.9     5.50     4.65
2.56     YES
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
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 *** AERMET - VERSION  19191 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
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VOL81		0	0.40161E-02	487367.8	3616691.5	2.6	5.50	4.65	
2.56	YES								
VOL82		0	0.40161E-02	487390.1	3616698.1	3.3	5.50	4.65	
2.56	YES								
VOL83		0	0.40161E-02	487409.1	3616701.6	3.3	5.50	4.65	
2.56	YES								
VOL84		0	0.40161E-02	487432.2	3616706.8	3.3	5.50	4.65	
2.56	YES								
VOL85		0	0.40161E-02	487140.5	3616630.7	2.7	5.50	4.65	
2.56	YES								
VOL86		0	0.40161E-02	487163.6	3616635.9	3.3	5.50	4.65	
2.56	YES								
VOL87		0	0.40161E-02	487185.9	3616642.5	3.4	5.50	4.65	
2.56	YES								
VOL88		0	0.40161E-02	487210.7	3616648.4	2.5	5.50	4.65	
2.56	YES								
VOL89		0	0.40161E-02	487231.7	3616631.1	-0.3	5.50	4.65	
2.56	YES								
VOL90		0	0.40161E-02	487254.1	3616637.8	-0.2	5.50	4.65	
2.56	YES								
VOL91		0	0.40161E-02	487276.2	3616644.3	0.5	5.50	4.65	
2.56	YES								
VOL92		0	0.40161E-02	487299.2	3616649.5	0.0	5.50	4.65	
2.56	YES								
VOL93		0	0.40161E-02	487321.6	3616656.2	-0.3	5.50	4.65	
2.56	YES								
VOL94		0	0.40161E-02	487342.7	3616663.7	-0.3	5.50	4.65	
2.56	YES								
VOL95		0	0.40161E-02	487365.7	3616669.0	-0.2	5.50	4.65	
2.56	YES								
VOL96		0	0.40161E-02	487388.1	3616675.6	0.6	5.50	4.65	
2.56	YES								
VOL97		0	0.40161E-02	487407.1	3616679.1	1.0	5.50	4.65	
2.56	YES								
VOL98		0	0.40161E-02	487430.1	3616684.3	1.7	5.50	4.65	
2.56	YES								
VOL99		0	0.40161E-02	487072.8	3616631.9	3.4	5.50	4.65	
2.56	YES								
VOL100		0	0.40161E-02	487095.2	3616638.5	3.3	5.50	4.65	
2.56	YES								
VOL101		0	0.40161E-02	487117.2	3616645.1	3.3	5.50	4.65	
2.56	YES								
VOL102		0	0.40161E-02	487115.2	3616622.6	2.5	5.50	4.65	
2.56	YES								
VOL103		0	0.40161E-02	487070.8	3616653.7	1.4	5.50	4.65	
2.56	YES								
VOL104		0	0.40161E-02	487093.2	3616660.3	2.4	5.50	4.65	
2.56	YES								
VOL105		0	0.40161E-02	487452.8	3616718.5	3.4	5.50	4.65	
2.56	YES								

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 VOL106           0   0.40161E-02  487472.8 3616718.7     3.4     5.50     4.65
2.56     YES
 VOL107           0   0.40161E-02  487452.8 3616697.1     3.2     5.50     4.65
2.56     YES
 VOL108           0   0.40161E-02  487472.8 3616697.2     3.2     5.50     4.65
2.56     YES
 VOL109           0   0.40161E-02  486713.2 3616931.9     2.4     5.50     4.65
2.56     YES
 VOL110           0   0.40161E-02  486735.3 3616938.5     3.1     5.50     4.65
2.56     YES
 VOL111           0   0.40161E-02  486758.4 3616943.7     3.9     5.50     4.65
2.56     YES
 VOL112           0   0.40161E-02  486780.7 3616950.3     2.9     5.50     4.65
2.56     YES
 VOL113           0   0.40161E-02  486669.7 3616942.6     3.4     5.50     4.65
2.56     YES
 VOL114           0   0.40161E-02  486800.3 3616966.5     2.9     5.50     4.65
2.56     YES
 VOL115           0   0.40161E-02  486823.3 3616971.8     3.0     5.50     4.65
2.56     YES
 VOL116           0   0.40161E-02  486845.7 3616978.4     3.6     5.50     4.65
2.56     YES
 VOL117           0   0.40161E-02  486860.6 3616991.1     3.8     5.50     4.65
2.56     YES
 VOL118           0   0.40161E-02  486882.6 3616994.3     3.6     5.50     4.65
2.56     YES
 VOL119           0   0.40161E-02  486899.9 3616999.9     3.4     5.50     4.65
2.56     YES
 VOL120           0   0.40161E-02  486842.2 3616964.5     2.1     5.50     4.65
2.56     YES
↟ *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***       12:24:23

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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VOL121		0	0.40161E-02	486865.2	3616969.7	3.0	5.50	4.65	
2.56	YES								
VOL122		0	0.40161E-02	486886.6	3616974.3	3.3	5.50	4.65	
2.56	YES								
VOL123		0	0.40161E-02	486905.9	3616979.4	1.7	5.50	4.65	
2.56	YES								
VOL124		0	0.40161E-02	486919.2	3616998.8	3.1	5.50	4.65	
2.56	YES								
VOL125		0	0.40161E-02	486924.0	3616979.4	1.6	5.50	4.65	
2.56	YES								
VOL126		0	0.40161E-02	486940.5	3616990.7	3.6	5.50	4.65	
2.56	YES								
VOL127		0	0.40161E-02	486943.1	3616976.8	3.5	5.50	4.65	
2.56	YES								
VOL128		0	0.40161E-02	486962.2	3616971.6	3.1	5.50	4.65	
2.56	YES								
VOL129		0	0.40161E-02	486974.4	3616959.4	2.0	5.50	4.65	
2.56	YES								
VOL130		0	0.40161E-02	486988.3	3616955.1	2.8	5.50	4.65	
2.56	YES								
VOL131		0	0.40161E-02	486999.6	3616945.5	3.0	5.50	4.65	
2.56	YES								
VOL132		0	0.40161E-02	487015.2	3616935.1	2.9	5.50	4.65	
2.56	YES								
VOL133		0	0.40161E-02	487033.5	3616928.2	3.0	5.50	4.65	
2.56	YES								
VOL134		0	0.40161E-02	487025.7	3616914.2	2.8	5.50	4.65	
2.56	YES								
VOL135		0	0.40161E-02	487016.1	3616896.9	2.6	5.50	4.65	
2.56	YES								
VOL136		0	0.40161E-02	487005.7	3616887.3	1.9	5.50	4.65	
2.56	YES								
VOL137		0	0.40161E-02	486995.3	3616869.9	1.9	5.50	4.65	
2.56	YES								
VOL138		0	0.40161E-02	486979.5	3616856.9	1.1	5.50	4.65	
2.56	YES								
VOL139		0	0.40161E-02	486997.1	3616853.8	2.9	5.50	4.65	
2.56	YES								
VOL140		0	0.40161E-02	487007.1	3616840.0	1.1	5.50	4.65	
2.56	YES								
VOL141		0	0.40161E-02	487017.8	3616825.5	-2.1	5.50	4.65	
2.56	YES								
VOL142		0	0.40161E-02	487019.7	3616807.9	-1.8	5.50	4.65	
2.56	YES								
VOL143		0	0.40161E-02	487035.4	3616807.9	-1.6	5.50	4.65	
2.56	YES								
VOL144		0	0.40161E-02	487054.9	3616812.9	-2.0	5.50	4.65	
2.56	YES								
VOL145		0	0.40161E-02	487064.3	3616796.0	-2.1	5.50	4.65	
2.56	YES								

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 VOL146           0   0.40161E-02  487072.5 3616781.5    -1.3     5.50     4.65
2.56     YES
 VOL147           0   0.40161E-02  487079.4 3616767.7     1.1     5.50     4.65
2.56     YES
 VOL148           0   0.40161E-02  487083.8 3616753.9     2.0     5.50     4.65
2.56     YES
 VOL149           0   0.40161E-02  487091.3 3616740.7     2.6     5.50     4.65
2.56     YES
 VOL150           0   0.40161E-02  486821.9 3616950.5     0.3     5.50     4.65
2.56     YES
 VOL151           0   0.40161E-02  486820.4 3616932.8    -0.3     5.50     4.65
2.56     YES
 VOL152           0   0.40161E-02  486811.5 3616916.5    -0.3     5.50     4.65
2.56     YES
 VOL153           0   0.40161E-02  486806.4 3616899.5    -0.3     5.50     4.65
2.56     YES
 VOL154           0   0.40161E-02  486796.0 3616883.3    -0.3     5.50     4.65
2.56     YES
 VOL155           0   0.40161E-02  486789.4 3616868.5    -0.3     5.50     4.65
2.56     YES
 VOL156           0   0.40161E-02  486783.5 3616853.7    -0.3     5.50     4.65
2.56     YES
 VOL157           0   0.40161E-02  486776.1 3616841.1    -0.3     5.50     4.65
2.56     YES
 VOL158           0   0.40161E-02  486771.6 3616826.4    -0.3     5.50     4.65
2.56     YES
 VOL159           0   0.40161E-02  486761.3 3616810.1    -0.3     5.50     4.65
2.56     YES
 VOL160           0   0.40161E-02  486949.7 3616956.4     1.1     5.50     4.65
2.56     YES
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***       12:24:23

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 VOL161          0   0.40161E-02  486949.7 3616940.2    -0.3     5.50     4.65
2.56     YES
 VOL162          0   0.40161E-02  486945.3 3616923.2    -0.3     5.50     4.65
2.56     YES
 VOL163          0   0.40161E-02  486942.3 3616906.9    -0.3     5.50     4.65
2.56     YES
 VOL164          0   0.40161E-02  486933.5 3616891.4    -0.3     5.50     4.65
2.56     YES
 VOL165          0   0.40161E-02  486931.2 3616876.6    -0.3     5.50     4.65
2.56     YES
 VOL166          0   0.40161E-02  486926.1 3616861.8    -0.3     5.50     4.65
2.56     YES
 VOL167          0   0.40161E-02  486923.1 3616844.8    -0.3     5.50     4.65
2.56     YES
 VOL168          0   0.40161E-02  486918.7 3616831.5    -0.3     5.50     4.65
2.56     YES
 VOL169          0   0.40161E-02  486915.0 3616816.8    -0.3     5.50     4.65
2.56     YES
 VOL170          0   0.40161E-02  486911.3 3616799.8    -0.3     5.50     4.65
2.56     YES
 VOL171          0   0.40161E-02  487094.5 3616725.9     2.6     5.50     4.65
2.56     YES
 VOL172          0   0.40161E-02  487074.6 3616728.1     0.1     5.50     4.65
2.56     YES
 VOL173          0   0.40161E-02  487095.3 3616710.3     0.6     5.50     4.65
2.56     YES
 VOL174          0   0.40161E-02  487094.5 3616697.0    -0.7     5.50     4.65
2.56     YES
 VOL175          0   0.40161E-02  487096.0 3616679.3     1.1     5.50     4.65
2.56     YES
 VOL176          0   0.40161E-02  487416.7 3616787.2     3.3     5.50     4.65
2.56     YES
 VOL177          0   0.40161E-02  487419.7 3616765.8     3.3     5.50     4.65
2.56     YES
 VOL178          0   0.40161E-02  487424.1 3616748.0     3.3     5.50     4.65
2.56     YES
 VOL179          0   0.40161E-02  487441.8 3616744.3     3.3     5.50     4.65
2.56     YES
 VOL180          0   0.40161E-02  487437.4 3616766.5     3.2     5.50     4.65
2.56     YES
 VOL181          0   0.40161E-02  487458.8 3616742.1     3.4     5.50     4.65
2.56     YES
 VOL182          0   0.40161E-02  486638.6 3616955.9     2.4     5.50     4.65
2.56     YES
 VOL183          0   0.40161E-02  486693.0 3616922.2     1.0     5.50     4.65
2.56     YES
 VOL184          0   0.40161E-02  487488.9 3616699.9     3.4     5.50     4.65
2.56     YES
 VOL185          0   0.40161E-02  487359.9 3616648.1    -0.3     5.50     4.65
2.56     YES
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 VOL186           0   0.40161E-02  487352.5 3616635.6    -0.3     5.50     4.65
2.56     YES
 VOL187           0   0.40161E-02  487339.6 3616621.6    -0.3     5.50     4.65
2.56     YES
 VOL188           0   0.40161E-02  487071.5 3616614.5     3.4     5.50     4.65
2.56     YES
 VOL189           0   0.40161E-02  487025.0 3616623.1     3.4     5.50     4.65
2.56     YES
 VOL190           0   0.40161E-02  487047.4 3616629.7     3.4     5.50     4.65
2.56     YES
 VOL191           0   0.40161E-02  487094.8 3616621.5     3.4     5.50     4.65
2.56     YES
 VOL192           0   0.40161E-02  487027.0 3616601.3     2.9     5.50     4.65
2.56     YES
 VOL193           0   0.40161E-02  487073.6 3616593.3     1.9     5.50     4.65
2.56     YES
 VOL194           0   0.40161E-02  487049.4 3616607.9     3.4     5.50     4.65
2.56     YES
 VOL195           0   0.40161E-02  487094.8 3616600.0     2.7     5.50     4.65
2.56     YES
 VOL196           0   0.40161E-02  487028.2 3616641.8     2.9     5.50     4.65
2.56     YES
 VOL197           0   0.40161E-02  487050.6 3616648.4     2.0     5.50     4.65
2.56     YES
 VOL198           0   0.40161E-02  487006.8 3616616.8     3.4     5.50     4.65
2.56     YES
 VOL199           0   0.40161E-02  487008.8 3616595.1     2.8     5.50     4.65
2.56     YES
 VOL200           0   0.40161E-02  487010.0 3616635.6     3.4     5.50     4.65
2.56     YES
*** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                         ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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VOL201		0	0.40161E-02	486984.7	3616614.5	3.0	5.50	4.65
2.56	YES							
VOL202		0	0.40161E-02	486986.7	3616592.7	2.9	5.50	4.65
2.56	YES							
VOL203		0	0.40161E-02	486987.9	3616633.2	2.6	5.50	4.65
2.56	YES							
VOL204		0	0.40161E-02	486961.8	3616597.1	1.7	5.50	4.65
2.56	YES							
VOL205		0	0.40161E-02	486965.0	3616615.8	2.0	5.50	4.65
2.56	YES							
VOL206		0	0.40161E-02	487335.0	3616601.9	-0.3	5.50	4.65
2.56	YES							
VOL207		0	0.40161E-02	487327.6	3616589.4	-0.3	5.50	4.65
2.56	YES							
VOL208		0	0.40161E-02	487314.7	3616575.5	-0.3	5.50	4.65
2.56	YES							
VOL209		0	0.40161E-02	487307.3	3616556.9	-0.3	5.50	4.65
2.56	YES							
VOL210		0	0.40161E-02	487299.9	3616544.3	-0.3	5.50	4.65
2.56	YES							
VOL211		0	0.40161E-02	487287.0	3616530.4	-0.3	5.50	4.65
2.56	YES							
VOL212		0	0.40161E-02	487281.2	3616512.6	-0.3	5.50	4.65
2.56	YES							
VOL213		0	0.40161E-02	487273.8	3616500.0	-0.3	5.50	4.65
2.56	YES							
VOL214		0	0.40161E-02	487260.9	3616486.1	-0.3	5.50	4.65
2.56	YES							
VOL215		0	0.40161E-02	487252.7	3616473.0	-0.3	5.50	4.65
2.56	YES							
VOL216		0	0.40161E-02	487245.3	3616460.5	-0.3	5.50	4.65
2.56	YES							
VOL217		0	0.40161E-02	487321.9	3616620.5	-0.3	5.50	4.65
2.56	YES							
VOL218		0	0.40161E-02	487314.6	3616608.0	-0.3	5.50	4.65
2.56	YES							
VOL219		0	0.40161E-02	487301.7	3616594.0	-0.3	5.50	4.65
2.56	YES							
VOL220		0	0.40161E-02	487294.3	3616575.5	-0.3	5.50	4.65
2.56	YES							
VOL221		0	0.40161E-02	487286.9	3616562.9	-0.3	5.50	4.65
2.56	YES							
VOL222		0	0.40161E-02	487274.0	3616549.0	-0.3	5.50	4.65
2.56	YES							
VOL223		0	0.40161E-02	487268.2	3616531.2	-0.3	5.50	4.65
2.56	YES							
VOL224		0	0.40161E-02	487260.8	3616518.6	-0.3	5.50	4.65
2.56	YES							
VOL225		0	0.40161E-02	487247.9	3616504.7	-0.3	5.50	4.65
2.56	YES							

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 VOL226           0   0.40161E-02  487239.7 3616491.6    -0.3     5.50     4.65
2.56     YES
 VOL227           0   0.40161E-02  486901.6 3616767.0    -0.3     5.50     4.65
2.56     YES
 VOL228           0   0.40161E-02  486884.8 3616696.2    -0.3     5.50     4.65
2.56     YES
 VOL229           0   0.40161E-02  486887.9 3616715.4    -0.3     5.50     4.65
2.56     YES
 VOL230           0   0.40161E-02  486894.9 3616734.2    -0.3     5.50     4.65
2.56     YES
 VOL231           0   0.40161E-02  486896.8 3616752.9    -0.3     5.50     4.65
2.56     YES
 VOL232           0   0.40161E-02  486908.0 3616781.9    -0.3     5.50     4.65
2.56     YES
 VOL233           0   0.40161E-02  486752.0 3616788.2    -0.3     5.50     4.65
2.56     YES
 VOL234           0   0.40161E-02  487049.5 3616588.8     1.3     5.50     4.65
2.56     YES
 VOL235           0   0.40161E-02  487038.1 3616579.4     0.4     5.50     4.65
2.56     YES
 VOL236           0   0.40161E-02  487020.3 3616574.2     0.8     5.50     4.65
2.56     YES
 VOL237           0   0.40161E-02  487001.0 3616572.6     2.2     5.50     4.65
2.56     YES
 VOL238           0   0.40161E-02  487018.8 3616562.2     0.4     5.50     4.65
2.56     YES
 VOL239           0   0.40161E-02  487037.5 3616551.2    -0.2     5.50     4.65
2.56     YES
 VOL240           0   0.40161E-02  486940.5 3616610.2    -0.3     5.50     4.65
2.56     YES
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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VOL241	0	0.40161E-02	487192.0	3616620.6	1.4	5.50	4.65	2.56 YES
VOL242	0	0.40161E-02	487184.2	3616604.5	-0.3	5.50	4.65	2.56 YES
VOL243	0	0.40161E-02	487181.6	3616587.8	-0.3	5.50	4.65	2.56 YES
VOL244	0	0.40161E-02	487175.5	3616572.5	-0.3	5.50	4.65	2.56 YES
VOL245	0	0.40161E-02	487168.5	3616557.9	-0.3	5.50	4.65	2.56 YES
VOL246	0	0.40161E-02	487161.9	3616542.2	-0.3	5.50	4.65	2.56 YES
VOL247	0	0.40161E-02	487152.5	3616525.2	-0.3	5.50	4.65	2.56 YES
VOL248	0	0.40161E-02	487146.6	3616509.3	-0.3	5.50	4.65	2.56 YES
VOL249	0	0.40161E-02	487134.8	3616488.3	-0.3	5.50	4.65	2.56 YES
VOL250	0	0.85470E-02	486596.0	3616940.5	0.6	6.00	9.30	2.79 YES
VOL251	0	0.85470E-02	486587.9	3616896.7	0.6	6.00	9.30	2.79 YES
VOL252	0	0.85470E-02	486548.2	3616862.1	0.6	6.00	9.30	2.79 YES
VOL253	0	0.85470E-02	486526.8	3616824.7	0.6	6.00	9.30	2.79 YES
VOL254	0	0.85470E-02	486503.0	3616784.6	0.6	6.00	9.30	2.79 YES
VOL255	0	0.85470E-02	486481.0	3616744.7	0.6	6.00	9.30	2.79 YES
VOL256	0	0.85470E-02	486455.9	3616706.6	0.6	6.00	9.30	2.79 YES
VOL257	0	0.85470E-02	486436.3	3616669.0	0.6	6.00	9.30	2.79 YES
VOL258	0	0.85470E-02	486631.6	3616917.1	0.7	6.00	9.30	2.79 YES
VOL259	0	0.85470E-02	486757.5	3616867.7	-0.3	6.00	9.30	2.79 YES
VOL260	0	0.85470E-02	486630.2	3616874.6	0.6	6.00	9.30	2.79 YES
VOL261	0	0.85470E-02	486588.3	3616853.0	0.6	6.00	9.30	2.79 YES
VOL262	0	0.85470E-02	486568.1	3616817.5	0.6	6.00	9.30	2.79 YES
VOL263	0	0.85470E-02	486545.0	3616780.9	0.6	6.00	9.30	2.79 YES
VOL264	0	0.85470E-02	486496.9	3616703.1	0.6	6.00	9.30	2.79 YES
VOL265	0	0.85470E-02	486475.8	3616664.7	0.6	6.00	9.30	2.79 YES

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 VOL266           0   0.85470E-02  486672.8 3616899.7    -0.1     6.00     9.30
2.79     YES
 VOL267           0   0.85470E-02  486778.0 3616916.9    -0.1     6.00     9.30
2.79     YES
 VOL268           0   0.85470E-02  486735.2 3616901.6    -0.3     6.00     9.30
2.79     YES
 VOL269           0   0.85470E-02  486714.3 3616862.8    -0.3     6.00     9.30
2.79     YES
 VOL270           0   0.85470E-02  486731.0 3616823.9    -0.3     6.00     9.30
2.79     YES
 VOL271           0   0.85470E-02  486525.4 3616743.9     0.6     6.00     9.30
2.79     YES
 VOL272           0   0.85470E-02  486672.5 3616855.8    -0.3     6.00     9.30
2.79     YES
 VOL273           0   0.85470E-02  486629.4 3616828.9     0.6     6.00     9.30
2.79     YES
 VOL274           0   0.85470E-02  486854.5 3616930.7    -0.3     6.00     9.30
2.79     YES
 VOL275           0   0.85470E-02  486905.5 3616942.6    -0.3     6.00     9.30
2.79     YES
 VOL276           0   0.85470E-02  486844.2 3616886.5    -0.3     6.00     9.30
2.79     YES
 VOL277           0   0.85470E-02  486823.1 3616850.6    -0.3     6.00     9.30
2.79     YES
 VOL278           0   0.85470E-02  486799.8 3616815.7    -0.3     6.00     9.30
2.79     YES
 VOL279           0   0.85470E-02  486793.5 3616781.8    -0.3     6.00     9.30
2.79     YES
 VOL280           0   0.85470E-02  486899.2 3616902.4    -0.3     6.00     9.30
2.79     YES
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***       12:24:23

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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VOL281		0	0.85470E-02	486889.7	3616861.1	-0.3	6.00	9.30
2.79	YES							
VOL282		0	0.85470E-02	486880.2	3616816.7	-0.3	6.00	9.30
2.79	YES							
VOL283		0	0.85470E-02	486866.4	3616773.4	-0.3	6.00	9.30
2.79	YES							
VOL284		0	0.85470E-02	486838.9	3616807.2	-0.3	6.00	9.30
2.79	YES							
VOL285		0	0.85470E-02	486853.7	3616730.0	-0.3	6.00	9.30
2.79	YES							
VOL286		0	0.85470E-02	486818.8	3616760.7	-0.3	6.00	9.30
2.79	YES							
VOL287		0	0.85470E-02	486813.6	3616721.6	-0.3	6.00	9.30
2.79	YES							
VOL288		0	0.85470E-02	486849.5	3616684.5	-0.3	6.00	9.30
2.79	YES							
VOL289		0	0.85470E-02	486772.3	3616742.7	-0.3	6.00	9.30
2.79	YES							
VOL290		0	0.85470E-02	486727.9	3616775.5	-0.3	6.00	9.30
2.79	YES							
VOL291		0	0.85470E-02	486977.8	3616911.1	-0.3	6.00	9.30
2.79	YES							
VOL292		0	0.85470E-02	486960.3	3616863.9	-0.3	6.00	9.30
2.79	YES							
VOL293		0	0.85470E-02	486957.9	3616821.6	-0.3	6.00	9.30
2.79	YES							
VOL294		0	0.85470E-02	486942.9	3616779.3	-0.3	6.00	9.30
2.79	YES							
VOL295		0	0.85470E-02	486931.7	3616737.0	-0.3	6.00	9.30
2.79	YES							
VOL296		0	0.85470E-02	486915.6	3616694.7	-0.3	6.00	9.30
2.79	YES							
VOL297		0	0.85470E-02	486886.9	3616662.3	-0.3	6.00	9.30
2.79	YES							
VOL298		0	0.85470E-02	486995.2	3616810.4	-0.5	6.00	9.30
2.79	YES							
VOL299		0	0.85470E-02	486987.7	3616769.3	-0.3	6.00	9.30
2.79	YES							
VOL300		0	0.85470E-02	486974.0	3616728.3	-0.3	6.00	9.30
2.79	YES							
VOL301		0	0.85470E-02	486955.4	3616688.5	-0.3	6.00	9.30
2.79	YES							
VOL302		0	0.85470E-02	486933.0	3616652.4	-0.3	6.00	9.30
2.79	YES							
VOL303		0	0.85470E-02	487036.2	3616780.5	-0.3	6.00	9.30
2.79	YES							
VOL304		0	0.85470E-02	487027.5	3616739.5	-0.3	6.00	9.30
2.79	YES							
VOL305		0	0.85470E-02	487010.1	3616697.2	-0.3	6.00	9.30
2.79	YES							

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 VOL306           0   0.85470E-02  487059.9 3616693.4    -0.3     6.00     9.30
2.79     YES
 VOL307           0   0.85470E-02  486981.5 3616662.3     0.0     6.00     9.30
2.79     YES
 VOL308           0   0.85470E-02  486909.1 3616614.0    -0.3     6.00     9.30
2.79     YES
 VOL309           0   0.85470E-02  486929.6 3616571.5    -0.3     6.00     9.30
2.79     YES
 VOL310           0   0.85470E-02  486969.1 3616556.9    -0.2     6.00     9.30
2.79     YES
 VOL311           0   0.85470E-02  487007.2 3616529.1    -0.3     6.00     9.30
2.79     YES
 VOL312           0   0.85470E-02  487149.1 3616597.9    -0.3     6.00     9.30
2.79     YES
 VOL313           0   0.85470E-02  487116.9 3616578.8    -0.2     6.00     9.30
2.79     YES
 VOL314           0   0.85470E-02  487074.5 3616559.8    -0.3     6.00     9.30
2.79     YES
 VOL315           0   0.85470E-02  487112.6 3616539.3    -0.3     6.00     9.30
2.79     YES
 VOL316           0   0.85470E-02  487068.7 3616517.4    -0.3     6.00     9.30
2.79     YES
 VOL317           0   0.85470E-02  487103.8 3616488.1    -0.3     6.00     9.30
2.79     YES
 VOL318           0   0.85470E-02  487269.2 3616614.0    -0.3     6.00     9.30
2.79     YES
 VOL319           0   0.85470E-02  487220.9 3616605.2    -0.3     6.00     9.30
2.79     YES
 VOL320           0   0.85470E-02  487210.6 3616561.3    -0.3     6.00     9.30
2.79     YES
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***       12:24:23

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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VOL321		0	0.85470E-02	487190.1	3616518.8	-0.3	6.00	9.30
2.79	YES							
VOL322		0	0.85470E-02	487166.7	3616479.3	-0.3	6.00	9.30
2.79	YES							
VOL323		0	0.85470E-02	487250.1	3616570.1	-0.3	6.00	9.30
2.79	YES							
VOL324		0	0.85470E-02	487225.3	3616527.6	-0.3	6.00	9.30
2.79	YES							
VOL325		0	0.85470E-02	487209.2	3616469.1	-0.3	6.00	9.30
2.79	YES							
VOL326		0	0.85470E-02	487235.5	3616425.2	-0.3	6.00	9.30
2.79	YES							
VOL327		0	0.85470E-02	487185.7	3616433.9	-0.3	6.00	9.30
2.79	YES							
VOL328		0	0.85470E-02	487144.0	3616436.4	-0.3	6.00	9.30
2.79	YES							
VOL329		0	0.85470E-02	486605.5	3616804.9	0.6	6.00	9.30
2.79	YES							
VOL330		0	0.85470E-02	486583.1	3616763.5	0.6	6.00	9.30
2.79	YES							
VOL331		0	0.85470E-02	486560.7	3616722.2	0.6	6.00	9.30
2.79	YES							
VOL332		0	0.85470E-02	486541.7	3616699.8	0.6	6.00	9.30
2.79	YES							
VOL333		0	0.85470E-02	486515.9	3616663.7	0.6	6.00	9.30
2.79	YES							
VOL334		0	0.85470E-02	486518.8	3616623.5	0.6	6.00	9.30
2.79	YES							
VOL335		0	0.85470E-02	486692.1	3616820.8	-0.3	6.00	9.30
2.79	YES							
VOL336		0	0.85470E-02	486662.3	3616810.0	-0.3	6.00	9.30
2.79	YES							
VOL337		0	0.85470E-02	486638.9	3616778.2	0.4	6.00	9.30
2.79	YES							
VOL338		0	0.85470E-02	486621.4	3616743.7	0.6	6.00	9.30
2.79	YES							
VOL339		0	0.85470E-02	486604.5	3616721.0	0.6	6.00	9.30
2.79	YES							
VOL340		0	0.85470E-02	486584.5	3616681.7	0.6	6.00	9.30
2.79	YES							
VOL341		0	0.85470E-02	486552.9	3616662.5	0.6	6.00	9.30
2.79	YES							
VOL342		0	0.85470E-02	486565.1	3616622.8	0.6	6.00	9.30
2.79	YES							
VOL343		0	0.85470E-02	486682.0	3616772.5	-0.3	6.00	9.30
2.79	YES							
VOL344		0	0.85470E-02	486659.9	3616735.1	0.4	6.00	9.30
2.79	YES							
VOL345		0	0.85470E-02	486640.8	3616699.9	0.6	6.00	9.30
2.79	YES							

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 VOL346           0   0.85470E-02  486623.1 3616659.6     0.6     6.00     9.30
2.79     YES
 VOL347           0   0.85470E-02  486602.5 3616621.4     0.6     6.00     9.30
2.79     YES
 VOL348           0   0.85470E-02  486609.0 3616584.6     0.6     6.00     9.30
2.79     YES
 VOL349           0   0.85470E-02  486701.6 3616740.2    -0.3     6.00     9.30
2.79     YES
 VOL350           0   0.85470E-02  486681.8 3616706.0     0.4     6.00     9.30
2.79     YES
 VOL351           0   0.85470E-02  486671.0 3616674.5     0.6     6.00     9.30
2.79     YES
 VOL352           0   0.85470E-02  486644.0 3616631.4     0.6     6.00     9.30
2.79     YES
 VOL353           0   0.85470E-02  487392.1 3616638.7    -0.3     6.00     9.30
2.79     YES
 VOL354           0   0.85470E-02  487373.4 3616595.1    -0.3     6.00     9.30
2.79     YES
 VOL355           0   0.85470E-02  487353.5 3616552.8    -0.3     6.00     9.30
2.79     YES
 VOL356           0   0.85470E-02  487331.1 3616510.5    -0.3     6.00     9.30
2.79     YES
 VOL357           0   0.85470E-02  487295.1 3616467.0    -0.3     6.00     9.30
2.79     YES
 VOL358           0   0.85470E-02  487285.1 3616429.7    -0.3     6.00     9.30
2.79     YES
 VOL359           0   0.85470E-02  487099.7 3616445.8    -0.3     6.00     9.30
2.79     YES
 VOL360           0   0.85470E-02  487056.2 3616473.2    -0.3     6.00     9.30
2.79     YES
*** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                         ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                        ***        12:24:23

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
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 VOL361          0   0.85470E-02  486874.6 3616632.5    -0.3     6.00     9.30
2.79     YES
 VOL362          0   0.85470E-02  486829.8 3616643.7    -0.3     6.00     9.30
2.79     YES
 VOL363          0   0.85470E-02  486809.9 3616681.0    -0.3     6.00     9.30
2.79     YES
 VOL364          0   0.85470E-02  486766.3 3616698.4    -0.3     6.00     9.30
2.79     YES
 VOL365          0   0.85470E-02  486736.5 3616733.2    -0.3     6.00     9.30
2.79     YES
 VOL366          0   0.85470E-02  486722.8 3616693.4    -0.3     6.00     9.30
2.79     YES
 L0000001        0   0.38168E-02  486592.2 3617002.3     3.3     3.40     4.33
3.16     YES
 L0000002        0   0.38168E-02  486584.3 3617007.2     3.5     3.40     4.33
3.16     YES
 L0000003        0   0.38168E-02  486576.3 3617012.1     3.2     3.40     4.33
3.16     YES
 L0000004        0   0.38168E-02  486568.6 3617017.0     2.3     3.40     4.33
3.16     YES
 L0000005        0   0.38168E-02  486573.7 3617024.7     2.5     3.40     4.33
3.16     YES
 L0000006        0   0.38168E-02  486578.9 3617032.5     2.7     3.40     4.33
3.16     YES
 L0000007        0   0.38168E-02  486584.0 3617040.2     2.7     3.40     4.33
3.16     YES
 L0000008        0   0.38168E-02  486589.2 3617048.0     2.8     3.40     4.33
3.16     YES
 L0000009        0   0.38168E-02  486594.3 3617055.7     3.1     3.40     4.33
3.16     YES
 L0000010        0   0.38168E-02  486599.5 3617063.5     3.5     3.40     4.33
3.16     YES
 L0000011        0   0.38168E-02  486604.6 3617071.2     3.9     3.40     4.33
3.16     YES
 L0000012        0   0.38168E-02  486609.8 3617079.0     3.9     3.40     4.33
3.16     YES
 L0000013        0   0.38168E-02  486614.9 3617086.7     4.1     3.40     4.33
3.16     YES
 L0000014        0   0.38168E-02  486620.0 3617094.5     4.2     3.40     4.33
3.16     YES
 L0000015        0   0.38168E-02  486625.2 3617102.2     4.4     3.40     4.33
3.16     YES
 L0000016        0   0.38168E-02  486630.3 3617110.0     4.5     3.40     4.33
3.16     YES
 L0000017        0   0.38168E-02  486635.5 3617117.7     4.5     3.40     4.33
3.16     YES
 L0000018        0   0.38168E-02  486640.6 3617125.5     4.5     3.40     4.33
3.16     YES
 L0000019        0   0.38168E-02  486645.8 3617133.2     4.5     3.40     4.33
3.16     YES
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 L0000020         0   0.38168E-02  486650.9 3617140.9     4.4     3.40     4.33
3.16     YES
 L0000021         0   0.38168E-02  486656.1 3617148.7     4.4     3.40     4.33
3.16     YES
 L0000022         0   0.38168E-02  486661.2 3617156.4     4.4     3.40     4.33
3.16     YES
 L0000023         0   0.38168E-02  486666.4 3617164.2     4.5     3.40     4.33
3.16     YES
 L0000024         0   0.38168E-02  486671.5 3617171.9     4.5     3.40     4.33
3.16     YES
 L0000025         0   0.38168E-02  486676.7 3617179.7     4.4     3.40     4.33
3.16     YES
 L0000026         0   0.38168E-02  486681.8 3617187.4     4.4     3.40     4.33
3.16     YES
 L0000027         0   0.38168E-02  486686.9 3617195.2     4.4     3.40     4.33
3.16     YES
 L0000028         0   0.38168E-02  486688.6 3617202.2     4.5     3.40     4.33
3.16     YES
 L0000029         0   0.38168E-02  486680.8 3617207.3     4.4     3.40     4.33
3.16     YES
 L0000030         0   0.38168E-02  486673.0 3617212.3     4.4     3.40     4.33
3.16     YES
 L0000031         0   0.38168E-02  486665.2 3617217.4     4.4     3.40     4.33
3.16     YES
 L0000032         0   0.38168E-02  486657.4 3617222.4     4.4     3.40     4.33
3.16     YES
 L0000033         0   0.38168E-02  486649.6 3617227.5     4.6     3.40     4.33
3.16     YES
 L0000034         0   0.38168E-02  486641.8 3617232.6     4.7     3.40     4.33
3.16     YES
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***       12:24:23

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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L0000035	0	0.38168E-02	486634.0	3617237.6	4.7	3.40	4.33	3.16 YES
L0000036	0	0.38168E-02	486626.2	3617242.7	4.7	3.40	4.33	3.16 YES
L0000037	0	0.38168E-02	486618.4	3617247.7	4.6	3.40	4.33	3.16 YES
L0000038	0	0.38168E-02	486610.6	3617252.8	4.5	3.40	4.33	3.16 YES
L0000039	0	0.38168E-02	486602.8	3617257.8	4.5	3.40	4.33	3.16 YES
L0000040	0	0.38168E-02	486595.0	3617262.9	4.6	3.40	4.33	3.16 YES
L0000041	0	0.38168E-02	486587.1	3617268.0	4.6	3.40	4.33	3.16 YES
L0000042	0	0.38168E-02	486579.3	3617273.0	4.6	3.40	4.33	3.16 YES
L0000043	0	0.38168E-02	486571.5	3617278.1	4.5	3.40	4.33	3.16 YES
L0000044	0	0.38168E-02	486563.7	3617283.1	4.5	3.40	4.33	3.16 YES
L0000045	0	0.38168E-02	486555.9	3617288.2	4.5	3.40	4.33	3.16 YES
L0000046	0	0.38168E-02	486548.1	3617293.3	4.5	3.40	4.33	3.16 YES
L0000047	0	0.38168E-02	486540.3	3617298.3	4.4	3.40	4.33	3.16 YES
L0000048	0	0.38168E-02	486532.5	3617303.4	4.4	3.40	4.33	3.16 YES
L0000049	0	0.38168E-02	486524.7	3617308.4	4.4	3.40	4.33	3.16 YES
L0000050	0	0.38168E-02	486526.9	3617315.0	4.6	3.40	4.33	3.16 YES
L0000051	0	0.38168E-02	486532.8	3617322.1	4.8	3.40	4.33	3.16 YES
L0000052	0	0.38168E-02	486538.8	3617329.3	5.1	3.40	4.33	3.16 YES
L0000053	0	0.38168E-02	486544.8	3617336.4	5.3	3.40	4.33	3.16 YES
L0000054	0	0.38168E-02	486550.7	3617343.5	5.5	3.40	4.33	3.16 YES
L0000055	0	0.38168E-02	486556.7	3617350.7	5.7	3.40	4.33	3.16 YES
L0000056	0	0.38168E-02	486562.7	3617357.8	5.8	3.40	4.33	3.16 YES
L0000057	0	0.38168E-02	486568.6	3617364.9	6.0	3.40	4.33	3.16 YES
L0000058	0	0.38168E-02	486574.6	3617372.1	6.0	3.40	4.33	3.16 YES
L0000059	0	0.38168E-02	486580.5	3617379.2	6.2	3.40	4.33	3.16 YES

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 L0000060         0   0.38168E-02  486586.5 3617386.3     6.4     3.40     4.33
3.16     YES
 L0000061         0   0.38168E-02  486592.5 3617393.5     6.6     3.40     4.33
3.16     YES
 L0000062         0   0.38168E-02  486598.4 3617400.6     6.8     3.40     4.33
3.16     YES
 L0000063         0   0.38168E-02  486604.4 3617407.8     7.1     3.40     4.33
3.16     YES
 L0000064         0   0.38168E-02  486610.4 3617414.9     7.3     3.40     4.33
3.16     YES
 L0000065         0   0.38168E-02  486616.3 3617422.0     7.6     3.40     4.33
3.16     YES
 L0000066         0   0.38168E-02  486622.3 3617429.2     7.8     3.40     4.33
3.16     YES
 L0000067         0   0.38168E-02  486628.3 3617436.3     8.1     3.40     4.33
3.16     YES
 L0000068         0   0.38168E-02  486634.2 3617443.4     8.4     3.40     4.33
3.16     YES
 L0000069         0   0.38168E-02  486640.2 3617450.6     8.6     3.40     4.33
3.16     YES
 L0000070         0   0.38168E-02  486646.2 3617457.7     8.9     3.40     4.33
3.16     YES
 L0000071         0   0.38168E-02  486652.6 3617460.1     8.9     3.40     4.33
3.16     YES
 L0000072         0   0.38168E-02  486659.9 3617454.4     8.8     3.40     4.33
3.16     YES
 L0000073         0   0.38168E-02  486667.2 3617448.6     8.8     3.40     4.33
3.16     YES
 L0000074         0   0.38168E-02  486674.5 3617442.8     8.9     3.40     4.33
3.16     YES
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***       12:24:23

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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L0000075	0	0.38168E-02	486681.8	3617437.0	9.0	3.40	4.33	3.16 YES
L0000076	0	0.38168E-02	486689.1	3617431.3	8.7	3.40	4.33	3.16 YES
L0000077	0	0.38168E-02	486696.4	3617425.5	8.6	3.40	4.33	3.16 YES
L0000078	0	0.38168E-02	486703.6	3617419.7	8.7	3.40	4.33	3.16 YES
L0000079	0	0.38168E-02	486710.9	3617413.9	8.8	3.40	4.33	3.16 YES
L0000080	0	0.38168E-02	486718.2	3617408.2	8.7	3.40	4.33	3.16 YES
L0000081	0	0.38168E-02	486725.5	3617402.4	8.6	3.40	4.33	3.16 YES
L0000082	0	0.38168E-02	486732.8	3617396.6	8.5	3.40	4.33	3.16 YES
L0000083	0	0.38168E-02	486740.1	3617390.8	8.6	3.40	4.33	3.16 YES
L0000084	0	0.38168E-02	486747.4	3617385.1	8.5	3.40	4.33	3.16 YES
L0000085	0	0.38168E-02	486754.7	3617379.3	8.4	3.40	4.33	3.16 YES
L0000086	0	0.38168E-02	486762.0	3617373.5	8.4	3.40	4.33	3.16 YES
L0000087	0	0.38168E-02	486769.3	3617367.8	8.4	3.40	4.33	3.16 YES
L0000088	0	0.38168E-02	486776.5	3617362.0	8.4	3.40	4.33	3.16 YES
L0000089	0	0.38168E-02	486783.8	3617356.2	8.4	3.40	4.33	3.16 YES
L0000090	0	0.38168E-02	486791.1	3617350.4	8.3	3.40	4.33	3.16 YES
L0000091	0	0.38168E-02	486798.4	3617344.7	8.1	3.40	4.33	3.16 YES
L0000092	0	0.38168E-02	486805.7	3617338.9	8.1	3.40	4.33	3.16 YES
L0000093	0	0.38168E-02	486813.0	3617333.1	8.1	3.40	4.33	3.16 YES
L0000094	0	0.38168E-02	486820.3	3617327.3	8.3	3.40	4.33	3.16 YES
L0000095	0	0.38168E-02	486827.6	3617321.6	8.3	3.40	4.33	3.16 YES
L0000096	0	0.38168E-02	486834.9	3617315.8	8.2	3.40	4.33	3.16 YES
L0000097	0	0.38168E-02	486842.2	3617310.0	8.3	3.40	4.33	3.16 YES
L0000098	0	0.38168E-02	486849.4	3617304.2	8.5	3.40	4.33	3.16 YES
L0000099	0	0.38168E-02	486856.7	3617298.5	8.5	3.40	4.33	3.16 YES

 L0000100   0   0.38168E-02 486864.0 3617292.7   8.6   3.40   4.33
3.16   YES
 L0000101   0   0.38168E-02 486871.3 3617286.9   8.5   3.40   4.33
3.16   YES
 L0000102   0   0.38168E-02 486878.6 3617281.1   8.5   3.40   4.33
3.16   YES
 L0000103   0   0.38168E-02 486885.9 3617275.4   8.5   3.40   4.33
3.16   YES
 L0000104   0   0.38168E-02 486893.2 3617269.6   8.6   3.40   4.33
3.16   YES
 L0000105   0   0.38168E-02 486900.5 3617263.8   8.6   3.40   4.33
3.16   YES
 L0000106   0   0.38168E-02 486907.8 3617258.0   8.6   3.40   4.33
3.16   YES
 L0000107   0   0.38168E-02 486915.1 3617252.3   8.5   3.40   4.33
3.16   YES
 L0000108   0   0.38168E-02 486922.3 3617246.5   8.7   3.40   4.33
3.16   YES
 L0000109   0   0.38168E-02 486929.6 3617240.7   8.8   3.40   4.33
3.16   YES
 L0000110   0   0.38168E-02 486936.9 3617234.9   8.8   3.40   4.33
3.16   YES
 L0000111   0   0.38168E-02 486944.2 3617229.2   8.7   3.40   4.33
3.16   YES
 L0000112   0   0.38168E-02 486951.5 3617223.4   8.5   3.40   4.33
3.16   YES
 L0000113   0   0.38168E-02 486958.8 3617217.6   8.5   3.40   4.33
3.16   YES
 L0000114   0   0.38168E-02 486966.1 3617211.8   8.4   3.40   4.33
3.16   YES

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE   BASE   RELEASE   INIT.
INIT.   URBAN EMISSION RATE
   SOURCE   PART. (GRAMS/SEC)   X   Y   ELEV.   HEIGHT   SY
SZ   SOURCE SCALAR VARY
     ID   CATS.   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   BY
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- - - - - - - - - - - - - - - - - - - -

L0000115	0	0.38168E-02	486973.4	3617206.1	8.4	3.40	4.33	3.16 YES
L0000116	0	0.38168E-02	486980.7	3617200.3	8.2	3.40	4.33	3.16 YES
L0000117	0	0.38168E-02	486988.5	3617195.4	7.9	3.40	4.33	3.16 YES
L0000118	0	0.38168E-02	486997.1	3617191.9	7.5	3.40	4.33	3.16 YES
L0000119	0	0.38168E-02	487005.7	3617188.3	6.9	3.40	4.33	3.16 YES
L0000120	0	0.38168E-02	487014.3	3617184.8	6.4	3.40	4.33	3.16 YES
L0000121	0	0.38168E-02	487022.9	3617181.3	6.2	3.40	4.33	3.16 YES
L0000122	0	0.38168E-02	487031.5	3617177.7	6.3	3.40	4.33	3.16 YES
L0000123	0	0.38168E-02	487040.1	3617174.2	6.3	3.40	4.33	3.16 YES
L0000124	0	0.38168E-02	487048.7	3617170.6	6.2	3.40	4.33	3.16 YES
L0000125	0	0.38168E-02	487057.3	3617167.1	5.8	3.40	4.33	3.16 YES
L0000126	0	0.38168E-02	487065.9	3617163.5	5.3	3.40	4.33	3.16 YES
L0000127	0	0.38168E-02	487074.5	3617160.0	4.8	3.40	4.33	3.16 YES
L0000128	0	0.38168E-02	487083.1	3617156.5	4.7	3.40	4.33	3.16 YES
L0000129	0	0.38168E-02	487091.7	3617152.9	4.6	3.40	4.33	3.16 YES
L0000130	0	0.38168E-02	487100.3	3617149.4	4.8	3.40	4.33	3.16 YES
L0000131	0	0.38168E-02	487108.9	3617145.8	5.3	3.40	4.33	3.16 YES
L0000132	0	0.38168E-02	487117.5	3617142.3	5.6	3.40	4.33	3.16 YES
L0000133	0	0.38168E-02	487126.1	3617138.7	5.6	3.40	4.33	3.16 YES
L0000134	0	0.38168E-02	487134.7	3617135.2	5.2	3.40	4.33	3.16 YES
L0000135	0	0.38168E-02	487143.3	3617131.6	4.8	3.40	4.33	3.16 YES
L0000136	0	0.38168E-02	487151.9	3617128.1	4.5	3.40	4.33	3.16 YES
L0000137	0	0.38168E-02	487160.5	3617124.6	4.4	3.40	4.33	3.16 YES
L0000138	0	0.38168E-02	487169.1	3617121.0	4.3	3.40	4.33	3.16 YES
L0000139	0	0.38168E-02	487177.7	3617117.5	4.3	3.40	4.33	3.16 YES

```
 L0000140         0   0.38168E-02  487186.3 3617113.9     4.3     3.40     4.33
3.16     YES
 L0000141         0   0.38168E-02  487194.9 3617110.4     4.3     3.40     4.33
3.16     YES
 L0000142         0   0.38168E-02  487203.5 3617106.8     4.3     3.40     4.33
3.16     YES
 L0000143         0   0.38168E-02  487212.1 3617103.3     4.3     3.40     4.33
3.16     YES
 L0000144         0   0.38168E-02  487220.7 3617099.8     4.3     3.40     4.33
3.16     YES
 L0000145         0   0.38168E-02  487229.3 3617096.2     4.2     3.40     4.33
3.16     YES
 L0000146         0   0.38168E-02  487237.9 3617092.7     4.0     3.40     4.33
3.16     YES
 L0000147         0   0.38168E-02  487246.5 3617089.1     3.8     3.40     4.33
3.16     YES
 L0000148         0   0.38168E-02  487255.5 3617087.0     3.8     3.40     4.33
3.16     YES
 L0000149         0   0.38168E-02  487264.5 3617084.8     3.8     3.40     4.33
3.16     YES
 L0000150         0   0.38168E-02  487273.6 3617082.6     3.9     3.40     4.33
3.16     YES
 L0000151         0   0.38168E-02  487282.6 3617080.4     4.0     3.40     4.33
3.16     YES
 L0000152         0   0.38168E-02  487291.7 3617078.2     3.9     3.40     4.33
3.16     YES
 L0000153         0   0.38168E-02  487300.7 3617076.1     3.9     3.40     4.33
3.16     YES
 L0000154         0   0.38168E-02  487309.7 3617073.9     3.8     3.40     4.33
3.16     YES
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***       12:24:23

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
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L0000155	0	0.38168E-02	487318.8	3617071.7	3.8	3.40	4.33	3.16 YES
L0000156	0	0.38168E-02	487327.8	3617069.5	3.8	3.40	4.33	3.16 YES
L0000157	0	0.38168E-02	487336.9	3617067.3	3.8	3.40	4.33	3.16 YES
L0000158	0	0.38168E-02	487345.9	3617065.2	3.8	3.40	4.33	3.16 YES
L0000159	0	0.38168E-02	487354.9	3617063.0	3.7	3.40	4.33	3.16 YES
L0000160	0	0.38168E-02	487364.0	3617060.8	3.8	3.40	4.33	3.16 YES
L0000161	0	0.38168E-02	487373.0	3617058.6	3.8	3.40	4.33	3.16 YES
L0000162	0	0.38168E-02	487382.1	3617056.4	3.8	3.40	4.33	3.16 YES
L0000163	0	0.38168E-02	487391.1	3617054.3	3.8	3.40	4.33	3.16 YES
L0000164	0	0.38168E-02	487400.1	3617052.1	3.7	3.40	4.33	3.16 YES
L0000165	0	0.38168E-02	487409.2	3617049.9	3.5	3.40	4.33	3.16 YES
L0000166	0	0.38168E-02	487418.2	3617047.7	3.5	3.40	4.33	3.16 YES
L0000167	0	0.38168E-02	487427.3	3617045.5	3.5	3.40	4.33	3.16 YES
L0000168	0	0.38168E-02	487436.3	3617043.4	3.5	3.40	4.33	3.16 YES
L0000169	0	0.38168E-02	487445.4	3617041.2	3.5	3.40	4.33	3.16 YES
L0000170	0	0.38168E-02	487454.4	3617039.0	3.6	3.40	4.33	3.16 YES
L0000171	0	0.38168E-02	487463.4	3617036.8	3.6	3.40	4.33	3.16 YES
L0000172	0	0.38168E-02	487469.6	3617038.2	3.6	3.40	4.33	3.16 YES
L0000173	0	0.38168E-02	487469.3	3617047.5	3.7	3.40	4.33	3.16 YES
L0000174	0	0.38168E-02	487469.1	3617056.8	3.7	3.40	4.33	3.16 YES
L0000175	0	0.38168E-02	487468.8	3617066.1	3.7	3.40	4.33	3.16 YES
L0000176	0	0.38168E-02	487468.5	3617075.3	4.0	3.40	4.33	3.16 YES
L0000177	0	0.38168E-02	487468.3	3617084.6	4.4	3.40	4.33	3.16 YES
L0000178	0	0.38168E-02	487468.0	3617093.9	4.8	3.40	4.33	3.16 YES
L0000179	0	0.38168E-02	487467.7	3617103.2	5.1	3.40	4.33	3.16 YES

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 L0000180         0   0.38168E-02  487467.5 3617112.5     5.3     3.40     4.33
3.16     YES
 L0000181         0   0.38168E-02  487467.2 3617121.8     5.5     3.40     4.33
3.16     YES
 L0000182         0   0.38168E-02  487466.9 3617131.1     5.8     3.40     4.33
3.16     YES
 L0000183         0   0.38168E-02  487466.7 3617140.4     6.2     3.40     4.33
3.16     YES
 L0000184         0   0.38168E-02  487466.4 3617149.7     6.7     3.40     4.33
3.16     YES
 L0000185         0   0.38168E-02  487466.1 3617159.0     7.2     3.40     4.33
3.16     YES
 L0000186         0   0.38168E-02  487465.9 3617168.3     7.6     3.40     4.33
3.16     YES
 L0000187         0   0.38168E-02  487465.6 3617177.6     8.0     3.40     4.33
3.16     YES
 L0000188         0   0.38168E-02  487465.3 3617186.9     8.5     3.40     4.33
3.16     YES
 L0000189         0   0.38168E-02  487465.1 3617196.2     8.9     3.40     4.33
3.16     YES
 L0000190         0   0.38168E-02  487464.8 3617205.5     9.3     3.40     4.33
3.16     YES
 L0000191         0   0.38168E-02  487464.5 3617214.8     9.7     3.40     4.33
3.16     YES
 L0000192         0   0.38168E-02  487464.3 3617224.1    10.1     3.40     4.33
3.16     YES
 L0000193         0   0.38168E-02  487464.0 3617233.4    10.4     3.40     4.33
3.16     YES
 L0000194         0   0.38168E-02  487463.7 3617242.7    10.7     3.40     4.33
3.16     YES
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***       12:24:23

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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L0000195	0	0.38168E-02	487463.5	3617252.0	11.0	3.40	4.33	3.16 YES
L0000196	0	0.38168E-02	487463.2	3617261.3	11.3	3.40	4.33	3.16 YES
L0000197	0	0.38168E-02	487462.9	3617270.6	11.6	3.40	4.33	3.16 YES
L0000198	0	0.38168E-02	487462.6	3617279.9	11.9	3.40	4.33	3.16 YES
L0000199	0	0.38168E-02	487462.4	3617289.2	12.3	3.40	4.33	3.16 YES
L0000200	0	0.38168E-02	487462.1	3617298.5	12.7	3.40	4.33	3.16 YES
L0000201	0	0.38168E-02	487461.8	3617307.8	13.1	3.40	4.33	3.16 YES
L0000202	0	0.38168E-02	487461.6	3617317.0	13.5	3.40	4.33	3.16 YES
L0000203	0	0.38168E-02	487461.3	3617326.3	13.8	3.40	4.33	3.16 YES
L0000204	0	0.38168E-02	487461.0	3617335.6	14.1	3.40	4.33	3.16 YES
L0000205	0	0.38168E-02	487460.8	3617344.9	14.4	3.40	4.33	3.16 YES
L0000206	0	0.38168E-02	487460.5	3617354.2	14.6	3.40	4.33	3.16 YES
L0000207	0	0.38168E-02	487460.2	3617363.5	14.9	3.40	4.33	3.16 YES
L0000208	0	0.38168E-02	487460.0	3617372.8	15.1	3.40	4.33	3.16 YES
L0000209	0	0.38168E-02	487459.7	3617382.1	15.3	3.40	4.33	3.16 YES
L0000210	0	0.38168E-02	487459.4	3617391.4	15.6	3.40	4.33	3.16 YES
L0000211	0	0.38168E-02	487459.2	3617400.7	15.9	3.40	4.33	3.16 YES
L0000212	0	0.38168E-02	487458.9	3617410.0	16.2	3.40	4.33	3.16 YES
L0000213	0	0.38168E-02	487458.6	3617419.3	16.5	3.40	4.33	3.16 YES
L0000214	0	0.38168E-02	487458.4	3617428.6	16.8	3.40	4.33	3.16 YES
L0000215	0	0.38168E-02	487458.1	3617437.9	16.9	3.40	4.33	3.16 YES
L0000216	0	0.38168E-02	487457.8	3617447.2	15.4	3.40	4.33	3.16 YES
L0000217	0	0.38168E-02	487457.6	3617456.5	13.9	3.40	4.33	3.16 YES
L0000218	0	0.38168E-02	487457.3	3617465.8	12.3	3.40	4.33	3.16 YES
L0000219	0	0.38168E-02	487457.0	3617475.1	11.4	3.40	4.33	3.16 YES

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 L0000220         0   0.38168E-02  487456.8 3617484.4    10.7     3.40     4.33
3.16     YES
 L0000221         0   0.38168E-02  487456.5 3617493.7     9.9     3.40     4.33
3.16     YES
 L0000222         0   0.38168E-02  487456.2 3617503.0    10.0     3.40     4.33
3.16     YES
 L0000223         0   0.38168E-02  487456.0 3617512.3    11.1     3.40     4.33
3.16     YES
 L0000224         0   0.38168E-02  487455.7 3617521.6    12.2     3.40     4.33
3.16     YES
 L0000225         0   0.38168E-02  487455.4 3617530.9    13.3     3.40     4.33
3.16     YES
 L0000226         0   0.38168E-02  487457.4 3617539.3    15.4     3.40     4.33
3.16     YES
 L0000227         0   0.38168E-02  487464.0 3617545.8    17.3     3.40     4.33
3.16     YES
 L0000228         0   0.38168E-02  487470.5 3617552.4    18.3     3.40     4.33
3.16     YES
 L0000229         0   0.38168E-02  487477.1 3617559.0    19.3     3.40     4.33
3.16     YES
 L0000230         0   0.38168E-02  487483.7 3617565.6    19.6     3.40     4.33
3.16     YES
 L0000231         0   0.38168E-02  487490.3 3617572.1    19.8     3.40     4.33
3.16     YES
 L0000232         0   0.38168E-02  487498.4 3617571.4    19.7     3.40     4.33
3.16     YES
 L0000233         0   0.38168E-02  487507.1 3617568.1    19.5     3.40     4.33
3.16     YES
 L0000234         0   0.38168E-02  487515.7 3617564.7    19.3     3.40     4.33
3.16     YES
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***       12:24:23

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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L0000235	0	0.38168E-02	487524.4	3617561.3	19.3	3.40	4.33	3.16 YES
L0000236	0	0.38168E-02	487533.1	3617558.0	19.2	3.40	4.33	3.16 YES
L0000237	0	0.38168E-02	487540.6	3617554.0	19.1	3.40	4.33	3.16 YES
L0000238	0	0.38168E-02	487539.1	3617544.8	18.2	3.40	4.33	3.16 YES
L0000239	0	0.38168E-02	487537.5	3617535.6	17.3	3.40	4.33	3.16 YES
L0000240	0	0.38168E-02	487536.0	3617526.5	16.4	3.40	4.33	3.16 YES
L0000241	0	0.38168E-02	487534.4	3617517.3	15.5	3.40	4.33	3.16 YES
L0000242	0	0.38168E-02	487532.9	3617508.1	14.7	3.40	4.33	3.16 YES
L0000243	0	0.38168E-02	487524.8	3617505.6	14.3	3.40	4.33	3.16 YES
L0000244	0	0.38168E-02	487515.6	3617504.1	14.1	3.40	4.33	3.16 YES
L0000245	0	0.38168E-02	487506.4	3617502.5	13.4	3.40	4.33	3.16 YES
L0000246	0	0.38168E-02	487497.3	3617501.0	12.7	3.40	4.33	3.16 YES
L0000247	0	0.38168E-02	487488.1	3617499.5	11.9	3.40	4.33	3.16 YES
L0000248	0	0.38168E-02	487479.8	3617501.8	11.3	3.40	4.33	3.16 YES
L0000249	0	0.38168E-02	487472.2	3617507.2	11.3	3.40	4.33	3.16 YES
L0000250	0	0.38168E-02	487464.6	3617512.6	11.7	3.40	4.33	3.16 YES
L0000251	0	0.38168E-02	487457.1	3617517.9	11.9	3.40	4.33	3.16 YES
L0000252	0	0.38168E-02	487449.5	3617523.3	11.4	3.40	4.33	3.16 YES
L0000253	0	0.38168E-02	487441.9	3617528.7	10.3	3.40	4.33	3.16 YES
L0000254	0	0.38168E-02	487434.3	3617534.1	10.7	3.40	4.33	3.16 YES
L0000255	0	0.38168E-02	487426.7	3617539.5	11.8	3.40	4.33	3.16 YES
L0000256	0	0.38168E-02	487419.2	3617544.9	12.1	3.40	4.33	3.16 YES
L0000257	0	0.38168E-02	487411.6	3617550.3	11.6	3.40	4.33	3.16 YES
L0000258	0	0.38168E-02	487404.0	3617555.6	11.6	3.40	4.33	3.16 YES
L0000259	0	0.38168E-02	487396.4	3617561.0	11.5	3.40	4.33	3.16 YES

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 L0000260         0   0.38168E-02  487388.8 3617566.4    12.5     3.40     4.33
3.16     YES
 L0000261         0   0.38168E-02  487381.2 3617571.8    13.3     3.40     4.33
3.16     YES
 L0000262         0   0.38168E-02  487373.7 3617577.2    13.5     3.40     4.33
3.16     YES
 L0027898         0   0.12048E-01  487353.8 3617585.2    11.5     3.40     7.95
3.16     YES
 L0027899         0   0.12048E-01  487340.6 3617596.1    12.2     3.40     7.95
3.16     YES
 L0027900         0   0.12048E-01  487327.4 3617607.0    12.8     3.40     7.95
3.16     YES
 L0027901         0   0.12048E-01  487314.2 3617617.9    12.7     3.40     7.95
3.16     YES
 L0027902         0   0.12048E-01  487301.1 3617628.8    12.6     3.40     7.95
3.16     YES
 L0027903         0   0.12048E-01  487287.9 3617639.7    12.7     3.40     7.95
3.16     YES
 L0027904         0   0.12048E-01  487274.7 3617650.6    12.7     3.40     7.95
3.16     YES
 L0027905         0   0.12048E-01  487261.5 3617661.5    13.4     3.40     7.95
3.16     YES
 L0027906         0   0.12048E-01  487248.4 3617672.4    13.1     3.40     7.95
3.16     YES
 L0027907         0   0.12048E-01  487235.2 3617683.3    13.3     3.40     7.95
3.16     YES
 L0027908         0   0.12048E-01  487222.0 3617694.2    14.3     3.40     7.95
3.16     YES
 L0027909         0   0.12048E-01  487208.9 3617705.1    14.2     3.40     7.95
3.16     YES
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***       12:24:23

                                   PAGE  18
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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L0027910	0	0.12048E-01	487195.7	3617716.0	14.2	3.40	7.95	3.16 YES
L0027911	0	0.12048E-01	487182.5	3617726.9	14.9	3.40	7.95	3.16 YES
L0027912	0	0.12048E-01	487169.3	3617737.8	14.4	3.40	7.95	3.16 YES
L0027913	0	0.12048E-01	487156.2	3617748.7	15.0	3.40	7.95	3.16 YES
L0027914	0	0.12048E-01	487143.0	3617759.6	15.5	3.40	7.95	3.16 YES
L0027915	0	0.12048E-01	487129.8	3617770.5	15.4	3.40	7.95	3.16 YES
L0027916	0	0.12048E-01	487116.6	3617781.4	16.0	3.40	7.95	3.16 YES
L0027917	0	0.12048E-01	487103.5	3617792.3	16.0	3.40	7.95	3.16 YES
L0027918	0	0.12048E-01	487090.3	3617803.2	15.6	3.40	7.95	3.16 YES
L0027919	0	0.12048E-01	487077.1	3617814.1	16.2	3.40	7.95	3.16 YES
L0027920	0	0.12048E-01	487063.9	3617825.0	16.0	3.40	7.95	3.16 YES
L0027921	0	0.12048E-01	487050.8	3617835.9	16.3	3.40	7.95	3.16 YES
L0027922	0	0.12048E-01	487037.6	3617846.9	17.1	3.40	7.95	3.16 YES
L0027923	0	0.12048E-01	487024.4	3617857.8	17.0	3.40	7.95	3.16 YES
L0027924	0	0.12048E-01	487011.2	3617868.7	16.9	3.40	7.95	3.16 YES
L0027925	0	0.12048E-01	486998.1	3617879.6	17.7	3.40	7.95	3.16 YES
L0027926	0	0.12048E-01	486984.9	3617890.5	17.6	3.40	7.95	3.16 YES
L0027927	0	0.12048E-01	486971.7	3617901.4	17.9	3.40	7.95	3.16 YES
L0027928	0	0.12048E-01	486958.5	3617912.3	18.1	3.40	7.95	3.16 YES
L0027929	0	0.12048E-01	486945.4	3617923.2	18.2	3.40	7.95	3.16 YES
L0027930	0	0.12048E-01	486932.2	3617934.1	18.5	3.40	7.95	3.16 YES
L0027931	0	0.12048E-01	486919.0	3617945.0	18.7	3.40	7.95	3.16 YES
L0027932	0	0.12048E-01	486905.9	3617955.9	18.9	3.40	7.95	3.16 YES
L0027933	0	0.12048E-01	486892.7	3617966.8	19.2	3.40	7.95	3.16 YES
L0027934	0	0.12048E-01	486879.5	3617977.7	19.4	3.40	7.95	3.16 YES

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 L0027935         0   0.12048E-01  486866.3 3617988.6    19.4     3.40     7.95
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 L0027936         0   0.12048E-01  486853.2 3617999.5    20.1     3.40     7.95
3.16     YES
 L0027937         0   0.12048E-01  486840.0 3618010.4    19.8     3.40     7.95
3.16     YES
 L0027938         0   0.12048E-01  486826.8 3618021.3    19.9     3.40     7.95
3.16     YES
 L0027939         0   0.12048E-01  486813.6 3618032.2    20.2     3.40     7.95
3.16     YES
 L0027940         0   0.12048E-01  486800.5 3618043.1    20.2     3.40     7.95
3.16     YES
 L0027941         0   0.12048E-01  486787.3 3618054.0    20.6     3.40     7.95
3.16     YES
 L0027942         0   0.12048E-01  486774.1 3618064.9    20.9     3.40     7.95
3.16     YES
 L0027943         0   0.12048E-01  486761.0 3618075.8    20.9     3.40     7.95
3.16     YES
 L0027944         0   0.12048E-01  486747.8 3618086.8    21.2     3.40     7.95
3.16     YES
 L0027945         0   0.12048E-01  486734.7 3618097.7    21.4     3.40     7.95
3.16     YES
 L0027946         0   0.12048E-01  486721.5 3618108.6    21.5     3.40     7.95
3.16     YES
 L0027947         0   0.12048E-01  486708.4 3618119.6    21.8     3.40     7.95
3.16     YES
 L0027948         0   0.12048E-01  486695.2 3618130.5    21.9     3.40     7.95
3.16     YES
 L0027949         0   0.12048E-01  486682.1 3618141.4    22.1     3.40     7.95
3.16     YES
*** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
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L0027950	0	0.12048E-01	486668.9	3618152.4	22.3	3.40	7.95	3.16 YES
L0027951	0	0.12048E-01	486655.8	3618163.3	22.6	3.40	7.95	3.16 YES
L0027952	0	0.12048E-01	486642.6	3618174.2	22.8	3.40	7.95	3.16 YES
L0027953	0	0.12048E-01	486629.5	3618185.2	22.8	3.40	7.95	3.16 YES
L0027954	0	0.12048E-01	486616.3	3618196.1	22.9	3.40	7.95	3.16 YES
L0027955	0	0.12048E-01	486603.2	3618207.0	23.4	3.40	7.95	3.16 YES
L0027956	0	0.12048E-01	486590.0	3618218.0	22.8	3.40	7.95	3.16 YES
L0027957	0	0.12048E-01	486576.9	3618228.9	23.5	3.40	7.95	3.16 YES
L0027958	0	0.12048E-01	486563.7	3618239.8	23.4	3.40	7.95	3.16 YES
L0027959	0	0.12048E-01	486550.6	3618250.8	20.9	3.40	7.95	3.16 YES
L0027960	0	0.12048E-01	486537.5	3618261.7	17.7	3.40	7.95	3.16 YES
L0027961	0	0.12048E-01	486524.3	3618272.6	17.4	3.40	7.95	3.16 YES
L0027962	0	0.12048E-01	486511.2	3618283.6	20.9	3.40	7.95	3.16 YES
L0027963	0	0.12048E-01	486498.0	3618294.5	23.2	3.40	7.95	3.16 YES
L0027964	0	0.12048E-01	486484.9	3618305.4	22.8	3.40	7.95	3.16 YES
L0027965	0	0.12048E-01	486471.7	3618316.4	22.6	3.40	7.95	3.16 YES
L0027966	0	0.12048E-01	486458.6	3618327.3	22.4	3.40	7.95	3.16 YES
L0027967	0	0.12048E-01	486445.4	3618338.2	21.8	3.40	7.95	3.16 YES
L0027968	0	0.12048E-01	486432.3	3618349.2	21.4	3.40	7.95	3.16 YES
L0027969	0	0.12048E-01	486419.1	3618360.1	21.7	3.40	7.95	3.16 YES
L0027970	0	0.12048E-01	486406.0	3618371.0	20.9	3.40	7.95	3.16 YES
L0027971	0	0.12048E-01	486392.8	3618382.0	20.9	3.40	7.95	3.16 YES
L0027972	0	0.12048E-01	486379.7	3618392.9	20.6	3.40	7.95	3.16 YES
L0027973	0	0.12048E-01	486366.5	3618403.8	20.2	3.40	7.95	3.16 YES
L0027974	0	0.12048E-01	486353.4	3618414.8	19.9	3.40	7.95	3.16 YES

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 L0027975         0   0.12048E-01  486340.2 3618425.7    19.5     3.40     7.95
3.16     YES
 L0027976         0   0.12048E-01  486327.1 3618436.6    18.9     3.40     7.95
3.16     YES
 L0027977         0   0.12048E-01  486313.9 3618447.6    19.1     3.40     7.95
3.16     YES
 L0027978         0   0.12048E-01  486300.8 3618458.5    18.9     3.40     7.95
3.16     YES
 L0027979         0   0.12048E-01  486287.6 3618469.4    18.9     3.40     7.95
3.16     YES
 L0027980         0   0.12048E-01  486274.5 3618480.4    19.1     3.40     7.95
3.16     YES
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                *** SOURCE IDs DEFINING SOURCE GROUPS
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 SRCGROUP ID                                                 SOURCE IDs
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↟ *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                *** SOURCE IDs DEFINING SOURCE GROUPS
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 SRCGROUP ID                                                 SOURCE IDs
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*** SOURCE IDs DEFINING SOURCE GROUPS ***

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L0000262 ,

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VOL6 , VOL7 , VOL8 ,

VOL9 , VOL10 , VOL11 , VOL12 , VOL13 ,
VOL14 , VOL15 , VOL16 ,

VOL17 , VOL18 , VOL19 , VOL20 , VOL21 ,
VOL22 , VOL23 , VOL24 ,

VOL25 , VOL26 , VOL27 , VOL28 , VOL29 ,
VOL30 , VOL31 , VOL32 ,

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VOL38        , VOL39       , VOL40       ,

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VOL46        , VOL47       , VOL48       ,

             VOL49       , VOL50       , VOL51       , VOL52       , VOL53       ,
VOL54        , VOL55       , VOL56       ,

             VOL57       , VOL58       , VOL59       , VOL60       , VOL61       ,
VOL62        , VOL63       , VOL64       ,

             VOL65       , VOL66       , VOL67       , VOL68       , VOL69       ,
VOL70        , VOL71       , VOL72       ,

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VOL78        , VOL79       , VOL80       ,

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VOL86        , VOL87       , VOL88       ,

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VOL94        , VOL95       , VOL96       ,

             VOL97       , VOL98       , VOL99       , VOL100      , VOL101      ,
VOL102       , VOL103      , VOL104      ,

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VOL110       , VOL111      , VOL112      ,

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VOL118       , VOL119      , VOL120      ,

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VOL126       , VOL127      , VOL128      ,
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                *** SOURCE IDs DEFINING SOURCE GROUPS
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 SRCGROUP ID                                                 SOURCE IDs
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VOL142       , VOL143      , VOL144      ,

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VOL150       , VOL151      , VOL152      ,

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VOL158       , VOL159      , VOL160      ,

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VOL166       , VOL167      , VOL168      ,

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VOL174       , VOL175      , VOL176      ,

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VOL182       , VOL183      , VOL184      ,

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VOL190       , VOL191      , VOL192      ,

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VOL198       , VOL199      , VOL200      ,

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VOL206       , VOL207      , VOL208      ,

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VOL214       , VOL215      , VOL216      ,

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VOL222       , VOL223      , VOL224      ,

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VOL230       , VOL231      , VOL232      ,

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VOL238       , VOL239      , VOL240      ,

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VOL255 , VOL256 , VOL257 ,

VOL258 , VOL259 , VOL260 , VOL261 , VOL262 ,
VOL263 , VOL264 , VOL265 ,

VOL266 , VOL267 , VOL268 , VOL269 , VOL270 ,
VOL271 , VOL272 , VOL273 ,

VOL274 , VOL275 , VOL276 , VOL277 , VOL278 ,
VOL279 , VOL280 , VOL281 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** SOURCE IDs DEFINING SOURCE GROUPS ***

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VOL287 , VOL288 , VOL289 ,

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VOL298 , VOL299 , VOL300 , VOL301 , VOL302 ,
VOL303 , VOL304 , VOL305 ,

VOL306 , VOL307 , VOL308 , VOL309 , VOL310 ,
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VOL314 , VOL315 , VOL316 , VOL317 , VOL318 ,
VOL319 , VOL320 , VOL321 ,

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*** SOURCE IDs DEFINED AS URBAN SOURCES ***

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		VOL17 , VOL18 , VOL19 , VOL20 , VOL21 , VOL22 , VOL23 , VOL24 ,
		VOL25 , VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 ,
		VOL33 , VOL34 , VOL35 , VOL36 , VOL37 , VOL38 , VOL39 , VOL40 ,
		VOL41 , VOL42 , VOL43 , VOL44 , VOL45 , VOL46 , VOL47 , VOL48 ,
		VOL49 , VOL50 , VOL51 , VOL52 , VOL53 , VOL54 , VOL55 , VOL56 ,
		VOL57 , VOL58 , VOL59 , VOL60 , VOL61 , VOL62 , VOL63 , VOL64 ,
		VOL65 , VOL66 , VOL67 , VOL68 , VOL69 , VOL70 , VOL71 , VOL72 ,

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VOL78       , VOL79       , VOL80       ,

             VOL81       , VOL82       , VOL83       , VOL84       , VOL85       ,
VOL86       , VOL87       , VOL88       ,

             VOL89       , VOL90       , VOL91       , VOL92       , VOL93       ,
VOL94       , VOL95       , VOL96       ,

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VOL102      , VOL103      , VOL104      ,

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VOL126      , VOL127      , VOL128      ,

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VOL134      , VOL135      , VOL136      ,

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VOL158      , VOL159      , VOL160      ,
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
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  URBAN ID   URBAN POP                                    SOURCE IDs
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VOL238      , VOL239      , VOL240      ,

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             VOL249      , VOL250      , VOL251      , VOL252      , VOL253      ,
VOL254      , VOL255      , VOL256      ,

             VOL257      , VOL258      , VOL259      , VOL260      , VOL261      ,
VOL262      , VOL263      , VOL264      ,

             VOL265      , VOL266      , VOL267      , VOL268      , VOL269      ,
VOL270      , VOL271      , VOL272      ,

             VOL273      , VOL274      , VOL275      , VOL276      , VOL277      ,
VOL278      , VOL279      , VOL280      ,

             VOL281      , VOL282      , VOL283      , VOL284      , VOL285      ,
VOL286      , VOL287      , VOL288      ,

             VOL289      , VOL290      , VOL291      , VOL292      , VOL293      ,
VOL294      , VOL295      , VOL296      ,
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

VOL321 , VOL322 , VOL323 , VOL324 , VOL325 ,
VOL326 , VOL327 , VOL328 ,

VOL329 , VOL330 , VOL331 , VOL332 , VOL333 ,
VOL334 , VOL335 , VOL336 ,

VOL337 , VOL338 , VOL339 , VOL340 , VOL341 ,
VOL342 , VOL343 , VOL344 ,

VOL345 , VOL346 , VOL347 , VOL348 , VOL349 ,
VOL350 , VOL351 , VOL352 ,

VOL353 , VOL354 , VOL355 , VOL356 , VOL357 ,
VOL358 , VOL359 , VOL360 ,

VOL361 , VOL362 , VOL363 , VOL364 , VOL365 ,
VOL366 , L0000001 , L0000002 ,

L0000003 , L0000004 , L0000005 , L0000006 , L0000007 ,
L0000008 , L0000009 , L0000010 ,

L0000011 , L0000012 , L0000013 , L0000014 , L0000015 ,
L0000016 , L0000017 , L0000018 ,

L0000019 , L0000020 , L0000021 , L0000022 , L0000023 ,
L0000024 , L0000025 , L0000026 ,

L0000027 , L0000028 , L0000029 , L0000030 , L0000031 ,
L0000032 , L0000033 , L0000034 ,

L0000035 , L0000036 , L0000037 , L0000038 , L0000039 ,
L0000040 , L0000041 , L0000042 ,

L0000043 , L0000044 , L0000045 , L0000046 , L0000047 ,
L0000048 , L0000049 , L0000050 ,

L0000051 , L0000052 , L0000053 , L0000054 , L0000055 ,
L0000056 , L0000057 , L0000058 ,

L0000059 , L0000060 , L0000061 , L0000062 , L0000063 ,
L0000064 , L0000065 , L0000066 ,

L0000067 , L0000068 , L0000069 , L0000070 , L0000071 ,
L0000072 , L0000073 , L0000074 ,

L0000075 , L0000076 , L0000077 , L0000078 , L0000079 ,
L0000080 , L0000081 , L0000082 ,

L0000083 , L0000084 , L0000085 , L0000086 , L0000087 ,
L0000088 , L0000089 , L0000090 ,

L0000091 , L0000092 , L0000093 , L0000094 , L0000095 ,
L0000096 , L0000097 , L0000098 ,

L0000099 , L0000100 , L0000101 , L0000102 , L0000103 ,
L0000104 , L0000105 , L0000106 ,

L0000107 , L0000108 , L0000109 , L0000110 , L0000111 ,
L0000112 , L0000113 , L0000114 ,

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0000115 , L0000116 , L0000117 , L0000118 , L0000119 ,

```
L0000120    , L0000121    , L0000122    ,

             L0000123    , L0000124    , L0000125    , L0000126    , L0000127    ,
L0000128    , L0000129    , L0000130    ,

             L0000131    , L0000132    , L0000133    , L0000134    , L0000135    ,
L0000136    , L0000137    , L0000138    ,

             L0000139    , L0000140    , L0000141    , L0000142    , L0000143    ,
L0000144    , L0000145    , L0000146    ,

             L0000147    , L0000148    , L0000149    , L0000150    , L0000151    ,
L0000152    , L0000153    , L0000154    ,

             L0000155    , L0000156    , L0000157    , L0000158    , L0000159    ,
L0000160    , L0000161    , L0000162    ,

             L0000163    , L0000164    , L0000165    , L0000166    , L0000167    ,
L0000168    , L0000169    , L0000170    ,

             L0000171    , L0000172    , L0000173    , L0000174    , L0000175    ,
L0000176    , L0000177    , L0000178    ,

             L0000179    , L0000180    , L0000181    , L0000182    , L0000183    ,
L0000184    , L0000185    , L0000186    ,

             L0000187    , L0000188    , L0000189    , L0000190    , L0000191    ,
L0000192    , L0000193    , L0000194    ,

             L0000195    , L0000196    , L0000197    , L0000198    , L0000199    ,
L0000200    , L0000201    , L0000202    ,

             L0000203    , L0000204    , L0000205    , L0000206    , L0000207    ,
L0000208    , L0000209    , L0000210    ,

             L0000211    , L0000212    , L0000213    , L0000214    , L0000215    ,
L0000216    , L0000217    , L0000218    ,

             L0000219    , L0000220    , L0000221    , L0000222    , L0000223    ,
L0000224    , L0000225    , L0000226    ,

             L0000227    , L0000228    , L0000229    , L0000230    , L0000231    ,
L0000232    , L0000233    , L0000234    ,

             L0000235    , L0000236    , L0000237    , L0000238    , L0000239    ,
L0000240    , L0000241    , L0000242    ,

             L0000243    , L0000244    , L0000245    , L0000246    , L0000247    ,
L0000248    , L0000249    , L0000250    ,
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*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0027910 , L0027911 , L0027912 , L0027913 , L0027914 ,
L0027915 , L0027916 , L0027917 ,

L0027918 , L0027919 , L0027920 , L0027921 , L0027922 ,
L0027923 , L0027924 , L0027925 ,

L0027926 , L0027927 , L0027928 , L0027929 , L0027930 ,
L0027931 , L0027932 , L0027933 ,

L0027934 , L0027935 , L0027936 , L0027937 , L0027938 ,
L0027939 , L0027940 , L0027941 ,

L0027942 , L0027943 , L0027944 , L0027945 , L0027946 ,
L0027947 , L0027948 , L0027949 ,

L0027950 , L0027951 , L0027952 , L0027953 , L0027954 ,
L0027955 , L0027956 , L0027957 ,

L0027958 , L0027959 , L0027960 , L0027961 , L0027962 ,
L0027963 , L0027964 , L0027965 ,

L0027966 , L0027967 , L0027968 , L0027969 , L0027970 ,
L0027971 , L0027972 , L0027973 ,

L0027974 , L0027975 , L0027976 , L0027977 , L0027978 ,
L0027979 , L0027980 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(488270.6, 3616550.5, 3.9, 3.9, 0.0); (488320.6, 3616550.5, 4.5, 4.5, 0.0);
(488370.6, 3616550.5, 4.9, 4.9, 0.0); (488420.6, 3616550.5, 4.8, 4.8, 0.0);
(488470.6, 3616550.5, 5.5, 5.5, 0.0); (488520.6, 3616550.5, 5.8, 5.8, 0.0);
(488570.6, 3616550.5, 5.2, 5.2, 0.0); (488620.6, 3616550.5, 5.2, 5.2, 0.0);
(488270.6, 3616600.5, 4.3, 4.3, 0.0); (488320.6, 3616600.5, 4.5, 4.5, 0.0);
(488370.6, 3616600.5, 4.1, 4.1, 0.0); (488420.6, 3616600.5, 4.4, 4.4, 0.0);
(488470.6, 3616600.5, 4.8, 4.8, 0.0); (488520.6, 3616600.5, 5.3, 5.3, 0.0);
(488570.6, 3616600.5, 5.0, 5.0, 0.0); (488620.6, 3616600.5, 5.1, 5.1, 0.0);
(488270.6, 3616650.5, 3.9, 3.9, 0.0); (488320.6, 3616650.5, 3.7, 3.7, 0.0);
(488370.6, 3616650.5, 4.0, 4.0, 0.0); (488420.6, 3616650.5, 4.3, 4.3, 0.0);
(488470.6, 3616650.5, 4.5, 4.5, 0.0); (488520.6, 3616650.5, 4.7, 4.7, 0.0);
(488570.6, 3616650.5, 5.1, 5.1, 0.0); (488620.6, 3616650.5, 5.4, 5.4, 0.0);
(488270.6, 3616700.5, 3.5, 3.5, 0.0); (488320.6, 3616700.5, 4.2, 4.2, 0.0);
(488370.6, 3616700.5, 4.3, 4.3, 0.0); (488420.6, 3616700.5, 4.8, 4.8, 0.0);
(488470.6, 3616700.5, 5.0, 5.0, 0.0); (488520.6, 3616700.5, 4.9, 4.9, 0.0);
(488570.6, 3616700.5, 5.4, 5.4, 0.0); (488620.6, 3616700.5, 5.5, 5.5, 0.0);
(488320.6, 3616750.5, 4.3, 4.3, 0.0); (488370.6, 3616750.5, 4.6, 4.6, 0.0);
(488420.6, 3616750.5, 4.8, 4.8, 0.0); (488470.6, 3616750.5, 4.9, 4.9, 0.0);
(488520.6, 3616750.5, 5.4, 5.4, 0.0); (488570.6, 3616750.5, 5.2, 5.2, 0.0);

```
     ( 488620.6, 3616750.5,       5.0,       5.0,       0.0);         ( 488320.6,
3616800.5,       4.5,       4.5,       0.0);
     ( 488370.6, 3616800.5,       4.8,       4.8,       0.0);         ( 488420.6,
3616800.5,       5.0,       5.0,       0.0);
     ( 488470.6, 3616800.5,       5.0,       5.0,       0.0);         ( 488520.6,
3616800.5,       5.1,       5.1,       0.0);
     ( 488570.6, 3616800.5,       5.1,       5.1,       0.0);         ( 488620.6,
3616800.5,       4.4,       4.4,       0.0);
     ( 488370.6, 3616850.5,       4.8,       4.8,       0.0);         ( 488420.6,
3616850.5,       4.8,       4.8,       0.0);
     ( 488470.6, 3616850.5,       5.1,       5.1,       0.0);         ( 488520.6,
3616850.5,       4.9,       4.9,       0.0);
     ( 488570.6, 3616850.5,       5.0,       5.0,       0.0);         ( 488620.6,
3616850.5,       4.2,       4.2,       0.0);
     ( 488420.6, 3616900.5,       4.9,       4.9,       0.0);         ( 488470.6,
3616900.5,       5.0,       5.0,       0.0);
     ( 488520.6, 3616900.5,       5.0,       5.0,       0.0);         ( 488570.6,
3616900.5,       4.6,       4.6,       0.0);
     ( 488620.6, 3616900.5,       4.3,       4.3,       0.0);         ( 488420.6,
3616950.5,       6.2,       9.9,       0.0);
     ( 488470.6, 3616950.5,       4.9,       4.9,       0.0);         ( 488520.6,
3616950.5,       4.7,       4.7,       0.0);
     ( 488570.6, 3616950.5,       4.4,       4.4,       0.0);         ( 488620.6,
3616950.5,       4.3,       4.3,       0.0);
     ( 488470.6, 3617000.5,       4.5,      10.2,       0.0);         ( 488520.6,
3617000.5,       4.4,       4.4,       0.0);
     ( 488570.6, 3617000.5,       4.5,       4.5,       0.0);         ( 488620.6,
3617000.5,       4.4,       4.4,       0.0);
     ( 488470.6, 3617050.5,       6.8,      10.1,       0.0);         ( 488520.6,
3617050.5,       4.3,      10.1,       0.0);
     ( 488570.6, 3617050.5,       3.5,       3.5,       0.0);         ( 488620.6,
3617050.5,       3.5,      10.0,       0.0);
     ( 488370.6, 3617100.5,       6.9,       6.9,       0.0);         ( 488420.6,
3617100.5,       2.1,      15.0,       0.0);
     ( 488470.6, 3617100.5,       7.7,       9.8,       0.0);         ( 488520.6,
3617100.5,       6.1,       9.7,       0.0);
     ( 488570.6, 3617100.5,       4.1,      14.4,       0.0);         ( 488620.6,
3617100.5,       9.3,       9.3,       0.0);
     ( 488320.6, 3617150.5,       8.0,      14.6,       0.0);         ( 488370.6,
3617150.5,       8.3,      14.6,       0.0);
     ( 488420.6, 3617150.5,       6.0,      15.0,       0.0);         ( 488470.6,
3617150.5,       2.7,      15.0,       0.0);
     ( 488520.6, 3617150.5,       6.9,       9.2,       0.0);         ( 488570.6,
3617150.5,       7.1,      14.8,       0.0);
     ( 488620.6, 3617150.5,      11.4,      13.1,       0.0);         ( 488270.6,
3617200.5,      13.0,      13.0,       0.0);
     ( 488320.6, 3617200.5,       8.0,      15.0,       0.0);         ( 488370.6,
3617200.5,      14.2,      14.2,       0.0);
     ( 488420.6, 3617200.5,       8.6,      15.0,       0.0);         ( 488470.6,
3617200.5,       4.3,      16.1,       0.0);
```

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(488620.6, 3617200.5, 14.7, 14.7, 0.0); (487320.6, 3617250.5, 10.6, 10.6, 0.0);
(487370.6, 3617250.5, 10.6, 10.6, 0.0); (487420.6, 3617250.5, 10.9, 10.9, 0.0);
(487470.6, 3617250.5, 11.1, 11.1, 0.0); (487520.6, 3617250.5, 11.8, 11.8, 0.0);
(487570.6, 3617250.5, 12.8, 12.8, 0.0); (487620.6, 3617250.5, 13.7, 13.7, 0.0);
(487670.6, 3617250.5, 14.2, 14.4, 0.0); (487720.6, 3617250.5, 14.5, 14.5, 0.0);
(487770.6, 3617250.5, 14.6, 14.6, 0.0); (487820.6, 3617250.5, 14.7, 14.7, 0.0);
(487870.6, 3617250.5, 14.9, 14.9, 0.0); (487920.6, 3617250.5, 15.2, 15.2, 0.0);
(487970.6, 3617250.5, 15.6, 15.6, 0.0); (488020.6, 3617250.5, 15.9, 15.9, 0.0);
(488070.6, 3617250.5, 16.1, 16.1, 0.0); (488120.6, 3617250.5, 15.9, 15.9, 0.0);
(488170.6, 3617250.5, 15.8, 15.8, 0.0); (488220.6, 3617250.5, 15.0, 15.0, 0.0);
(488270.6, 3617250.5, 13.9, 13.9, 0.0); (488320.6, 3617250.5, 13.7, 13.7, 0.0);
(488370.6, 3617250.5, 13.9, 13.9, 0.0); (488420.6, 3617250.5, 11.0, 16.9, 0.0);
(488470.6, 3617250.5, 4.8, 16.9, 0.0); (488520.6, 3617250.5, 10.3, 14.2, 0.0);
(488570.6, 3617250.5, 6.5, 15.7, 0.0); (488620.6, 3617250.5, 12.5, 15.7, 0.0);
(487170.6, 3617300.5, 11.8, 11.8, 0.0); (487220.6, 3617300.5, 11.9, 11.9, 0.0);
(487270.6, 3617300.5, 11.2, 11.2, 0.0); (487320.6, 3617300.5, 12.1, 12.1, 0.0);
(487370.6, 3617300.5, 12.8, 12.8, 0.0); (487420.6, 3617300.5, 13.4, 13.4, 0.0);
(487470.6, 3617300.5, 12.9, 12.9, 0.0); (487520.6, 3617300.5, 13.9, 13.9, 0.0);

```
     ( 487570.6, 3617300.5,      14.9,      14.9,       0.0);         ( 487620.6,
3617300.5,      15.6,      15.6,       0.0);
     ( 487670.6, 3617300.5,      15.6,      15.6,       0.0);         ( 487720.6,
3617300.5,      16.1,      16.1,       0.0);
     ( 487770.6, 3617300.5,      16.0,      16.0,       0.0);         ( 487820.6,
3617300.5,      15.7,      15.7,       0.0);
     ( 487870.6, 3617300.5,      16.8,      16.8,       0.0);         ( 487920.6,
3617300.5,      17.4,      17.4,       0.0);
     ( 487970.6, 3617300.5,      18.4,      18.4,       0.0);         ( 488020.6,
3617300.5,      17.9,      17.9,       0.0);
     ( 488070.6, 3617300.5,      17.2,      17.2,       0.0);         ( 488120.6,
3617300.5,      17.8,      17.8,       0.0);
     ( 488170.6, 3617300.5,      16.7,      16.7,       0.0);         ( 488220.6,
3617300.5,      15.1,      15.1,       0.0);
     ( 488270.6, 3617300.5,      14.8,      14.8,       0.0);         ( 488320.6,
3617300.5,      14.9,      14.9,       0.0);
     ( 488370.6, 3617300.5,      16.8,      16.8,       0.0);         ( 488420.6,
3617300.5,      12.4,      16.1,       0.0);
     ( 488470.6, 3617300.5,       6.7,      16.9,       0.0);         ( 488520.6,
3617300.5,      14.6,      14.6,       0.0);
     ( 488570.6, 3617300.5,       9.8,      15.3,       0.0);         ( 488620.6,
3617300.5,       8.6,      15.7,       0.0);
     ( 487020.6, 3617350.5,      11.7,      11.7,       0.0);         ( 487070.6,
3617350.5,      11.4,      11.4,       0.0);
     ( 487120.6, 3617350.5,      11.9,      11.9,       0.0);         ( 487170.6,
3617350.5,      12.4,      12.4,       0.0);
     ( 487220.6, 3617350.5,      12.8,      12.8,       0.0);         ( 487270.6,
3617350.5,      13.1,      13.1,       0.0);
     ( 487320.6, 3617350.5,      13.4,      13.4,       0.0);         ( 487370.6,
3617350.5,      13.9,      13.9,       0.0);
     ( 487420.6, 3617350.5,      14.3,      14.3,       0.0);         ( 487470.6,
3617350.5,      14.6,      14.6,       0.0);
     ( 487520.6, 3617350.5,      14.9,      14.9,       0.0);         ( 487570.6,
3617350.5,      15.8,      15.8,       0.0);
     ( 487620.6, 3617350.5,      16.2,      16.2,       0.0);         ( 487670.6,
3617350.5,      16.6,      16.6,       0.0);
     ( 487720.6, 3617350.5,      16.9,      16.9,       0.0);         ( 487770.6,
3617350.5,      17.0,      17.0,       0.0);
     ( 487820.6, 3617350.5,      16.7,      16.7,       0.0);         ( 487870.6,
3617350.5,      17.8,      17.8,       0.0);
     ( 487920.6, 3617350.5,      18.4,      18.4,       0.0);         ( 487970.6,
3617350.5,      18.9,      18.9,       0.0);
     ( 488020.6, 3617350.5,      18.1,      18.1,       0.0);         ( 488070.6,
3617350.5,      18.1,      18.1,       0.0);
     ( 488120.6, 3617350.5,      18.1,      18.1,       0.0);         ( 488170.6,
3617350.5,      17.0,      17.0,       0.0);
     ( 488220.6, 3617350.5,      15.8,      15.8,       0.0);         ( 488270.6,
3617350.5,      14.9,      14.9,       0.0);
     ( 488320.6, 3617350.5,      13.9,      17.0,       0.0);         ( 488370.6,
3617350.5,      12.2,      17.0,       0.0);
```

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(488620.6, 3617350.5, 8.3, 8.3, 0.0); (486770.6, 3617400.5, 9.2, 9.2, 0.0);
(486820.6, 3617400.5, 9.9, 9.9, 0.0); (486870.6, 3617400.5, 10.6, 10.6, 0.0);
(486920.6, 3617400.5, 11.3, 11.3, 0.0); (486970.6, 3617400.5, 12.1, 12.1, 0.0);
(487020.6, 3617400.5, 12.7, 12.7, 0.0); (487070.6, 3617400.5, 12.8, 12.8, 0.0);
(487120.6, 3617400.5, 13.1, 13.1, 0.0); (487170.6, 3617400.5, 13.8, 13.8, 0.0);
(487220.6, 3617400.5, 14.3, 14.3, 0.0); (487270.6, 3617400.5, 14.7, 14.7, 0.0);
(487320.6, 3617400.5, 14.7, 14.7, 0.0); (487370.6, 3617400.5, 15.3, 15.3, 0.0);
(487420.6, 3617400.5, 15.7, 15.7, 0.0); (487470.6, 3617400.5, 16.0, 16.0, 0.0);
(487520.6, 3617400.5, 14.1, 14.1, 0.0); (487570.6, 3617400.5, 16.9, 16.9, 0.0);
(487620.6, 3617400.5, 13.9, 16.7, 0.0); (487670.6, 3617400.5, 13.9, 16.8, 0.0);
(487720.6, 3617400.5, 14.1, 17.3, 0.0); (487770.6, 3617400.5, 14.1, 17.5, 0.0);
(487820.6, 3617400.5, 14.0, 17.5, 0.0); (487870.6, 3617400.5, 14.7, 17.9, 0.0);
(487920.6, 3617400.5, 14.9, 18.1, 0.0); (487970.6, 3617400.5, 14.8, 18.6, 0.0);
(488020.6, 3617400.5, 14.4, 18.5, 0.0); (488070.6, 3617400.5, 13.9, 21.0, 0.0);
(488120.6, 3617400.5, 12.8, 21.4, 0.0); (488170.6, 3617400.5, 11.6, 22.5, 0.0);
(488220.6, 3617400.5, 11.1, 21.5, 0.0); (488270.6, 3617400.5, 11.2, 19.9, 0.0);
(488320.6, 3617400.5, 11.3, 17.9, 0.0); (488370.6, 3617400.5, 12.9, 17.8, 0.0);

```
     ( 488420.6, 3617400.5,       7.9,      17.8,       0.0);         ( 488470.6,
3617400.5,       4.1,      17.8,       0.0);
     ( 488520.6, 3617400.5,       4.7,      15.3,       0.0);         ( 488570.6,
3617400.5,       5.0,      15.3,       0.0);
     ( 488620.6, 3617400.5,       7.9,       9.8,       0.0);         ( 486820.6,
3617450.5,      10.9,      10.9,       0.0);
     ( 486870.6, 3617450.5,      11.4,      11.4,       0.0);         ( 486920.6,
3617450.5,      12.3,      12.3,       0.0);
     ( 486970.6, 3617450.5,      13.0,      13.0,       0.0);         ( 487020.6,
3617450.5,      13.1,      13.1,       0.0);
     ( 487070.6, 3617450.5,      13.8,      13.8,       0.0);         ( 487120.6,
3617450.5,      14.4,      14.4,       0.0);
     ( 487170.6, 3617450.5,      15.2,      15.2,       0.0);         ( 487220.6,
3617450.5,      15.6,      15.6,       0.0);
     ( 487270.6, 3617450.5,      15.9,      15.9,       0.0);         ( 487320.6,
3617450.5,      16.0,      16.0,       0.0);
     ( 487370.6, 3617450.5,      16.7,      16.7,       0.0);         ( 487420.6,
3617450.5,      16.9,      16.9,       0.0);
     ( 487470.6, 3617450.5,      14.3,      17.0,       0.0);         ( 487520.6,
3617450.5,      10.9,      17.4,       0.0);
     ( 487570.6, 3617450.5,      11.0,      20.3,       0.0);         ( 487620.6,
3617450.5,      12.5,      19.3,       0.0);
     ( 487670.6, 3617450.5,      14.4,      19.9,       0.0);         ( 487720.6,
3617450.5,      15.1,      19.4,       0.0);
     ( 487770.6, 3617450.5,      15.8,      19.5,       0.0);         ( 487820.6,
3617450.5,      16.2,      19.7,       0.0);
     ( 487870.6, 3617450.5,      16.7,      19.9,       0.0);         ( 487920.6,
3617450.5,      16.9,      20.2,       0.0);
     ( 487970.6, 3617450.5,      17.0,      20.5,       0.0);         ( 488020.6,
3617450.5,      16.9,      20.8,       0.0);
     ( 488070.6, 3617450.5,      16.9,      22.0,       0.0);         ( 488120.6,
3617450.5,      16.7,      22.5,       0.0);
     ( 488170.6, 3617450.5,      16.2,      22.5,       0.0);         ( 488220.6,
3617450.5,      15.4,      21.5,       0.0);
     ( 488270.6, 3617450.5,      15.6,      19.0,       0.0);         ( 488320.6,
3617450.5,      17.9,      17.9,       0.0);
     ( 488370.6, 3617450.5,      17.3,      17.3,       0.0);         ( 488420.6,
3617450.5,       5.0,      20.1,       0.0);
     ( 488470.6, 3617450.5,       3.5,      19.4,       0.0);         ( 488520.6,
3617450.5,       4.6,       4.6,       0.0);
     ( 488570.6, 3617450.5,       4.5,       4.5,       0.0);         ( 488620.6,
3617450.5,       7.4,      10.7,       0.0);
     ( 486770.6, 3617500.5,      11.1,      11.1,       0.0);         ( 486820.6,
3617500.5,      12.0,      12.0,       0.0);
     ( 486870.6, 3617500.5,      12.3,      12.3,       0.0);         ( 486920.6,
3617500.5,      13.0,      13.0,       0.0);
     ( 486970.6, 3617500.5,      13.4,      13.4,       0.0);         ( 487020.6,
3617500.5,      14.4,      14.4,       0.0);
     ( 487070.6, 3617500.5,      15.3,      15.3,       0.0);         ( 487120.6,
3617500.5,      15.9,      15.9,       0.0);
```

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(487470.6, 3617500.5, 10.3, 20.6, 0.0); (487520.6, 3617500.5, 14.0, 14.0, 0.0);
(487570.6, 3617500.5, 17.9, 17.9, 0.0); (487620.6, 3617500.5, 19.2, 19.2, 0.0);
(487670.6, 3617500.5, 19.5, 19.5, 0.0); (487720.6, 3617500.5, 19.7, 19.7, 0.0);
(487770.6, 3617500.5, 19.8, 19.8, 0.0); (487820.6, 3617500.5, 20.0, 20.0, 0.0);
(487870.6, 3617500.5, 20.2, 20.2, 0.0); (487920.6, 3617500.5, 20.9, 20.9, 0.0);
(487970.6, 3617500.5, 20.9, 20.9, 0.0); (488020.6, 3617500.5, 20.9, 20.9, 0.0);
(488070.6, 3617500.5, 21.4, 21.4, 0.0); (488120.6, 3617500.5, 22.5, 22.5, 0.0);
(488170.6, 3617500.5, 22.1, 22.1, 0.0); (488220.6, 3617500.5, 20.9, 20.9, 0.0);
(488270.6, 3617500.5, 19.0, 19.0, 0.0); (488320.6, 3617500.5, 18.9, 18.9, 0.0);
(488370.6, 3617500.5, 17.2, 17.2, 0.0); (488420.6, 3617500.5, 4.1, 20.1, 0.0);
(488470.6, 3617500.5, 3.3, 20.1, 0.0); (488520.6, 3617500.5, 4.4, 4.4, 0.0);
(488570.6, 3617500.5, 4.2, 12.1, 0.0); (488620.6, 3617500.5, 7.5, 12.1, 0.0);
(486670.6, 3617550.5, 10.7, 10.7, 0.0); (486720.6, 3617550.5, 11.4, 11.4, 0.0);
(486770.6, 3617550.5, 11.9, 11.9, 0.0); (486820.6, 3617550.5, 12.9, 12.9, 0.0);
(486870.6, 3617550.5, 13.2, 13.2, 0.0); (486920.6, 3617550.5, 13.8, 13.8, 0.0);
(486970.6, 3617550.5, 14.8, 14.8, 0.0); (487020.6, 3617550.5, 16.0, 16.0, 0.0);

```
     ( 487070.6, 3617550.5,      16.8,      16.8,       0.0);         ( 487120.6,
3617550.5,      17.2,      17.2,       0.0);
     ( 487170.6, 3617550.5,      17.6,      17.6,       0.0);         ( 487220.6,
3617550.5,      18.2,      18.2,       0.0);
     ( 487270.6, 3617550.5,      15.7,      18.4,       0.0);         ( 487320.6,
3617550.5,      11.7,      18.4,       0.0);
     ( 487370.6, 3617550.5,      11.5,      20.3,       0.0);         ( 487420.6,
3617550.5,      13.2,      20.8,       0.0);
     ( 487470.6, 3617550.5,      17.9,      19.7,       0.0);         ( 487520.6,
3617550.5,      18.0,      18.0,       0.0);
     ( 487570.6, 3617550.5,      20.2,      20.2,       0.0);         ( 487620.6,
3617550.5,      20.5,      20.5,       0.0);
     ( 487670.6, 3617550.5,      20.6,      20.6,       0.0);         ( 487720.6,
3617550.5,      20.6,      20.6,       0.0);
     ( 487770.6, 3617550.5,      20.8,      20.8,       0.0);         ( 487820.6,
3617550.5,      21.3,      21.3,       0.0);
     ( 487870.6, 3617550.5,      21.5,      21.5,       0.0);         ( 487920.6,
3617550.5,      21.4,      21.4,       0.0);
     ( 487970.6, 3617550.5,      22.1,      22.1,       0.0);         ( 488020.6,
3617550.5,      22.3,      22.3,       0.0);
     ( 488070.6, 3617550.5,      23.2,      23.2,       0.0);         ( 488120.6,
3617550.5,      23.9,      23.9,       0.0);
     ( 488170.6, 3617550.5,      22.6,      22.6,       0.0);         ( 488220.6,
3617550.5,      21.5,      21.5,       0.0);
     ( 488270.6, 3617550.5,      19.9,      19.9,       0.0);         ( 488320.6,
3617550.5,      20.0,      20.0,       0.0);
     ( 488370.6, 3617550.5,      10.6,      20.1,       0.0);         ( 488420.6,
3617550.5,       4.2,      21.3,       0.0);
     ( 488470.6, 3617550.5,       4.2,      20.1,       0.0);         ( 488520.6,
3617550.5,       3.7,       3.7,       0.0);
     ( 488570.6, 3617550.5,       4.3,      12.6,       0.0);         ( 488620.6,
3617550.5,       8.0,      12.6,       0.0);
     ( 485870.6, 3617600.5,       3.0,       3.0,       0.0);         ( 485920.6,
3617600.5,       2.9,       2.9,       0.0);
     ( 486620.6, 3617600.5,      11.1,      11.1,       0.0);         ( 486670.6,
3617600.5,      11.4,      11.4,       0.0);
     ( 486720.6, 3617600.5,      12.4,      12.4,       0.0);         ( 486770.6,
3617600.5,      13.0,      13.0,       0.0);
     ( 486820.6, 3617600.5,      13.7,      13.7,       0.0);         ( 486870.6,
3617600.5,      14.2,      14.2,       0.0);
     ( 486920.6, 3617600.5,      15.6,      15.6,       0.0);         ( 486970.6,
3617600.5,      16.5,      16.5,       0.0);
     ( 487020.6, 3617600.5,      17.7,      17.7,       0.0);         ( 487070.6,
3617600.5,      18.1,      18.1,       0.0);
     ( 487120.6, 3617600.5,      18.5,      18.5,       0.0);         ( 487170.6,
3617600.5,      18.8,      18.8,       0.0);
     ( 487220.6, 3617600.5,      18.0,      18.0,       0.0);         ( 487270.6,
3617600.5,      13.1,      18.9,       0.0);
     ( 487320.6, 3617600.5,      12.3,      21.6,       0.0);         ( 487370.6,
3617600.5,      15.8,      20.2,       0.0);
```

(487420.6, 3617600.5, 20.3, 20.3, 0.0); (487470.6, 3617600.5, 20.7, 20.7, 0.0);
(487520.6, 3617600.5, 21.0, 21.0, 0.0); (487570.6, 3617600.5, 21.2, 21.2, 0.0);
(487620.6, 3617600.5, 21.4, 21.4, 0.0); (487670.6, 3617600.5, 21.5, 21.5, 0.0);
(487720.6, 3617600.5, 21.8, 21.8, 0.0); (487770.6, 3617600.5, 22.1, 22.1, 0.0);

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(487820.6, 3617600.5, 22.3, 22.3, 0.0); (487870.6, 3617600.5, 22.4, 22.4, 0.0);
(487920.6, 3617600.5, 22.6, 22.6, 0.0); (487970.6, 3617600.5, 23.1, 23.1, 0.0);
(488020.6, 3617600.5, 24.0, 24.0, 0.0); (488070.6, 3617600.5, 24.4, 24.4, 0.0);
(488120.6, 3617600.5, 23.9, 23.9, 0.0); (488170.6, 3617600.5, 23.2, 23.2, 0.0);
(488220.6, 3617600.5, 21.9, 21.9, 0.0); (488270.6, 3617600.5, 20.4, 20.4, 0.0);
(488320.6, 3617600.5, 16.6, 20.3, 0.0); (488370.6, 3617600.5, 10.5, 21.3, 0.0);
(488420.6, 3617600.5, 6.4, 20.4, 0.0); (488470.6, 3617600.5, 4.9, 4.9, 0.0);
(488520.6, 3617600.5, 2.6, 2.6, 0.0); (488570.6, 3617600.5, 4.3, 15.4, 0.0);
(488620.6, 3617600.5, 6.0, 15.7, 0.0); (485870.6, 3617650.5, 3.3, 3.3, 0.0);
(485920.6, 3617650.5, 3.5, 3.5, 0.0); (485970.6, 3617650.5, 3.6, 3.6, 0.0);
(486570.6, 3617650.5, 10.6, 10.6, 0.0); (486620.6, 3617650.5, 11.5, 11.5, 0.0);
(486670.6, 3617650.5, 12.6, 12.6, 0.0); (486720.6, 3617650.5, 13.5, 13.5, 0.0);
(486770.6, 3617650.5, 13.9, 13.9, 0.0); (486820.6, 3617650.5, 14.9, 14.9, 0.0);
(486870.6, 3617650.5, 16.5, 16.5, 0.0); (486920.6, 3617650.5, 17.5, 17.5, 0.0);
(486970.6, 3617650.5, 18.1, 18.1, 0.0); (487020.6, 3617650.5, 19.0, 19.0, 0.0);

```
     ( 487070.6, 3617650.5,      19.8,      19.8,       0.0);         ( 487120.6,
3617650.5,      20.4,      20.4,       0.0);
     ( 487170.6, 3617650.5,      20.3,      20.3,       0.0);         ( 487370.6,
3617650.5,      19.5,      19.5,       0.0);
     ( 487420.6, 3617650.5,      21.1,      21.1,       0.0);         ( 487470.6,
3617650.5,      21.7,      21.7,       0.0);
     ( 487520.6, 3617650.5,      22.4,      22.4,       0.0);         ( 487570.6,
3617650.5,      22.7,      22.7,       0.0);
     ( 487620.6, 3617650.5,      22.4,      22.4,       0.0);         ( 487670.6,
3617650.5,      22.4,      22.4,       0.0);
     ( 487720.6, 3617650.5,      22.9,      22.9,       0.0);         ( 487770.6,
3617650.5,      22.7,      22.7,       0.0);
     ( 487820.6, 3617650.5,      23.0,      23.0,       0.0);         ( 487870.6,
3617650.5,      23.3,      23.3,       0.0);
     ( 487920.6, 3617650.5,      23.2,      23.2,       0.0);         ( 487970.6,
3617650.5,      24.3,      24.3,       0.0);
     ( 488020.6, 3617650.5,      25.7,      25.7,       0.0);         ( 488070.6,
3617650.5,      25.5,      25.5,       0.0);
     ( 488120.6, 3617650.5,      24.1,      24.1,       0.0);         ( 488170.6,
3617650.5,      23.4,      23.4,       0.0);
     ( 488220.6, 3617650.5,      21.9,      21.9,       0.0);         ( 488270.6,
3617650.5,      21.2,      21.2,       0.0);
     ( 488320.6, 3617650.5,      19.1,      19.1,       0.0);         ( 488370.6,
3617650.5,       9.6,      21.3,       0.0);
     ( 488420.6, 3617650.5,       4.3,      21.3,       0.0);         ( 488470.6,
3617650.5,       3.9,      19.1,       0.0);
     ( 488520.6, 3617650.5,       3.8,       3.8,       0.0);         ( 488570.6,
3617650.5,       3.1,      15.7,       0.0);
     ( 488620.6, 3617650.5,       7.5,      15.7,       0.0);         ( 485870.6,
3617700.5,       3.1,       3.1,       0.0);
     ( 485920.6, 3617700.5,       3.8,       3.8,       0.0);         ( 485970.6,
3617700.5,       3.8,       3.8,       0.0);
     ( 486470.6, 3617700.5,       9.2,       9.2,       0.0);         ( 486520.6,
3617700.5,      10.4,      10.4,       0.0);
     ( 486570.6, 3617700.5,      11.2,      11.2,       0.0);         ( 486620.6,
3617700.5,      12.6,      12.6,       0.0);
     ( 486670.6, 3617700.5,      13.4,      13.4,       0.0);         ( 486720.6,
3617700.5,      14.1,      14.1,       0.0);
     ( 486770.6, 3617700.5,      15.1,      15.1,       0.0);         ( 486820.6,
3617700.5,      16.6,      16.6,       0.0);
     ( 486870.6, 3617700.5,      18.2,      18.2,       0.0);         ( 486920.6,
3617700.5,      18.7,      18.7,       0.0);
     ( 486970.6, 3617700.5,      19.6,      19.6,       0.0);         ( 487020.6,
3617700.5,      20.5,      20.5,       0.0);
     ( 487070.6, 3617700.5,      20.8,      20.8,       0.0);         ( 487120.6,
3617700.5,      19.8,      19.8,       0.0);
     ( 487270.6, 3617700.5,      19.4,      21.6,       0.0);         ( 487320.6,
3617700.5,      21.7,      21.7,       0.0);
     ( 487370.6, 3617700.5,      21.6,      21.6,       0.0);         ( 487420.6,
3617700.5,      22.1,      22.1,       0.0);
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(487970.6, 3617700.5, 25.7, 25.7, 0.0); (488020.6, 3617700.5, 26.1, 26.1, 0.0);
(488070.6, 3617700.5, 24.9, 24.9, 0.0); (488120.6, 3617700.5, 23.4, 23.4, 0.0);
(488170.6, 3617700.5, 21.3, 21.3, 0.0); (488220.6, 3617700.5, 19.4, 19.4, 0.0);
(488270.6, 3617700.5, 18.7, 18.7, 0.0); (488320.6, 3617700.5, 17.9, 17.9, 0.0);
(488370.6, 3617700.5, 11.9, 19.1, 0.0); (488420.6, 3617700.5, 5.5, 20.4, 0.0);
(488470.6, 3617700.5, 4.2, 4.2, 0.0); (488520.6, 3617700.5, 4.3, 4.3, 0.0);
(488570.6, 3617700.5, 3.8, 14.4, 0.0); (488620.6, 3617700.5, 5.9, 16.0, 0.0);
(486420.6, 3617750.5, 9.2, 9.2, 0.0); (486470.6, 3617750.5, 10.2, 10.2, 0.0);
(486520.6, 3617750.5, 11.5, 11.5, 0.0); (486570.6, 3617750.5, 12.2, 12.2, 0.0);
(486620.6, 3617750.5, 13.6, 13.6, 0.0); (486670.6, 3617750.5, 14.2, 14.2, 0.0);
(486720.6, 3617750.5, 15.3, 15.3, 0.0); (486770.6, 3617750.5, 16.9, 16.9, 0.0);
(486820.6, 3617750.5, 18.4, 18.4, 0.0); (486870.6, 3617750.5, 19.3, 19.3, 0.0);
(486920.6, 3617750.5, 21.1, 21.1, 0.0); (486970.6, 3617750.5, 21.3, 21.3, 0.0);
(487020.6, 3617750.5, 21.2, 21.2, 0.0); (487070.6, 3617750.5, 20.6, 21.5, 0.0);

```
     ( 487220.6, 3617750.5,      22.1,      22.1,       0.0);         ( 487270.6,
3617750.5,      22.3,      22.3,       0.0);
     ( 487320.6, 3617750.5,      22.8,      22.8,       0.0);         ( 487370.6,
3617750.5,      22.7,      22.7,       0.0);
     ( 487420.6, 3617750.5,      23.1,      23.1,       0.0);         ( 487470.6,
3617750.5,      23.5,      23.5,       0.0);
     ( 487520.6, 3617750.5,      24.6,      24.6,       0.0);         ( 487570.6,
3617750.5,      25.3,      25.3,       0.0);
     ( 487620.6, 3617750.5,      24.7,      24.7,       0.0);         ( 487670.6,
3617750.5,      23.9,      23.9,       0.0);
     ( 487720.6, 3617750.5,      23.9,      23.9,       0.0);         ( 487770.6,
3617750.5,      24.1,      24.1,       0.0);
     ( 487820.6, 3617750.5,      24.6,      24.6,       0.0);         ( 487870.6,
3617750.5,      24.8,      24.8,       0.0);
     ( 487920.6, 3617750.5,      25.2,      25.2,       0.0);         ( 487970.6,
3617750.5,      26.0,      26.0,       0.0);
     ( 488020.6, 3617750.5,      25.2,      25.2,       0.0);         ( 488070.6,
3617750.5,      21.6,      25.3,       0.0);
     ( 488120.6, 3617750.5,      19.6,      19.6,       0.0);         ( 488170.6,
3617750.5,      18.3,      19.1,       0.0);
     ( 488220.6, 3617750.5,      14.1,      21.1,       0.0);         ( 488270.6,
3617750.5,      16.0,      16.9,       0.0);
     ( 488320.6, 3617750.5,      14.1,      16.8,       0.0);         ( 488370.6,
3617750.5,       7.9,      20.4,       0.0);
     ( 488420.6, 3617750.5,       4.8,      19.3,       0.0);         ( 488470.6,
3617750.5,       4.2,       4.2,       0.0);
     ( 488520.6, 3617750.5,       4.7,       4.7,       0.0);         ( 488570.6,
3617750.5,       4.7,       4.7,       0.0);
     ( 488620.6, 3617750.5,       5.2,      13.1,       0.0);         ( 486420.6,
3617800.5,       9.9,       9.9,       0.0);
     ( 486470.6, 3617800.5,      11.0,      11.0,       0.0);         ( 486520.6,
3617800.5,      12.3,      12.3,       0.0);
     ( 486570.6, 3617800.5,      13.2,      13.2,       0.0);         ( 486620.6,
3617800.5,      14.2,      14.2,       0.0);
     ( 486670.6, 3617800.5,      15.6,      15.6,       0.0);         ( 486720.6,
3617800.5,      17.1,      17.1,       0.0);
     ( 486770.6, 3617800.5,      18.2,      18.2,       0.0);         ( 486820.6,
3617800.5,      19.4,      19.4,       0.0);
     ( 486870.6, 3617800.5,      21.2,      21.2,       0.0);         ( 486920.6,
3617800.5,      21.6,      21.6,       0.0);
     ( 486970.6, 3617800.5,      21.8,      21.8,       0.0);         ( 487170.6,
3617800.5,      22.8,      22.8,       0.0);
     ( 487220.6, 3617800.5,      23.4,      23.4,       0.0);         ( 487270.6,
3617800.5,      23.6,      23.6,       0.0);
     ( 487320.6, 3617800.5,      23.7,      23.7,       0.0);         ( 487370.6,
3617800.5,      24.0,      24.0,       0.0);
     ( 487420.6, 3617800.5,      24.3,      24.3,       0.0);         ( 487470.6,
3617800.5,      24.4,      24.4,       0.0);
     ( 487520.6, 3617800.5,      25.2,      25.2,       0.0);         ( 487570.6,
3617800.5,      25.3,      25.3,       0.0);
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(487620.6, 3617800.5, 25.3, 25.3, 0.0); (487670.6, 3617800.5, 24.4, 24.4, 0.0);
(487720.6, 3617800.5, 24.9, 24.9, 0.0); (487770.6, 3617800.5, 24.9, 24.9, 0.0);
(487820.6, 3617800.5, 25.8, 25.8, 0.0); (487870.6, 3617800.5, 25.1, 25.1, 0.0);
(487920.6, 3617800.5, 24.6, 24.6, 0.0); (487970.6, 3617800.5, 24.5, 24.5, 0.0);
(488020.6, 3617800.5, 22.2, 22.2, 0.0); (488070.6, 3617800.5, 17.3, 25.9, 0.0);
(488120.6, 3617800.5, 16.5, 16.5, 0.0); (488170.6, 3617800.5, 15.9, 15.9, 0.0);

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(488220.6, 3617800.5, 13.8, 13.8, 0.0); (488270.6, 3617800.5, 10.9, 16.9, 0.0);
(488320.6, 3617800.5, 8.3, 18.0, 0.0); (488370.6, 3617800.5, 6.7, 17.3, 0.0);
(488420.6, 3617800.5, 4.8, 4.8, 0.0); (488470.6, 3617800.5, 5.0, 5.0, 0.0);
(488520.6, 3617800.5, 4.8, 4.8, 0.0); (488570.6, 3617800.5, 4.5, 4.5, 0.0);
(488620.6, 3617800.5, 3.7, 9.3, 0.0); (486470.6, 3617850.5, 11.9, 11.9, 0.0);
(486520.6, 3617850.5, 12.6, 12.6, 0.0); (486570.6, 3617850.5, 13.6, 13.6, 0.0);
(486620.6, 3617850.5, 15.3, 15.3, 0.0); (486670.6, 3617850.5, 16.9, 16.9, 0.0);
(486720.6, 3617850.5, 18.3, 18.3, 0.0); (486770.6, 3617850.5, 19.3, 19.3, 0.0);
(486820.6, 3617850.5, 20.6, 20.6, 0.0); (486870.6, 3617850.5, 22.0, 22.0, 0.0);
(486920.6, 3617850.5, 22.3, 22.3, 0.0); (487120.6, 3617850.5, 24.2, 24.2, 0.0);
(487170.6, 3617850.5, 24.5, 24.5, 0.0); (487220.6, 3617850.5, 24.6, 24.6, 0.0);
(487270.6, 3617850.5, 24.6, 24.6, 0.0); (487320.6, 3617850.5, 24.4, 24.4, 0.0);
(487370.6, 3617850.5, 24.7, 24.7, 0.0); (487420.6, 3617850.5, 25.2, 25.2, 0.0);

```
     ( 487470.6, 3617850.5,      25.4,      25.4,       0.0);         ( 487520.6,
3617850.5,      25.8,      25.8,       0.0);
     ( 487570.6, 3617850.5,      25.7,      25.7,       0.0);         ( 487620.6,
3617850.5,      25.6,      25.6,       0.0);
     ( 487670.6, 3617850.5,      25.2,      25.2,       0.0);         ( 487720.6,
3617850.5,      25.4,      25.4,       0.0);
     ( 487770.6, 3617850.5,      25.6,      25.6,       0.0);         ( 487820.6,
3617850.5,      25.2,      25.2,       0.0);
     ( 487870.6, 3617850.5,      25.1,      25.1,       0.0);         ( 487920.6,
3617850.5,      24.0,      24.0,       0.0);
     ( 487970.6, 3617850.5,      21.7,      21.7,       0.0);         ( 488020.6,
3617850.5,      19.0,      19.0,       0.0);
     ( 488070.6, 3617850.5,      15.9,      15.9,       0.0);         ( 488120.6,
3617850.5,      15.0,      15.0,       0.0);
     ( 488170.6, 3617850.5,      11.7,      16.3,       0.0);         ( 488220.6,
3617850.5,      10.9,      10.9,       0.0);
     ( 488270.6, 3617850.5,      11.6,      11.6,       0.0);         ( 488320.6,
3617850.5,      12.8,      12.8,       0.0);
     ( 488370.6, 3617850.5,       5.4,      14.6,       0.0);         ( 488420.6,
3617850.5,       4.9,       4.9,       0.0);
     ( 488470.6, 3617850.5,       5.1,       5.1,       0.0);         ( 488520.6,
3617850.5,       5.0,       5.0,       0.0);
     ( 488570.6, 3617850.5,       4.8,       4.8,       0.0);         ( 488620.6,
3617850.5,       3.7,       3.7,       0.0);
     ( 486520.6, 3617900.5,      12.9,      12.9,       0.0);         ( 486570.6,
3617900.5,      14.4,      14.4,       0.0);
     ( 486620.6, 3617900.5,      16.0,      16.0,       0.0);         ( 486670.6,
3617900.5,      17.7,      17.7,       0.0);
     ( 486720.6, 3617900.5,      20.0,      20.0,       0.0);         ( 486770.6,
3617900.5,      20.1,      20.1,       0.0);
     ( 486820.6, 3617900.5,      21.3,      21.3,       0.0);         ( 486870.6,
3617900.5,      22.2,      22.2,       0.0);
     ( 486920.6, 3617900.5,      19.3,      22.7,       0.0);         ( 487070.6,
3617900.5,      25.2,      25.2,       0.0);
     ( 487120.6, 3617900.5,      25.3,      25.3,       0.0);         ( 487170.6,
3617900.5,      25.5,      25.5,       0.0);
     ( 487220.6, 3617900.5,      25.4,      25.4,       0.0);         ( 487270.6,
3617900.5,      25.4,      25.4,       0.0);
     ( 487320.6, 3617900.5,      25.3,      25.3,       0.0);         ( 487370.6,
3617900.5,      25.5,      25.5,       0.0);
     ( 487420.6, 3617900.5,      25.9,      25.9,       0.0);         ( 487470.6,
3617900.5,      26.3,      26.3,       0.0);
     ( 487520.6, 3617900.5,      26.7,      26.7,       0.0);         ( 487570.6,
3617900.5,      26.4,      26.4,       0.0);
     ( 487620.6, 3617900.5,      26.2,      26.2,       0.0);         ( 487670.6,
3617900.5,      25.9,      25.9,       0.0);
     ( 487720.6, 3617900.5,      26.1,      26.1,       0.0);         ( 487770.6,
3617900.5,      25.9,      25.9,       0.0);
     ( 487820.6, 3617900.5,      25.7,      25.7,       0.0);         ( 487870.6,
3617900.5,      24.5,      24.5,       0.0);
```

(487920.6, 3617900.5, 22.8, 22.8, 0.0); (487970.6, 3617900.5, 19.4, 19.4, 0.0);
(488020.6, 3617900.5, 18.6, 18.6, 0.0); (488070.6, 3617900.5, 15.2, 15.2, 0.0);
(488120.6, 3617900.5, 12.7, 12.7, 0.0); (488170.6, 3617900.5, 11.1, 11.1, 0.0);
(488220.6, 3617900.5, 11.5, 14.6, 0.0); (488270.6, 3617900.5, 13.1, 13.1, 0.0);
(488320.6, 3617900.5, 14.2, 14.2, 0.0); (488370.6, 3617900.5, 5.8, 14.6, 0.0);
(488420.6, 3617900.5, 5.5, 5.5, 0.0); (488470.6, 3617900.5, 5.4, 5.4, 0.0);
(488520.6, 3617900.5, 5.1, 5.1, 0.0); (488570.6, 3617900.5, 4.9, 4.9, 0.0);

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(488620.6, 3617900.5, 3.8, 5.0, 0.0); (487077.5, 3618005.0, 26.9, 26.9, 0.0);
(487127.5, 3618005.0, 27.4, 27.4, 0.0); (487177.5, 3618005.0, 27.4, 27.4, 0.0);
(487227.5, 3618005.0, 27.2, 27.2, 0.0); (487277.5, 3618005.0, 27.2, 27.2, 0.0);
(487327.5, 3618005.0, 27.3, 27.3, 0.0); (486570.6, 3617950.5, 14.8, 14.8, 0.0);
(486620.6, 3617950.5, 16.5, 16.5, 0.0); (486670.6, 3617950.5, 18.9, 18.9, 0.0);
(486720.6, 3617950.5, 21.4, 21.4, 0.0); (486770.6, 3617950.5, 21.3, 21.3, 0.0);
(486820.6, 3617950.5, 21.6, 21.6, 0.0); (486970.6, 3617950.5, 22.8, 24.9, 0.0);
(487020.6, 3617950.5, 25.4, 25.4, 0.0); (487070.6, 3617950.5, 26.0, 26.0, 0.0);
(487120.6, 3617950.5, 26.2, 26.2, 0.0); (487170.6, 3617950.5, 26.5, 26.5, 0.0);
(487220.6, 3617950.5, 26.3, 26.3, 0.0); (487270.6, 3617950.5, 26.0, 26.0, 0.0);
(487320.6, 3617950.5, 25.9, 25.9, 0.0); (487370.6, 3617950.5, 26.4, 26.4, 0.0);
(487420.6, 3617950.5, 26.6, 26.6, 0.0); (487470.6, 3617950.5, 27.0, 27.0, 0.0);

```
     ( 487520.6, 3617950.5,      27.1,      27.1,       0.0);         ( 487570.6,
3617950.5,      26.8,      26.8,       0.0);
     ( 487620.6, 3617950.5,      26.8,      26.8,       0.0);         ( 487670.6,
3617950.5,      26.7,      26.7,       0.0);
     ( 487720.6, 3617950.5,      26.7,      26.7,       0.0);         ( 487770.6,
3617950.5,      26.4,      26.4,       0.0);
     ( 487820.6, 3617950.5,      26.0,      26.0,       0.0);         ( 487870.6,
3617950.5,      23.9,      23.9,       0.0);
     ( 487920.6, 3617950.5,      20.6,      20.6,       0.0);         ( 487970.6,
3617950.5,      17.0,      17.0,       0.0);
     ( 488020.6, 3617950.5,      16.4,      16.4,       0.0);         ( 488070.6,
3617950.5,      14.5,      14.5,       0.0);
     ( 488120.6, 3617950.5,      12.0,      12.0,       0.0);         ( 488170.6,
3617950.5,      14.8,      19.7,       0.0);
     ( 488220.6, 3617950.5,      15.8,      15.8,       0.0);         ( 488270.6,
3617950.5,      14.2,      14.2,       0.0);
     ( 488320.6, 3617950.5,      11.7,      14.0,       0.0);         ( 488370.6,
3617950.5,       6.6,      14.3,       0.0);
     ( 488420.6, 3617950.5,       5.8,       5.8,       0.0);         ( 488470.6,
3617950.5,       5.6,       5.6,       0.0);
     ( 488520.6, 3617950.5,       5.3,       5.3,       0.0);         ( 488570.6,
3617950.5,       5.2,       5.2,       0.0);
     ( 488620.6, 3617950.5,       4.1,       4.1,       0.0);         ( 488590.1,
3616298.0,       4.8,       4.8,       0.0);
     ( 488540.1, 3616348.0,       4.8,       4.8,       0.0);         ( 488590.1,
3616348.0,       5.2,       5.2,       0.0);
     ( 488440.1, 3616398.0,       4.6,       4.6,       0.0);         ( 488490.1,
3616398.0,       5.4,       5.4,       0.0);
     ( 488540.1, 3616398.0,       5.8,       5.8,       0.0);         ( 488590.1,
3616398.0,       5.9,       5.9,       0.0);
     ( 488390.1, 3616448.0,       4.6,       4.6,       0.0);         ( 488440.1,
3616448.0,       5.1,       5.1,       0.0);
     ( 488490.1, 3616448.0,       5.6,       5.6,       0.0);         ( 488540.1,
3616448.0,       6.0,       6.0,       0.0);
     ( 488590.1, 3616448.0,       6.0,       6.0,       0.0);         ( 488340.1,
3616498.0,       4.2,       4.2,       0.0);
     ( 488390.1, 3616498.0,       4.6,       4.6,       0.0);         ( 488440.1,
3616498.0,       5.1,       5.1,       0.0);
     ( 488490.1, 3616498.0,       5.8,       5.8,       0.0);         ( 488540.1,
3616498.0,       6.1,       6.1,       0.0);
     ( 488590.1, 3616498.0,       5.7,       5.7,       0.0);         ( 484613.0,
3614429.9,       4.9,       6.0,       0.0);
     ( 484663.0, 3614429.9,       3.1,       3.1,       0.0);         ( 484713.0,
3614429.9,       2.4,       2.4,       0.0);
     ( 484763.0, 3614429.9,       3.1,       3.1,       0.0);         ( 484813.0,
3614429.9,       3.8,       3.8,       0.0);
     ( 484863.0, 3614429.9,       2.7,       2.7,       0.0);         ( 484913.0,
3614429.9,       2.0,       2.0,       0.0);
     ( 484963.0, 3614429.9,       0.2,       0.2,       0.0);         ( 484563.0,
3614479.9,       3.7,       3.7,       0.0);
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(484913.0, 3614529.9, 2.8, 2.8, 0.0); (484963.0, 3614529.9, 0.2, 0.2, 0.0);
(484463.0, 3614579.9, 5.7, 6.1, 0.0); (484513.0, 3614579.9, 3.3, 3.3, 0.0);
(484563.0, 3614579.9, 4.2, 4.2, 0.0); (484613.0, 3614579.9, 4.2, 4.2, 0.0);
(484663.0, 3614579.9, 3.5, 3.5, 0.0); (484713.0, 3614579.9, 4.2, 4.2, 0.0);
(484763.0, 3614579.9, 3.6, 3.6, 0.0); (484813.0, 3614579.9, 3.4, 3.4, 0.0);
(484863.0, 3614579.9, 3.0, 3.0, 0.0); (484913.0, 3614579.9, 3.2, 3.2, 0.0);
(484963.0, 3614579.9, 0.8, 3.6, 0.0); (484413.0, 3614629.9, 3.1, 3.1, 0.0);
(484463.0, 3614629.9, 4.1, 4.1, 0.0); (484513.0, 3614629.9, 3.9, 3.9, 0.0);
(484563.0, 3614629.9, 4.1, 4.1, 0.0); (484613.0, 3614629.9, 4.2, 4.2, 0.0);
(484663.0, 3614629.9, 3.6, 3.6, 0.0); (484713.0, 3614629.9, 3.6, 3.6, 0.0);
(484763.0, 3614629.9, 3.6, 3.6, 0.0); (484813.0, 3614629.9, 3.7, 3.7, 0.0);

```
     ( 484863.0, 3614629.9,       3.6,       3.6,       0.0);         ( 484913.0,
3614629.9,       3.6,       3.6,       0.0);
     ( 484963.0, 3614629.9,       3.4,       3.4,       0.0);         ( 484413.0,
3614679.9,       4.4,       4.4,       0.0);
     ( 484463.0, 3614679.9,       3.1,       3.1,       0.0);         ( 484513.0,
3614679.9,       3.5,       3.5,       0.0);
     ( 484563.0, 3614679.9,       4.0,       4.0,       0.0);         ( 484613.0,
3614679.9,       3.7,       3.7,       0.0);
     ( 484663.0, 3614679.9,       3.5,       3.5,       0.0);         ( 484713.0,
3614679.9,       3.6,       3.6,       0.0);
     ( 484763.0, 3614679.9,       3.6,       3.6,       0.0);         ( 484813.0,
3614679.9,       4.0,       4.0,       0.0);
     ( 484863.0, 3614679.9,       3.9,       3.9,       0.0);         ( 484913.0,
3614679.9,       4.2,       4.2,       0.0);
     ( 484963.0, 3614679.9,       4.0,       4.0,       0.0);         ( 484363.0,
3614729.9,       2.3,       6.8,       0.0);
     ( 484413.0, 3614729.9,       3.7,       3.7,       0.0);         ( 484463.0,
3614729.9,       3.5,       3.5,       0.0);
     ( 484513.0, 3614729.9,       3.8,       3.8,       0.0);         ( 484563.0,
3614729.9,       3.6,       3.6,       0.0);
     ( 484613.0, 3614729.9,       3.5,       3.5,       0.0);         ( 484663.0,
3614729.9,       3.8,       3.8,       0.0);
     ( 484713.0, 3614729.9,       3.8,       3.8,       0.0);         ( 484763.0,
3614729.9,       3.8,       3.8,       0.0);
     ( 484813.0, 3614729.9,       4.2,       4.2,       0.0);         ( 484863.0,
3614729.9,       4.4,       4.4,       0.0);
     ( 484913.0, 3614729.9,       4.3,       4.3,       0.0);         ( 484963.0,
3614729.9,       3.6,       4.2,       0.0);
     ( 484313.0, 3614779.9,       3.6,       6.5,       0.0);         ( 484363.0,
3614779.9,       3.5,       3.5,       0.0);
     ( 484413.0, 3614779.9,       3.5,       3.5,       0.0);         ( 484463.0,
3614779.9,       3.6,       3.6,       0.0);
     ( 484513.0, 3614779.9,       3.4,       3.4,       0.0);         ( 484563.0,
3614779.9,       3.7,       3.7,       0.0);
     ( 484613.0, 3614779.9,       3.8,       3.8,       0.0);         ( 484663.0,
3614779.9,       3.9,       3.9,       0.0);
     ( 484713.0, 3614779.9,       4.0,       4.0,       0.0);         ( 484763.0,
3614779.9,       4.0,       4.0,       0.0);
     ( 484813.0, 3614779.9,       4.3,       4.3,       0.0);         ( 484863.0,
3614779.9,       4.5,       4.5,       0.0);
     ( 484913.0, 3614779.9,       4.3,       4.3,       0.0);         ( 484963.0,
3614779.9,       2.9,       2.9,       0.0);
     ( 484263.0, 3614829.9,       5.4,       6.3,       0.0);         ( 484313.0,
3614829.9,       3.5,       3.5,       0.0);
     ( 484363.0, 3614829.9,       3.5,       3.5,       0.0);         ( 484413.0,
3614829.9,       3.7,       3.7,       0.0);
     ( 484463.0, 3614829.9,       3.4,       3.4,       0.0);         ( 484513.0,
3614829.9,       3.7,       3.7,       0.0);
     ( 484563.0, 3614829.9,       3.8,       3.8,       0.0);         ( 484613.0,
3614829.9,       4.4,       4.4,       0.0);
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(484763.0, 3614879.9, 4.2, 4.2, 0.0); (484813.0, 3614879.9, 3.8, 3.8, 0.0);
(484863.0, 3614879.9, 3.7, 3.7, 0.0); (484913.0, 3614879.9, 3.3, 3.3, 0.0);
(484963.0, 3614879.9, 2.4, 2.4, 0.0); (484163.0, 3614929.9, 4.0, 4.0, 0.0);
(484213.0, 3614929.9, 2.8, 2.8, 0.0); (484263.0, 3614929.9, 2.9, 2.9, 0.0);
(484313.0, 3614929.9, 3.5, 3.5, 0.0); (484363.0, 3614929.9, 3.7, 3.7, 0.0);
(484413.0, 3614929.9, 3.5, 3.5, 0.0); (484463.0, 3614929.9, 4.0, 4.0, 0.0);
(484513.0, 3614929.9, 4.4, 4.4, 0.0); (484563.0, 3614929.9, 4.4, 4.4, 0.0);
(484613.0, 3614929.9, 4.7, 4.7, 0.0); (484663.0, 3614929.9, 4.6, 4.6, 0.0);
(484713.0, 3614929.9, 4.7, 4.7, 0.0); (484763.0, 3614929.9, 4.3, 4.3, 0.0);
(484813.0, 3614929.9, 3.9, 3.9, 0.0); (484863.0, 3614929.9, 4.0, 4.0, 0.0);

```
     ( 484913.0, 3614929.9,       3.7,       3.7,       0.0);         ( 484963.0,
3614929.9,       2.9,       2.9,       0.0);
     ( 485013.0, 3614929.9,       0.2,       0.2,       0.0);         ( 484113.0,
3614979.9,       3.0,       4.4,       0.0);
     ( 484163.0, 3614979.9,       3.5,       3.5,       0.0);         ( 484213.0,
3614979.9,       2.7,       2.7,       0.0);
     ( 484263.0, 3614979.9,       2.9,       2.9,       0.0);         ( 484313.0,
3614979.9,       4.2,       4.2,       0.0);
     ( 484363.0, 3614979.9,       3.7,       3.7,       0.0);         ( 484413.0,
3614979.9,       3.8,       3.8,       0.0);
     ( 484463.0, 3614979.9,       4.2,       4.2,       0.0);         ( 484513.0,
3614979.9,       4.3,       4.3,       0.0);
     ( 484563.0, 3614979.9,       4.4,       4.4,       0.0);         ( 484613.0,
3614979.9,       4.6,       4.6,       0.0);
     ( 484663.0, 3614979.9,       4.3,       4.3,       0.0);         ( 484713.0,
3614979.9,       4.8,       4.8,       0.0);
     ( 484763.0, 3614979.9,       4.3,       4.3,       0.0);         ( 484813.0,
3614979.9,       4.6,       4.6,       0.0);
     ( 484863.0, 3614979.9,       4.4,       4.4,       0.0);         ( 484913.0,
3614979.9,       3.8,       3.8,       0.0);
     ( 484963.0, 3614979.9,       3.6,       3.6,       0.0);         ( 485013.0,
3614979.9,       2.0,       2.0,       0.0);
     ( 484113.0, 3615029.9,       3.2,       3.2,       0.0);         ( 484163.0,
3615029.9,       3.7,       3.7,       0.0);
     ( 484213.0, 3615029.9,       3.4,       3.4,       0.0);         ( 484263.0,
3615029.9,       4.5,       4.5,       0.0);
     ( 484313.0, 3615029.9,       4.1,       4.1,       0.0);         ( 484363.0,
3615029.9,       3.9,       3.9,       0.0);
     ( 484413.0, 3615029.9,       3.8,       3.8,       0.0);         ( 484463.0,
3615029.9,       4.1,       4.1,       0.0);
     ( 484513.0, 3615029.9,       4.4,       4.4,       0.0);         ( 484563.0,
3615029.9,       4.2,       4.2,       0.0);
     ( 484613.0, 3615029.9,       4.4,       4.4,       0.0);         ( 484663.0,
3615029.9,       4.4,       4.4,       0.0);
     ( 484713.0, 3615029.9,       4.2,       4.2,       0.0);         ( 484763.0,
3615029.9,       4.4,       4.4,       0.0);
     ( 484813.0, 3615029.9,       4.7,       4.7,       0.0);         ( 484863.0,
3615029.9,       4.3,       4.3,       0.0);
     ( 484913.0, 3615029.9,       4.1,       4.1,       0.0);         ( 484963.0,
3615029.9,       3.9,       3.9,       0.0);
     ( 485013.0, 3615029.9,       3.6,       3.6,       0.0);         ( 485063.0,
3615029.9,       0.6,       3.5,       0.0);
     ( 484113.0, 3615079.9,       3.3,       3.3,       0.0);         ( 484163.0,
3615079.9,       4.0,       4.0,       0.0);
     ( 484213.0, 3615079.9,       3.9,       3.9,       0.0);         ( 484263.0,
3615079.9,       4.0,       4.0,       0.0);
     ( 484313.0, 3615079.9,       4.0,       4.0,       0.0);         ( 484363.0,
3615079.9,       4.0,       4.0,       0.0);
     ( 484413.0, 3615079.9,       3.5,       3.5,       0.0);         ( 484463.0,
3615079.9,       4.0,       4.0,       0.0);
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(484513.0, 3615079.9, 4.3, 4.3, 0.0); (484563.0, 3615079.9, 4.1, 4.1, 0.0);
(484613.0, 3615079.9, 4.4, 4.4, 0.0); (484663.0, 3615079.9, 4.2, 4.2, 0.0);
(484713.0, 3615079.9, 4.9, 4.9, 0.0); (484763.0, 3615079.9, 4.5, 4.5, 0.0);
(484813.0, 3615079.9, 4.4, 4.4, 0.0); (484863.0, 3615079.9, 4.5, 4.5, 0.0);
(484913.0, 3615079.9, 4.2, 4.2, 0.0); (484963.0, 3615079.9, 4.2, 4.2, 0.0);
(485013.0, 3615079.9, 4.0, 4.0, 0.0); (485063.0, 3615079.9, 4.1, 4.1, 0.0);
(485113.0, 3615079.9, 1.2, 4.3, 0.0); (484113.0, 3615129.9, 3.7, 3.7, 0.0);
(484163.0, 3615129.9, 3.7, 3.7, 0.0); (484213.0, 3615129.9, 3.7, 3.7, 0.0);
(484263.0, 3615129.9, 3.8, 3.8, 0.0); (484313.0, 3615129.9, 4.3, 4.3, 0.0);
(484363.0, 3615129.9, 4.2, 4.2, 0.0); (484413.0, 3615129.9, 3.2, 3.2, 0.0);

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(484463.0, 3615129.9, 3.9, 3.9, 0.0); (484513.0, 3615129.9, 4.1, 4.1, 0.0);
(484563.0, 3615129.9, 4.1, 4.1, 0.0); (484613.0, 3615129.9, 4.1, 4.1, 0.0);
(484663.0, 3615129.9, 4.5, 4.5, 0.0); (484713.0, 3615129.9, 4.5, 4.5, 0.0);
(484763.0, 3615129.9, 4.2, 4.2, 0.0); (484813.0, 3615129.9, 4.6, 4.6, 0.0);
(484863.0, 3615129.9, 4.5, 4.5, 0.0); (484913.0, 3615129.9, 4.3, 4.3, 0.0);
(484963.0, 3615129.9, 4.4, 4.4, 0.0); (485013.0, 3615129.9, 4.3, 4.3, 0.0);
(485063.0, 3615129.9, 3.9, 3.9, 0.0); (485113.0, 3615129.9, 3.8, 3.8, 0.0);
(485163.0, 3615129.9, 1.0, 4.6, 0.0); (484113.0, 3615179.9, 3.7, 3.7, 0.0);
(484163.0, 3615179.9, 3.7, 3.7, 0.0); (484213.0, 3615179.9, 3.6, 3.6, 0.0);

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     ( 484263.0, 3615179.9,       3.8,       3.8,       0.0);         ( 484313.0,
3615179.9,       3.9,       3.9,       0.0);
     ( 484363.0, 3615179.9,       4.5,       4.5,       0.0);         ( 484413.0,
3615179.9,       4.0,       4.0,       0.0);
     ( 484463.0, 3615179.9,       3.9,       3.9,       0.0);         ( 484513.0,
3615179.9,       4.1,       4.1,       0.0);
     ( 484563.0, 3615179.9,       3.9,       3.9,       0.0);         ( 484613.0,
3615179.9,       3.9,       3.9,       0.0);
     ( 484663.0, 3615179.9,       4.1,       4.1,       0.0);         ( 484713.0,
3615179.9,       4.5,       4.5,       0.0);
     ( 484763.0, 3615179.9,       4.4,       4.4,       0.0);         ( 484813.0,
3615179.9,       4.7,       4.7,       0.0);
     ( 484863.0, 3615179.9,       4.3,       4.3,       0.0);         ( 484913.0,
3615179.9,       4.3,       4.3,       0.0);
     ( 484963.0, 3615179.9,       4.3,       4.3,       0.0);         ( 485013.0,
3615179.9,       4.3,       4.3,       0.0);
     ( 485063.0, 3615179.9,       4.2,       4.2,       0.0);         ( 485113.0,
3615179.9,       4.0,       4.0,       0.0);
     ( 485163.0, 3615179.9,       4.6,       4.6,       0.0);         ( 485213.0,
3615179.9,       1.4,       4.4,       0.0);
     ( 484113.0, 3615229.9,       3.8,       3.8,       0.0);         ( 484163.0,
3615229.9,       3.5,       3.5,       0.0);
     ( 484213.0, 3615229.9,       3.5,       3.5,       0.0);         ( 484263.0,
3615229.9,       3.4,       3.4,       0.0);
     ( 484313.0, 3615229.9,       3.3,       3.3,       0.0);         ( 484363.0,
3615229.9,       3.3,       3.3,       0.0);
     ( 484413.0, 3615229.9,       3.4,       3.4,       0.0);         ( 484463.0,
3615229.9,       3.5,       3.5,       0.0);
     ( 484513.0, 3615229.9,       3.1,       3.1,       0.0);         ( 484563.0,
3615229.9,       3.6,       3.6,       0.0);
     ( 484613.0, 3615229.9,       3.8,       3.8,       0.0);         ( 484663.0,
3615229.9,       3.9,       3.9,       0.0);
     ( 484713.0, 3615229.9,       4.1,       4.1,       0.0);         ( 484763.0,
3615229.9,       4.3,       4.3,       0.0);
     ( 484813.0, 3615229.9,       4.3,       4.3,       0.0);         ( 484863.0,
3615229.9,       4.1,       4.1,       0.0);
     ( 484913.0, 3615229.9,       4.2,       4.2,       0.0);         ( 484963.0,
3615229.9,       4.4,       4.4,       0.0);
     ( 485013.0, 3615229.9,       4.3,       4.3,       0.0);         ( 485063.0,
3615229.9,       4.4,       4.4,       0.0);
     ( 485113.0, 3615229.9,       4.4,       4.4,       0.0);         ( 485163.0,
3615229.9,       4.1,       4.1,       0.0);
     ( 485213.0, 3615229.9,       3.9,       3.9,       0.0);         ( 485263.0,
3615229.9,       1.8,       1.8,       0.0);
     ( 484113.0, 3615279.9,       3.7,       3.7,       0.0);         ( 484163.0,
3615279.9,       3.3,       3.3,       0.0);
     ( 484213.0, 3615279.9,       2.7,       2.7,       0.0);         ( 484263.0,
3615279.9,       1.0,       1.0,       0.0);
     ( 484313.0, 3615279.9,       0.6,       0.6,       0.0);         ( 484613.0,
3615279.9,       3.6,       3.6,       0.0);
```

(484663.0, 3615279.9, 3.9, 3.9, 0.0); (484713.0, 3615279.9, 4.0, 4.0, 0.0);
(484763.0, 3615279.9, 4.1, 4.1, 0.0); (484813.0, 3615279.9, 4.3, 4.3, 0.0);
(484863.0, 3615279.9, 4.3, 4.3, 0.0); (484913.0, 3615279.9, 4.2, 4.2, 0.0);
(484963.0, 3615279.9, 4.2, 4.2, 0.0); (485013.0, 3615279.9, 4.3, 4.3, 0.0);
(485063.0, 3615279.9, 4.4, 4.4, 0.0); (485113.0, 3615279.9, 4.2, 4.2, 0.0);
(485163.0, 3615279.9, 4.1, 4.1, 0.0); (485213.0, 3615279.9, 3.9, 3.9, 0.0);
(485263.0, 3615279.9, 3.6, 3.6, 0.0); (485313.0, 3615279.9, 2.8, 2.8, 0.0);
(484113.0, 3615329.9, 3.1, 3.1, 0.0); (484163.0, 3615329.9, 1.5, 1.5, 0.0);
(484213.0, 3615329.9, 0.0, 0.0, 0.0); (484663.0, 3615329.9, 3.0, 3.0, 0.0);
(484713.0, 3615329.9, 3.7, 3.7, 0.0); (484763.0, 3615329.9, 3.9, 3.9, 0.0);
(484813.0, 3615329.9, 4.2, 4.2, 0.0); (484863.0, 3615329.9, 4.6, 4.6, 0.0);

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(484913.0, 3615329.9, 4.4, 4.4, 0.0); (484963.0, 3615329.9, 4.1, 4.1, 0.0);
(485013.0, 3615329.9, 4.3, 4.3, 0.0); (485063.0, 3615329.9, 4.3, 4.3, 0.0);
(485113.0, 3615329.9, 4.2, 4.2, 0.0); (485163.0, 3615329.9, 4.0, 4.0, 0.0);
(485213.0, 3615329.9, 4.0, 4.0, 0.0); (485263.0, 3615329.9, 3.8, 3.8, 0.0);
(485313.0, 3615329.9, 3.6, 3.6, 0.0); (485363.0, 3615329.9, 2.1, 2.1, 0.0);
(484113.0, 3615379.9, 1.0, 1.0, 0.0); (484163.0, 3615379.9, 0.0, 0.0, 0.0);
(484713.0, 3615379.9, 3.0, 3.0, 0.0); (484763.0, 3615379.9, 3.8, 3.8, 0.0);
(484813.0, 3615379.9, 4.1, 4.1, 0.0); (484863.0, 3615379.9, 4.1, 4.1, 0.0);

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     ( 484913.0, 3615379.9,       4.5,       4.5,       0.0);         ( 484963.0,
3615379.9,       4.4,       4.4,       0.0);
     ( 485013.0, 3615379.9,       4.3,       4.3,       0.0);         ( 485063.0,
3615379.9,       4.2,       4.2,       0.0);
     ( 485113.0, 3615379.9,       4.3,       4.3,       0.0);         ( 485163.0,
3615379.9,       4.3,       4.3,       0.0);
     ( 485213.0, 3615379.9,       4.3,       4.3,       0.0);         ( 485263.0,
3615379.9,       4.0,       4.0,       0.0);
     ( 485313.0, 3615379.9,       4.0,       4.0,       0.0);         ( 485363.0,
3615379.9,       3.8,       3.8,       0.0);
     ( 485413.0, 3615379.9,       3.6,       3.6,       0.0);         ( 484763.0,
3615429.9,       2.3,       2.3,       0.0);
     ( 484813.0, 3615429.9,       3.8,       3.8,       0.0);         ( 484863.0,
3615429.9,       3.9,       3.9,       0.0);
     ( 484913.0, 3615429.9,       4.1,       4.1,       0.0);         ( 484963.0,
3615429.9,       4.3,       4.3,       0.0);
     ( 485013.0, 3615429.9,       4.3,       4.3,       0.0);         ( 485063.0,
3615429.9,       4.5,       4.5,       0.0);
     ( 485113.0, 3615429.9,       4.7,       4.7,       0.0);         ( 485163.0,
3615429.9,       4.2,       4.2,       0.0);
     ( 485213.0, 3615429.9,       4.3,       4.3,       0.0);         ( 485263.0,
3615429.9,       4.1,       4.1,       0.0);
     ( 485313.0, 3615429.9,       4.0,       4.0,       0.0);         ( 485363.0,
3615429.9,       3.9,       3.9,       0.0);
     ( 485413.0, 3615429.9,       3.4,       3.4,       0.0);         ( 485463.0,
3615429.9,       3.4,       3.4,       0.0);
     ( 485513.0, 3615429.9,       3.1,       3.1,       0.0);         ( 484813.0,
3615479.9,       2.6,       2.6,       0.0);
     ( 484863.0, 3615479.9,       3.7,       3.7,       0.0);         ( 484913.0,
3615479.9,       3.9,       3.9,       0.0);
     ( 484963.0, 3615479.9,       4.0,       4.0,       0.0);         ( 485013.0,
3615479.9,       4.3,       4.3,       0.0);
     ( 485063.0, 3615479.9,       4.3,       4.3,       0.0);         ( 485113.0,
3615479.9,       4.5,       4.5,       0.0);
     ( 485163.0, 3615479.9,       4.5,       4.5,       0.0);         ( 485213.0,
3615479.9,       4.2,       4.2,       0.0);
     ( 485263.0, 3615479.9,       4.1,       4.1,       0.0);         ( 485313.0,
3615479.9,       4.3,       4.3,       0.0);
     ( 485363.0, 3615479.9,       4.4,       4.4,       0.0);         ( 485413.0,
3615479.9,       4.1,       4.1,       0.0);
     ( 485463.0, 3615479.9,       3.5,       3.5,       0.0);         ( 485513.0,
3615479.9,       3.1,       3.1,       0.0);
     ( 485563.0, 3615479.9,       1.1,       1.1,       0.0);         ( 484863.0,
3615529.9,       2.5,       2.5,       0.0);
     ( 484913.0, 3615529.9,       3.7,       3.7,       0.0);         ( 484963.0,
3615529.9,       3.8,       3.8,       0.0);
     ( 485013.0, 3615529.9,       4.0,       4.0,       0.0);         ( 485063.0,
3615529.9,       4.1,       4.1,       0.0);
     ( 485113.0, 3615529.9,       4.1,       4.1,       0.0);         ( 485163.0,
3615529.9,       4.4,       4.4,       0.0);
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(485213.0, 3615529.9, 4.4, 4.4, 0.0); (485263.0, 3615529.9, 4.4, 4.4, 0.0);
(485313.0, 3615529.9, 4.4, 4.4, 0.0); (485363.0, 3615529.9, 4.6, 4.6, 0.0);
(485413.0, 3615529.9, 4.5, 4.5, 0.0); (485463.0, 3615529.9, 4.2, 4.2, 0.0);
(485513.0, 3615529.9, 3.7, 3.7, 0.0); (484913.0, 3615579.9, 2.1, 2.1, 0.0);
(484963.0, 3615579.9, 3.8, 3.8, 0.0); (485013.0, 3615579.9, 3.9, 3.9, 0.0);
(485063.0, 3615579.9, 4.2, 4.2, 0.0); (485113.0, 3615579.9, 5.5, 5.5, 0.0);
(485163.0, 3615579.9, 4.9, 4.9, 0.0); (485213.0, 3615579.9, 4.5, 4.5, 0.0);
(485263.0, 3615579.9, 4.5, 4.5, 0.0); (485313.0, 3615579.9, 4.4, 4.4, 0.0);
(485363.0, 3615579.9, 4.4, 4.4, 0.0); (485413.0, 3615579.9, 4.4, 4.4, 0.0);
(485463.0, 3615579.9, 3.9, 3.9, 0.0); (484963.0, 3615629.9, 2.5, 2.5, 0.0);
(485013.0, 3615629.9, 3.6, 3.6, 0.0); (485063.0, 3615629.9, 4.0, 4.0, 0.0);
(485113.0, 3615629.9, 4.1, 4.1, 0.0); (485163.0, 3615629.9, 4.6, 4.6, 0.0);

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(485213.0, 3615629.9, 4.4, 4.4, 0.0); (485263.0, 3615629.9, 4.5, 4.5, 0.0);
(485313.0, 3615629.9, 4.5, 4.5, 0.0); (485363.0, 3615629.9, 4.2, 4.2, 0.0);
(485413.0, 3615629.9, 4.0, 4.0, 0.0); (485013.0, 3615679.9, 1.1, 1.1, 0.0);
(485063.0, 3615679.9, 3.8, 3.8, 0.0); (485113.0, 3615679.9, 4.0, 4.0, 0.0);
(485163.0, 3615679.9, 4.3, 4.3, 0.0); (485213.0, 3615679.9, 4.4, 4.4, 0.0);
(485263.0, 3615679.9, 4.1, 4.1, 0.0); (485313.0, 3615679.9, 4.5, 4.5, 0.0);
(485363.0, 3615679.9, 4.5, 4.5, 0.0); (485413.0, 3615679.9, 3.0, 4.1, 0.0);

```
     ( 485063.0, 3615729.9,       0.9,       0.9,       0.0);         ( 485113.0,
3615729.9,       3.8,       3.8,       0.0);
     ( 485163.0, 3615729.9,       4.0,       4.0,       0.0);         ( 485213.0,
3615729.9,       3.9,       3.9,       0.0);
     ( 485263.0, 3615729.9,       3.9,       3.9,       0.0);         ( 485313.0,
3615729.9,       4.0,       4.0,       0.0);
     ( 485363.0, 3615729.9,       3.3,       3.3,       0.0);         ( 485113.0,
3615779.9,       2.9,       3.6,       0.0);
     ( 485163.0, 3615779.9,       3.5,       3.5,       0.0);         ( 485213.0,
3615779.9,       3.8,       3.8,       0.0);
     ( 485263.0, 3615779.9,       3.9,       3.9,       0.0);         ( 485313.0,
3615779.9,       3.6,       3.6,       0.0);
     ( 485163.0, 3615829.9,       1.2,       3.6,       0.0);         ( 485213.0,
3615829.9,       3.7,       3.7,       0.0);
     ( 485263.0, 3615829.9,       3.4,       3.4,       0.0);         ( 485213.0,
3615879.9,       1.8,       3.3,       0.0);
     ( 487082.3, 3618053.2,      28.6,      28.6,       0.0);         ( 487132.2,
3618053.2,      28.2,      28.2,       0.0);
     ( 487182.1, 3618053.2,      28.6,      28.6,       0.0);         ( 487232.0,
3618053.2,      28.4,      28.4,       0.0);
     ( 487281.9, 3618053.2,      28.7,      28.7,       0.0);         ( 486242.8,
3618033.9,      10.5,      10.5,       0.0);
     ( 486286.8, 3617997.5,      10.8,      10.8,       0.0);         ( 486574.5,
3617998.6,      15.1,      15.1,       0.0);
     ( 486624.4, 3617998.6,      17.6,      17.6,       0.0);         ( 486674.2,
3617998.6,      20.9,      22.2,       0.0);
     ( 486724.1, 3617998.6,      20.8,      20.8,       0.0);         ( 486774.0,
3617998.6,      21.3,      21.3,       0.0);
     ( 486923.7, 3617998.6,      25.2,      25.2,       0.0);         ( 486973.6,
3617998.6,      25.8,      25.8,       0.0);
     ( 487023.5, 3617998.6,      26.2,      26.2,       0.0);         ( 487082.3,
3618103.2,      28.5,      28.5,       0.0);
     ( 487132.2, 3618103.2,      29.1,      29.1,       0.0);         ( 487182.1,
3618103.2,      29.3,      29.3,       0.0);
     ( 486165.9, 3618094.5,      10.0,      10.0,       0.0);         ( 486242.8,
3618083.9,      11.0,      11.0,       0.0);
     ( 486292.7, 3618083.9,      12.4,      12.4,       0.0);         ( 486499.3,
3618054.7,      14.6,      14.6,       0.0);
     ( 486574.5, 3618048.6,      15.8,      15.8,       0.0);         ( 486624.4,
3618048.6,      17.2,      17.2,       0.0);
     ( 486674.2, 3618048.6,      18.6,      18.6,       0.0);         ( 486724.1,
3618048.6,      20.1,      20.1,       0.0);
     ( 486873.8, 3618048.6,      24.8,      24.8,       0.0);         ( 486923.7,
3618048.6,      26.0,      26.0,       0.0);
     ( 486973.6, 3618048.6,      27.2,      27.2,       0.0);         ( 487023.5,
3618048.6,      27.4,      27.4,       0.0);
     ( 487082.3, 3618153.2,      29.2,      29.2,       0.0);         ( 487132.2,
3618153.2,      29.6,      29.6,       0.0);
     ( 486325.0, 3618098.6,      13.4,      13.4,       0.0);         ( 486242.8,
3618133.9,      12.2,      12.2,       0.0);
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     ( 486524.6, 3618098.6,      16.7,      18.6,       0.0);         ( 486574.5,
3618098.6,      16.5,      16.5,       0.0);
     ( 486624.4, 3618098.6,      17.4,      22.5,       0.0);         ( 486674.2,
3618098.6,      19.9,      21.9,       0.0);
     ( 486823.9, 3618098.6,      24.4,      24.4,       0.0);         ( 486873.8,
3618098.6,      26.3,      26.3,       0.0);
     ( 486923.7, 3618098.6,      27.1,      27.1,       0.0);         ( 486973.6,
3618098.6,      27.9,      27.9,       0.0);
     ( 487023.5, 3618098.6,      28.4,      28.4,       0.0);         ( 487082.3,
3618203.2,      28.9,      28.9,       0.0);
     ( 486275.1, 3618148.6,      13.2,      13.2,       0.0);         ( 486325.0,
3618148.6,      13.8,      13.8,       0.0);
     ( 486374.9, 3618148.6,      14.0,      14.0,       0.0);         ( 486474.7,
3618148.6,      15.2,      15.2,       0.0);
     ( 486524.6, 3618148.6,      16.0,      23.3,       0.0);         ( 486574.5,
3618148.6,      17.1,      23.6,       0.0);
     ( 486624.4, 3618148.6,      21.4,      22.5,       0.0);         ( 486774.0,
3618148.6,      21.1,      21.1,       0.0);
     ( 486823.9, 3618148.6,      23.4,      23.4,       0.0);         ( 486873.8,
3618148.6,      25.9,      25.9,       0.0);
     ( 486923.7, 3618148.6,      27.0,      27.0,       0.0);         ( 486973.6,
3618148.6,      28.2,      28.2,       0.0);
     ( 487023.5, 3618148.6,      29.0,      29.0,       0.0);         ( 486275.1,
3618198.6,      13.6,      13.6,       0.0);
     ( 486325.0, 3618198.6,      14.1,      14.1,       0.0);         ( 486374.9,
3618198.6,      14.5,      14.5,       0.0);
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                            ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                           ***        12:24:23

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                          *** DISCRETE CARTESIAN RECEPTORS ***
                                        (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                  (METERS)

     ( 486424.8, 3618198.6,      15.5,      15.5,       0.0);         ( 486474.7,
3618198.6,      15.6,      23.5,       0.0);
     ( 486524.6, 3618198.6,      16.3,      23.7,       0.0);         ( 486674.2,
3618198.6,      19.9,      19.9,       0.0);
     ( 486724.1, 3618198.6,      19.7,      19.7,       0.0);         ( 486774.0,
3618198.6,      20.4,      20.4,       0.0);
     ( 486823.9, 3618198.6,      21.9,      21.9,       0.0);         ( 486873.8,
3618198.6,      23.7,      23.7,       0.0);
     ( 486923.7, 3618198.6,      26.3,      26.3,       0.0);         ( 486973.6,
3618198.6,      27.6,      27.6,       0.0);
     ( 487023.5, 3618198.6,      28.5,      28.5,       0.0);         ( 486275.1,
3618248.6,      13.9,      13.9,       0.0);
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     ( 486325.0, 3618248.6,      14.9,      14.9,       0.0);         ( 486374.9,
3618248.6,      15.2,      15.2,       0.0);
     ( 486424.8, 3618248.6,      15.4,      23.5,       0.0);         ( 486474.7,
3618248.6,      18.3,      23.5,       0.0);
     ( 486624.4, 3618248.6,      18.4,      23.4,       0.0);         ( 486674.2,
3618248.6,      19.3,      19.3,       0.0);
     ( 486724.1, 3618248.6,      19.9,      19.9,       0.0);         ( 486774.0,
3618248.6,      20.9,      20.9,       0.0);
     ( 486823.9, 3618248.6,      21.9,      21.9,       0.0);         ( 486873.8,
3618248.6,      22.6,      22.6,       0.0);
     ( 486923.7, 3618248.6,      23.8,      23.8,       0.0);         ( 486973.6,
3618248.6,      25.5,      25.5,       0.0);
     ( 487023.5, 3618248.6,      27.4,      27.4,       0.0);         ( 486125.5,
3618298.6,      11.3,      11.3,       0.0);
     ( 486275.1, 3618298.6,      14.2,      14.2,       0.0);         ( 486325.0,
3618298.6,      15.0,      15.0,       0.0);
     ( 486374.9, 3618298.6,      15.4,      22.2,       0.0);         ( 486424.8,
3618298.6,      17.1,      23.5,       0.0);
     ( 486574.5, 3618298.6,      17.5,      17.5,       0.0);         ( 486624.4,
3618298.6,      18.4,      18.4,       0.0);
     ( 486674.2, 3618298.6,      19.6,      19.6,       0.0);         ( 486724.1,
3618298.6,      20.3,      20.3,       0.0);
     ( 486774.0, 3618298.6,      22.5,      22.5,       0.0);         ( 486823.9,
3618298.6,      22.9,      22.9,       0.0);
     ( 486873.8, 3618298.6,      23.6,      23.6,       0.0);         ( 486923.7,
3618298.6,      23.7,      23.7,       0.0);
     ( 486125.5, 3618348.6,      11.0,      11.0,       0.0);         ( 486175.3,
3618348.6,      12.7,      12.7,       0.0);
     ( 486225.2, 3618348.6,      13.8,      13.8,       0.0);         ( 486275.1,
3618348.6,      14.3,      20.8,       0.0);
     ( 486325.0, 3618348.6,      15.3,      20.8,       0.0);         ( 486524.6,
3618348.6,      17.2,      23.2,       0.0);
     ( 486574.5, 3618348.6,      17.8,      17.8,       0.0);         ( 486624.4,
3618348.6,      18.8,      18.8,       0.0);
     ( 486674.2, 3618348.6,      19.4,      19.4,       0.0);         ( 486724.1,
3618348.6,      20.7,      20.7,       0.0);
     ( 486774.0, 3618348.6,      23.4,      23.4,       0.0);         ( 486823.9,
3618348.6,      23.4,      23.4,       0.0);
     ( 486873.8, 3618348.6,      23.4,      23.4,       0.0);         ( 486125.5,
3618398.6,      10.6,      10.6,       0.0);
     ( 486175.3, 3618398.6,      12.9,      22.4,       0.0);         ( 486225.2,
3618398.6,      13.1,      22.4,       0.0);
     ( 486424.8, 3618398.6,      17.0,      21.7,       0.0);         ( 486474.7,
3618398.6,      17.1,      17.1,       0.0);
     ( 486524.6, 3618398.6,      17.3,      17.3,       0.0);         ( 486574.5,
3618398.6,      17.8,      17.8,       0.0);
     ( 486624.4, 3618398.6,      18.5,      18.5,       0.0);         ( 486674.2,
3618398.6,      19.2,      19.2,       0.0);
     ( 486724.1, 3618398.6,      20.1,      20.1,       0.0);         ( 486774.0,
3618398.6,      21.7,      21.7,       0.0);
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     ( 486823.9, 3618398.6,      23.0,      23.0,       0.0);         ( 486125.5,
3618448.6,      11.0,      23.5,       0.0);
     ( 486175.3, 3618448.6,      11.7,      23.5,       0.0);         ( 486374.9,
3618448.6,      16.8,      19.7,       0.0);
     ( 486424.8, 3618448.6,      16.6,      16.6,       0.0);         ( 486474.7,
3618448.6,      17.6,      17.6,       0.0);
     ( 486524.6, 3618448.6,      17.2,      17.2,       0.0);         ( 486574.5,
3618448.6,      17.7,      17.7,       0.0);
     ( 486624.4, 3618448.6,      18.2,      18.2,       0.0);         ( 486674.2,
3618448.6,      19.1,      19.1,       0.0);
     ( 486724.1, 3618448.6,      19.5,      19.5,       0.0);         ( 486774.0,
3618448.6,      20.6,      20.6,       0.0);
     ( 486125.5, 3618498.6,       9.0,      23.5,       0.0);         ( 486325.0,
3618498.6,      15.0,      15.0,       0.0);
     ( 486374.9, 3618498.6,      16.1,      16.1,       0.0);         ( 486424.8,
3618498.6,      16.8,      16.8,       0.0);
     ( 486474.7, 3618498.6,      16.7,      16.7,       0.0);         ( 486524.6,
3618498.6,      17.5,      17.5,       0.0);
     ( 486574.5, 3618498.6,      17.2,      17.2,       0.0);         ( 486624.4,
3618498.6,      18.0,      18.0,       0.0);
     ( 486674.2, 3618498.6,      18.8,      18.8,       0.0);         ( 486106.0,
3618586.0,       7.8,      23.5,       0.0);
     ( 486325.0, 3618548.6,      14.9,      14.9,       0.0);         ( 486374.9,
3618548.6,      13.7,      13.7,       0.0);
     ( 486424.8, 3618548.6,      13.4,      13.4,       0.0);         ( 486474.7,
3618548.6,      16.2,      16.2,       0.0);
     ( 486524.6, 3618548.6,      16.1,      16.1,       0.0);         ( 486574.5,
3618548.6,      17.6,      17.6,       0.0);
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                           ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                          ***       12:24:23

                                   PAGE  44
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                                *** DISCRETE CARTESIAN RECEPTORS ***
                                              (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                          (METERS)

     ( 486624.4, 3618548.6,      17.6,      17.6,       0.0);         ( 486101.0,
3618078.4,       8.8,       8.8,       0.0);
     ( 486155.1, 3618149.3,      10.6,      10.6,       0.0);         ( 486018.5,
3618262.1,       7.5,       7.5,       0.0);
     ( 485957.4, 3618189.1,       6.5,       6.5,       0.0);         ( 485842.0,
3618300.3,       4.6,       4.6,       0.0);
     ( 485893.8, 3618363.0,       3.9,       3.9,       0.0);         ( 485902.9,
3618242.0,       5.3,       5.3,       0.0);
     ( 485966.0, 3618313.1,       5.8,       5.8,       0.0);         ( 486011.9,
3618082.6,       7.3,       7.3,       0.0);
```

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0000195	487470.6	3617250.5	-2.02
L0000200	487470.6	3617300.5	-0.60
L0000227	487470.6	3617550.5	-1.22
L0000228	487470.6	3617550.5	-7.37
L0000243	487520.6	3617500.5	-2.70
L0000244	487520.6	3617500.5	-3.19
L0000248	487470.6	3617500.5	0.00
L0000249	487470.6	3617500.5	-2.42
L0000256	487420.6	3617550.5	-3.52
L0000257	487420.6	3617550.5	-0.29
L0027900	487320.6	3617600.5	-7.65

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

```
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
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NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: PES_2010_2012_SIGMA_V19191.SFC
Met Version: 19191
Profile file: PES_2010_2012_SIGMA_V19191.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 23188 Upper air station no.: 3190
Name: SAN_DIEGO/PERKINS_ELEMENTARY Name: LINDBERGH_FIELD
Year: 2010 Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
10	01	01	1	01	-2.4	0.055	-9.000	-9.000	-999.	31.	6.3	0.39	0.57	1.00	0.89	20.	10.0	283.6	10.0
10	01	01	1	02	-2.5	0.057	-9.000	-9.000	-999.	32.	6.6	0.43	0.57	1.00	0.89	359.	10.0	283.6	10.0
10	01	01	1	03	-2.5	0.056	-9.000	-9.000	-999.	31.	6.4	0.41	0.57	1.00	0.89	30.	10.0	283.6	10.0
10	01	01	1	04	-2.5	0.056	-9.000	-9.000	-999.	31.	6.4	0.41	0.57	1.00	0.89	54.	10.0	283.1	10.0
10	01	01	1	05	-2.4	0.055	-9.000	-9.000	-999.	31.	6.3	0.39	0.57	1.00	0.89	24.	10.0	282.5	10.0
10	01	01	1	06	-2.5	0.056	-9.000	-9.000	-999.	31.	6.4	0.41	0.57	1.00	0.89	30.	10.0	282.5	10.0
10	01	01	1	07	-1.9	0.055	-9.000	-9.000	-999.	31.	7.9	0.39	0.57	1.00	0.89	18.	10.0	281.9	10.0
10	01	01	1	08	-1.4	0.055	-9.000	-9.000	-999.	31.	10.7	0.39	0.57	0.48	0.89	7.	10.0	283.1	10.0
10	01	01	1	09	14.3	0.058	0.253	0.016	41.	34.	-1.2	0.05	0.57	0.28	0.44	185.	10.0	285.9	10.0
10	01	01	1	10	45.4	0.154	0.482	0.009	90.	145.	-7.4	0.32	0.57	0.21	0.89	270.	10.0	288.1	10.0
10	01	01	1	11	44.3	0.203	0.537	0.009	127.	219.	-17.2	0.32	0.57	0.19	1.34	283.	10.0	290.4	10.0
10	01	01	1	12	50.3	0.345	0.707	0.008	256.	487.	-74.7	0.32	0.57	0.18	2.68	283.	10.0	291.9	10.0
10	01	01	1	13	49.8	0.298	0.774	0.008	339.	392.	-48.5	0.32	0.57	0.18	2.23	289.	10.0	293.1	10.0
10	01	01	1	14	42.6	0.389	0.774	0.008	395.	583.	-125.6	0.32	0.57	0.19	3.12	280.	10.0	293.1	10.0
10	01	01	1	15	29.0	0.432	0.700	0.008	428.	681.	-252.3	0.32	0.57	0.22	3.57	291.	10.0	291.9	10.0
10	01	01	1	16	16.0	0.334	0.581	0.008	446.	469.	-211.6	0.35	0.57	0.31	2.68	314.	10.0	291.4	10.0
10	01	01	1	17	-15.7	0.314	-9.000	-9.000	-999.	423.	179.6	0.43	0.57	0.59	2.68	331.	10.0	290.9	10.0
10	01	01	1	18	-9.4	0.170	-9.000	-9.000	-999.	182.	47.6	0.43	0.57	1.00	1.78	340.	10.0	290.4	10.0
10	01	01	1	19	-1.6	0.052	-9.000	-9.000	-999.	48.	8.0	0.32	0.57	1.00	0.89	279.	10.0	289.8	10.0
10	01	01	1	20	-9.4	0.170	-9.000	-9.000	-999.	168.	47.2	0.43	0.57

```
1.00    1.78  357.   10.0  289.2   10.0
 10 01 01   1 21   -1.9  0.056 -9.000 -9.000 -999.   44.      8.1  0.41   0.57
1.00    0.89   39.   10.0  288.6   10.0
 10 01 01   1 22   -2.2  0.054 -9.000 -9.000 -999.   30.      6.5  0.38   0.57
1.00    0.89   86.   10.0  287.5   10.0
 10 01 01   1 23   -2.3  0.053 -9.000 -9.000 -999.   29.      6.0  0.35   0.57
1.00    0.89  312.   10.0  287.5   10.0
 10 01 01   1 24   -2.4  0.056 -9.000 -9.000 -999.   31.      6.4  0.41   0.57
1.00    0.89   38.   10.0  286.9   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01   10.0 1   20.    0.89   283.7   15.0  -99.00    0.23

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                        ***        12:24:23

                                   PAGE  48
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKFWY  ***
                                 INCLUDING SOURCE(S):     L0027898    , L0027899
 , L0027900    , L0027901    , L0027902    ,
                L0027903    , L0027904    , L0027905    , L0027906    , L0027907
 , L0027908    , L0027909    , L0027910    ,
                L0027911    , L0027912    , L0027913    , L0027914    , L0027915
 , L0027916    , L0027917    , L0027918    ,
                L0027919    , L0027920    , L0027921    , L0027922    , L0027923
 , L0027924    , L0027925    ,  . . .      ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         488270.59    3616550.48        0.58512                      488320.59
3616550.48        0.56809
         488370.59    3616550.48        0.55149                      488420.59
3616550.48        0.53520
         488470.59    3616550.48        0.51982                      488520.59
```

3616550.48 0.50480
488570.59 3616550.48 0.48993 488620.59
3616550.48 0.47587
488270.59 3616600.48 0.60477 488320.59
3616600.48 0.58629
488370.59 3616600.48 0.56806 488420.59
3616600.48 0.55090
488470.59 3616600.48 0.53441 488520.59
3616600.48 0.51853
488570.59 3616600.48 0.50295 488620.59
3616600.48 0.48814
488270.59 3616650.48 0.62471 488320.59
3616650.48 0.60464
488370.59 3616650.48 0.58557 488420.59
3616650.48 0.56729
488470.59 3616650.48 0.54959 488520.59
3616650.48 0.53265
488570.59 3616650.48 0.51648 488620.59
3616650.48 0.50093
488270.59 3616700.48 0.64545 488320.59
3616700.48 0.62451
488370.59 3616700.48 0.60399 488420.59
3616700.48 0.58453
488470.59 3616700.48 0.56572 488520.59
3616700.48 0.54761
488570.59 3616700.48 0.53053 488620.59
3616700.48 0.51403
488320.59 3616750.48 0.64488 488370.59
3616750.48 0.62306
488420.59 3616750.48 0.60212 488470.59
3616750.48 0.58206
488520.59 3616750.48 0.56312 488570.59
3616750.48 0.54474
488620.59 3616750.48 0.52719 488320.59
3616800.48 0.66603
488370.59 3616800.48 0.64273 488420.59
3616800.48 0.62038
488470.59 3616800.48 0.59900 488520.59
3616800.48 0.57872
488570.59 3616800.48 0.55937 488620.59
3616800.48 0.54061
488370.59 3616850.48 0.66291 488420.59
3616850.48 0.63904
488470.59 3616850.48 0.61653 488520.59
3616850.48 0.59487
488570.59 3616850.48 0.57446 488620.59
3616850.48 0.55465
488420.59 3616900.48 0.65848 488470.59
3616900.48 0.63447
488520.59 3616900.48 0.61169 488570.59

```
3616900.48        0.58988
         488620.59    3616900.48        0.56923                        488420.59
3616950.48        0.67948
         488470.59    3616950.48        0.65301                        488520.59
3616950.48        0.62875
         488570.59    3616950.48        0.60578                        488620.59
3616950.48        0.58419
         488470.59    3617000.48        0.67195                        488520.59
3617000.48        0.64636
         488570.59    3617000.48        0.62242                        488620.59
3617000.48        0.59968
         488470.59    3617050.48        0.69337                        488520.59
3617050.48        0.66461
         488570.59    3617050.48        0.63872                        488620.59
3617050.48        0.61487
         488370.59    3617100.48        0.77732                        488420.59
3617100.48        0.74047
         488470.59    3617100.48        0.71448                        488520.59
3617100.48        0.68476
         488570.59    3617100.48        0.65660                        488620.59
3617100.48        0.63423
         488320.59    3617150.48        0.84067                        488370.59
3617150.48        0.80345
         488420.59    3617150.48        0.76685                        488470.59
3617150.48        0.73169
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                           ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                          ***       12:24:23

                                    PAGE  49
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKFWY  ***
                                    INCLUDING SOURCE(S):     L0027898    , L0027899
 , L0027900    , L0027901    , L0027902    ,
                 L0027903    , L0027904    , L0027905    , L0027906    , L0027907
 , L0027908    , L0027909    , L0027910    ,
                 L0027911    , L0027912    , L0027913    , L0027914    , L0027915
 , L0027916    , L0027917    , L0027918    ,
                 L0027919    , L0027920    , L0027921    , L0027922    , L0027923
 , L0027924    , L0027925    ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **
```

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
488520.59	3617150.48	0.70466	488570.59	3617150.48	0.67635
488620.59	3617150.48	0.65163	488270.59	3617200.48	0.91574
488320.59	3617200.48	0.86909	488370.59	3617200.48	0.83237
488420.59	3617200.48	0.79237	488470.59	3617200.48	0.75459
488520.59	3617200.48	0.72361	488570.59	3617200.48	0.69534
488620.59	3617200.48	0.66924	487320.59	3617250.48	3.16060
487370.59	3617250.48	3.03713	487420.59	3617250.48	2.88442
487470.59	3617250.48	2.71081	487520.59	3617250.48	2.53129
487570.59	3617250.48	2.35295	487620.59	3617250.48	2.18150
487670.59	3617250.48	2.02169	487720.59	3617250.48	1.87551
487770.59	3617250.48	1.74315	487820.59	3617250.48	1.62382
487870.59	3617250.48	1.51633	487920.59	3617250.48	1.41941
487970.59	3617250.48	1.33183	488020.59	3617250.48	1.25247
488070.59	3617250.48	1.18036	488120.59	3617250.48	1.11464
488170.59	3617250.48	1.05455	488220.59	3617250.48	0.99938
488270.59	3617250.48	0.94851	488320.59	3617250.48	0.90183
488370.59	3617250.48	0.85886	488420.59	3617250.48	0.81785
488470.59	3617250.48	0.77679	488520.59	3617250.48	0.74643
488570.59	3617250.48	0.71244	488620.59	3617250.48	0.68559
487170.59	3617300.48	3.83694	487220.59	3617300.48	3.85311
487270.59	3617300.48	3.80738	487320.59	3617300.48	3.70944
487370.59	3617300.48	3.54685	487420.59	3617300.48	3.33389
487470.59	3617300.48	3.09174	487520.59	3617300.48	2.84689

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         487570.59    3617300.48        2.61058                       487620.59
3617300.48        2.39227
         487670.59    3617300.48        2.19593                       487720.59
3617300.48        2.02090
         487770.59    3617300.48        1.86605                       487820.59
3617300.48        1.72874
         487870.59    3617300.48        1.60921                       487920.59
3617300.48        1.50367
         487970.59    3617300.48        1.42516                       488020.59
3617300.48        1.33219
         488070.59    3617300.48        1.23665                       488120.59
3617300.48        1.18096
         488170.59    3617300.48        1.09908                       488220.59
3617300.48        1.03646
         488270.59    3617300.48        0.98191                       488320.59
3617300.48        0.93195
         488370.59    3617300.48        0.88869                       488420.59
3617300.48        0.84276
         488470.59    3617300.48        0.80024                       488520.59
3617300.48        0.76791
         488570.59    3617300.48        0.73254                       488620.59
3617300.48        0.70065
         487020.59    3617350.48        4.10675                       487070.59
3617350.48        4.27360
         487120.59    3617350.48        4.42955                       487170.59
3617350.48        4.55095
         487220.59    3617350.48        4.61481                       487270.59
3617350.48        4.59366
         487320.59    3617350.48        4.46650                       487370.59
3617350.48        4.23261
         487420.59    3617350.48        3.91923                       487470.59
3617350.48        3.57105
         487520.59    3617350.48        3.22782                       487570.59
3617350.48        2.91222
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***       12:24:23

                                   PAGE  50
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                               *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKFWY  ***
                                   INCLUDING SOURCE(S):     L0027898    , L0027899
 , L0027900    , L0027901    , L0027902    ,
                 L0027903    , L0027904    , L0027905    , L0027906    , L0027907
 , L0027908    , L0027909    , L0027910    ,
                 L0027911    , L0027912    , L0027913    , L0027914    , L0027915
 , L0027916    , L0027917    , L0027918    ,
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L0027919 , L0027920 , L0027921 , L0027922 , L0027923
, L0027924 , L0027925 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_10 IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487620.59	3617350.48	2.63369	487670.59	3617350.48	2.39360
487720.59	3617350.48	2.18531	487770.59	3617350.48	2.00461
487820.59	3617350.48	1.84661	487870.59	3617350.48	1.72818
487920.59	3617350.48	1.61434	487970.59	3617350.48	1.51222
488020.59	3617350.48	1.40411	488070.59	3617350.48	1.31599
488120.59	3617350.48	1.23611	488170.59	3617350.48	1.14205
488220.59	3617350.48	1.07408	488270.59	3617350.48	1.01531
488320.59	3617350.48	0.96148	488370.59	3617350.48	0.91172
488420.59	3617350.48	0.86681	488470.59	3617350.48	0.82277
488520.59	3617350.48	0.78558	488570.59	3617350.48	0.74951
488620.59	3617350.48	0.71674	486770.59	3617400.48	3.57768
486820.59	3617400.48	3.79216	486870.59	3617400.48	4.02006
486920.59	3617400.48	4.26170	486970.59	3617400.48	4.51684
487020.59	3617400.48	4.78082	487070.59	3617400.48	5.04313
487120.59	3617400.48	5.30095	487170.59	3617400.48	5.53164
487220.59	3617400.48	5.69317	487270.59	3617400.48	5.73070
487320.59	3617400.48	5.58472	487370.59	3617400.48	5.22998
487420.59	3617400.48	4.73023	487470.59	3617400.48	4.19301
487520.59	3617400.48	3.70231	487570.59		

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3617400.48        3.27006
         487620.59    3617400.48        2.91727                          487670.59
3617400.48        2.61733
         487720.59    3617400.48        2.36478                          487770.59
3617400.48        2.15015
         487820.59    3617400.48        1.96602                          487870.59
3617400.48        1.80719
         487920.59    3617400.48        1.66847                          487970.59
3617400.48        1.54655
         488020.59    3617400.48        1.43864                          488070.59
3617400.48        1.34256
         488120.59    3617400.48        1.25621                          488170.59
3617400.48        1.17847
         488220.59    3617400.48        1.10881                          488270.59
3617400.48        1.04620
         488320.59    3617400.48        0.98923                          488370.59
3617400.48        0.93802
         488420.59    3617400.48        0.88719                          488470.59
3617400.48        0.84031
         488520.59    3617400.48        0.80096                          488570.59
3617400.48        0.76432
         488620.59    3617400.48        0.73208                          486820.59
3617450.48        4.27773
         486870.59    3617450.48        4.57106                          486920.59
3617450.48        4.89590
         486970.59    3617450.48        5.24755                          487020.59
3617450.48        5.62410
         487070.59    3617450.48        6.03789                          487120.59
3617450.48        6.47357
         487170.59    3617450.48        6.91059                          487220.59
3617450.48        7.29978
         487270.59    3617450.48        7.53348                          487320.59
3617450.48        7.42805
         487370.59    3617450.48        6.79505                          487420.59
3617450.48        5.90216
         487470.59    3617450.48        5.05074                          487520.59
3617450.48        4.29109
         487570.59    3617450.48        3.70325                          487620.59
3617450.48        3.24387
         487670.59    3617450.48        2.87063                          487720.59
3617450.48        2.56408
         487770.59    3617450.48        2.30977                          487820.59
3617450.48        2.09591
```

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TRUKFWY ***

INCLUDING SOURCE(S): L0027898 , L0027899 , L0027900 , L0027901 , L0027902 , L0027903 , L0027904 , L0027905 , L0027906 , L0027907 , L0027908 , L0027909 , L0027910 , L0027911 , L0027912 , L0027913 , L0027914 , L0027915 , L0027916 , L0027917 , L0027918 , L0027919 , L0027920 , L0027921 , L0027922 , L0027923 , L0027924 , L0027925 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487870.59	3617450.48	1.92020	487920.59	3617450.48	1.76340
487970.59	3617450.48	1.62697	488020.59	3617450.48	1.50738
488070.59	3617450.48	1.40195	488120.59	3617450.48	1.30825
488170.59	3617450.48	1.22141	488220.59	3617450.48	1.14674
488270.59	3617450.48	1.07963	488320.59	3617450.48	1.03773
488370.59	3617450.48	0.96887	488420.59	3617450.48	0.90640
488470.59	3617450.48	0.85931	488520.59	3617450.48	0.81857
488570.59	3617450.48	0.77996	488620.59	3617450.48	0.74634
486770.59	3617500.48	4.50577	486820.59	3617500.48	4.85288
486870.59	3617500.48	5.23395	486920.59	3617500.48	5.66626
486970.59	3617500.48	6.15223	487020.59	3617500.48	6.71481
487070.59	3617500.48	7.35430	487120.59	3617500.48	8.08735
487170.59	3617500.48	8.90040	487220.59	3617500.48	9.82021
487270.59	3617500.48	10.72721	487320.59	3617500.48	11.21052

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         487370.59    3617500.48       10.01223                    487420.59
3617500.48        7.95856
         487470.59    3617500.48        6.22655                    487520.59
3617500.48        5.07668
         487570.59    3617500.48        4.30201                    487620.59
3617500.48        3.72857
         487670.59    3617500.48        3.27794                    487720.59
3617500.48        2.90416
         487770.59    3617500.48        2.59482                    487820.59
3617500.48        2.34460
         487870.59    3617500.48        2.13531                    487920.59
3617500.48        1.97130
         487970.59    3617500.48        1.81098                    488020.59
3617500.48        1.67058
         488070.59    3617500.48        1.56861                    488120.59
3617500.48        1.48172
         488170.59    3617500.48        1.37446                    488220.59
3617500.48        1.25802
         488270.59    3617500.48        1.14212                    488320.59
3617500.48        1.07487
         488370.59    3617500.48        0.99095                    488420.59
3617500.48        0.92540
         488470.59    3617500.48        0.87701                    488520.59
3617500.48        0.83456
         488570.59    3617500.48        0.79430                    488620.59
3617500.48        0.75970
         486670.59    3617550.48        4.35659                    486720.59
3617550.48        4.70533
         486770.59    3617550.48        5.09321                    486820.59
3617550.48        5.53902
         486870.59    3617550.48        6.03859                    486920.59
3617550.48        6.62041
         486970.59    3617550.48        7.31073                    487020.59
3617550.48        8.13046
         487070.59    3617550.48        9.11161                    487120.59
3617550.48       10.35538
         487170.59    3617550.48       11.91788                    487220.59
3617550.48       13.75234
         487270.59    3617550.48       17.75455                    487320.59
3617550.48       22.89953
         487370.59    3617550.48       20.35087                    487420.59
3617550.48       11.67701
         487470.59    3617550.48        7.98141                    487520.59
3617550.48        6.07872
         487570.59    3617550.48        5.01041                    487620.59
3617550.48        4.21010
         487670.59    3617550.48        3.61058                    487720.59
3617550.48        3.14917
         487770.59    3617550.48        2.79123                    487820.59
3617550.48        2.52312
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487870.59 3617550.48 2.27985 487920.59
3617550.48 2.07051

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TRUKFWY ***
INCLUDING SOURCE(S): L0027898 , L0027899 , L0027900 , L0027901 , L0027902 ,
L0027903 , L0027904 , L0027905 , L0027906 , L0027907 , L0027908 , L0027909 , L0027910 ,
L0027911 , L0027912 , L0027913 , L0027914 , L0027915 , L0027916 , L0027917 , L0027918 ,
L0027919 , L0027920 , L0027921 , L0027922 , L0027923 , L0027924 , L0027925 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487970.59	3617550.48	1.91099	488020.59	3617550.48	1.76312
488070.59	3617550.48	1.65362	488120.59	3617550.48	1.54956
488170.59	3617550.48	1.41536	488220.59	3617550.48	1.29962
488270.59	3617550.48	1.18302	488320.59	3617550.48	1.11435
488370.59	3617550.48	1.00360	488420.59	3617550.48	0.94298
488470.59	3617550.48	0.89367	488520.59	3617550.48	0.84803
488570.59	3617550.48	0.80718	488620.59	3617550.48	0.77167
485870.59	3617600.48	1.56946	485920.59	3617600.48	1.66934
486620.59	3617600.48	4.49589	486670.59	3617600.48	4.87213
486720.59	3617600.48	5.30915	486770.59		

3617600.48 5.79945
486820.59 3617600.48 6.36700 486870.59
3617600.48 7.03083
486920.59 3617600.48 7.83538 486970.59
3617600.48 8.79823
487020.59 3617600.48 9.97179 487070.59
3617600.48 11.48340
487120.59 3617600.48 13.47316 487170.59
3617600.48 16.40176
487220.59 3617600.48 21.93978 487270.59
3617600.48 36.95251
487320.59 3617600.48 60.97856 487370.59
3617600.48 43.54164
487420.59 3617600.48 14.60091 487470.59
3617600.48 9.32868
487520.59 3617600.48 6.88851 487570.59
3617600.48 5.46487
487620.59 3617600.48 4.51874 487670.59
3617600.48 3.84021
487720.59 3617600.48 3.33345 487770.59
3617600.48 2.94444
487820.59 3617600.48 2.62877 487870.59
3617600.48 2.36435
487920.59 3617600.48 2.14800 487970.59
3617600.48 1.97900
488020.59 3617600.48 1.84055 488070.59
3617600.48 1.70941
488120.59 3617600.48 1.57048 488170.59
3617600.48 1.44661
488220.59 3617600.48 1.31934 488270.59
3617600.48 1.20578
488320.59 3617600.48 1.08689 488370.59
3617600.48 1.01990
488420.59 3617600.48 0.96006 488470.59
3617600.48 0.90754
488520.59 3617600.48 0.85878 488570.59
3617600.48 0.81795
488620.59 3617600.48 0.78014 485870.59
3617650.48 1.63632
485920.59 3617650.48 1.74695 485970.59
3617650.48 1.86704
486570.59 3617650.48 4.59758 486620.59
3617650.48 5.01365
486670.59 3617650.48 5.48913 486720.59
3617650.48 6.03006
486770.59 3617650.48 6.64963 486820.59
3617650.48 7.39381
486870.59 3617650.48 8.29401 486920.59
3617650.48 9.38023
486970.59 3617650.48 10.71742 487020.59

3617650.48   12.46880
         487070.59   3617650.48   14.75748   487120.59
3617650.48   17.97841
         487170.59   3617650.48   23.93113   487370.59
3617650.48   24.13492
         487420.59   3617650.48   13.67580   487470.59
3617650.48   9.21754
         487520.59   3617650.48   6.93348   487570.59
3617650.48   5.55123
         487620.59   3617650.48   4.59633   487670.59
3617650.48   3.90835

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

                                *** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKFWY ***
                                    INCLUDING SOURCE(S):   L0027898   , L0027899
 , L0027900   , L0027901   , L0027902   ,
                 L0027903   , L0027904   , L0027905   , L0027906   , L0027907
 , L0027908   , L0027909   , L0027910   ,
                 L0027911   , L0027912   , L0027913   , L0027914   , L0027915
 , L0027916   , L0027917   , L0027918   ,
                 L0027919   , L0027920   , L0027921   , L0027922   , L0027923
 , L0027924   , L0027925   , . . .   ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                    ** CONC OF PM_10   IN MICROGRAMS/M**3
                  **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         487720.59   3617650.48   3.40406   487770.59
3617650.48   2.99318
         487820.59   3617650.48   2.67219   487870.59
3617650.48   2.41253
         487920.59   3617650.48   2.18283   487970.59
3617650.48   2.02120
         488020.59   3617650.48   1.89182   488070.59
3617650.48   1.74263
         488120.59   3617650.48   1.58160   488170.59
3617650.48   1.45459

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         488220.59    3617650.48        1.32468                    488270.59
3617650.48        1.23084
         488320.59    3617650.48        1.11971                    488370.59
3617650.48        1.03182
         488420.59    3617650.48        0.96899                    488470.59
3617650.48        0.91667
         488520.59    3617650.48        0.86922                    488570.59
3617650.48        0.82528
         488620.59    3617650.48        0.78886                    485870.59
3617700.48        1.70311
         485920.59    3617700.48        1.82669                    485970.59
3617700.48        1.95810
         486470.59    3617700.48        4.27751                    486520.59
3617700.48        4.67703
         486570.59    3617700.48        5.11939                    486620.59
3617700.48        5.63497
         486670.59    3617700.48        6.21594                    486720.59
3617700.48        6.89200
         486770.59    3617700.48        7.70502                    486820.59
3617700.48        8.69295
         486870.59    3617700.48        9.87662                    486920.59
3617700.48       11.39341
         486970.59    3617700.48       13.35135                    487020.59
3617700.48       15.97844
         487070.59    3617700.48       20.06554                    487120.59
3617700.48       28.80469
         487270.59    3617700.48       44.76222                    487320.59
3617700.48       25.46538
         487370.59    3617700.48       17.30654                    487420.59
3617700.48       11.95659
         487470.59    3617700.48        8.66745                    487520.59
3617700.48        6.68640
         487570.59    3617700.48        5.41114                    487620.59
3617700.48        4.52323
         487670.59    3617700.48        3.87119                    487720.59
3617700.48        3.37822
         487770.59    3617700.48        2.98751                    487820.59
3617700.48        2.67128
         487870.59    3617700.48        2.41319                    487920.59
3617700.48        2.20785
         487970.59    3617700.48        2.04541                    488020.59
3617700.48        1.89323
         488070.59    3617700.48        1.71624                    488120.59
3617700.48        1.55715
         488170.59    3617700.48        1.41057                    488220.59
3617700.48        1.28460
         488270.59    3617700.48        1.19584                    488320.59
3617700.48        1.11683
         488370.59    3617700.48        1.04205                    488420.59
3617700.48        0.97819
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         488470.59    3617700.48        0.92410                      488520.59
3617700.48        0.87621
         488570.59    3617700.48        0.83188                      488620.59
3617700.48        0.79333
         486420.59    3617750.48        4.31024                      486470.59
3617750.48        4.72818
         486520.59    3617750.48        5.20847                      486570.59
3617750.48        5.74312
         486620.59    3617750.48        6.37565                      486670.59
3617750.48        7.09900
         486720.59    3617750.48        7.97580                      486770.59
3617750.48        9.05037
         486820.59    3617750.48       10.35035                      486870.59
3617750.48       12.01146
         486920.59    3617750.48       14.00862                      486970.59
3617750.48       17.00366
         487020.59    3617750.48       21.91597                      487070.59
3617750.48       32.03919
         487220.59    3617750.48       38.86769                      487270.59
3617750.48       25.38927
```



```
                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKFWY  ***
                                 INCLUDING SOURCE(S):     L0027898    , L0027899
 , L0027900    , L0027901    , L0027902    ,
                L0027903    , L0027904    , L0027905    , L0027906    , L0027907
 , L0027908    , L0027909    , L0027910    ,
                L0027911    , L0027912    , L0027913    , L0027914    , L0027915
 , L0027916    , L0027917    , L0027918    ,
                L0027919    , L0027920    , L0027921    , L0027922    , L0027923
 , L0027924    , L0027925    ,  . . .      ,

                                                 *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -
         487320.59    3617750.48       18.23212                      487370.59
```

3617750.48 13.70289
487420.59 3617750.48 10.39405 487470.59
3617750.48 8.02009
487520.59 3617750.48 6.37065 487570.59
3617750.48 5.23796
487620.59 3617750.48 4.41284 487670.59
3617750.48 3.78106
487720.59 3617750.48 3.31141 487770.59
3617750.48 2.93636
487820.59 3617750.48 2.64278 487870.59
3617750.48 2.39107
487920.59 3617750.48 2.18727 487970.59
3617750.48 2.02565
488020.59 3617750.48 1.84459 488070.59
3617750.48 1.62686
488120.59 3617750.48 1.47916 488170.59
3617750.48 1.36479
488220.59 3617750.48 1.26547 488270.59
3617750.48 1.18554
488320.59 3617750.48 1.11278 488370.59
3617750.48 1.04331
488420.59 3617750.48 0.98161 488470.59
3617750.48 0.92810
488520.59 3617750.48 0.88044 488570.59
3617750.48 0.83625
488620.59 3617750.48 0.79605 486420.59
3617800.48 4.75198
486470.59 3617800.48 5.25239 486520.59
3617800.48 5.82885
486570.59 3617800.48 6.48943 486620.59
3617800.48 7.26752
486670.59 3617800.48 8.21252 486720.59
3617800.48 9.36760
486770.59 3617800.48 10.78620 486820.59
3617800.48 12.60621
486870.59 3617800.48 14.93436 486920.59
3617800.48 18.40227
486970.59 3617800.48 24.10175 487170.59
3617800.48 36.23281
487220.59 3617800.48 24.47425 487270.59
3617800.48 18.29160
487320.59 3617800.48 14.28027 487370.59
3617800.48 11.35014
487420.59 3617800.48 9.10319 487470.59
3617800.48 7.36524
487520.59 3617800.48 6.03134 487570.59
3617800.48 5.03945
487620.59 3617800.48 4.28525 487670.59
3617800.48 3.68134
487720.59 3617800.48 3.24396 487770.59

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3617800.48        2.87804
         487820.59    3617800.48        2.60528                        487870.59
3617800.48        2.34496
         487920.59    3617800.48        2.12531                        487970.59
3617800.48        1.94607
         488020.59    3617800.48        1.74685                        488070.59
3617800.48        1.57136
         488120.59    3617800.48        1.45673                        488170.59
3617800.48        1.35547
         488220.59    3617800.48        1.26518                        488270.59
3617800.48        1.18315
         488320.59    3617800.48        1.10899                        488370.59
3617800.48        1.04288
         488420.59    3617800.48        0.98254                        488470.59
3617800.48        0.92999
         488520.59    3617800.48        0.88168                        488570.59
3617800.48        0.83726
         488620.59    3617800.48        0.79599                        486470.59
3617850.48        5.87328
         486520.59    3617850.48        6.56176                        486570.59
3617850.48        7.38634
         486620.59    3617850.48        8.39945                        486670.59
3617850.48        9.63824
         486720.59    3617850.48       11.17988                        486770.59
3617850.48       13.18496
         486820.59    3617850.48       15.90105                        486870.59
3617850.48       19.74687
         486920.59    3617850.48       26.37306                        487120.59
3617850.48       32.97230
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                           ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                          ***       12:24:23

                                    PAGE  55
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKFWY  ***
                                    INCLUDING SOURCE(S):     L0027898    , L0027899
 , L0027900    , L0027901    , L0027902    ,
                 L0027903    , L0027904    , L0027905    , L0027906    , L0027907
 , L0027908    , L0027909    , L0027910    ,
                 L0027911    , L0027912    , L0027913    , L0027914    , L0027915
 , L0027916    , L0027917    , L0027918    ,
                 L0027919    , L0027920    , L0027921    , L0027922    , L0027923
 , L0027924    , L0027925    ,  . . .      ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***
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** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487170.59	3617850.48	23.40864	487220.59	3617850.48	17.95418
487270.59	3617850.48	14.36197	487320.59	3617850.48	11.78130
487370.59	3617850.48	9.72803	487420.59	3617850.48	8.07383
487470.59	3617850.48	6.74627	487520.59	3617850.48	5.66752
487570.59	3617850.48	4.81583	487620.59	3617850.48	4.13920
487670.59	3617850.48	3.59259	487720.59	3617850.48	3.16647
487770.59	3617850.48	2.81926	487820.59	3617850.48	2.52566
487870.59	3617850.48	2.28792	487920.59	3617850.48	2.06365
487970.59	3617850.48	1.85649	488020.59	3617850.48	1.69050
488070.59	3617850.48	1.56053	488120.59	3617850.48	1.44817
488170.59	3617850.48	1.34685	488220.59	3617850.48	1.25801
488270.59	3617850.48	1.17981	488320.59	3617850.48	1.10968
488370.59	3617850.48	1.03880	488420.59	3617850.48	0.98060
488470.59	3617850.48	0.92845	488520.59	3617850.48	0.88049
488570.59	3617850.48	0.83641	488620.59	3617850.48	0.79518
486520.59	3617900.48	7.46144	486570.59	3617900.48	8.52330
486620.59	3617900.48	9.84320	486670.59	3617900.48	11.52192
486720.59	3617900.48	13.72208	486770.59	3617900.48	16.78145
486820.59	3617900.48	21.32158	486870.59	3617900.48	29.23380
486920.59	3617900.48	50.86633	487070.59	3617900.48	30.72461
487120.59	3617900.48	22.41375	487170.59	3617900.48	17.49780

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         487220.59    3617900.48       14.24412                       487270.59
3617900.48       11.86533
         487320.59    3617900.48       10.01631                       487370.59
3617900.48        8.49771
         487420.59    3617900.48        7.23597                       487470.59
3617900.48        6.19340
         487520.59    3617900.48        5.31919                       487570.59
3617900.48        4.59105
         487620.59    3617900.48        3.99347                       487670.59
3617900.48        3.49160
         487720.59    3617900.48        3.09624                       487770.59
3617900.48        2.75633
         487820.59    3617900.48        2.47648                       487870.59
3617900.48        2.22372
         487920.59    3617900.48        2.00063                       487970.59
3617900.48        1.81334
         488020.59    3617900.48        1.66978                       488070.59
3617900.48        1.54460
         488120.59    3617900.48        1.43392                       488170.59
3617900.48        1.33549
         488220.59    3617900.48        1.24956                       488270.59
3617900.48        1.17326
         488320.59    3617900.48        1.10384                       488370.59
3617900.48        1.03378
         488420.59    3617900.48        0.97663                       488470.59
3617900.48        0.92477
         488520.59    3617900.48        0.87712                       488570.59
3617900.48        0.83352
         488620.59    3617900.48        0.79253                       487077.48
3618005.05       15.78143
         487127.48    3618005.05       13.13102                       487177.48
3618005.05       11.21720
         487227.48    3618005.05        9.73206                       487277.48
3618005.05        8.50872
         487327.48    3618005.05        7.47979                       486570.59
3617950.48        9.97779
         486620.59    3617950.48       11.77493                       486670.59
3617950.48       14.21721
♠ *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                           ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                           ***       12:24:23

                                     PAGE  56
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKFWY  ***
                                     INCLUDING SOURCE(S):     L0027898    , L0027899
 , L0027900    , L0027901    , L0027902    ,
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                 L0027903    , L0027904    , L0027905    , L0027906    , L0027907
 , L0027908    , L0027909    , L0027910    ,
                 L0027911    , L0027912    , L0027913    , L0027914    , L0027915
 , L0027916    , L0027917    , L0027918    ,
                 L0027919    , L0027920    , L0027921    , L0027922    , L0027923
 , L0027924    , L0027925    ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                  **

      X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - -
         486720.59    3617950.48       17.54575                     486770.59
3617950.48       22.83007
         486820.59    3617950.48       32.55738                     486970.59
3617950.48       50.37739
         487020.59    3617950.48       29.32604                     487070.59
3617950.48       21.52827
         487120.59    3617950.48       17.02569                     487170.59
3617950.48       13.96388
         487220.59    3617950.48       11.79589                     487270.59
3617950.48       10.10188
         487320.59    3617950.48        8.70734                     487370.59
3617950.48        7.54677
         487420.59    3617950.48        6.55525                     487470.59
3617950.48        5.70857
         487520.59    3617950.48        4.98330                     487570.59
3617950.48        4.36455
         487620.59    3617950.48        3.83483                     487670.59
3617950.48        3.39034
         487720.59    3617950.48        3.01792                     487770.59
3617950.48        2.70099
         487820.59    3617950.48        2.42932                     487870.59
3617950.48        2.16018
         487920.59    3617950.48        1.94664                     487970.59
3617950.48        1.78167
         488020.59    3617950.48        1.64444                     488070.59
3617950.48        1.52405
         488120.59    3617950.48        1.41616                     488170.59
3617950.48        1.32365
         488220.59    3617950.48        1.23941                     488270.59
3617950.48        1.16311
         488320.59    3617950.48        1.09332                     488370.59
3617950.48        1.02672
         488420.59    3617950.48        0.97001                     488470.59
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3617950.48        0.91884
         488520.59    3617950.48        0.87190                        488570.59
3617950.48        0.82893
         488620.59    3617950.48        0.78853                        488590.14
3616298.03        0.42497
         488540.14    3616348.03        0.44743                        488590.14
3616348.03        0.43615
         488440.14    3616398.03        0.48469                        488490.14
3616398.03        0.47219
         488540.14    3616398.03        0.45985                        488590.14
3616398.03        0.44779
         488390.14    3616448.03        0.51278                        488440.14
3616448.03        0.49891
         488490.14    3616448.03        0.48547                        488540.14
3616448.03        0.47236
         488590.14    3616448.03        0.45955                        488340.14
3616498.03        0.54343
         488390.14    3616498.03        0.52815                        488440.14
3616498.03        0.51342
         488490.14    3616498.03        0.49916                        488540.14
3616498.03        0.48525
         488590.14    3616498.03        0.47152                        484613.02
3614429.89        0.16427
         484663.02    3614429.89        0.16580                        484713.02
3614429.89        0.16741
         484763.02    3614429.89        0.16912                        484813.02
3614429.89        0.17083
         484863.02    3614429.89        0.17240                        484913.02
3614429.89        0.17399
         484963.02    3614429.89        0.17546                        484563.02
3614479.89        0.16517
         484613.02    3614479.89        0.16685                        484663.02
3614479.89        0.16851
         484713.02    3614479.89        0.17026                        484763.02
3614479.89        0.17206
         484813.02    3614479.89        0.17376                        484863.02
3614479.89        0.17539
         484913.02    3614479.89        0.17709                        484963.02
3614479.89        0.17862
         484513.02    3614529.89        0.16614                        484563.02
3614529.89        0.16783
         484613.02    3614529.89        0.16969                        484663.02
3614529.89        0.17139
         484713.02    3614529.89        0.17327                        484763.02
3614529.89        0.17508
         484813.02    3614529.89        0.17680                        484863.02
3614529.89        0.17856
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                              ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TRUKFWY ***
INCLUDING SOURCE(S): L0027898 , L0027899 , L0027900 , L0027901 , L0027902 ,
L0027903 , L0027904 , L0027905 , L0027906 , L0027907 , L0027908 , L0027909 , L0027910 ,
L0027911 , L0027912 , L0027913 , L0027914 , L0027915 , L0027916 , L0027917 , L0027918 ,
L0027919 , L0027920 , L0027921 , L0027922 , L0027923 , L0027924 , L0027925 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
484913.02	3614529.89	0.18033	484963.02	3614529.89	0.18185
484463.02	3614579.89	0.16713	484513.02	3614579.89	0.16880
484563.02	3614579.89	0.17071	484613.02	3614579.89	0.17256
484663.02	3614579.89	0.17436	484713.02	3614579.89	0.17627
484763.02	3614579.89	0.17808	484813.02	3614579.89	0.17993
484863.02	3614579.89	0.18174	484913.02	3614579.89	0.18362
484963.02	3614579.89	0.18523	484413.02	3614629.89	0.16775
484463.02	3614629.89	0.16973	484513.02	3614629.89	0.17162
484563.02	3614629.89	0.17355	484613.02	3614629.89	0.17547
484663.02	3614629.89	0.17735	484713.02	3614629.89	0.17928
484763.02	3614629.89	0.18121	484813.02	3614629.89	0.18315
484863.02	3614629.89	0.18507	484913.02	3614629.89	0.18699

```
         484963.02    3614629.89        0.18890                    484413.02
3614679.89        0.17055
         484463.02    3614679.89        0.17241                    484513.02
3614679.89        0.17443
         484563.02    3614679.89        0.17644                    484613.02
3614679.89        0.17842
         484663.02    3614679.89        0.18039                    484713.02
3614679.89        0.18240
         484763.02    3614679.89        0.18441                    484813.02
3614679.89        0.18645
         484863.02    3614679.89        0.18845                    484913.02
3614679.89        0.19048
         484963.02    3614679.89        0.19247                    484363.02
3614729.89        0.17112
         484413.02    3614729.89        0.17325                    484463.02
3614729.89        0.17527
         484513.02    3614729.89        0.17734                    484563.02
3614729.89        0.17938
         484613.02    3614729.89        0.18145                    484663.02
3614729.89        0.18354
         484713.02    3614729.89        0.18562                    484763.02
3614729.89        0.18771
         484813.02    3614729.89        0.18983                    484863.02
3614729.89        0.19193
         484913.02    3614729.89        0.19402                    484963.02
3614729.89        0.19604
         484313.02    3614779.89        0.17189                    484363.02
3614779.89        0.17396
         484413.02    3614779.89        0.17606                    484463.02
3614779.89        0.17817
         484513.02    3614779.89        0.18028                    484563.02
3614779.89        0.18243
         484613.02    3614779.89        0.18458                    484663.02
3614779.89        0.18675
         484713.02    3614779.89        0.18891                    484763.02
3614779.89        0.19109
         484813.02    3614779.89        0.19329                    484863.02
3614779.89        0.19547
         484913.02    3614779.89        0.19763                    484963.02
3614779.89        0.19967
         484263.02    3614829.89        0.17261                    484313.02
3614829.89        0.17460
         484363.02    3614829.89        0.17675                    484413.02
3614829.89        0.17894
         484463.02    3614829.89        0.18110                    484513.02
3614829.89        0.18333
         484563.02    3614829.89        0.18555                    484613.02
3614829.89        0.18783
         484663.02    3614829.89        0.19008                    484713.02
3614829.89        0.19229
```

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TRUKFWY ***
INCLUDING SOURCE(S): L0027898 , L0027899 , L0027900 , L0027901 , L0027902 ,
L0027903 , L0027904 , L0027905 , L0027906 , L0027907 , L0027908 , L0027909 , L0027910 ,
L0027911 , L0027912 , L0027913 , L0027914 , L0027915 , L0027916 , L0027917 , L0027918 ,
L0027919 , L0027920 , L0027921 , L0027922 , L0027923 , L0027924 , L0027925 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
484263.02	3614879.89	0.17522	484313.02	3614879.89	0.17738
484363.02	3614879.89	0.17962	484413.02	3614879.89	0.18186
484463.02	3614879.89	0.18413	484513.02	3614879.89	0.18645
484563.02	3614879.89	0.18875	484613.02	3614879.89	0.19108
484663.02	3614879.89	0.19343	484713.02	3614879.89	0.19575
484763.02	3614879.89	0.19807	484813.02	3614879.89	0.20038
484863.02	3614879.89	0.20273	484913.02	3614879.89	0.20505
484963.02	3614879.89	0.20731	484163.02		

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3614929.89        0.17345
         484213.02    3614929.89        0.17560                    484263.02
3614929.89        0.17787
         484313.02    3614929.89        0.18022                    484363.02
3614929.89        0.18254
         484413.02    3614929.89        0.18486                    484463.02
3614929.89        0.18725
         484513.02    3614929.89        0.18965                    484563.02
3614929.89        0.19204
         484613.02    3614929.89        0.19446                    484663.02
3614929.89        0.19686
         484713.02    3614929.89        0.19930                    484763.02
3614929.89        0.20171
         484813.02    3614929.89        0.20411                    484863.02
3614929.89        0.20657
         484913.02    3614929.89        0.20899                    484963.02
3614929.89        0.21137
         485013.02    3614929.89        0.21349                    484113.02
3614979.89        0.17373
         484163.02    3614979.89        0.17607                    484213.02
3614979.89        0.17832
         484263.02    3614979.89        0.18068                    484313.02
3614979.89        0.18316
         484363.02    3614979.89        0.18551                    484413.02
3614979.89        0.18793
         484463.02    3614979.89        0.19041                    484513.02
3614979.89        0.19288
         484563.02    3614979.89        0.19536                    484613.02
3614979.89        0.19787
         484663.02    3614979.89        0.20035                    484713.02
3614979.89        0.20292
         484763.02    3614979.89        0.20541                    484813.02
3614979.89        0.20798
         484863.02    3614979.89        0.21052                    484913.02
3614979.89        0.21302
         484963.02    3614979.89        0.21556                    485013.02
3614979.89        0.21793
         484113.02    3615029.89        0.17637                    484163.02
3615029.89        0.17879
         484213.02    3615029.89        0.18116                    484263.02
3615029.89        0.18368
         484313.02    3615029.89        0.18610                    484363.02
3615029.89        0.18856
         484413.02    3615029.89        0.19105                    484463.02
3615029.89        0.19361
         484513.02    3615029.89        0.19618                    484563.02
3615029.89        0.19874
         484613.02    3615029.89        0.20135                    484663.02
3615029.89        0.20396
         484713.02    3615029.89        0.20656                    484763.02
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3615029.89        0.20922
         484813.02    3615029.89        0.21190                       484863.02
3615029.89        0.21453
         484913.02    3615029.89        0.21717                       484963.02
3615029.89        0.21983
         485013.02    3615029.89        0.22246                       485063.02
3615029.89        0.22475
         484113.02    3615079.89        0.17906                       484163.02
3615079.89        0.18156
         484213.02    3615079.89        0.18404                       484263.02
3615079.89        0.18656
         484313.02    3615079.89        0.18910                       484363.02
3615079.89        0.19167
         484413.02    3615079.89        0.19422                       484463.02
3615079.89        0.19688
🡅 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                        ***        12:24:23

                                   PAGE  59
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKFWY  ***
                                   INCLUDING SOURCE(S):     L0027898    , L0027899
 , L0027900    , L0027901    , L0027902    ,
               L0027903    , L0027904    , L0027905    , L0027906    , L0027907
 , L0027908    , L0027909    , L0027910    ,
               L0027911    , L0027912    , L0027913    , L0027914    , L0027915
 , L0027916    , L0027917    , L0027918    ,
               L0027919    , L0027920    , L0027921    , L0027922    , L0027923
 , L0027924    , L0027925    ,  . . .      ,

                                                 *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - -
         484513.02    3615079.89        0.19955                       484563.02
3615079.89        0.20220
         484613.02    3615079.89        0.20492                       484663.02
3615079.89        0.20761
         484713.02    3615079.89        0.21041                       484763.02
3615079.89        0.21312
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        484813.02    3615079.89        0.21587                    484863.02
3615079.89        0.21866
        484913.02    3615079.89        0.22141                    484963.02
3615079.89        0.22420
        485013.02    3615079.89        0.22697                    485063.02
3615079.89        0.22979
        485113.02    3615079.89        0.23220                    484113.02
3615129.89        0.18181
        484163.02    3615129.89        0.18434                    484213.02
3615129.89        0.18691
        484263.02    3615129.89        0.18952                    484313.02
3615129.89        0.19219
        484363.02    3615129.89        0.19484                    484413.02
3615129.89        0.19743
        484463.02    3615129.89        0.20022                    484513.02
3615129.89        0.20299
        484563.02    3615129.89        0.20575                    484613.02
3615129.89        0.20854
        484663.02    3615129.89        0.21141                    484713.02
3615129.89        0.21425
        484763.02    3615129.89        0.21708                    484813.02
3615129.89        0.22000
        484863.02    3615129.89        0.22287                    484913.02
3615129.89        0.22576
        484963.02    3615129.89        0.22868                    485013.02
3615129.89        0.23160
        485063.02    3615129.89        0.23448                    485113.02
3615129.89        0.23740
        485163.02    3615129.89        0.23992                    484113.02
3615179.89        0.18457
        484163.02    3615179.89        0.18719                    484213.02
3615179.89        0.18983
        484263.02    3615179.89        0.19254                    484313.02
3615179.89        0.19527
        484363.02    3615179.89        0.19809                    484413.02
3615179.89        0.20083
        484463.02    3615179.89        0.20364                    484513.02
3615179.89        0.20650
        484563.02    3615179.89        0.20936                    484613.02
3615179.89        0.21227
        484663.02    3615179.89        0.21522                    484713.02
3615179.89        0.21821
        484763.02    3615179.89        0.22119                    484813.02
3615179.89        0.22422
        484863.02    3615179.89        0.22719                    484913.02
3615179.89        0.23021
        484963.02    3615179.89        0.23326                    485013.02
3615179.89        0.23632
        485063.02    3615179.89        0.23937                    485113.02
3615179.89        0.24241
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         485163.02    3615179.89        0.24555                      485213.02
3615179.89        0.24814
         484113.02    3615229.89        0.18738                      484163.02
3615229.89        0.19006
         484213.02    3615229.89        0.19281                      484263.02
3615229.89        0.19559
         484313.02    3615229.89        0.19840                      484363.02
3615229.89        0.20125
         484413.02    3615229.89        0.20415                      484463.02
3615229.89        0.20708
         484513.02    3615229.89        0.21000                      484563.02
3615229.89        0.21304
         484613.02    3615229.89        0.21608                      484663.02
3615229.89        0.21914
         484713.02    3615229.89        0.22224                      484763.02
3615229.89        0.22536
         484813.02    3615229.89        0.22848                      484863.02
3615229.89        0.23160
         484913.02    3615229.89        0.23477                      484963.02
3615229.89        0.23799
         485013.02    3615229.89        0.24116                      485063.02
3615229.89        0.24437
         485113.02    3615229.89        0.24758                      485163.02
3615229.89        0.25076
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                           ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                          ***        12:24:23

                                    PAGE  60
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKFWY  ***
                                    INCLUDING SOURCE(S):     L0027898    , L0027899
 , L0027900    , L0027901    , L0027902    ,
                 L0027903    , L0027904    , L0027905    , L0027906    , L0027907
 , L0027908    , L0027909    , L0027910    ,
                 L0027911    , L0027912    , L0027913    , L0027914    , L0027915
 , L0027916    , L0027917    , L0027918    ,
                 L0027919    , L0027920    , L0027921    , L0027922    , L0027923
 , L0027924    , L0027925    ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                    ** CONC OF PM_10    IN MICROGRAMS/M**3
                  **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
```

Y-COORD (M) CONC
- -

485213.02 3615229.89 0.25394 485263.02
3615229.89 0.25680
484113.02 3615279.89 0.19023 484163.02
3615279.89 0.19299
484213.02 3615279.89 0.19577 484263.02
3615279.89 0.19846
484313.02 3615279.89 0.20133 484613.02
3615279.89 0.21996
484663.02 3615279.89 0.22317 484713.02
3615279.89 0.22639
484763.02 3615279.89 0.22963 484813.02
3615279.89 0.23291
484863.02 3615279.89 0.23619 484913.02
3615279.89 0.23947
484963.02 3615279.89 0.24279 485013.02
3615279.89 0.24615
485063.02 3615279.89 0.24950 485113.02
3615279.89 0.25284
485163.02 3615279.89 0.25618 485213.02
3615279.89 0.25952
485263.02 3615279.89 0.26283 485313.02
3615279.89 0.26605
484113.02 3615329.89 0.19307 484163.02
3615329.89 0.19580
484213.02 3615329.89 0.19856 484663.02
3615329.89 0.22718
484713.02 3615329.89 0.23060 484763.02
3615329.89 0.23399
484813.02 3615329.89 0.23742 484863.02
3615329.89 0.24089
484913.02 3615329.89 0.24431 484963.02
3615329.89 0.24775
485013.02 3615329.89 0.25127 485063.02
3615329.89 0.25477
485113.02 3615329.89 0.25826 485163.02
3615329.89 0.26176
485213.02 3615329.89 0.26529 485263.02
3615329.89 0.26878
485313.02 3615329.89 0.27228 485363.02
3615329.89 0.27551
484113.02 3615379.89 0.19579 484163.02
3615379.89 0.19866
484713.02 3615379.89 0.23486 484763.02
3615379.89 0.23847
484813.02 3615379.89 0.24206 484863.02
3615379.89 0.24562
484913.02 3615379.89 0.24927 484963.02

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3615379.89        0.25289
         485013.02    3615379.89        0.25652                        485063.02
3615379.89        0.26017
         485113.02    3615379.89        0.26387                        485163.02
3615379.89        0.26755
         485213.02    3615379.89        0.27126                        485263.02
3615379.89        0.27492
         485313.02    3615379.89        0.27862                        485363.02
3615379.89        0.28228
         485413.02    3615379.89        0.28595                        484763.02
3615429.89        0.24286
         484813.02    3615429.89        0.24677                        484863.02
3615429.89        0.25052
         484913.02    3615429.89        0.25429                        484963.02
3615429.89        0.25811
         485013.02    3615429.89        0.26192                        485063.02
3615429.89        0.26579
         485113.02    3615429.89        0.26968                        485163.02
3615429.89        0.27348
         485213.02    3615429.89        0.27738                        485263.02
3615429.89        0.28124
         485313.02    3615429.89        0.28512                        485363.02
3615429.89        0.28899
         485413.02    3615429.89        0.29277                        485463.02
3615429.89        0.29666
         485513.02    3615429.89        0.30044                        484813.02
3615479.89        0.25146
         484863.02    3615479.89        0.25552                        484913.02
3615479.89        0.25947
         484963.02    3615479.89        0.26345                        485013.02
3615479.89        0.26748
         485063.02    3615479.89        0.27150                        485113.02
3615479.89        0.27558
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                           ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                           ***       12:24:23

                                     PAGE  61
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKFWY  ***
                                    INCLUDING SOURCE(S):     L0027898    , L0027899
 , L0027900    , L0027901    , L0027902    ,
                 L0027903    , L0027904    , L0027905    , L0027906    , L0027907
 , L0027908    , L0027909    , L0027910    ,
                 L0027911    , L0027912    , L0027913    , L0027914    , L0027915
 , L0027916    , L0027917    , L0027918    ,
                 L0027919    , L0027920    , L0027921    , L0027922    , L0027923
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, L0027924 , L0027925 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
485163.02	3615479.89	0.27964	485213.02	3615479.89	0.28367
485263.02	3615479.89	0.28774	485313.02	3615479.89	0.29186
485363.02	3615479.89	0.29599	485413.02	3615479.89	0.30002
485463.02	3615479.89	0.30400	485513.02	3615479.89	0.30799
485563.02	3615479.89	0.31155	484863.02	3615529.89	0.26049
484913.02	3615529.89	0.26478	484963.02	3615529.89	0.26894
485013.02	3615529.89	0.27315	485063.02	3615529.89	0.27736
485113.02	3615529.89	0.28160	485163.02	3615529.89	0.28591
485213.02	3615529.89	0.29020	485263.02	3615529.89	0.29449
485313.02	3615529.89	0.29882	485363.02	3615529.89	0.30316
485413.02	3615529.89	0.30746	485463.02	3615529.89	0.31173
485513.02	3615529.89	0.31592	484913.02	3615579.89	0.26997
484963.02	3615579.89	0.27459	485013.02	3615579.89	0.27899
485063.02	3615579.89	0.28344	485113.02	3615579.89	0.28812
485163.02	3615579.89	0.29250	485213.02	3615579.89	0.29691
485263.02	3615579.89	0.30145	485313.02	3615579.89	0.30597
485363.02	3615579.89	0.31053	485413.02	3615579.89	0.31507
485463.02	3615579.89	0.31953	484963.02	3615629.89	0.28017
485013.02	3615629.89	0.28495	485063.02	3615629.89	0.28965

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         485113.02    3615629.89        0.29432                        485163.02
3615629.89        0.29913
         485213.02    3615629.89        0.30381                        485263.02
3615629.89        0.30859
         485313.02    3615629.89        0.31337                        485363.02
3615629.89        0.31812
         485413.02    3615629.89        0.32288                        485013.02
3615679.89        0.29063
         485063.02    3615679.89        0.29602                        485113.02
3615679.89        0.30097
         485163.02    3615679.89        0.30596                        485213.02
3615679.89        0.31095
         485263.02    3615679.89        0.31590                        485313.02
3615679.89        0.32101
         485363.02    3615679.89        0.32609                        485413.02
3615679.89        0.33080
         485063.02    3615729.89        0.30198                        485113.02
3615729.89        0.30777
         485163.02    3615729.89        0.31300                        485213.02
3615729.89        0.31821
         485263.02    3615729.89        0.32348                        485313.02
3615729.89        0.32881
         485363.02    3615729.89        0.33398                        485113.02
3615779.89        0.31462
         485163.02    3615779.89        0.32019                        485213.02
3615779.89        0.32577
         485263.02    3615779.89        0.33134                        485313.02
3615779.89        0.33686
         485163.02    3615829.89        0.32714                        485213.02
3615829.89        0.33356
         485263.02    3615829.89        0.33935                        485213.02
3615879.89        0.34112
         487082.35    3618053.22       12.69157                        487132.24
3618053.22       10.97258
         487182.13    3618053.22        9.55873                        487232.02
3618053.22        8.44316
         487281.91    3618053.22        7.48491                        486242.77
3618033.89        5.07723
         486286.79    3617997.48        5.28188                        486574.47
3617998.65       12.02273
         486624.36    3617998.65       14.69791                        486674.25
3617998.65       18.58141
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                          ***       12:24:23

                                   PAGE  62
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data
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*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TRUKFWY ***

INCLUDING SOURCE(S): L0027898 , L0027899 , L0027900 , L0027901 , L0027902 , L0027903 , L0027904 , L0027905 , L0027906 , L0027907 , L0027908 , L0027909 , L0027910 , L0027911 , L0027912 , L0027913 , L0027914 , L0027915 , L0027916 , L0027917 , L0027918 , L0027919 , L0027920 , L0027921 , L0027922 , L0027923 , L0027924 , L0027925 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
486724.14	3617998.65	24.66365	486774.03	3617998.65	36.61201
486923.70	3617998.65	41.56959	486973.59	3617998.65	27.62787
487023.48	3617998.65	20.75123	487082.35	3618103.22	10.82393
487132.24	3618103.22	9.45460	487182.13	3618103.22	8.36833
486165.87	3618094.46	4.61139	486242.77	3618083.89	5.60716
486292.66	3618083.89	6.50552	486499.32	3618054.73	11.45344
486574.47	3618048.65	14.94798	486624.36	3618048.65	19.01037
486674.25	3618048.65	25.87195	486724.14	3618048.65	40.65640
486873.81	3618048.65	39.54287	486923.70	3618048.65	26.29150
486973.59	3618048.65	19.80256	487023.48	3618048.65	16.01028
487082.35	3618153.22	9.33281	487132.24	3618153.22	8.28021
486325.02	3618098.65	7.46835	486242.77	3618133.89	6.27094
486524.58	3618098.65	15.49382	486574.47	3618098.65	19.65295
486624.36	3618098.65	27.03312	486674.25	3618098.65	44.99294
486823.92	3618098.65	36.89807	486873.81		

3618098.65 24.90296
 486923.70 3618098.65 19.14570 486973.59
3618098.65 15.55340
 487023.48 3618098.65 13.06297 487082.35
3618203.22 8.20812
 486275.13 3618148.65 7.24721 486325.02
3618148.65 8.62837
 486374.91 3618148.65 10.34019 486474.69
3618148.65 15.72600
 486524.58 3618148.65 20.43877 486574.47
3618148.65 28.72483
 486624.36 3618148.65 52.21564 486774.03
3618148.65 34.64333
 486823.92 3618148.65 24.54726 486873.81
3618148.65 18.63371
 486923.70 3618148.65 15.16976 486973.59
3618148.65 12.79267
 487023.48 3618148.65 11.01481 486275.13
3618198.65 8.33297
 486325.02 3618198.65 10.18949 486374.91
3618198.65 12.63518
 486424.80 3618198.65 16.14041 486474.69
3618198.65 21.35263
 486524.58 3618198.65 30.86665 486674.25
3618198.65 48.69388
 486724.14 3618198.65 31.35037 486774.03
3618198.65 23.23881
 486823.92 3618198.65 18.30416 486873.81
3618198.65 14.87931
 486923.70 3618198.65 12.51419 486973.59
3618198.65 10.81468
 487023.48 3618198.65 9.53383 486275.13
3618248.65 9.79873
 486325.02 3618248.65 12.51876 486374.91
3618248.65 16.28757
 486424.80 3618248.65 22.09783 486474.69
3618248.65 34.69690
 486624.36 3618248.65 41.97778 486674.25
3618248.65 28.73552
 486724.14 3618248.65 21.75871 486774.03
3618248.65 17.42635
 486823.92 3618248.65 14.41228 486873.81
3618248.65 12.21497
 486923.70 3618248.65 10.49357 486973.59
3618248.65 9.24610
 487023.48 3618248.65 8.28839 486125.46
3618298.65 5.56914
 486275.13 3618298.65 11.92138 486325.02
3618298.65 16.19626
 486374.91 3618298.65 22.89666 486424.80

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3618298.65       36.71685
🡅 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                        ***        12:24:23

                                   PAGE  63
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKFWY  ***
                                   INCLUDING SOURCE(S):     L0027898    , L0027899
 , L0027900    , L0027901    , L0027902    ,
                L0027903    , L0027904    , L0027905    , L0027906    , L0027907
 , L0027908    , L0027909    , L0027910    ,
                L0027911    , L0027912    , L0027913    , L0027914    , L0027915
 , L0027916    , L0027917    , L0027918    ,
                L0027919    , L0027920    , L0027921    , L0027922    , L0027923
 , L0027924    , L0027925    ,  . . .      ,

                                                  *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         486574.47    3618298.65       38.31097                       486624.36
3618298.65       26.43676
         486674.25    3618298.65       20.36130                       486724.14
3618298.65       16.48323
         486774.03    3618298.65       13.75767                       486823.92
3618298.65       11.73608
         486873.81    3618298.65       10.15558                       486923.70
3618298.65        8.94371
         486125.46    3618348.65        5.89574                       486175.35
3618348.65        7.74506
         486225.24    3618348.65       10.66342                       486275.13
3618348.65       15.34772
         486325.02    3618348.65       23.41088                       486524.58
3618348.65       33.88436
         486574.47    3618348.65       24.37154                       486624.36
3618348.65       18.96997
         486674.25    3618348.65       15.48537                       486724.14
3618348.65       13.06736
         486774.03    3618348.65       11.17951                       486823.92
3618348.65        9.76773
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         486873.81    3618348.65        8.64004                    486125.46
3618398.65        6.10731
         486175.35    3618398.65        8.46143                    486225.24
3618398.65       12.76863
         486424.80    3618398.65       49.39879                    486474.69
3618398.65       30.34506
         486524.58    3618398.65       22.11237                    486574.47
3618398.65       17.46726
         486624.36    3618398.65       14.42879                    486674.25
3618398.65       12.27077
         486724.14    3618398.65       10.65056                    486774.03
3618398.65        9.36270
         486823.92    3618398.65        8.29699                    486125.46
3618448.65        6.11617
         486175.35    3618448.65        8.67297                    486374.91
3618448.65       41.85569
         486424.80    3618448.65       26.53510                    486474.69
3618448.65       19.89055
         486524.58    3618448.65       15.81374                    486574.47
3618448.65       13.23572
         486624.36    3618448.65       11.37525                    486674.25
3618448.65        9.96927
         486724.14    3618448.65        8.84560                    486774.03
3618448.65        7.93087
         486125.46    3618498.65        5.68118                    486325.02
3618498.65       29.03628
         486374.91    3618498.65       21.44459                    486424.80
3618498.65       16.89297
         486474.69    3618498.65       13.89703                    486524.58
3618498.65       11.89360
         486574.47    3618498.65       10.34558                    486624.36
3618498.65        9.18359
         486674.25    3618498.65        8.24043                    486105.96
3618586.04        4.24090
         486325.02    3618548.65       14.08861                    486374.91
3618548.65       12.76911
         486424.80    3618548.65       11.31744                    486474.69
3618548.65       10.26127
         486524.58    3618548.65        9.16884                    486574.47
3618548.65        8.31655
         486624.36    3618548.65        7.55461                    486101.02
3618078.36        3.79442
         486155.07    3618149.26        4.89837                    486018.49
3618262.09        3.62476
         485957.41    3618189.14        2.92312                    485842.03
3618300.27        2.29322
         485893.78    3618363.05        2.58431                    485902.87
3618241.99        2.61436
         485966.01    3618313.09        3.15217                    486011.91
3618082.61        3.06837
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TRUKSURF ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
488270.59	3616550.48	1.14913	488320.59	3616550.48	1.09319
488370.59	3616550.48	1.04087	488420.59	3616550.48	0.99185
488470.59	3616550.48	0.94634	488520.59	3616550.48	0.90369
488570.59	3616550.48	0.86356	488620.59	3616550.48	0.82617
488270.59	3616600.48	1.20031	488320.59	3616600.48	1.13909
488370.59	3616600.48	1.08188	488420.59	3616600.48	1.02916
488470.59	3616600.48	0.98012	488520.59	3616600.48	0.93444
488570.59	3616600.48	0.89164	488620.59	3616600.48	0.85182
488270.59	3616650.48	1.25342	488320.59	3616650.48	1.18641
488370.59	3616650.48	1.12481	488420.59	3616650.48	1.06786
488470.59	3616650.48	1.01494	488520.59		

3616650.48 0.96590
488570.59 3616650.48 0.92039 488620.59
3616650.48 0.87802
488270.59 3616700.48 1.30885 488320.59
3616700.48 1.23652
488370.59 3616700.48 1.16946 488420.59
3616700.48 1.10789
488470.59 3616700.48 1.05093 488520.59
3616700.48 0.99820
488570.59 3616700.48 0.94961 488620.59
3616700.48 0.90442
488320.59 3616750.48 1.28775 488370.59
3616750.48 1.21507
488420.59 3616750.48 1.14837 488470.59
3616750.48 1.08704
488520.59 3616750.48 1.03080 488570.59
3616750.48 0.97868
488620.59 3616750.48 0.93054 488320.59
3616800.48 1.33975
488370.59 3616800.48 1.26100 488420.59
3616800.48 1.18902
488470.59 3616800.48 1.12312 488520.59
3616800.48 1.06282
488570.59 3616800.48 1.00741 488620.59
3616800.48 0.95608
488370.59 3616850.48 1.30624 488420.59
3616850.48 1.22880
488470.59 3616850.48 1.15850 488520.59
3616850.48 1.09409
488570.59 3616850.48 1.03531 488620.59
3616850.48 0.98100
488420.59 3616900.48 1.26720 488470.59
3616900.48 1.19224
488520.59 3616900.48 1.12408 488570.59
3616900.48 1.06172
488620.59 3616900.48 1.00473 488420.59
3616950.48 1.30406
488470.59 3616950.48 1.22365 488520.59
3616950.48 1.15162
488570.59 3616950.48 1.08613 488620.59
3616950.48 1.02660
488470.59 3617000.48 1.25168 488520.59
3617000.48 1.17632
488570.59 3617000.48 1.10826 488620.59
3617000.48 1.04623
488470.59 3617050.48 1.27776 488520.59
3617050.48 1.19765
488570.59 3617050.48 1.12636 488620.59
3617050.48 1.06228
488370.59 3617100.48 1.48902 488420.59

3617100.48 1.38309
 488470.59 3617100.48 1.29870 488520.59
3617100.48 1.21639
 488570.59 3617100.48 1.14214 488620.59
3617100.48 1.09212
 488320.59 3617150.48 1.62793 488370.59
3617150.48 1.51134
 488420.59 3617150.48 1.40492 488470.59
3617150.48 1.30930

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TRUKSURF ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
488520.59	3617150.48	1.22990	488570.59	3617150.48	1.15523
488620.59	3617150.48	1.13156	488270.59	3617200.48	1.84675
488320.59	3617200.48	1.64439	488370.59	3617200.48	1.61429
488420.59	3617200.48	1.42073	488470.59	3617200.48	1.32107
488520.59	3617200.48	1.23776	488570.59	3617200.48	1.16402
488620.59	3617200.48	1.17107	487320.59	3617250.48	15.90981

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         487370.59    3617250.48       19.01248                    487420.59
3617250.48       29.50964
         487470.59    3617250.48       64.37620                    487520.59
3617250.48       25.57640
         487570.59    3617250.48       15.90880                    487620.59
3617250.48       11.53086
         487670.59    3617250.48        8.91811                    487720.59
3617250.48        7.17465
         487770.59    3617250.48        5.93925                    487820.59
3617250.48        5.02846
         487870.59    3617250.48        4.33309                    487920.59
3617250.48        3.78973
         487970.59    3617250.48        3.35455                    488020.59
3617250.48        3.00008
         488070.59    3617250.48        2.70324                    488120.59
3617250.48        2.44952
         488170.59    3617250.48        2.23312                    488220.59
3617250.48        2.03669
         488270.59    3617250.48        1.86373                    488320.59
3617250.48        1.71773
         488370.59    3617250.48        1.59889                    488420.59
3617250.48        1.45284
         488470.59    3617250.48        1.32633                    488520.59
3617250.48        1.26450
         488570.59    3617250.48        1.16530                    488620.59
3617250.48        1.13298
         487170.59    3617300.48       12.95153                    487220.59
3617300.48       12.84697
         487270.59    3617300.48       13.41967                    487320.59
3617300.48       14.91105
         487370.59    3617300.48       18.50228                    487420.59
3617300.48       29.89891
         487470.59    3617300.48       61.52975                    487520.59
3617300.48       25.52109
         487570.59    3617300.48       16.20547                    487620.59
3617300.48       11.83965
         487670.59    3617300.48        9.18700                    487720.59
3617300.48        7.37759
         487770.59    3617300.48        6.08540                    487820.59
3617300.48        5.12382
         487870.59    3617300.48        4.40722                    487920.59
3617300.48        3.84934
         487970.59    3617300.48        3.40373                    488020.59
3617300.48        3.03202
         488070.59    3617300.48        2.71764                    488120.59
3617300.48        2.46903
         488170.59    3617300.48        2.23244                    488220.59
3617300.48        2.02254
         488270.59    3617300.48        1.85644                    488320.59
3617300.48        1.71581
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         488370.59    3617300.48        1.61597                       488420.59
3617300.48        1.45462
         488470.59    3617300.48        1.32731                       488520.59
3617300.48        1.29485
         488570.59    3617300.48        1.17791                       488620.59
3617300.48        1.09652
         487020.59    3617350.48       13.72055                       487070.59
3617350.48       12.35126
         487120.59    3617350.48       11.60148                       487170.59
3617350.48       11.36446
         487220.59    3617350.48       11.62415                       487270.59
3617350.48       12.52613
         487320.59    3617350.48       14.46691                       487370.59
3617350.48       18.61321
         487420.59    3617350.48       30.97392                       487470.59
3617350.48       73.56647
         487520.59    3617350.48       25.83904                       487570.59
3617350.48       16.69184
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                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKSURF ***
                                 INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - -
         487620.59    3617350.48       12.26469                       487670.59
3617350.48        9.50411
         487720.59    3617350.48        7.61991                       487770.59
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3617350.48 6.26372
487820.59 3617350.48 5.24698 487870.59
3617350.48 4.49468
487920.59 3617350.48 3.89836 487970.59
3617350.48 3.42783
488020.59 3617350.48 3.03373 488070.59
3617350.48 2.71670
488120.59 3617350.48 2.45151 488170.59
3617350.48 2.21624
488220.59 3617350.48 2.00747 488270.59
3617350.48 1.83714
488320.59 3617350.48 1.68959 488370.59
3617350.48 1.54829
488420.59 3617350.48 1.44057 488470.59
3617350.48 1.32263
488520.59 3617350.48 1.24291 488570.59
3617350.48 1.15995
488620.59 3617350.48 1.09066 486770.59
3617400.48 44.29362
486820.59 3617400.48 26.29598 486870.59
3617400.48 19.09116
486920.59 3617400.48 15.20729 486970.59
3617400.48 12.83510
487020.59 3617400.48 11.36248 487070.59
3617400.48 10.53721
487120.59 3617400.48 10.17045 487170.59
3617400.48 10.26272
487220.59 3617400.48 10.80087 487270.59
3617400.48 12.00098
487320.59 3617400.48 14.38081 487370.59
3617400.48 19.14313
487420.59 3617400.48 32.77583 487470.59
3617400.48 70.96838
487520.59 3617400.48 27.25938 487570.59
3617400.48 17.87812
487620.59 3617400.48 13.00344 487670.59
3617400.48 9.90852
487720.59 3617400.48 7.83444 487770.59
3617400.48 6.37052
487820.59 3617400.48 5.29709 487870.59
3617400.48 4.49487
487920.59 3617400.48 3.86935 487970.59
3617400.48 3.37502
488020.59 3617400.48 2.97734 488070.59
3617400.48 2.65127
488120.59 3617400.48 2.36931 488170.59
3617400.48 2.14202
488220.59 3617400.48 1.95098 488270.59
3617400.48 1.78927
488320.59 3617400.48 1.64923 488370.59

3617400.48   1.53169
         488420.59   3617400.48   1.40739   488470.59
3617400.48   1.30907
         488520.59   3617400.48   1.22474   488570.59
3617400.48   1.14886
         488620.59   3617400.48   1.08173   486820.59
3617450.48   17.43437
         486870.59   3617450.48   14.12579   486920.59
3617450.48   12.00172
         486970.59   3617450.48   10.59808   487020.59
3617450.48   9.72232
         487070.59   3617450.48   9.27997   487120.59
3617450.48   9.14883
         487170.59   3617450.48   9.35779   487220.59
3617450.48   10.07891
         487270.59   3617450.48   11.56822   487320.59
3617450.48   14.47720
         487370.59   3617450.48   20.06323   487420.59
3617450.48   35.32832
         487470.59   3617450.48   71.07471   487520.59
3617450.48   32.79333
         487570.59   3617450.48   20.96282   487620.59
3617450.48   14.31035
         487670.59   3617450.48   10.49980   487720.59
3617450.48   8.10225
         487770.59   3617450.48   6.50769   487820.59
3617450.48   5.36981

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

                               *** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKSURF ***
                                  INCLUDING SOURCE(S):   L0000001   , L0000002
 , L0000003   , L0000004   , L0000005   ,
                 L0000006   , L0000007   , L0000008   , L0000009   , L0000010
 , L0000011   , L0000012   , L0000013   ,
                 L0000014   , L0000015   , L0000016   , L0000017   , L0000018
 , L0000019   , L0000020   , L0000021   ,
                 L0000022   , L0000023   , L0000024   , L0000025   , L0000026
 , L0000027   , L0000028   , . . .   ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF PM_10   IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487870.59	3617450.48	4.54169	487920.59	3617450.48	3.90117
487970.59	3617450.48	3.39096	488020.59	3617450.48	2.98301
488070.59	3617450.48	2.64938	488120.59	3617450.48	2.37474
488170.59	3617450.48	2.14023	488220.59	3617450.48	1.94654
488270.59	3617450.48	1.78435	488320.59	3617450.48	1.66386
488370.59	3617450.48	1.53737	488420.59	3617450.48	1.38793
488470.59	3617450.48	1.29271	488520.59	3617450.48	1.21036
488570.59	3617450.48	1.13551	488620.59	3617450.48	1.06947
486770.59	3617500.48	15.18344	486820.59	3617500.48	12.71748
486870.59	3617500.48	11.03243	486920.59	3617500.48	9.82136
486970.59	3617500.48	9.00947	487020.59	3617500.48	8.50503
487070.59	3617500.48	8.21980	487120.59	3617500.48	8.21300
487170.59	3617500.48	8.49075	487220.59	3617500.48	9.32990
487270.59	3617500.48	11.16674	487320.59	3617500.48	15.11278
487370.59	3617500.48	23.37257	487420.59	3617500.48	48.51175
487470.59	3617500.48	92.48138	487520.59	3617500.48	64.46069
487570.59	3617500.48	31.33032	487620.59	3617500.48	16.53962
487670.59	3617500.48	11.12041	487720.59	3617500.48	8.29869
487770.59	3617500.48	6.55552	487820.59	3617500.48	5.36874
487870.59	3617500.48	4.50787	487920.59	3617500.48	3.85894
487970.59	3617500.48	3.35125	488020.59	3617500.48	2.94694
488070.59	3617500.48	2.61802	488120.59	3617500.48	2.34516

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         488170.59    3617500.48        2.12177                        488220.59
3617500.48        1.93436
         488270.59    3617500.48        1.76833                        488320.59
3617500.48        1.62923
         488370.59    3617500.48        1.50205                        488420.59
3617500.48        1.36427
         488470.59    3617500.48        1.27213                        488520.59
3617500.48        1.19192
         488570.59    3617500.48        1.11874                        488620.59
3617500.48        1.05452
         486670.59    3617550.48       12.77296                        486720.59
3617550.48       12.22619
         486770.59    3617550.48       10.99060                        486820.59
3617550.48        9.85273
         486870.59    3617550.48        8.95163                        486920.59
3617550.48        8.30105
         486970.59    3617550.48        7.79624                        487020.59
3617550.48        7.44804
         487070.59    3617550.48        7.28465                        487120.59
3617550.48        7.37504
         487170.59    3617550.48        7.73858                        487220.59
3617550.48        8.54634
         487270.59    3617550.48       10.70098                        487320.59
3617550.48       15.42621
         487370.59    3617550.48       34.94636                        487420.59
3617550.48       60.50734
         487470.59    3617550.48       73.14228                        487520.59
3617550.48       82.06331
         487570.59    3617550.48       34.61526                        487620.59
3617550.48       15.82550
         487670.59    3617550.48       10.41769                        487720.59
3617550.48        7.77430
         487770.59    3617550.48        6.17118                        487820.59
3617550.48        5.07681
         487870.59    3617550.48        4.28905                        487920.59
3617550.48        3.69065
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                           ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                           ***       12:24:23

                                    PAGE  68
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKSURF ***
                                    INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
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                L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_10    IN MICROGRAMS/M**3
                  **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - -
         487970.59    3617550.48        3.21074                      488020.59
3617550.48        2.83041
         488070.59    3617550.48        2.51185                      488120.59
3617550.48        2.25158
         488170.59    3617550.48        2.05041                      488220.59
3617550.48        1.87428
         488270.59    3617550.48        1.72089                      488320.59
3617550.48        1.58589
         488370.59    3617550.48        1.44506                      488420.59
3617550.48        1.33681
         488470.59    3617550.48        1.24869                      488520.59
3617550.48        1.16941
         488570.59    3617550.48        1.09921                      488620.59
3617550.48        1.03704
         485870.59    3617600.48        1.49420                      485920.59
3617600.48        1.61815
         486620.59    3617600.48        8.13954                      486670.59
3617600.48        8.75447
         486720.59    3617600.48        8.83780                      486770.59
3617600.48        8.47777
         486820.59    3617600.48        7.96889                      486870.59
3617600.48        7.52534
         486920.59    3617600.48        7.10380                      486970.59
3617600.48        6.78048
         487020.59    3617600.48        6.53984                      487070.59
3617600.48        6.49448
         487120.59    3617600.48        6.60110                      487170.59
3617600.48        6.94574
         487220.59    3617600.48        7.78976                      487270.59
3617600.48        9.62337
         487320.59    3617600.48       13.26638                      487370.59
3617600.48       24.42311
         487420.59    3617600.48       24.83922                      487470.59
3617600.48       32.05862
         487520.59    3617600.48       33.66930                      487570.59
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3617600.48       21.01517
         487620.59    3617600.48       12.75750                       487670.59
3617600.48        8.95595
         487720.59    3617600.48        6.88266                       487770.59
3617600.48        5.57133
         487820.59    3617600.48        4.65990                       487870.59
3617600.48        3.98591
         487920.59    3617600.48        3.45725                       487970.59
3617600.48        3.02918
         488020.59    3617600.48        2.67377                       488070.59
3617600.48        2.39170
         488120.59    3617600.48        2.16158                       488170.59
3617600.48        1.96937
         488220.59    3617600.48        1.80914                       488270.59
3617600.48        1.66767
         488320.59    3617600.48        1.53797                       488370.59
3617600.48        1.41015
         488420.59    3617600.48        1.30756                       488470.59
3617600.48        1.22163
         488520.59    3617600.48        1.14364                       488570.59
3617600.48        1.07720
         488620.59    3617600.48        1.01650                       485870.59
3617650.48        1.45087
         485920.59    3617650.48        1.56640                       485970.59
3617650.48        1.69708
         486570.59    3617650.48        5.75655                       486620.59
3617650.48        6.26391
         486670.59    3617650.48        6.65498                       486720.59
3617650.48        6.82086
         486770.59    3617650.48        6.79850                       486820.59
3617650.48        6.63051
         486870.59    3617650.48        6.36299                       486920.59
3617650.48        6.11563
         486970.59    3617650.48        5.93477                       487020.59
3617650.48        5.79393
         487070.59    3617650.48        5.74264                       487120.59
3617650.48        5.81440
         487170.59    3617650.48        6.12878                       487370.59
3617650.48       11.63652
         487420.59    3617650.48       13.69962                       487470.59
3617650.48       15.36424
         487520.59    3617650.48       15.46999                       487570.59
3617650.48       12.99611
         487620.59    3617650.48        9.91189                       487670.59
3617650.48        7.59815
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                           ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                          ***       12:24:23
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TRUKSURF ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487720.59	3617650.48	6.05100	487770.59	3617650.48	5.01651
487820.59	3617650.48	4.25463	487870.59	3617650.48	3.67429
487920.59	3617650.48	3.22447	487970.59	3617650.48	2.83724
488020.59	3617650.48	2.50930	488070.59	3617650.48	2.26429
488120.59	3617650.48	2.06960	488170.59	3617650.48	1.89420
488220.59	3617650.48	1.74645	488270.59	3617650.48	1.61070
488320.59	3617650.48	1.49560	488370.59	3617650.48	1.37056
488420.59	3617650.48	1.27162	488470.59	3617650.48	1.19067
488520.59	3617650.48	1.11823	488570.59	3617650.48	1.05240
488620.59	3617650.48	0.99570	485870.59	3617700.48	1.40459
485920.59	3617700.48	1.51185	485970.59	3617700.48	1.63120
486470.59	3617700.48	4.04371	486520.59	3617700.48	4.37563
486570.59	3617700.48	4.74227	486620.59	3617700.48	5.06931

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         486670.59    3617700.48        5.34814                    486720.59
3617700.48        5.52819
         486770.59    3617700.48        5.60043                    486820.59
3617700.48        5.54709
         486870.59    3617700.48        5.40705                    486920.59
3617700.48        5.32144
         486970.59    3617700.48        5.20313                    487020.59
3617700.48        5.11231
         487070.59    3617700.48        5.12743                    487120.59
3617700.48        5.32683
         487270.59    3617700.48        6.54979                    487320.59
3617700.48        7.00969
         487370.59    3617700.48        8.01723                    487420.59
3617700.48        9.01462
         487470.59    3617700.48        9.77650                    487520.59
3617700.48        9.89234
         487570.59    3617700.48        9.16452                    487620.59
3617700.48        7.83481
         487670.59    3617700.48        6.48234                    487720.59
3617700.48        5.38471
         487770.59    3617700.48        4.55088                    487820.59
3617700.48        3.91287
         487870.59    3617700.48        3.41216                    487920.59
3617700.48        3.00121
         487970.59    3617700.48        2.65225                    488020.59
3617700.48        2.37597
         488070.59    3617700.48        2.17446                    488120.59
3617700.48        1.99653
         488170.59    3617700.48        1.84321                    488220.59
3617700.48        1.70116
         488270.59    3617700.48        1.56990                    488320.59
3617700.48        1.45386
         488370.59    3617700.48        1.33966                    488420.59
3617700.48        1.23740
         488470.59    3617700.48        1.15970                    488520.59
3617700.48        1.09087
         488570.59    3617700.48        1.02816                    488620.59
3617700.48        0.97282
         486420.59    3617750.48        3.25870                    486470.59
3617750.48        3.49389
         486520.59    3617750.48        3.73794                    486570.59
3617750.48        4.00601
         486620.59    3617750.48        4.21601                    486670.59
3617750.48        4.43413
         486720.59    3617750.48        4.59518                    486770.59
3617750.48        4.66202
         486820.59    3617750.48        4.65849                    486870.59
3617750.48        4.64749
         486920.59    3617750.48        4.53214                    486970.59
3617750.48        4.53349
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TRUKSURF ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487020.59	3617750.48	4.56709	487070.59	3617750.48	4.65675
487220.59	3617750.48	5.01995	487270.59	3617750.48	5.30916
487320.59	3617750.48	5.66315	487370.59	3617750.48	6.15655
487420.59	3617750.48	6.65002	487470.59	3617750.48	7.04470
487520.59	3617750.48	7.06755	487570.59	3617750.48	6.80709
487620.59	3617750.48	6.28687	487670.59	3617750.48	5.54863
487720.59	3617750.48	4.80362	487770.59	3617750.48	4.16465
487820.59	3617750.48	3.63163	487870.59	3617750.48	3.19726
487920.59	3617750.48	2.83390	487970.59	3617750.48	2.52223
488020.59	3617750.48	2.29185	488070.59	3617750.48	2.12300
488120.59	3617750.48	1.94669	488170.59		

3617750.48 1.78753
488220.59 3617750.48 1.63694 488270.59
3617750.48 1.52036
488320.59 3617750.48 1.40697 488370.59
3617750.48 1.28388
488420.59 3617750.48 1.20099 488470.59
3617750.48 1.12803
488520.59 3617750.48 1.06304 488570.59
3617750.48 1.00360
488620.59 3617750.48 0.94973 486420.59
3617800.48 2.88373
486470.59 3617800.48 3.07231 486520.59
3617800.48 3.25691
486570.59 3617800.48 3.45212 486620.59
3617800.48 3.60747
486670.59 3617800.48 3.75666 486720.59
3617800.48 3.86246
486770.59 3617800.48 3.95661 486820.59
3617800.48 3.99231
486870.59 3617800.48 3.95602 486920.59
3617800.48 3.98638
486970.59 3617800.48 4.02703 487170.59
3617800.48 4.24442
487220.59 3617800.48 4.33871 487270.59
3617800.48 4.50847
487320.59 3617800.48 4.72302 487370.59
3617800.48 4.96003
487420.59 3617800.48 5.22781 487470.59
3617800.48 5.46701
487520.59 3617800.48 5.52192 487570.59
3617800.48 5.45881
487620.59 3617800.48 5.18106 487670.59
3617800.48 4.77762
487720.59 3617800.48 4.28270 487770.59
3617800.48 3.81240
487820.59 3617800.48 3.37118 487870.59
3617800.48 3.01715
487920.59 3617800.48 2.70937 487970.59
3617800.48 2.44284
488020.59 3617800.48 2.23327 488070.59
3617800.48 2.03589
488120.59 3617800.48 1.86566 488170.59
3617800.48 1.71711
488220.59 3617800.48 1.57846 488270.59
3617800.48 1.44675
488320.59 3617800.48 1.32874 488370.59
3617800.48 1.24313
488420.59 3617800.48 1.16562 488470.59
3617800.48 1.09729
488520.59 3617800.48 1.03506 488570.59

3617800.48 0.97831
  488620.59 3617800.48 0.92613 486470.59
3617850.48 2.72746
  486520.59 3617850.48 2.88772 486570.59
3617850.48 3.01828
  486620.59 3617850.48 3.12598 486670.59
3617850.48 3.22846
  486720.59 3617850.48 3.32163 486770.59
3617850.48 3.40284
  486820.59 3617850.48 3.44388 486870.59
3617850.48 3.45146
  486920.59 3617850.48 3.51495 487120.59
3617850.48 3.64063

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TRUKSURF ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487170.59	3617850.48	3.69703	487220.59	3617850.48	3.78004
487270.59	3617850.48	3.89036	487320.59	3617850.48	4.04405
487370.59	3617850.48	4.17829	487420.59	3617850.48	4.30784
487470.59	3617850.48	4.45818	487520.59	3617850.48	4.52283

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         487570.59    3617850.48        4.50814                    487620.59
3617850.48        4.36862
         487670.59    3617850.48        4.13235                    487720.59
3617850.48        3.80956
         487770.59    3617850.48        3.46999                    487820.59
3617850.48        3.14880
         487870.59    3617850.48        2.84707                    487920.59
3617850.48        2.57901
         487970.59    3617850.48        2.34727                    488020.59
3617850.48        2.13040
         488070.59    3617850.48        1.93667                    488120.59
3617850.48        1.78053
         488170.59    3617850.48        1.62174                    488220.59
3617850.48        1.50055
         488270.59    3617850.48        1.40328                    488320.59
3617850.48        1.31842
         488370.59    3617850.48        1.20313                    488420.59
3617850.48        1.13120
         488470.59    3617850.48        1.06659                    488520.59
3617850.48        1.00759
         488570.59    3617850.48        0.95366                    488620.59
3617850.48        0.90378
         486520.59    3617900.48        2.58523                    486570.59
3617900.48        2.66632
         486620.59    3617900.48        2.75881                    486670.59
3617900.48        2.83536
         486720.59    3617900.48        2.85629                    486770.59
3617900.48        2.97898
         486820.59    3617900.48        3.02387                    486870.59
3617900.48        3.06776
         486920.59    3617900.48        3.31214                    487070.59
3617900.48        3.16954
         487120.59    3617900.48        3.21804                    487170.59
3617900.48        3.26834
         487220.59    3617900.48        3.34023                    487270.59
3617900.48        3.42102
         487320.59    3617900.48        3.50880                    487370.59
3617900.48        3.59200
         487420.59    3617900.48        3.68366                    487470.59
3617900.48        3.76669
         487520.59    3617900.48        3.81062                    487570.59
3617900.48        3.82271
         487620.59    3617900.48        3.74431                    487670.59
3617900.48        3.60273
         487720.59    3617900.48        3.38898                    487770.59
3617900.48        3.15559
         487820.59    3617900.48        2.91116                    487870.59
3617900.48        2.67514
         487920.59    3617900.48        2.44633                    487970.59
3617900.48        2.21724
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         488020.59    3617900.48        2.03044                      488070.59
3617900.48        1.84404
         488120.59    3617900.48        1.68730                      488170.59
3617900.48        1.55276
         488220.59    3617900.48        1.45101                      488270.59
3617900.48        1.36766
         488320.59    3617900.48        1.28589                      488370.59
3617900.48        1.16570
         488420.59    3617900.48        1.09815                      488470.59
3617900.48        1.03685
         488520.59    3617900.48        0.98077                      488570.59
3617900.48        0.92951
         488620.59    3617900.48        0.88185                      487077.48
3618005.05        2.50725
         487127.48    3618005.05        2.53285                      487177.48
3618005.05        2.57726
         487227.48    3618005.05        2.63036                      487277.48
3618005.05        2.67144
         487327.48    3618005.05        2.71179                      486570.59
3617950.48        2.39795
         486620.59    3617950.48        2.46661                      486670.59
3617950.48        2.49223
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***        12:24:23

                                    PAGE  72
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                               *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKSURF ***
                                  INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                       *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                    ** CONC OF PM_10    IN MICROGRAMS/M**3
                  **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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- -
486720.59 3617950.48 2.48996 486770.59
3617950.48 2.61293
486820.59 3617950.48 2.70097 486970.59
3617950.48 2.88887
487020.59 3617950.48 2.80290 487070.59
3617950.48 2.82532
487120.59 3617950.48 2.86775 487170.59
3617950.48 2.90187
487220.59 3617950.48 2.96914 487270.59
3617950.48 3.03831
487320.59 3617950.48 3.10708 487370.59
3617950.48 3.14257
487420.59 3617950.48 3.21033 487470.59
3617950.48 3.26545
487520.59 3617950.48 3.30889 487570.59
3617950.48 3.31927
487620.59 3617950.48 3.26667 487670.59
3617950.48 3.16855
487720.59 3617950.48 3.02843 487770.59
3617950.48 2.86687
487820.59 3617950.48 2.68729 487870.59
3617950.48 2.49886
487920.59 3617950.48 2.29335 487970.59
3617950.48 2.07295
488020.59 3617950.48 1.91059 488070.59
3617950.48 1.75430
488120.59 3617950.48 1.60872 488170.59
3617950.48 1.52463
488220.59 3617950.48 1.43087 488270.59
3617950.48 1.32964
488320.59 3617950.48 1.23090 488370.59
3617950.48 1.12967
488420.59 3617950.48 1.06579 488470.59
3617950.48 1.00781
488520.59 3617950.48 0.95467 488570.59
3617950.48 0.90596
488620.59 3617950.48 0.86061 488590.14
3616298.03 0.72315
488540.14 3616348.03 0.77620 488590.14
3616348.03 0.74639
488440.14 3616398.03 0.87173 488490.14
3616398.03 0.83615
488540.14 3616398.03 0.80242 488590.14
3616398.03 0.77052
488390.14 3616448.03 0.94462 488440.14
3616448.03 0.90389
488490.14 3616448.03 0.86557 488540.14
3616448.03 0.82945
488590.14 3616448.03 0.79538 488340.14

```
3616498.03        1.02795
         488390.14    3616498.03        0.98111                          488440.14
3616498.03        0.93727
         488490.14    3616498.03        0.89612                          488540.14
3616498.03        0.85745
         488590.14    3616498.03        0.82100                          484613.02
3614429.89        0.20213
         484663.02    3614429.89        0.20494                          484713.02
3614429.89        0.20781
         484763.02    3614429.89        0.21077                          484813.02
3614429.89        0.21375
         484863.02    3614429.89        0.21668                          484913.02
3614429.89        0.21964
         484963.02    3614429.89        0.22255                          484563.02
3614479.89        0.20261
         484613.02    3614479.89        0.20552                          484663.02
3614479.89        0.20847
         484713.02    3614479.89        0.21150                          484763.02
3614479.89        0.21459
         484813.02    3614479.89        0.21765                          484863.02
3614479.89        0.22070
         484913.02    3614479.89        0.22382                          484963.02
3614479.89        0.22684
         484513.02    3614529.89        0.20302                          484563.02
3614529.89        0.20599
         484613.02    3614529.89        0.20909                          484663.02
3614529.89        0.21214
         484713.02    3614529.89        0.21532                          484763.02
3614529.89        0.21850
         484813.02    3614529.89        0.22166                          484863.02
3614529.89        0.22487
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                           ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                          ***        12:24:23

                                    PAGE  73
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKSURF ***
                                   INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,
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*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
484913.02	3614529.89	0.22812	484963.02	3614529.89	0.23124
484463.02	3614579.89	0.20334	484513.02	3614579.89	0.20636
484563.02	3614579.89	0.20953	484613.02	3614579.89	0.21271
484663.02	3614579.89	0.21590	484713.02	3614579.89	0.21918
484763.02	3614579.89	0.22245	484813.02	3614579.89	0.22577
484863.02	3614579.89	0.22911	484913.02	3614579.89	0.23252
484963.02	3614579.89	0.23579	484413.02	3614629.89	0.20343
484463.02	3614629.89	0.20663	484513.02	3614629.89	0.20983
484563.02	3614629.89	0.21309	484613.02	3614629.89	0.21639
484663.02	3614629.89	0.21971	484713.02	3614629.89	0.22309
484763.02	3614629.89	0.22651	484813.02	3614629.89	0.22998
484863.02	3614629.89	0.23348	484913.02	3614629.89	0.23702
484963.02	3614629.89	0.24059	484413.02	3614679.89	0.20676
484463.02	3614679.89	0.20998	484513.02	3614679.89	0.21332
484563.02	3614679.89	0.21671	484613.02	3614679.89	0.22012
484663.02	3614679.89	0.22358	484713.02	3614679.89	0.22710
484763.02	3614679.89	0.23067	484813.02	3614679.89	0.23429
484863.02	3614679.89	0.23794	484913.02	3614679.89	0.24164
484963.02	3614679.89	0.24537	484363.02	3614729.89	0.20666
484413.02	3614729.89	0.21006	484463.02	3614729.89	0.21344

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         484513.02    3614729.89        0.21690                      484563.02
3614729.89        0.22039
         484613.02    3614729.89        0.22394                      484663.02
3614729.89        0.22756
         484713.02    3614729.89        0.23121                      484763.02
3614729.89        0.23492
         484813.02    3614729.89        0.23870                      484863.02
3614729.89        0.24251
         484913.02    3614729.89        0.24636                      484963.02
3614729.89        0.25022
         484313.02    3614779.89        0.20659                      484363.02
3614779.89        0.20998
         484413.02    3614779.89        0.21343                      484463.02
3614779.89        0.21695
         484513.02    3614779.89        0.22051                      484563.02
3614779.89        0.22416
         484613.02    3614779.89        0.22785                      484663.02
3614779.89        0.23160
         484713.02    3614779.89        0.23541                      484763.02
3614779.89        0.23927
         484813.02    3614779.89        0.24320                      484863.02
3614779.89        0.24717
         484913.02    3614779.89        0.25118                      484963.02
3614779.89        0.25517
         484263.02    3614829.89        0.20638                      484313.02
3614829.89        0.20978
         484363.02    3614829.89        0.21329                      484413.02
3614829.89        0.21687
         484463.02    3614829.89        0.22050                      484513.02
3614829.89        0.22422
         484563.02    3614829.89        0.22799                      484613.02
3614829.89        0.23185
         484663.02    3614829.89        0.23575                      484713.02
3614829.89        0.23970
         484763.02    3614829.89        0.24371                      484813.02
3614829.89        0.24778
         484863.02    3614829.89        0.25192                      484913.02
3614829.89        0.25612
         484963.02    3614829.89        0.26016                      484213.02
3614879.89        0.20597
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***       03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***       12:24:23

                                   PAGE  74
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKSURF ***
```

```
                                INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         484263.02    3614879.89        0.20947                       484313.02
3614879.89        0.21302
         484363.02    3614879.89        0.21666                       484413.02
3614879.89        0.22036
         484463.02    3614879.89        0.22414                       484513.02
3614879.89        0.22800
         484563.02    3614879.89        0.23191                       484613.02
3614879.89        0.23590
         484663.02    3614879.89        0.23995                       484713.02
3614879.89        0.24407
         484763.02    3614879.89        0.24824                       484813.02
3614879.89        0.25247
         484863.02    3614879.89        0.25677                       484913.02
3614879.89        0.26112
         484963.02    3614879.89        0.26549                       484163.02
3614929.89        0.20547
         484213.02    3614929.89        0.20896                       484263.02
3614929.89        0.21258
         484313.02    3614929.89        0.21630                       484363.02
3614929.89        0.22007
         484413.02    3614929.89        0.22390                       484463.02
3614929.89        0.22784
         484513.02    3614929.89        0.23184                       484563.02
3614929.89        0.23590
         484613.02    3614929.89        0.24004                       484663.02
3614929.89        0.24424
         484713.02    3614929.89        0.24853                       484763.02
3614929.89        0.25287
         484813.02    3614929.89        0.25728                       484863.02
3614929.89        0.26177
         484913.02    3614929.89        0.26632                       484963.02
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3614929.89        0.27090
         485013.02    3614929.89        0.27536                    484113.02
3614979.89        0.20481
         484163.02    3614979.89        0.20842                    484213.02
3614979.89        0.21204
         484263.02    3614979.89        0.21579                    484313.02
3614979.89        0.21966
         484363.02    3614979.89        0.22353                    484413.02
3614979.89        0.22751
         484463.02    3614979.89        0.23158                    484513.02
3614979.89        0.23572
         484563.02    3614979.89        0.23993                    484613.02
3614979.89        0.24424
         484663.02    3614979.89        0.24860                    484713.02
3614979.89        0.25307
         484763.02    3614979.89        0.25759                    484813.02
3614979.89        0.26221
         484863.02    3614979.89        0.26689                    484913.02
3614979.89        0.27163
         484963.02    3614979.89        0.27645                    485013.02
3614979.89        0.28124
         484113.02    3615029.89        0.20770                    484163.02
3615029.89        0.21142
         484213.02    3615029.89        0.21519                    484263.02
3615029.89        0.21909
         484313.02    3615029.89        0.22302                    484363.02
3615029.89        0.22705
         484413.02    3615029.89        0.23116                    484463.02
3615029.89        0.23537
         484513.02    3615029.89        0.23967                    484563.02
3615029.89        0.24404
         484613.02    3615029.89        0.24850                    484663.02
3615029.89        0.25305
         484713.02    3615029.89        0.25768                    484763.02
3615029.89        0.26241
         484813.02    3615029.89        0.26722                    484863.02
3615029.89        0.27210
         484913.02    3615029.89        0.27707                    484963.02
3615029.89        0.28211
         485013.02    3615029.89        0.28723                    485063.02
3615029.89        0.29217
         484113.02    3615079.89        0.21061                    484163.02
3615079.89        0.21446
         484213.02    3615079.89        0.21836                    484263.02
3615079.89        0.22235
         484313.02    3615079.89        0.22643                    484363.02
3615079.89        0.23060
         484413.02    3615079.89        0.23484                    484463.02
3615079.89        0.23922
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
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*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TRUKSURF ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
484513.02	3615079.89	0.24367	484563.02	3615079.89	0.24820
484613.02	3615079.89	0.25285	484663.02	3615079.89	0.25757
484713.02	3615079.89	0.26242	484763.02	3615079.89	0.26732
484813.02	3615079.89	0.27233	484863.02	3615079.89	0.27744
484913.02	3615079.89	0.28262	484963.02	3615079.89	0.28790
485013.02	3615079.89	0.29327	485063.02	3615079.89	0.29873
485113.02	3615079.89	0.30403	484113.02	3615129.89	0.21356
484163.02	3615129.89	0.21750	484213.02	3615129.89	0.22153
484263.02	3615129.89	0.22566	484313.02	3615129.89	0.22989
484363.02	3615129.89	0.23420	484413.02	3615129.89	0.23857
484463.02	3615129.89	0.24311	484513.02	3615129.89	0.24773

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         484563.02    3615129.89        0.25244                    484613.02
3615129.89        0.25725
         484663.02    3615129.89        0.26219                    484713.02
3615129.89        0.26721
         484763.02    3615129.89        0.27232                    484813.02
3615129.89        0.27756
         484863.02    3615129.89        0.28288                    484913.02
3615129.89        0.28830
         484963.02    3615129.89        0.29383                    485013.02
3615129.89        0.29945
         485063.02    3615129.89        0.30515                    485113.02
3615129.89        0.31095
         485163.02    3615129.89        0.31659                    484113.02
3615179.89        0.21651
         484163.02    3615179.89        0.22058                    484213.02
3615179.89        0.22473
         484263.02    3615179.89        0.22900                    484313.02
3615179.89        0.23336
         484363.02    3615179.89        0.23785                    484413.02
3615179.89        0.24240
         484463.02    3615179.89        0.24707                    484513.02
3615179.89        0.25186
         484563.02    3615179.89        0.25674                    484613.02
3615179.89        0.26174
         484663.02    3615179.89        0.26686                    484713.02
3615179.89        0.27210
         484763.02    3615179.89        0.27743                    484813.02
3615179.89        0.28289
         484863.02    3615179.89        0.28843                    484913.02
3615179.89        0.29409
         484963.02    3615179.89        0.29988                    485013.02
3615179.89        0.30577
         485063.02    3615179.89        0.31176                    485113.02
3615179.89        0.31784
         485163.02    3615179.89        0.32407                    485213.02
3615179.89        0.33008
         484113.02    3615229.89        0.21949                    484163.02
3615229.89        0.22367
         484213.02    3615229.89        0.22796                    484263.02
3615229.89        0.23235
         484313.02    3615229.89        0.23686                    484363.02
3615229.89        0.24147
         484413.02    3615229.89        0.24620                    484463.02
3615229.89        0.25105
         484513.02    3615229.89        0.25598                    484563.02
3615229.89        0.26109
         484613.02    3615229.89        0.26629                    484663.02
3615229.89        0.27161
         484713.02    3615229.89        0.27706                    484763.02
3615229.89        0.28262
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*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TRUKSURF ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
485213.02	3615229.89	0.33802	485263.02	3615229.89	0.34452
484113.02	3615279.89	0.22248	484163.02	3615279.89	0.22678
484213.02	3615279.89	0.23117	484263.02	3615279.89	0.23560
484313.02	3615279.89	0.24022	484613.02	3615279.89	0.27090
484663.02	3615279.89	0.27645	484713.02	3615279.89	0.28211
484763.02	3615279.89	0.28790	484813.02	3615279.89	0.29383
484863.02	3615279.89	0.29989	484913.02		

3615279.89 0.30607
484963.02 3615279.89 0.31239 485013.02
3615279.89 0.31885
485063.02 3615279.89 0.32544 485113.02
3615279.89 0.33215
485163.02 3615279.89 0.33898 485213.02
3615279.89 0.34592
485263.02 3615279.89 0.35298 485313.02
3615279.89 0.36009
484113.02 3615329.89 0.22546 484163.02
3615329.89 0.22981
484213.02 3615329.89 0.23427 484663.02
3615329.89 0.28130
484713.02 3615329.89 0.28723 484763.02
3615329.89 0.29327
484813.02 3615329.89 0.29946 484863.02
3615329.89 0.30580
484913.02 3615329.89 0.31226 484963.02
3615329.89 0.31885
485013.02 3615329.89 0.32563 485063.02
3615329.89 0.33253
485113.02 3615329.89 0.33957 485163.02
3615329.89 0.34674
485213.02 3615329.89 0.35407 485263.02
3615329.89 0.36150
485313.02 3615329.89 0.36908 485363.02
3615329.89 0.37660
484113.02 3615379.89 0.22834 484163.02
3615379.89 0.23286
484713.02 3615379.89 0.29239 484763.02
3615379.89 0.29873
484813.02 3615379.89 0.30519 484863.02
3615379.89 0.31178
484913.02 3615379.89 0.31856 484963.02
3615379.89 0.32548
485013.02 3615379.89 0.33255 485063.02
3615379.89 0.33978
485113.02 3615379.89 0.34719 485163.02
3615379.89 0.35474
485213.02 3615379.89 0.36245 485263.02
3615379.89 0.37029
485313.02 3615379.89 0.37829 485363.02
3615379.89 0.38641
485413.02 3615379.89 0.39468 484763.02
3615429.89 0.30417
484813.02 3615429.89 0.31100 484863.02
3615429.89 0.31789
484913.02 3615429.89 0.32496 484963.02
3615429.89 0.33221
485013.02 3615429.89 0.33962 485063.02

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3615429.89        0.34723
         485113.02    3615429.89        0.35501                       485163.02
3615429.89        0.36292
         485213.02    3615429.89        0.37104                       485263.02
3615429.89        0.37931
         485313.02    3615429.89        0.38775                       485363.02
3615429.89        0.39635
         485413.02    3615429.89        0.40504                       485463.02
3615429.89        0.41395
         485513.02    3615429.89        0.42295                       484813.02
3615479.89        0.31682
         484863.02    3615479.89        0.32410                       484913.02
3615479.89        0.33149
         484963.02    3615479.89        0.33907                       485013.02
3615479.89        0.34685
         485063.02    3615479.89        0.35481                       485113.02
3615479.89        0.36298
🡅 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                         ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                       ***        12:24:23

                                  PAGE  77
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                             *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKSURF ***
                                INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                      ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
         485163.02    3615479.89        0.37133                       485213.02
3615479.89        0.37985
         485263.02    3615479.89        0.38858                       485313.02
3615479.89        0.39751
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         485363.02    3615479.89        0.40662                    485413.02
3615479.89        0.41587
         485463.02    3615479.89        0.42525                    485513.02
3615479.89        0.43479
         485563.02    3615479.89        0.44417                    484863.02
3615529.89        0.33032
         484913.02    3615529.89        0.33814                    484963.02
3615529.89        0.34606
         485013.02    3615529.89        0.35421                    485063.02
3615529.89        0.36256
         485113.02    3615529.89        0.37112                    485163.02
3615529.89        0.37992
         485213.02    3615529.89        0.38892                    485263.02
3615529.89        0.39813
         485313.02    3615529.89        0.40755                    485363.02
3615529.89        0.41719
         485413.02    3615529.89        0.42700                    485463.02
3615529.89        0.43700
         485513.02    3615529.89        0.44713                    484913.02
3615579.89        0.34474
         484963.02    3615579.89        0.35319                    485013.02
3615579.89        0.36172
         485063.02    3615579.89        0.37049                    485113.02
3615579.89        0.37956
         485163.02    3615579.89        0.38877                    485213.02
3615579.89        0.39821
         485263.02    3615579.89        0.40793                    485313.02
3615579.89        0.41787
         485363.02    3615579.89        0.42805                    485413.02
3615579.89        0.43846
         485463.02    3615579.89        0.44904                    484963.02
3615629.89        0.36031
         485013.02    3615629.89        0.36934                    485063.02
3615629.89        0.37856
         485113.02    3615629.89        0.38801                    485163.02
3615629.89        0.39776
         485213.02    3615629.89        0.40772                    485263.02
3615629.89        0.41797
         485313.02    3615629.89        0.42848                    485363.02
3615629.89        0.43923
         485413.02    3615629.89        0.45024                    485013.02
3615679.89        0.37682
         485063.02    3615679.89        0.38678                    485113.02
3615679.89        0.39672
         485163.02    3615679.89        0.40696                    485213.02
3615679.89        0.41747
         485263.02    3615679.89        0.42825                    485313.02
3615679.89        0.43939
         485363.02    3615679.89        0.45080                    485413.02
3615679.89        0.46229
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         485063.02    3615729.89        0.39476                       485113.02
3615729.89        0.40558
         485163.02    3615729.89        0.41635                       485213.02
3615729.89        0.42740
         485263.02    3615729.89        0.43880                       485313.02
3615729.89        0.45054
         485363.02    3615729.89        0.46252                       485113.02
3615779.89        0.41452
         485163.02    3615779.89        0.42589                       485213.02
3615779.89        0.43758
         485263.02    3615779.89        0.44961                       485313.02
3615779.89        0.46197
         485163.02    3615829.89        0.43530                       485213.02
3615829.89        0.44797
         485263.02    3615829.89        0.46062                       485213.02
3615879.89        0.45826
         487082.35    3618053.22        2.22227                       487132.24
3618053.22        2.28687
         487182.13    3618053.22        2.30667                       487232.02
3618053.22        2.35603
         487281.91    3618053.22        2.37491                       486242.77
3618033.89        1.57446
         486286.79    3617997.48        1.72770                       486574.47
3617998.65        2.18855
         486624.36    3617998.65        2.21306                       486674.25
3617998.65        2.18482
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***        12:24:23

                                    PAGE  78
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                               *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKSURF ***
                                  INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                       *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                    ** CONC OF PM_10    IN MICROGRAMS/M**3
                  **
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X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
486724.14	3617998.65	2.29967	486774.03	3617998.65	2.37655
486923.70	3617998.65	2.43610	486973.59	3617998.65	2.47416
487023.48	3617998.65	2.51668	487082.35	3618103.22	2.04208
487132.24	3618103.22	2.05908	487182.13	3618103.22	2.08759
486165.87	3618094.46	1.36060	486242.77	3618083.89	1.47058
486292.66	3618083.89	1.51815	486499.32	3618054.73	1.85750
486574.47	3618048.65	1.98357	486624.36	3618048.65	2.03762
486674.25	3618048.65	2.08781	486724.14	3618048.65	2.12513
486873.81	3618048.65	2.16667	486923.70	3618048.65	2.18052
486973.59	3618048.65	2.18653	487023.48	3618048.65	2.23429
487082.35	3618153.22	1.84985	487132.24	3618153.22	1.87331
486325.02	3618098.65	1.51511	486242.77	3618133.89	1.36442
486524.58	3618098.65	1.71235	486574.47	3618098.65	1.80708
486624.36	3618098.65	1.86657	486674.25	3618098.65	1.87099
486823.92	3618098.65	1.92756	486873.81	3618098.65	1.91797
486923.70	3618098.65	1.94590	486973.59	3618098.65	1.97168
487023.48	3618098.65	2.00207	487082.35	3618203.22	1.71691
486275.13	3618148.65	1.36326	486325.02	3618148.65	1.40135
486374.91	3618148.65	1.45793	486474.69	3618148.65	1.56169
486524.58	3618148.65	1.61041	486574.47	3618148.65	1.65281
486624.36	3618148.65	1.59562	486774.03	3618148.65	1.82920
486823.92	3618148.65	1.81344	486873.81	3618148.65	1.77844
486923.70	3618148.65	1.79019	486973.59		

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3618148.65        1.80028
         487023.48    3618148.65        1.81780                      486275.13
3618198.65        1.27103
         486325.02    3618198.65        1.30953                      486374.91
3618198.65        1.35539
         486424.80    3618198.65        1.38850                      486474.69
3618198.65        1.44706
         486524.58    3618198.65        1.49295                      486674.25
3618198.65        1.59715
         486724.14    3618198.65        1.66973                      486774.03
3618198.65        1.70889
         486823.92    3618198.65        1.72003                      486873.81
3618198.65        1.71701
         486923.70    3618198.65        1.67753                      486973.59
3618198.65        1.68099
         487023.48    3618198.65        1.69360                      486275.13
3618248.65        1.18927
         486325.02    3618248.65        1.21703                      486374.91
3618248.65        1.25853
         486424.80    3618248.65        1.30564                      486474.69
3618248.65        1.28508
         486624.36    3618248.65        1.46317                      486674.25
3618248.65        1.50126
         486724.14    3618248.65        1.54235                      486774.03
3618248.65        1.56919
         486823.92    3618248.65        1.59219                      486873.81
3618248.65        1.62220
         486923.70    3618248.65        1.63230                      486973.59
3618248.65        1.62018
         487023.48    3618248.65        1.60173                      486125.46
3618298.65        1.04389
         486275.13    3618298.65        1.11916                      486325.02
3618298.65        1.14659
         486374.91    3618298.65        1.18127                      486424.80
3618298.65        1.18910
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                          ***       12:24:23

                                    PAGE  79
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: TRUKSURF ***
                                    INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
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 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_10    IN MICROGRAMS/M**3
                  **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         486574.47    3618298.65        1.33068                      486624.36
3618298.65        1.36404
         486674.25    3618298.65        1.39253                      486724.14
3618298.65        1.42648
         486774.03    3618298.65        1.42027                      486823.92
3618298.65        1.45508
         486873.81    3618298.65        1.47780                      486923.70
3618298.65        1.51707
         486125.46    3618348.65        0.99756                      486175.35
3618348.65        1.01489
         486225.24    3618348.65        1.03001                      486275.13
3618348.65        1.05713
         486325.02    3618348.65        1.07750                      486524.58
3618348.65        1.20611
         486574.47    3618348.65        1.24227                      486624.36
3618348.65        1.26993
         486674.25    3618348.65        1.30399                      486724.14
3618348.65        1.32248
         486774.03    3618348.65        1.30290                      486823.92
3618348.65        1.34447
         486873.81    3618348.65        1.38083                      486125.46
3618398.65        0.95434
         486175.35    3618398.65        0.96413                      486225.24
3618398.65        0.99363
         486424.80    3618398.65        1.06013                      486474.69
3618398.65        1.09693
         486524.58    3618398.65        1.13299                      486574.47
3618398.65        1.16696
         486624.36    3618398.65        1.19726                      486674.25
3618398.65        1.22640
         486724.14    3618398.65        1.25103                      486774.03
3618398.65        1.25673
         486823.92    3618398.65        1.26481                      486125.46
3618448.65        0.90677
         486175.35    3618448.65        0.92988                      486374.91
3618448.65        0.97458
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         486424.80    3618448.65        1.01195                        486474.69
3618448.65        1.02718
         486524.58    3618448.65        1.07243                        486574.47
3618448.65        1.10103
         486624.36    3618448.65        1.13172                        486674.25
3618448.65        1.15585
         486724.14    3618448.65        1.18488                        486774.03
3618448.65        1.20040
         486125.46    3618498.65        0.88294                        486325.02
3618498.65        0.92539
         486374.91    3618498.65        0.93785                        486424.80
3618498.65        0.95518
         486474.69    3618498.65        0.98813                        486524.58
3618498.65        1.00702
         486574.47    3618498.65        1.04720                        486624.36
3618498.65        1.07032
         486674.25    3618498.65        1.09331                        486105.96
3618586.04        0.81095
         486325.02    3618548.65        0.88166                        486374.91
3618548.65        0.92533
         486424.80    3618548.65        0.95670                        486474.69
3618548.65        0.94498
         486524.58    3618548.65        0.97621                        486574.47
3618548.65        0.98487
         486624.36    3618548.65        1.01614                        486101.02
3618078.36        1.31908
         486155.07    3618149.26        1.26063                        486018.49
3618262.09        1.02441
         485957.41    3618189.14        1.03971                        485842.03
3618300.27        0.86163
         485893.78    3618363.05        0.85260                        485902.87
3618241.99        0.94834
         485966.01    3618313.09        0.93909                        486011.91
3618082.61        1.20694
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***       12:24:23

                                   PAGE  80
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                               *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: EQUIPMEN ***
                                  INCLUDING SOURCE(S):     VOL1        , VOL2
 , VOL3        , VOL4        , VOL5        ,
                 VOL6        , VOL7        , VOL8        , VOL9        , VOL10
 , VOL11       , VOL12       , VOL13       ,
                 VOL14       , VOL15       , VOL16       , VOL17       , VOL18
 , VOL19       , VOL20       , VOL21       ,
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                VOL22       , VOL23       , VOL24       , VOL25       , VOL26
 , VOL27       , VOL28       ,  . . .      ,

                                                  *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         488270.59    3616550.48        1.81956                       488320.59
3616550.48        1.70990
         488370.59    3616550.48        1.60932                       488420.59
3616550.48        1.49916
         488470.59    3616550.48        1.43217                       488520.59
3616550.48        1.35746
         488570.59    3616550.48        1.25416                       488620.59
3616550.48        1.18221
         488270.59    3616600.48        1.85014                       488320.59
3616600.48        1.72344
         488370.59    3616600.48        1.58554                       488420.59
3616600.48        1.48991
         488470.59    3616600.48        1.40880                       488520.59
3616600.48        1.33696
         488570.59    3616600.48        1.24737                       488620.59
3616600.48        1.17874
         488270.59    3616650.48        1.83576                       488320.59
3616650.48        1.69572
         488370.59    3616650.48        1.58117                       488420.59
3616650.48        1.48490
         488470.59    3616650.48        1.39210                       488520.59
3616650.48        1.31214
         488570.59    3616650.48        1.24528                       488620.59
3616650.48        1.18240
         488270.59    3616700.48        1.81752                       488320.59
3616700.48        1.69874
         488370.59    3616700.48        1.58143                       488420.59
3616700.48        1.48843
         488470.59    3616700.48        1.39737                       488520.59
3616700.48        1.30899
         488570.59    3616700.48        1.24416                       488620.59
3616700.48        1.17574
         488320.59    3616750.48        1.67960                       488370.59
3616750.48        1.57001
         488420.59    3616750.48        1.46929                       488470.59
3616750.48        1.37633
         488520.59    3616750.48        1.30283                       488570.59
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3616750.48        1.22217
         488620.59    3616750.48        1.14789                        488320.59
3616800.48        1.65157
         488370.59    3616800.48        1.54568                        488420.59
3616800.48        1.44639
         488470.59    3616800.48        1.35341                        488520.59
3616800.48        1.27242
         488570.59    3616800.48        1.19763                        488620.59
3616800.48        1.11573
         488370.59    3616850.48        1.50828                        488420.59
3616850.48        1.41054
         488470.59    3616850.48        1.32687                        488520.59
3616850.48        1.24316
         488570.59    3616850.48        1.17154                        488620.59
3616850.48        1.09376
         488420.59    3616900.48        1.37623                        488470.59
3616900.48        1.29290
         488520.59    3616900.48        1.21648                        488570.59
3616900.48        1.14145
         488620.59    3616900.48        1.07333                        488420.59
3616950.48        1.35293
         488470.59    3616950.48        1.25829                        488520.59
3616950.48        1.18239
         488570.59    3616950.48        1.11232                        488620.59
3616950.48        1.05057
         488470.59    3617000.48        1.22183                        488520.59
3617000.48        1.15037
         488570.59    3617000.48        1.08750                        488620.59
3617000.48        1.02828
         488470.59    3617050.48        1.20068                        488520.59
3617050.48        1.12084
         488570.59    3617050.48        1.05647                        488620.59
3617050.48        1.00036
         488370.59    3617100.48        1.31761                        488420.59
3617100.48        1.22334
         488470.59    3617100.48        1.16759                        488520.59
3617100.48        1.09959
         488570.59    3617100.48        1.03349                        488620.59
3617100.48        0.98954
         488320.59    3617150.48        1.36808                        488370.59
3617150.48        1.28207
         488420.59    3617150.48        1.20212                        488470.59
3617150.48        1.12471
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***       12:24:23

                                   PAGE  81
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data
```

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EQUIPMEN ***

INCLUDING SOURCE(S): VOL1 , VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL7 , VOL8 , VOL9 , VOL10 , VOL11 , VOL12 , VOL13 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL19 , VOL20 , VOL21 , VOL22 , VOL23 , VOL24 , VOL25 , VOL26 , VOL27 , VOL28 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
488520.59	3617150.48	1.07225	488570.59	3617150.48	1.01548
488620.59	3617150.48	0.95686	488270.59	3617200.48	1.41738
488320.59	3617200.48	1.33322	488370.59	3617200.48	1.22560
488420.59	3617200.48	1.17479	488470.59	3617200.48	1.10003
488520.59	3617200.48	1.04365	488570.59	3617200.48	0.99008
488620.59	3617200.48	0.91410	487320.59	3617250.48	5.10920
487370.59	3617250.48	4.96861	487420.59	3617250.48	4.80460
487470.59	3617250.48	4.62183	487520.59	3617250.48	4.40658
487570.59	3617250.48	4.16353	487620.59	3617250.48	3.90729
487670.59	3617250.48	3.64913	487720.59	3617250.48	3.39386
487770.59	3617250.48	3.14226	487820.59	3617250.48	2.89735
487870.59	3617250.48	2.66315	487920.59	3617250.48	2.44260
487970.59	3617250.48	2.23664	488020.59	3617250.48	2.04904
488070.59	3617250.48	1.87989	488120.59	3617250.48	1.73080

```
        488170.59    3617250.48        1.59829                    488220.59
3617250.48        1.48552
        488270.59    3617250.48        1.38746                    488320.59
3617250.48        1.29400
        488370.59    3617250.48        1.20782                    488420.59
3617250.48        1.14773
        488470.59    3617250.48        1.07431                    488520.59
3617250.48        1.02099
        488570.59    3617250.48        0.96691                    488620.59
3617250.48        0.90767
        487170.59    3617300.48        4.72226                    487220.59
3617300.48        4.65733
        487270.59    3617300.48        4.61284                    487320.59
3617300.48        4.48382
        487370.59    3617300.48        4.35281                    487420.59
3617300.48        4.21623
        487470.59    3617300.48        4.10502                    487520.59
3617300.48        3.91563
        487570.59    3617300.48        3.71437                    487620.59
3617300.48        3.51172
        487670.59    3617300.48        3.32433                    487720.59
3617300.48        3.11375
        487770.59    3617300.48        2.91775                    487820.59
3617300.48        2.72332
        487870.59    3617300.48        2.51037                    487920.59
3617300.48        2.31540
        487970.59    3617300.48        2.12632                    488020.59
3617300.48        1.97107
        488070.59    3617300.48        1.82762                    488120.59
3617300.48        1.68106
        488170.59    3617300.48        1.56610                    488220.59
3617300.48        1.46383
        488270.59    3617300.48        1.36247                    488320.59
3617300.48        1.26836
        488370.59    3617300.48        1.17075                    488420.59
3617300.48        1.12390
        488470.59    3617300.48        1.05580                    488520.59
3617300.48        0.98432
        488570.59    3617300.48        0.94817                    488620.59
3617300.48        0.89958
        487020.59    3617350.48        4.04231                    487070.59
3617350.48        4.14112
        487120.59    3617350.48        4.14656                    487170.59
3617350.48        4.12176
        487220.59    3617350.48        4.07596                    487270.59
3617350.48        4.01973
        487320.59    3617350.48        3.95398                    487370.59
3617350.48        3.86795
        487420.59    3617350.48        3.76622                    487470.59
3617350.48        3.65498
```

                                *** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: EQUIPMEN ***
                                    INCLUDING SOURCE(S):   VOL1   , VOL2
 , VOL3   , VOL4   , VOL5   ,
                 VOL6   , VOL7   , VOL8   , VOL9   , VOL10
 , VOL11   , VOL12   , VOL13   ,
                 VOL14   , VOL15   , VOL16   , VOL17   , VOL18
 , VOL19   , VOL20   , VOL21   ,
                 VOL22   , VOL23   , VOL24   , VOL25   , VOL26
 , VOL27   , VOL28   , . . .   ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                    ** CONC OF PM_10   IN MICROGRAMS/M**3
                  **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         487620.59   3617350.48   3.20418   487670.59
3617350.48   3.04378
         487720.59   3617350.48   2.87587   487770.59
3617350.48   2.71137
         487820.59   3617350.48   2.55426   487870.59
3617350.48   2.37119
         487920.59   3617350.48   2.20449   487970.59
3617350.48   2.04530
         488020.59   3617350.48   1.91184   488070.59
3617350.48   1.77524
         488120.59   3617350.48   1.64792   488170.59
3617350.48   1.53955
         488220.59   3617350.48   1.43884   488270.59
3617350.48   1.34422
         488320.59   3617350.48   1.25878   488370.59
3617350.48   1.18277
         488420.59   3617350.48   1.10871   488470.59
3617350.48   1.03917
         488520.59   3617350.48   0.98519   488570.59

3617350.48 0.93076
488620.59 3617350.48 0.88308 486770.59
3617400.48 2.95822
486820.59 3617400.48 3.08065 486870.59
3617400.48 3.19728
486920.59 3617400.48 3.30221 486970.59
3617400.48 3.38729
487020.59 3617400.48 3.45876 487070.59
3617400.48 3.54398
487120.59 3617400.48 3.58205 487170.59
3617400.48 3.57100
487220.59 3617400.48 3.55534 487270.59
3617400.48 3.52336
487320.59 3617400.48 3.50027 487370.59
3617400.48 3.43688
487420.59 3617400.48 3.36381 487470.59
3617400.48 3.27593
487520.59 3617400.48 3.24163 487570.59
3617400.48 3.04598
487620.59 3617400.48 3.00695 487670.59
3617400.48 2.87297
487720.59 3617400.48 2.73086 487770.59
3617400.48 2.58637
487820.59 3617400.48 2.44053 487870.59
3617400.48 2.29034
487920.59 3617400.48 2.14722 487970.59
3617400.48 2.01009
488020.59 3617400.48 1.87965 488070.59
3617400.48 1.75532
488120.59 3617400.48 1.63694 488170.59
3617400.48 1.52326
488220.59 3617400.48 1.41967 488270.59
3617400.48 1.32820
488320.59 3617400.48 1.24394 488370.59
3617400.48 1.16631
488420.59 3617400.48 1.08013 488470.59
3617400.48 0.99563
488520.59 3617400.48 0.94786 488570.59
3617400.48 0.90201
488620.59 3617400.48 0.86751 486820.59
3617450.48 2.66860
486870.59 3617450.48 2.77468 486920.59
3617450.48 2.85116
486970.59 3617450.48 2.93283 487020.59
3617450.48 3.03513
487070.59 3617450.48 3.07939 487120.59
3617450.48 3.11244
487170.59 3617450.48 3.11175 487220.59
3617450.48 3.11960
487270.59 3617450.48 3.11769 487320.59

3617450.48   3.11003
         487370.59   3617450.48   3.06215   487420.59
3617450.48   3.01998
         487470.59   3617450.48   3.04388   487520.59
3617450.48   3.00492
         487570.59   3617450.48   2.90372   487620.59
3617450.48   2.79229
         487670.59   3617450.48   2.65906   487720.59
3617450.48   2.53371
         487770.59   3617450.48   2.40610   487820.59
3617450.48   2.27988

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

                                *** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: EQUIPMEN ***
                                    INCLUDING SOURCE(S):   VOL1   , VOL2
 , VOL3   , VOL4   , VOL5   ,
                 VOL6   , VOL7   , VOL8   , VOL9   , VOL10
 , VOL11   , VOL12   , VOL13   ,
                 VOL14   , VOL15   , VOL16   , VOL17   , VOL18
 , VOL19   , VOL20   , VOL21   ,
                 VOL22   , VOL23   , VOL24   , VOL25   , VOL26
 , VOL27   , VOL28   , . . .   ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                    ** CONC OF PM_10   IN MICROGRAMS/M**3
                  **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         487870.59   3617450.48   2.15384   487920.59
3617450.48   2.03147
         487970.59   3617450.48   1.91334   488020.59
3617450.48   1.79931
         488070.59   3617450.48   1.68899   488120.59
3617450.48   1.58400
         488170.59   3617450.48   1.48544   488220.59
3617450.48   1.39351
         488270.59   3617450.48   1.30385   488320.59
3617450.48   1.20984

```
         488370.59    3617450.48        1.13685                    488420.59
3617450.48        1.03085
         488470.59    3617450.48        0.96845                    488520.59
3617450.48        0.92594
         488570.59    3617450.48        0.88062                    488620.59
3617450.48        0.85152
         486770.59    3617500.48        2.26198                    486820.59
3617500.48        2.33247
         486870.59    3617500.48        2.42890                    486920.59
3617500.48        2.50714
         486970.59    3617500.48        2.59434                    487020.59
3617500.48        2.63448
         487070.59    3617500.48        2.67324                    487120.59
3617500.48        2.71001
         487170.59    3617500.48        2.71653                    487220.59
3617500.48        2.74896
         487270.59    3617500.48        2.79502                    487320.59
3617500.48        2.85873
         487370.59    3617500.48        2.81442                    487420.59
3617500.48        2.88822
         487470.59    3617500.48        2.82717                    487520.59
3617500.48        2.73102
         487570.59    3617500.48        2.56679                    487620.59
3617500.48        2.45366
         487670.59    3617500.48        2.36741                    487720.59
3617500.48        2.27697
         487770.59    3617500.48        2.18739                    487820.59
3617500.48        2.09058
         487870.59    3617500.48        1.99024                    487920.59
3617500.48        1.88115
         487970.59    3617500.48        1.78421                    488020.59
3617500.48        1.68899
         488070.59    3617500.48        1.58757                    488120.59
3617500.48        1.48276
         488170.59    3617500.48        1.40147                    488220.59
3617500.48        1.32970
         488270.59    3617500.48        1.26548                    488320.59
3617500.48        1.18881
         488370.59    3617500.48        1.12568                    488420.59
3617500.48        0.99734
         488470.59    3617500.48        0.94342                    488520.59
3617500.48        0.90397
         488570.59    3617500.48        0.85999                    488620.59
3617500.48        0.83839
         486670.59    3617550.48        1.87809                    486720.59
3617550.48        1.93894
         486770.59    3617550.48        2.01127                    486820.59
3617550.48        2.06175
         486870.59    3617550.48        2.14538                    486920.59
3617550.48        2.21873
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         486970.59    3617550.48        2.26586                      487020.59
3617550.48        2.29805
         487070.59    3617550.48        2.33709                      487120.59
3617550.48        2.38934
         487170.59    3617550.48        2.42387                      487220.59
3617550.48        2.44539
         487270.59    3617550.48        2.56742                      487320.59
3617550.48        2.68149
         487370.59    3617550.48        2.66954                      487420.59
3617550.48        2.61724
         487470.59    3617550.48        2.46836                      487520.59
3617550.48        2.42545
         487570.59    3617550.48        2.30865                      487620.59
3617550.48        2.24437
         487670.59    3617550.48        2.18044                      487720.59
3617550.48        2.11279
         487770.59    3617550.48        2.03674                      487820.59
3617550.48        1.94910
         487870.59    3617550.48        1.86657                      487920.59
3617550.48        1.78582
↑ *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                         ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                        ***        12:24:23

                                   PAGE  84
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: EQUIPMEN ***
                                 INCLUDING SOURCE(S):     VOL1        , VOL2
 , VOL3        , VOL4        , VOL5        ,
               VOL6        , VOL7        , VOL8        , VOL9        , VOL10
 , VOL11       , VOL12       , VOL13       ,
               VOL14       , VOL15       , VOL16       , VOL17       , VOL18
 , VOL19       , VOL20       , VOL21       ,
               VOL22       , VOL23       , VOL24       , VOL25       , VOL26
 , VOL27       , VOL28       ,  . . .      ,

                                                 *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
         487970.59    3617550.48        1.69185                      488020.59
```

3617550.48 1.60663
488070.59 3617550.48 1.51149 488120.59
3617550.48 1.42327
488170.59 3617550.48 1.36190 488220.59
3617550.48 1.29776
488270.59 3617550.48 1.23686 488320.59
3617550.48 1.16514
488370.59 3617550.48 1.10697 488420.59
3617550.48 0.97205
488470.59 3617550.48 0.92552 488520.59
3617550.48 0.87839
488570.59 3617550.48 0.84140 488620.59
3617550.48 0.82816
485870.59 3617600.48 0.91658 485920.59
3617600.48 0.96231
486620.59 3617600.48 1.62669 486670.59
3617600.48 1.69378
486720.59 3617600.48 1.72668 486770.59
3617600.48 1.78450
486820.59 3617600.48 1.84176 486870.59
3617600.48 1.90583
486920.59 3617600.48 1.93502 486970.59
3617600.48 1.98207
487020.59 3617600.48 2.01309 487070.59
3617600.48 2.07067
487120.59 3617600.48 2.11767 487170.59
3617600.48 2.15900
487220.59 3617600.48 2.23198 487270.59
3617600.48 2.41114
487320.59 3617600.48 2.43714 487370.59
3617600.48 2.35809
487420.59 3617600.48 2.22207 487470.59
3617600.48 2.19573
487520.59 3617600.48 2.15941 487570.59
3617600.48 2.11649
487620.59 3617600.48 2.06817 487670.59
3617600.48 2.01465
487720.59 3617600.48 1.95375 487770.59
3617600.48 1.88946
487820.59 3617600.48 1.82343 487870.59
3617600.48 1.75656
487920.59 3617600.48 1.68314 487970.59
3617600.48 1.60416
488020.59 3617600.48 1.51919 488070.59
3617600.48 1.44320
488120.59 3617600.48 1.38118 488170.59
3617600.48 1.32006
488220.59 3617600.48 1.26513 488270.59
3617600.48 1.20984
488320.59 3617600.48 1.16217 488370.59

3617600.48   1.08496
         488420.59   3617600.48   0.97741   488470.59
3617600.48   0.91018
         488520.59   3617600.48   0.85217   488570.59
3617600.48   0.82307
         488620.59   3617600.48   0.79909   485870.59
3617650.48   0.88437
         485920.59   3617650.48   0.92426   485970.59
3617650.48   0.96690
         486570.59   3617650.48   1.45775   486620.59
3617650.48   1.48676
         486670.59   3617650.48   1.50918   486720.59
3617650.48   1.54427
         486770.59   3617650.48   1.60206   486820.59
3617650.48   1.63977
         486870.59   3617650.48   1.65448   486920.59
3617650.48   1.69556
         486970.59   3617650.48   1.75078   487020.59
3617650.48   1.79166
         487070.59   3617650.48   1.82902   487120.59
3617650.48   1.86591
         487170.59   3617650.48   1.92247   487370.59
3617650.48   2.06980
         487420.59   3617650.48   2.02781   487470.59
3617650.48   2.00078
         487520.59   3617650.48   1.96440   487570.59
3617650.48   1.93002
         487620.59   3617650.48   1.90300   487670.59
3617650.48   1.86534

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

                                *** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: EQUIPMEN ***
                                    INCLUDING SOURCE(S):   VOL1   , VOL2
 , VOL3   , VOL4   , VOL5   ,
                 VOL6   , VOL7   , VOL8   , VOL9   , VOL10
 , VOL11   , VOL12   , VOL13   ,
                 VOL14   , VOL15   , VOL16   , VOL17   , VOL18
 , VOL19   , VOL20   , VOL21   ,
                 VOL22   , VOL23   , VOL24   , VOL25   , VOL26
 , VOL27   , VOL28   , . . .   ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487720.59	3617650.48	1.81211	487770.59	3617650.48	1.76849
487820.59	3617650.48	1.71219	487870.59	3617650.48	1.65161
487920.59	3617650.48	1.59473	487970.59	3617650.48	1.51700
488020.59	3617650.48	1.43447	488070.59	3617650.48	1.37757
488120.59	3617650.48	1.33576	488170.59	3617650.48	1.28213
488220.59	3617650.48	1.23436	488270.59	3617650.48	1.17843
488320.59	3617650.48	1.13084	488370.59	3617650.48	1.05301
488420.59	3617650.48	0.92393	488470.59	3617650.48	0.87755
488520.59	3617650.48	0.83735	488570.59	3617650.48	0.79739
488620.59	3617650.48	0.79858	485870.59	3617700.48	0.85647
485920.59	3617700.48	0.88883	485970.59	3617700.48	0.92905
486470.59	3617700.48	1.29600	486520.59	3617700.48	1.30796
486570.59	3617700.48	1.33474	486620.59	3617700.48	1.33911
486670.59	3617700.48	1.37011	486720.59	3617700.48	1.40845
486770.59	3617700.48	1.43518	486820.59	3617700.48	1.45316
486870.59	3617700.48	1.46714	486920.59	3617700.48	1.52318
486970.59	3617700.48	1.56151	487020.59	3617700.48	1.59806
487070.59	3617700.48	1.64939	487120.59	3617700.48	1.73135
487270.59	3617700.48	1.86699	487320.59	3617700.48	1.83168
487370.59	3617700.48	1.85442	487420.59	3617700.48	1.84689
487470.59	3617700.48	1.83329	487520.59	3617700.48	1.81012

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         487570.59    3617700.48        1.78882                        487620.59
3617700.48        1.76327
         487670.59    3617700.48        1.73128                        487720.59
3617700.48        1.69003
         487770.59    3617700.48        1.64947                        487820.59
3617700.48        1.60537
         487870.59    3617700.48        1.55645                        487920.59
3617700.48        1.49688
         487970.59    3617700.48        1.42886                        488020.59
3617700.48        1.37141
         488070.59    3617700.48        1.33694                        488120.59
3617700.48        1.30033
         488170.59    3617700.48        1.26416                        488220.59
3617700.48        1.22016
         488270.59    3617700.48        1.16607                        488320.59
3617700.48        1.11259
         488370.59    3617700.48        1.05229                        488420.59
3617700.48        0.91735
         488470.59    3617700.48        0.85862                        488520.59
3617700.48        0.82161
         488570.59    3617700.48        0.78225                        488620.59
3617700.48        0.76869
         486420.59    3617750.48        1.16950                        486470.59
3617750.48        1.18558
         486520.59    3617750.48        1.18631                        486570.59
3617750.48        1.21080
         486620.59    3617750.48        1.21548                        486670.59
3617750.48        1.24829
         486720.59    3617750.48        1.26746                        486770.59
3617750.48        1.27693
         486820.59    3617750.48        1.29224                        486870.59
3617750.48        1.32938
         486920.59    3617750.48        1.34204                        486970.59
3617750.48        1.39659
         487020.59    3617750.48        1.45718                        487070.59
3617750.48        1.52486
         487220.59    3617750.48        1.62037                        487270.59
3617750.48        1.64898
*** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                           ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                           ***       12:24:23

                                     PAGE  86
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: EQUIPMEN ***
                                    INCLUDING SOURCE(S):     VOL1        , VOL2
 , VOL3        , VOL4        , VOL5        ,
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                VOL6        , VOL7        , VOL8        , VOL9        , VOL10
 , VOL11       , VOL12       , VOL13       ,
                VOL14       , VOL15       , VOL16       , VOL17       , VOL18
 , VOL19       , VOL20       , VOL21       ,
                VOL22       , VOL23       , VOL24       , VOL25       , VOL26
 , VOL27       , VOL28       ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                  **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         487320.59    3617750.48        1.66649                      487370.59
3617750.48        1.68732
         487420.59    3617750.48        1.68923                      487470.59
3617750.48        1.68179
         487520.59    3617750.48        1.64834                      487570.59
3617750.48        1.61933
         487620.59    3617750.48        1.61439                      487670.59
3617750.48        1.61083
         487720.59    3617750.48        1.58160                      487770.59
3617750.48        1.54783
         487820.59    3617750.48        1.50458                      487870.59
3617750.48        1.46529
         487920.59    3617750.48        1.41841                      487970.59
3617750.48        1.36273
         488020.59    3617750.48        1.32956                      488070.59
3617750.48        1.32463
         488120.59    3617750.48        1.28940                      488170.59
3617750.48        1.24364
         488220.59    3617750.48        1.19469                      488270.59
3617750.48        1.14232
         488320.59    3617750.48        1.08874                      488370.59
3617750.48        0.97875
         488420.59    3617750.48        0.88280                      488470.59
3617750.48        0.83689
         488520.59    3617750.48        0.80743                      488570.59
3617750.48        0.77294
         488620.59    3617750.48        0.74526                      486420.59
3617800.48        1.08055
         486470.59    3617800.48        1.08830                      486520.59
3617800.48        1.09065
         486570.59    3617800.48        1.10485                      486620.59
3617800.48        1.12033
         486670.59    3617800.48        1.12619                      486720.59
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3617800.48        1.13349
         486770.59    3617800.48        1.15666                    486820.59
3617800.48        1.17801
         486870.59    3617800.48        1.19113                    486920.59
3617800.48        1.23416
         486970.59    3617800.48        1.28381                    487170.59
3617800.48        1.44579
         487220.59    3617800.48        1.46943                    487270.59
3617800.48        1.49854
         487320.59    3617800.48        1.52362                    487370.59
3617800.48        1.53777
         487420.59    3617800.48        1.54554                    487470.59
3617800.48        1.54672
         487520.59    3617800.48        1.52633                    487570.59
3617800.48        1.51712
         487620.59    3617800.48        1.50214                    487670.59
3617800.48        1.50336
         487720.59    3617800.48        1.47126                    487770.59
3617800.48        1.44851
         487820.59    3617800.48        1.40457                    487870.59
3617800.48        1.38674
         487920.59    3617800.48        1.36066                    487970.59
3617800.48        1.32470
         488020.59    3617800.48        1.31195                    488070.59
3617800.48        1.30288
         488120.59    3617800.48        1.25656                    488170.59
3617800.48        1.20818
         488220.59    3617800.48        1.15720                    488270.59
3617800.48        1.08930
         488320.59    3617800.48        1.00472                    488370.59
3617800.48        0.93256
         488420.59    3617800.48        0.85916                    488470.59
3617800.48        0.82578
         488520.59    3617800.48        0.78980                    488570.59
3617800.48        0.75371
         488620.59    3617800.48        0.71587                    486470.59
3617850.48        1.00055
         486520.59    3617850.48        1.01880                    486570.59
3617850.48        1.02678
         486620.59    3617850.48        1.02100                    486670.59
3617850.48        1.02293
         486720.59    3617850.48        1.03450                    486770.59
3617850.48        1.05597
         486820.59    3617850.48        1.07565                    486870.59
3617850.48        1.09510
         486920.59    3617850.48        1.13778                    487120.59
3617850.48        1.27696
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                            ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EQUIPMEN ***
INCLUDING SOURCE(S): VOL1 , VOL2 , VOL3 , VOL4 , VOL5 ,
VOL6 , VOL7 , VOL8 , VOL9 , VOL10 , VOL11 , VOL12 , VOL13 ,
VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL19 , VOL20 , VOL21 ,
VOL22 , VOL23 , VOL24 , VOL25 , VOL26 , VOL27 , VOL28 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487170.59	3617850.48	1.30957	487220.59	3617850.48	1.34184
487270.59	3617850.48	1.37241	487320.59	3617850.48	1.40327
487370.59	3617850.48	1.41961	487420.59	3617850.48	1.42330
487470.59	3617850.48	1.42587	487520.59	3617850.48	1.41720
487570.59	3617850.48	1.41303	487620.59	3617850.48	1.40509
487670.59	3617850.48	1.39932	487720.59	3617850.48	1.37933
487770.59	3617850.48	1.35766	487820.59	3617850.48	1.34230
487870.59	3617850.48	1.31780	487920.59	3617850.48	1.30419
487970.59	3617850.48	1.29842	488020.59	3617850.48	1.28378
488070.59	3617850.48	1.25499	488120.59	3617850.48	1.21150
488170.59	3617850.48	1.15395	488220.59	3617850.48	1.10142
488270.59	3617850.48	1.06404	488320.59	3617850.48	1.02835

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        488370.59    3617850.48        0.88269                    488420.59
3617850.48        0.83765
        488470.59    3617850.48        0.80658                    488520.59
3617850.48        0.77278
        488570.59    3617850.48        0.73927                    488620.59
3617850.48        0.69994
        486520.59    3617900.48        0.95172                    486570.59
3617900.48        0.94820
        486620.59    3617900.48        0.94538                    486670.59
3617900.48        0.94612
        486720.59    3617900.48        0.93791                    486770.59
3617900.48        0.97593
        486820.59    3617900.48        0.99535                    486870.59
3617900.48        1.02135
        486920.59    3617900.48        1.12265                    487070.59
3617900.48        1.13710
        487120.59    3617900.48        1.17137                    487170.59
3617900.48        1.20310
        487220.59    3617900.48        1.23661                    487270.59
3617900.48        1.26751
        487320.59    3617900.48        1.29377                    487370.59
3617900.48        1.31004
        487420.59    3617900.48        1.31847                    487470.59
3617900.48        1.31884
        487520.59    3617900.48        1.31345                    487570.59
3617900.48        1.31595
        487620.59    3617900.48        1.31116                    487670.59
3617900.48        1.30700
        487720.59    3617900.48        1.29069                    487770.59
3617900.48        1.27904
        487820.59    3617900.48        1.26424                    487870.59
3617900.48        1.26038
        487920.59    3617900.48        1.25753                    487970.59
3617900.48        1.25994
        488020.59    3617900.48        1.23184                    488070.59
3617900.48        1.20530
        488120.59    3617900.48        1.16089                    488170.59
3617900.48        1.10807
        488220.59    3617900.48        1.07104                    488270.59
3617900.48        1.04063
        488320.59    3617900.48        1.00434                    488370.59
3617900.48        0.86460
        488420.59    3617900.48        0.82529                    488470.59
3617900.48        0.79155
        488520.59    3617900.48        0.75619                    488570.59
3617900.48        0.72462
        488620.59    3617900.48        0.68413                    487077.48
3618005.05        0.97392
        487127.48    3618005.05        0.99800                    487177.48
3618005.05        1.02663
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         487227.48    3618005.05        1.05661                       487277.48
3618005.05        1.08127
         487327.48    3618005.05        1.10208                       486570.59
3617950.48        0.88792
         486620.59    3617950.48        0.88275                       486670.59
3617950.48        0.86885
🡅 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                        ***        12:24:23

                                   PAGE  88
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: EQUIPMEN ***
                                  INCLUDING SOURCE(S):     VOL1        , VOL2
 , VOL3        , VOL4        , VOL5        ,
                 VOL6        , VOL7        , VOL8        , VOL9        , VOL10
 , VOL11       , VOL12       , VOL13       ,
                 VOL14       , VOL15       , VOL16       , VOL17       , VOL18
 , VOL19       , VOL20       , VOL21       ,
                 VOL22       , VOL23       , VOL24       , VOL25       , VOL26
 , VOL27       , VOL28       ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
         486720.59    3617950.48        0.85958                       486770.59
3617950.48        0.89896
         486820.59    3617950.48        0.93215                       486970.59
3617950.48        1.03094
         487020.59    3617950.48        1.02558                       487070.59
3617950.48        1.05153
         487120.59    3617950.48        1.08225                       487170.59
3617950.48        1.10938
         487220.59    3617950.48        1.14335                       487270.59
3617950.48        1.17485
         487320.59    3617950.48        1.20169                       487370.59
3617950.48        1.21233
         487420.59    3617950.48        1.22339                       487470.59
3617950.48        1.22536
         487520.59    3617950.48        1.22698                       487570.59
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3617950.48 1.23039
487620.59 3617950.48 1.22670 487670.59
3617950.48 1.22025
487720.59 3617950.48 1.21006 487770.59
3617950.48 1.20316
487820.59 3617950.48 1.19478 487870.59
3617950.48 1.20577
487920.59 3617950.48 1.21975 487970.59
3617950.48 1.21645
488020.59 3617950.48 1.18752 488070.59
3617950.48 1.15641
488120.59 3617950.48 1.11297 488170.59
3617950.48 1.08532
488220.59 3617950.48 1.04954 488270.59
3617950.48 1.01158
488320.59 3617950.48 0.96357 488370.59
3617950.48 0.85544
488420.59 3617950.48 0.80904 488470.59
3617950.48 0.77499
488520.59 3617950.48 0.74122 488570.59
3617950.48 0.71148
488620.59 3617950.48 0.67169 488590.14
3616298.03 1.12023
488540.14 3616348.03 1.21052 488590.14
3616348.03 1.16181
488440.14 3616398.03 1.38326 488490.14
3616398.03 1.33708
488540.14 3616398.03 1.27650 488590.14
3616398.03 1.21274
488390.14 3616448.03 1.51028 488440.14
3616448.03 1.43501
488490.14 3616448.03 1.37148 488540.14
3616448.03 1.30615
488590.14 3616448.03 1.23455 488340.14
3616498.03 1.62699
488390.14 3616498.03 1.53314 488440.14
3616498.03 1.46024
488490.14 3616498.03 1.39567 488540.14
3616498.03 1.32759
488590.14 3616498.03 1.23605 484613.02
3614429.89 0.22712
484663.02 3614429.89 0.23606 484713.02
3614429.89 0.24138
484763.02 3614429.89 0.24458 484813.02
3614429.89 0.24748
484863.02 3614429.89 0.25404 484913.02
3614429.89 0.25969
484963.02 3614429.89 0.26634 484563.02
3614479.89 0.23050
484613.02 3614479.89 0.23594 484663.02

3614479.89 0.24146
484713.02 3614479.89 0.24530 484763.02
3614479.89 0.24773
484813.02 3614479.89 0.25305 484863.02
3614479.89 0.25941
484913.02 3614479.89 0.26439 484963.02
3614479.89 0.27142
484513.02 3614529.89 0.22898 484563.02
3614529.89 0.23577
484613.02 3614529.89 0.23809 484663.02
3614529.89 0.24463
484713.02 3614529.89 0.24703 484763.02
3614529.89 0.25077
484813.02 3614529.89 0.25760 484863.02
3614529.89 0.26301

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EQUIPMEN ***
INCLUDING SOURCE(S): VOL1 , VOL2 , VOL3 , VOL4 , VOL5 ,
VOL6 , VOL7 , VOL8 , VOL9 , VOL10 , VOL11 , VOL12 , VOL13 ,
VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL19 , VOL20 , VOL21 ,
VOL22 , VOL23 , VOL24 , VOL25 , VOL26 , VOL27 , VOL28 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC X-COORD (M) Y-COORD (M) CONC
- -
484913.02 3614529.89 0.26820 484963.02
3614529.89 0.27667
484463.02 3614579.89 0.22285 484513.02
3614579.89 0.23435
484563.02 3614579.89 0.23646 484613.02
3614579.89 0.24105

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         484663.02    3614579.89        0.24732                    484713.02
3614579.89        0.25031
         484763.02    3614579.89        0.25664                    484813.02
3614579.89        0.26193
         484863.02    3614579.89        0.26787                    484913.02
3614579.89        0.27251
         484963.02    3614579.89        0.28151                    484413.02
3614629.89        0.22962
         484463.02    3614629.89        0.23170                    484513.02
3614629.89        0.23670
         484563.02    3614629.89        0.24050                    484613.02
3614629.89        0.24496
         484663.02    3614629.89        0.25120                    484713.02
3614629.89        0.25621
         484763.02    3614629.89        0.26119                    484813.02
3614629.89        0.26605
         484863.02    3614629.89        0.27140                    484913.02
3614629.89        0.27682
         484963.02    3614629.89        0.28267                    484413.02
3614679.89        0.22971
         484463.02    3614679.89        0.23753                    484513.02
3614679.89        0.24117
         484563.02    3614679.89        0.24482                    484613.02
3614679.89        0.25027
         484663.02    3614679.89        0.25568                    484713.02
3614679.89        0.26059
         484763.02    3614679.89        0.26574                    484813.02
3614679.89        0.26987
         484863.02    3614679.89        0.27561                    484913.02
3614679.89        0.28023
         484963.02    3614679.89        0.28644                    484363.02
3614729.89        0.23315
         484413.02    3614729.89        0.23524                    484463.02
3614729.89        0.24026
         484513.02    3614729.89        0.24441                    484563.02
3614729.89        0.24974
         484613.02    3614729.89        0.25478                    484663.02
3614729.89        0.25935
         484713.02    3614729.89        0.26460                    484763.02
3614729.89        0.26986
         484813.02    3614729.89        0.27391                    484863.02
3614729.89        0.27897
         484913.02    3614729.89        0.28499                    484963.02
3614729.89        0.29307
         484313.02    3614779.89        0.22960                    484363.02
3614779.89        0.23444
         484413.02    3614779.89        0.23898                    484463.02
3614779.89        0.24374
         484513.02    3614779.89        0.24895                    484563.02
3614779.89        0.25340
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         484613.02    3614779.89        0.25838                       484663.02
3614779.89        0.26335
         484713.02    3614779.89        0.26850                       484763.02
3614779.89        0.27384
         484813.02    3614779.89        0.27841                       484863.02
3614779.89        0.28363
         484913.02    3614779.89        0.29025                       484963.02
3614779.89        0.30037
         484263.02    3614829.89        0.22280                       484313.02
3614829.89        0.23312
         484363.02    3614829.89        0.23777                       484413.02
3614829.89        0.24223
         484463.02    3614829.89        0.24768                       484513.02
3614829.89        0.25206
         484563.02    3614829.89        0.25722                       484613.02
3614829.89        0.26044
         484663.02    3614829.89        0.26547                       484713.02
3614829.89        0.27225
         484763.02    3614829.89        0.27866                       484813.02
3614829.89        0.28443
         484863.02    3614829.89        0.29041                       484913.02
3614829.89        0.29584
         484963.02    3614829.89        0.30906                       484213.02
3614879.89        0.22586
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                           ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                          ***        12:24:23

                                    PAGE  90
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: EQUIPMEN ***
                                    INCLUDING SOURCE(S):     VOL1        , VOL2
 , VOL3        , VOL4        , VOL5        ,
                 VOL6        , VOL7        , VOL8        , VOL9        , VOL10
 , VOL11       , VOL12       , VOL13       ,
                 VOL14       , VOL15       , VOL16       , VOL17       , VOL18
 , VOL19       , VOL20       , VOL21       ,
                 VOL22       , VOL23       , VOL24       , VOL25       , VOL26
 , VOL27       , VOL28       ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                    ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
```

Y-COORD (M)   CONC
 -
- -
        484263.02   3614879.89   0.23008   484313.02
3614879.89   0.23628
        484363.02   3614879.89   0.24079   484413.02
3614879.89   0.24602
        484463.02   3614879.89   0.25094   484513.02
3614879.89   0.25519
        484563.02   3614879.89   0.26035   484613.02
3614879.89   0.26523
        484663.02   3614879.89   0.26991   484713.02
3614879.89   0.27612
        484763.02   3614879.89   0.28280   484813.02
3614879.89   0.29040
        484863.02   3614879.89   0.29701   484913.02
3614879.89   0.30430
        484963.02   3614879.89   0.31308   484163.02
3614929.89   0.22426
        484213.02   3614929.89   0.23123   484263.02
3614929.89   0.23582
        484313.02   3614929.89   0.23938   484363.02
3614929.89   0.24405
        484413.02   3614929.89   0.24948   484463.02
3614929.89   0.25344
        484513.02   3614929.89   0.25757   484563.02
3614929.89   0.26302
        484613.02   3614929.89   0.26756   484663.02
3614929.89   0.27396
        484713.02   3614929.89   0.27963   484763.02
3614929.89   0.28703
        484813.02   3614929.89   0.29498   484863.02
3614929.89   0.30147
        484913.02   3614929.89   0.30912   484963.02
3614929.89   0.31800
        485013.02   3614929.89   0.32954   484113.02
3614979.89   0.22447
        484163.02   3614979.89   0.22817   484213.02
3614979.89   0.23437
        484263.02   3614979.89   0.23888   484313.02
3614979.89   0.24081
        484363.02   3614979.89   0.24740   484413.02
3614979.89   0.25254
        484463.02   3614979.89   0.25645   484513.02
3614979.89   0.26172
        484563.02   3614979.89   0.26725   484613.02
3614979.89   0.27236
        484663.02   3614979.89   0.27948   484713.02
3614979.89   0.28391
        484763.02   3614979.89   0.29201   484813.02

```
3614979.89        0.29765
         484863.02    3614979.89        0.30497                        484913.02
3614979.89        0.31451
         484963.02    3614979.89        0.32219                        485013.02
3614979.89        0.33349
         484113.02    3615029.89        0.22688                        484163.02
3615029.89        0.23065
         484213.02    3615029.89        0.23602                        484263.02
3615029.89        0.23801
         484313.02    3615029.89        0.24451                        484363.02
3615029.89        0.25043
         484413.02    3615029.89        0.25606                        484463.02
3615029.89        0.26077
         484513.02    3615029.89        0.26549                        484563.02
3615029.89        0.27184
         484613.02    3615029.89        0.27724                        484663.02
3615029.89        0.28342
         484713.02    3615029.89        0.29078                        484763.02
3615029.89        0.29659
         484813.02    3615029.89        0.30228                        484863.02
3615029.89        0.31082
         484913.02    3615029.89        0.31895                        484963.02
3615029.89        0.32733
         485013.02    3615029.89        0.33622                        485063.02
3615029.89        0.35029
         484113.02    3615079.89        0.22926                        484163.02
3615079.89        0.23275
         484213.02    3615079.89        0.23788                        484263.02
3615079.89        0.24262
         484313.02    3615079.89        0.24798                        484363.02
3615079.89        0.25337
         484413.02    3615079.89        0.26013                        484463.02
3615079.89        0.26469
↟ *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                           ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                           ***       12:24:23

                                     PAGE  91
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: EQUIPMEN ***
                                    INCLUDING SOURCE(S):     VOL1        , VOL2
 , VOL3        , VOL4        , VOL5        ,
                 VOL6        , VOL7        , VOL8        , VOL9        , VOL10
 , VOL11       , VOL12       , VOL13       ,
                 VOL14       , VOL15       , VOL16       , VOL17       , VOL18
 , VOL19       , VOL20       , VOL21       ,
                 VOL22       , VOL23       , VOL24       , VOL25       , VOL26
```

, VOL27 , VOL28 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
484513.02	3615079.89	0.26971	484563.02	3615079.89	0.27641
484613.02	3615079.89	0.28177	484663.02	3615079.89	0.28892
484713.02	3615079.89	0.29273	484763.02	3615079.89	0.30128
484813.02	3615079.89	0.30893	484863.02	3615079.89	0.31569
484913.02	3615079.89	0.32430	484963.02	3615079.89	0.33250
485013.02	3615079.89	0.34134	485063.02	3615079.89	0.34920
485113.02	3615079.89	0.36516	484113.02	3615129.89	0.23116
484163.02	3615129.89	0.23611	484213.02	3615129.89	0.24119
484263.02	3615129.89	0.24621	484313.02	3615129.89	0.25022
484363.02	3615129.89	0.25602	484413.02	3615129.89	0.26447
484463.02	3615129.89	0.26873	484513.02	3615129.89	0.27413
484563.02	3615129.89	0.28059	484613.02	3615129.89	0.28719
484663.02	3615129.89	0.29226	484713.02	3615129.89	0.29900
484763.02	3615129.89	0.30740	484813.02	3615129.89	0.31309
484863.02	3615129.89	0.32144	484913.02	3615129.89	0.33006
484963.02	3615129.89	0.33775	485013.02	3615129.89	0.34630
485063.02	3615129.89	0.35671	485113.02	3615129.89	0.36623
485163.02	3615129.89	0.38227	484113.02	3615179.89	0.23389
484163.02	3615179.89	0.23897	484213.02	3615179.89	0.24448

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         484263.02    3615179.89        0.24948                        484313.02
3615179.89        0.25479
         484363.02    3615179.89        0.25852                        484413.02
3615179.89        0.26596
         484463.02    3615179.89        0.27249                        484513.02
3615179.89        0.27826
         484563.02    3615179.89        0.28551                        484613.02
3615179.89        0.29213
         484663.02    3615179.89        0.29823                        484713.02
3615179.89        0.30409
         484763.02    3615179.89        0.31162                        484813.02
3615179.89        0.31787
         484863.02    3615179.89        0.32756                        484913.02
3615179.89        0.33609
         484963.02    3615179.89        0.34416                        485013.02
3615179.89        0.35297
         485063.02    3615179.89        0.36242                        485113.02
3615179.89        0.37265
         485163.02    3615179.89        0.37954                        485213.02
3615179.89        0.39980
         484113.02    3615229.89        0.23633                        484163.02
3615229.89        0.24218
         484213.02    3615229.89        0.24749                        484263.02
3615229.89        0.25327
         484313.02    3615229.89        0.25915                        484363.02
3615229.89        0.26512
         484413.02    3615229.89        0.27107                        484463.02
3615229.89        0.27723
         484513.02    3615229.89        0.28464                        484563.02
3615229.89        0.29025
         484613.02    3615229.89        0.29675                        484663.02
3615229.89        0.30374
         484713.02    3615229.89        0.31021                        484763.02
3615229.89        0.31705
         484813.02    3615229.89        0.32529                        484863.02
3615229.89        0.33422
         484913.02    3615229.89        0.34246                        484963.02
3615229.89        0.35000
         485013.02    3615229.89        0.35986                        485063.02
3615229.89        0.36880
         485113.02    3615229.89        0.37850                        485163.02
3615229.89        0.38994
```

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EQUIPMEN ***
INCLUDING SOURCE(S): VOL1 , VOL2 , VOL3 , VOL4 , VOL5 ,
VOL6 , VOL7 , VOL8 , VOL9 , VOL10 , VOL11 , VOL12 , VOL13 ,
VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL19 , VOL20 , VOL21 ,
VOL22 , VOL23 , VOL24 , VOL25 , VOL26 , VOL27 , VOL28 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
485213.02	3615229.89	0.40126	485263.02	3615229.89	0.41857
484113.02	3615279.89	0.23917	484163.02	3615279.89	0.24532
484213.02	3615279.89	0.25196	484263.02	3615279.89	0.25998
484313.02	3615279.89	0.26638	484613.02	3615279.89	0.30179
484663.02	3615279.89	0.30838	484713.02	3615279.89	0.31550
484763.02	3615279.89	0.32315	484813.02	3615279.89	0.33047
484863.02	3615279.89	0.33898	484913.02	3615279.89	0.34850
484963.02	3615279.89	0.35760	485013.02	3615279.89	0.36627
485063.02	3615279.89	0.37579	485113.02	3615279.89	0.38686
485163.02	3615279.89	0.39795	485213.02	3615279.89	0.40997
485263.02	3615279.89	0.42244	485313.02	3615279.89	0.43706
484113.02	3615329.89	0.24284	484163.02	3615329.89	0.25078
484213.02	3615329.89	0.25781	484663.02	3615329.89	0.31532
484713.02	3615329.89	0.32145	484763.02	3615329.89	0.32907
484813.02	3615329.89	0.33643	484863.02		

3615329.89 0.34357
484913.02 3615329.89 0.35362 484963.02
3615329.89 0.36442
485013.02 3615329.89 0.37313 485063.02
3615329.89 0.38333
485113.02 3615329.89 0.39459 485163.02
3615329.89 0.40657
485213.02 3615329.89 0.41787 485263.02
3615329.89 0.43102
485313.02 3615329.89 0.44380 485363.02
3615329.89 0.46181
484113.02 3615379.89 0.24836 484163.02
3615379.89 0.25476
484713.02 3615379.89 0.32836 484763.02
3615379.89 0.33468
484813.02 3615379.89 0.34217 484863.02
3615379.89 0.35171
484913.02 3615379.89 0.35936 484963.02
3615379.89 0.36951
485013.02 3615379.89 0.38035 485063.02
3615379.89 0.39140
485113.02 3615379.89 0.40174 485163.02
3615379.89 0.41346
485213.02 3615379.89 0.42511 485263.02
3615379.89 0.43908
485313.02 3615379.89 0.45226 485363.02
3615379.89 0.46667
485413.02 3615379.89 0.48108 484763.02
3615429.89 0.34369
484813.02 3615429.89 0.34904 484863.02
3615429.89 0.35797
484913.02 3615429.89 0.36736 484963.02
3615429.89 0.37660
485013.02 3615429.89 0.38714 485063.02
3615429.89 0.39716
485113.02 3615429.89 0.40754 485163.02
3615429.89 0.42188
485213.02 3615429.89 0.43389 485263.02
3615429.89 0.44794
485313.02 3615429.89 0.46199 485363.02
3615429.89 0.47653
485413.02 3615429.89 0.49371 485463.02
3615429.89 0.50865
485513.02 3615429.89 0.52594 484813.02
3615479.89 0.35776
484863.02 3615479.89 0.36456 484913.02
3615479.89 0.37427
484963.02 3615479.89 0.38434 485013.02
3615479.89 0.39416
485063.02 3615479.89 0.40540 485113.02

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

                                *** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: EQUIPMEN ***
                                    INCLUDING SOURCE(S):   VOL1   , VOL2
 , VOL3   , VOL4   , VOL5   ,
                 VOL6   , VOL7   , VOL8   , VOL9   , VOL10
 , VOL11   , VOL12   , VOL13   ,
                 VOL14   , VOL15   , VOL16   , VOL17   , VOL18
 , VOL19   , VOL20   , VOL21   ,
                 VOL22   , VOL23   , VOL24   , VOL25   , VOL26
 , VOL27   , VOL28   , . . .   ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF PM_10   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         485163.02   3615479.89   0.42847   485213.02
3615479.89   0.44329
         485263.02   3615479.89   0.45736   485313.02
3615479.89   0.47057
         485363.02   3615479.89   0.48454   485413.02
3615479.89   0.50199
         485463.02   3615479.89   0.52070   485513.02
3615479.89   0.53915
         485563.02   3615479.89   0.56342   484863.02
3615529.89   0.37372
         484913.02   3615529.89   0.38098   484963.02
3615529.89   0.39177
         485013.02   3615529.89   0.40223   485063.02
3615529.89   0.41392
         485113.02   3615529.89   0.42620   485163.02
3615529.89   0.43782
         485213.02   3615529.89   0.45104   485263.02
3615529.89   0.46565
         485313.02   3615529.89   0.47991   485363.02
3615529.89   0.49427

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         485413.02    3615529.89        0.51109                    485463.02
3615529.89        0.52950
         485513.02    3615529.89        0.55037                    484913.02
3615579.89        0.39172
         484963.02    3615579.89        0.39852                    485013.02
3615579.89        0.40967
         485063.02    3615579.89        0.42104                    485113.02
3615579.89        0.42604
         485163.02    3615579.89        0.44282                    485213.02
3615579.89        0.45998
         485263.02    3615579.89        0.47406                    485313.02
3615579.89        0.49038
         485363.02    3615579.89        0.50626                    485413.02
3615579.89        0.52342
         485463.02    3615579.89        0.54422                    484963.02
3615629.89        0.40897
         485013.02    3615629.89        0.41801                    485063.02
3615629.89        0.42912
         485113.02    3615629.89        0.44239                    485163.02
3615629.89        0.45311
         485213.02    3615629.89        0.46953                    485263.02
3615629.89        0.48420
         485313.02    3615629.89        0.50044                    485363.02
3615629.89        0.51899
         485413.02    3615629.89        0.53823                    485013.02
3615679.89        0.43151
         485063.02    3615679.89        0.43777                    485113.02
3615679.89        0.45043
         485163.02    3615679.89        0.46353                    485213.02
3615679.89        0.47830
         485263.02    3615679.89        0.49636                    485313.02
3615679.89        0.51087
         485363.02    3615679.89        0.52815                    485413.02
3615679.89        0.55552
         485063.02    3615729.89        0.45311                    485113.02
3615729.89        0.45952
         485163.02    3615729.89        0.47356                    485213.02
3615729.89        0.49047
         485263.02    3615729.89        0.50729                    485313.02
3615729.89        0.52436
         485363.02    3615729.89        0.54645                    485113.02
3615779.89        0.47065
         485163.02    3615779.89        0.48456                    485213.02
3615779.89        0.49995
         485263.02    3615779.89        0.51724                    485313.02
3615779.89        0.53729
         485163.02    3615829.89        0.49989                    485213.02
3615829.89        0.50953
         485263.02    3615829.89        0.52886                    485213.02
3615879.89        0.52515
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         487082.35    3618053.22        0.90095                      487132.24
3618053.22        0.93417
         487182.13    3618053.22        0.95450                      487232.02
3618053.22        0.98259
         487281.91    3618053.22        1.00027                      486242.77
3618033.89        0.74128
         486286.79    3617997.48        0.78192                      486574.47
3617998.65        0.83725
         486624.36    3617998.65        0.81789                      486674.25
3617998.65        0.79230
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                           ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                          ***       12:24:23

                                    PAGE  94
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                               *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: EQUIPMEN ***
                                   INCLUDING SOURCE(S):     VOL1        , VOL2
 , VOL3        , VOL4        , VOL5        ,
                 VOL6        , VOL7        , VOL8        , VOL9        , VOL10
 , VOL11       , VOL12       , VOL13       ,
                 VOL14       , VOL15       , VOL16       , VOL17       , VOL18
 , VOL19       , VOL20       , VOL21       ,
                 VOL22       , VOL23       , VOL24       , VOL25       , VOL26
 , VOL27       , VOL28       ,  . . .      ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                   ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -
         486724.14    3617998.65        0.82647                      486774.03
3617998.65        0.85230
         486923.70    3617998.65        0.90099                      486973.59
3617998.65        0.92785
         487023.48    3617998.65        0.95685                      487082.35
3618103.22        0.85325
         487132.24    3618103.22        0.87170                      487182.13
3618103.22        0.89315
         486165.87    3618094.46        0.68048                      486242.77
3618083.89        0.69978
         486292.66    3618083.89        0.69099                      486499.32
```

3618054.73 0.76090
486574.47 3618048.65 0.78053 486624.36
3618048.65 0.78279
486674.25 3618048.65 0.78752 486724.14
3618048.65 0.79353
486873.81 3618048.65 0.82346 486923.70
3618048.65 0.84053
486973.59 3618048.65 0.85698 487023.48
3618048.65 0.88556
487082.35 3618153.22 0.80018 487132.24
3618153.22 0.81921
486325.02 3618098.65 0.67698 486242.77
3618133.89 0.64624
486524.58 3618098.65 0.70243 486574.47
3618098.65 0.73027
486624.36 3618098.65 0.74043 486674.25
3618098.65 0.72859
486823.92 3618098.65 0.75373 486873.81
3618098.65 0.76211
486923.70 3618098.65 0.78234 486973.59
3618098.65 0.80290
487023.48 3618098.65 0.82526 487082.35
3618203.22 0.76276
486275.13 3618148.65 0.63293 486325.02
3618148.65 0.63932
486374.91 3618148.65 0.65517 486474.69
3618148.65 0.67439
486524.58 3618148.65 0.68105 486574.47
3618148.65 0.68521
486624.36 3618148.65 0.64979 486774.03
3618148.65 0.72928
486823.92 3618148.65 0.72862 486873.81
3618148.65 0.72816
486923.70 3618148.65 0.74317 486973.59
3618148.65 0.75838
487023.48 3618148.65 0.77596 486275.13
3618198.65 0.59958
486325.02 3618198.65 0.60831 486374.91
3618198.65 0.61853
486424.80 3618198.65 0.61992 486474.69
3618198.65 0.63748
486524.58 3618198.65 0.64608 486674.25
3618198.65 0.66014
486724.14 3618198.65 0.68644 486774.03
3618198.65 0.70177
486823.92 3618198.65 0.70924 486873.81
3618198.65 0.71543
486923.70 3618198.65 0.71430 486973.59
3618198.65 0.72683
487023.48 3618198.65 0.74215 486275.13

```
3618248.65        0.56998
         486325.02    3618248.65        0.57074                      486374.91
3618248.65        0.58171
         486424.80    3618248.65        0.59573                      486474.69
3618248.65        0.57291
         486624.36    3618248.65        0.62795                      486674.25
3618248.65        0.63748
         486724.14    3618248.65        0.65134                      486774.03
3618248.65        0.66248
         486823.92    3618248.65        0.67514                      486873.81
3618248.65        0.69284
         486923.70    3618248.65        0.70470                      486973.59
3618248.65        0.71165
         487023.48    3618248.65        0.71679                      486125.46
3618298.65        0.54534
         486275.13    3618298.65        0.54367                      486325.02
3618298.65        0.54649
         486374.91    3618298.65        0.55517                      486424.80
3618298.65        0.54870
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                           ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                          ***       12:24:23

                                    PAGE  95
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                               *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: EQUIPMEN ***
                                   INCLUDING SOURCE(S):     VOL1        , VOL2
 , VOL3        , VOL4        , VOL5        ,
                 VOL6        , VOL7        , VOL8        , VOL9        , VOL10
 , VOL11       , VOL12       , VOL13       ,
                 VOL14       , VOL15       , VOL16       , VOL17       , VOL18
 , VOL19       , VOL20       , VOL21       ,
                 VOL22       , VOL23       , VOL24       , VOL25       , VOL26
 , VOL27       , VOL28       ,  . . .      ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                   ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -
         486574.47    3618298.65        0.59268                      486624.36
3618298.65        0.59936
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         486674.25    3618298.65        0.60583                    486724.14
3618298.65        0.61759
         486774.03    3618298.65        0.61678                    486823.92
3618298.65        0.63472
         486873.81    3618298.65        0.65018                    486923.70
3618298.65        0.67248
         486125.46    3618348.65        0.53119                    486175.35
3618348.65        0.51747
         486225.24    3618348.65        0.51456                    486275.13
3618348.65        0.52039
         486325.02    3618348.65        0.52045                    486524.58
3618348.65        0.55489
         486574.47    3618348.65        0.56460                    486624.36
3618348.65        0.57010
         486674.25    3618348.65        0.58064                    486724.14
3618348.65        0.58658
         486774.03    3618348.65        0.58122                    486823.92
3618348.65        0.60198
         486873.81    3618348.65        0.62236                    486125.46
3618398.65        0.51809
         486175.35    3618398.65        0.49664                    486225.24
3618398.65        0.50480
         486424.80    3618398.65        0.50684                    486474.69
3618398.65        0.51934
         486524.58    3618398.65        0.53105                    486574.47
3618398.65        0.54095
         486624.36    3618398.65        0.54927                    486674.25
3618398.65        0.55814
         486724.14    3618398.65        0.56718                    486774.03
3618398.65        0.57085
         486823.92    3618398.65        0.57868                    486125.46
3618448.65        0.49358
         486175.35    3618448.65        0.49487                    486374.91
3618448.65        0.47771
         486424.80    3618448.65        0.49223                    486474.69
3618448.65        0.49407
         486524.58    3618448.65        0.51199                    486574.47
3618448.65        0.52029
         486624.36    3618448.65        0.52963                    486674.25
3618448.65        0.53698
         486724.14    3618448.65        0.54879                    486774.03
3618448.65        0.55648
         486125.46    3618498.65        0.50192                    486325.02
3618498.65        0.46821
         486374.91    3618498.65        0.46766                    486424.80
3618498.65        0.47159
         486474.69    3618498.65        0.48435                    486524.58
3618498.65        0.48843
         486574.47    3618498.65        0.50457                    486624.36
3618498.65        0.51069
```

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         486674.25    3618498.65        0.51812                      486105.96
3618586.04        0.48169
         486325.02    3618548.65        0.45234                      486374.91
3618548.65        0.47731
         486424.80    3618548.65        0.49086                      486474.69
3618548.65        0.47106
         486524.58    3618548.65        0.48374                      486574.47
3618548.65        0.48196
         486624.36    3618548.65        0.49414                      486101.02
3618078.36        0.68458
         486155.07    3618149.26        0.63691                      486018.49
3618262.09        0.58514
         485957.41    3618189.14        0.60960                      485842.03
3618300.27        0.54919
         485893.78    3618363.05        0.54662                      485902.87
3618241.99        0.58316
         485966.01    3618313.09        0.56868                      486011.91
3618082.61        0.66962
```



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                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: MARINE   ***
                                  INCLUDING SOURCE(S):     VOL250      , VOL251
 , VOL252      , VOL253      , VOL254      ,
                 VOL255      , VOL256      , VOL257      , VOL258      , VOL259
 , VOL260      , VOL261      , VOL262      ,
                 VOL263      , VOL264      , VOL265      , VOL266      , VOL267
 , VOL268      , VOL269      , VOL270      ,
                 VOL271      , VOL272      , VOL273      , VOL274      , VOL275
 , VOL276      , VOL277      ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - -
         488270.59    3616550.48        1.35164                      488320.59
3616550.48        1.28605
         488370.59    3616550.48        1.22173                      488420.59
```

3616550.48 1.15246
488470.59 3616550.48 1.10532 488520.59
3616550.48 1.05455
488570.59 3616550.48 0.99048 488620.59
3616550.48 0.94229
488270.59 3616600.48 1.35190 488320.59
3616600.48 1.27671
488370.59 3616600.48 1.19312 488420.59
3616600.48 1.13433
488470.59 3616600.48 1.08187 488520.59
3616600.48 1.03382
488570.59 3616600.48 0.97726 488620.59
3616600.48 0.93158
488270.59 3616650.48 1.32356 488320.59
3616650.48 1.24120
488370.59 3616650.48 1.17582 488420.59
3616650.48 1.11851
488470.59 3616650.48 1.06120 488520.59
3616650.48 1.01037
488570.59 3616650.48 0.96610 488620.59
3616650.48 0.92409
488270.59 3616700.48 1.29268 488320.59
3616700.48 1.23180
488370.59 3616700.48 1.16395 488420.59
3616700.48 1.10781
488470.59 3616700.48 1.05207 488520.59
3616700.48 0.99782
488570.59 3616700.48 0.95525 488620.59
3616700.48 0.91122
488320.59 3616750.48 1.20853 488370.59
3616750.48 1.14544
488420.59 3616750.48 1.08600 488470.59
3616750.48 1.03023
488520.59 3616750.48 0.98392 488570.59
3616750.48 0.93440
488620.59 3616750.48 0.88811 488320.59
3616800.48 1.18225
488370.59 3616800.48 1.12129 488420.59
3616800.48 1.06320
488470.59 3616800.48 1.00812 488520.59
3616800.48 0.95886
488570.59 3616800.48 0.91271 488620.59
3616800.48 0.86273
488370.59 3616850.48 1.09221 488420.59
3616850.48 1.03530
488470.59 3616850.48 0.98509 488520.59
3616850.48 0.93495
488570.59 3616850.48 0.89075 488620.59
3616850.48 0.84288
488420.59 3616900.48 1.00900 488470.59

3616900.48   0.95926
         488520.59   3616900.48   0.91295   488570.59
3616900.48   0.86738
         488620.59   3616900.48   0.82490   488420.59
3616950.48   0.98942
         488470.59   3616950.48   0.93384   488520.59
3616950.48   0.88795
         488570.59   3616950.48   0.84485   488620.59
3616950.48   0.80604
         488470.59   3617000.48   0.90809   488520.59
3617000.48   0.86442
         488570.59   3617000.48   0.82531   488620.59
3617000.48   0.78805
         488470.59   3617050.48   0.89123   488520.59
3617050.48   0.84271
         488570.59   3617050.48   0.80100   488620.59
3617050.48   0.76544
         488370.59   3617100.48   0.96015   488420.59
3617100.48   0.89650
         488470.59   3617100.48   0.86717   488520.59
3617100.48   0.82715
         488570.59   3617100.48   0.78508   488620.59
3617100.48   0.75085
         488320.59   3617150.48   0.98567   488370.59
3617150.48   0.93361
         488420.59   3617150.48   0.88877   488470.59
3617150.48   0.83723

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

                               *** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: MARINE   ***
                                  INCLUDING SOURCE(S):   VOL250   , VOL251
 , VOL252   , VOL253   , VOL254   ,
                 VOL255   , VOL256   , VOL257   , VOL258   , VOL259
 , VOL260   , VOL261   , VOL262   ,
                 VOL263   , VOL264   , VOL265   , VOL266   , VOL267
 , VOL268   , VOL269   , VOL270   ,
                 VOL271   , VOL272   , VOL273   , VOL274   , VOL275
 , VOL276   , VOL277   , . . .   ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF PM_10   IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
488520.59	3617150.48	0.80775	488570.59	3617150.48	0.77149
488620.59	3617150.48	0.72383	488270.59	3617200.48	0.99239
488320.59	3617200.48	0.96278	488370.59	3617200.48	0.88233
488420.59	3617200.48	0.86579	488470.59	3617200.48	0.82347
488520.59	3617200.48	0.78813	488570.59	3617200.48	0.75088
488620.59	3617200.48	0.69223	487320.59	3617250.48	3.57914
487370.59	3617250.48	3.32834	487420.59	3617250.48	3.08698
487470.59	3617250.48	2.86492	487520.59	3617250.48	2.64934
487570.59	3617250.48	2.44576	487620.59	3617250.48	2.26072
487670.59	3617250.48	2.09600	487720.59	3617250.48	1.94985
487770.59	3617250.48	1.81716	487820.59	3617250.48	1.69469
487870.59	3617250.48	1.58126	487920.59	3617250.48	1.47625
487970.59	3617250.48	1.37828	488020.59	3617250.48	1.28941
488070.59	3617250.48	1.20874	488120.59	3617250.48	1.13721
488170.59	3617250.48	1.07214	488220.59	3617250.48	1.01662
488270.59	3617250.48	0.96736	488320.59	3617250.48	0.91673
488370.59	3617250.48	0.86784	488420.59	3617250.48	0.83866
488470.59	3617250.48	0.80651	488520.59	3617250.48	0.76351
488570.59	3617250.48	0.73817	488620.59	3617250.48	0.68857
487170.59	3617300.48	3.93163	487220.59	3617300.48	3.72868
487270.59	3617300.48	3.53619	487320.59	3617300.48	3.30295
487370.59	3617300.48	3.07780	487420.59	3617300.48	2.86525

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3617300.48        2.48897
         487570.59    3617300.48        2.30399                        487620.59
3617300.48        2.13716
         487670.59    3617300.48        1.99742                        487720.59
3617300.48        1.85794
         487770.59    3617300.48        1.74039                        487820.59
3617300.48        1.63297
         487870.59    3617300.48        1.51473                        487920.59
3617300.48        1.41257
         487970.59    3617300.48        1.31522                        488020.59
3617300.48        1.24118
         488070.59    3617300.48        1.17361                        488120.59
3617300.48        1.09950
         488170.59    3617300.48        1.04558                        488220.59
3617300.48        0.99778
         488270.59    3617300.48        0.94529                        488320.59
3617300.48        0.89410
         488370.59    3617300.48        0.83675                        488420.59
3617300.48        0.81761
         488470.59    3617300.48        0.79396                        488520.59
3617300.48        0.73150
         488570.59    3617300.48        0.71742                        488620.59
3617300.48        0.68974
         487020.59    3617350.48        3.89296                        487070.59
3617350.48        3.82837
         487120.59    3617350.48        3.70147                        487170.59
3617350.48        3.55295
         487220.59    3617350.48        3.39020                        487270.59
3617350.48        3.22047
         487320.59    3617350.48        3.04640                        487370.59
3617350.48        2.86650
         487420.59    3617350.48        2.68851                        487470.59
3617350.48        2.52057
         487520.59    3617350.48        2.35841                        487570.59
3617350.48        2.19435
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                           ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                           ***       12:24:23

                                    PAGE  98
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: MARINE   ***
                                    INCLUDING SOURCE(S):     VOL250      , VOL251
 , VOL252      , VOL253      , VOL254      ,
                 VOL255      , VOL256      , VOL257      , VOL258      , VOL259
 , VOL260      , VOL261      , VOL262      ,
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                VOL263      , VOL264      , VOL265      , VOL266      , VOL267
 , VOL268      , VOL269      , VOL270      ,
                VOL271      , VOL272      , VOL273      , VOL274      , VOL275
 , VOL276      , VOL277      ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                  **

       X-COORD (M)   Y-COORD (M)        CONC                        X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         487620.59    3617350.48        2.04775                       487670.59
3617350.48        1.91346
         487720.59    3617350.48        1.78730                       487770.59
3617350.48        1.67456
         487820.59    3617350.48        1.57631                       487870.59
3617350.48        1.46479
         487920.59    3617350.48        1.36948                       487970.59
3617350.48        1.28213
         488020.59    3617350.48        1.21437                       488070.59
3617350.48        1.14399
         488120.59    3617350.48        1.07895                       488170.59
3617350.48        1.02659
         488220.59    3617350.48        0.97759                       488270.59
3617350.48        0.92974
         488320.59    3617350.48        0.88586                       488370.59
3617350.48        0.84786
         488420.59    3617350.48        0.80460                       488470.59
3617350.48        0.77939
         488520.59    3617350.48        0.73992                       488570.59
3617350.48        0.70955
         488620.59    3617350.48        0.67856                       486770.59
3617400.48        3.36888
         486820.59    3617400.48        3.42885                       486870.59
3617400.48        3.46816
         486920.59    3617400.48        3.48215                       486970.59
3617400.48        3.46548
         487020.59    3617400.48        3.42522                       487070.59
3617400.48        3.38246
         487120.59    3617400.48        3.30241                       487170.59
3617400.48        3.18733
         487220.59    3617400.48        3.06602                       487270.59
3617400.48        2.93281
         487320.59    3617400.48        2.80486                       487370.59
3617400.48        2.65585
         487420.59    3617400.48        2.50874                       487470.59
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3617400.48 2.36449
  487520.59 3617400.48 2.26638 487570.59
3617400.48 2.08270
  487620.59 3617400.48 2.00878 487670.59
3617400.48 1.88752
  487720.59 3617400.48 1.77166 487770.59
3617400.48 1.66439
  487820.59 3617400.48 1.56479 487870.59
3617400.48 1.46498
  487920.59 3617400.48 1.37622 487970.59
3617400.48 1.29554
  488020.59 3617400.48 1.22278 488070.59
3617400.48 1.15574
  488120.59 3617400.48 1.09597 488170.59
3617400.48 1.03968
  488220.59 3617400.48 0.98491 488270.59
3617400.48 0.93224
  488320.59 3617400.48 0.88354 488370.59
3617400.48 0.83312
  488420.59 3617400.48 0.80476 488470.59
3617400.48 0.75785
  488520.59 3617400.48 0.72587 488570.59
3617400.48 0.69504
  488620.59 3617400.48 0.66853 486820.59
3617450.48 2.99145
  486870.59 3617450.48 3.04149 486920.59
3617450.48 3.05559
  486970.59 3617450.48 3.05762 487020.59
3617450.48 3.05954
  487070.59 3617450.48 3.01255 487120.59
3617450.48 2.95077
  487170.59 3617450.48 2.86138 487220.59
3617450.48 2.77405
  487270.59 3617450.48 2.67822 487320.59
3617450.48 2.57813
  487370.59 3617450.48 2.45407 487420.59
3617450.48 2.33951
  487470.59 3617450.48 2.27513 487520.59
3617450.48 2.18719
  487570.59 3617450.48 2.06662 487620.59
3617450.48 1.94257
  487670.59 3617450.48 1.81659 487720.59
3617450.48 1.70521
  487770.59 3617450.48 1.59991 487820.59
3617450.48 1.50289

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: MARINE ***

INCLUDING SOURCE(S): VOL250 , VOL251 , VOL252 , VOL253 , VOL254 ,
VOL255 , VOL256 , VOL257 , VOL258 , VOL259 , VOL260 , VOL261 , VOL262 ,
VOL263 , VOL264 , VOL265 , VOL266 , VOL267 , VOL268 , VOL269 , VOL270 ,
VOL271 , VOL272 , VOL273 , VOL274 , VOL275 , VOL276 , VOL277 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487870.59	3617450.48	1.41192	487920.59	3617450.48	1.32865
487970.59	3617450.48	1.25250	488020.59	3617450.48	1.18239
488070.59	3617450.48	1.11690	488120.59	3617450.48	1.05665
488170.59	3617450.48	1.00201	488220.59	3617450.48	0.95264
488270.59	3617450.48	0.90152	488320.59	3617450.48	0.84310
488370.59	3617450.48	0.80333	488420.59	3617450.48	0.78275
488470.59	3617450.48	0.74166	488520.59	3617450.48	0.71286
488570.59	3617450.48	0.68212	488620.59	3617450.48	0.65902
486770.59	3617500.48	2.58605	486820.59	3617500.48	2.63292
486870.59	3617500.48	2.68651	486920.59	3617500.48	2.71432
486970.59	3617500.48	2.73505	487020.59	3617500.48	2.71102
487070.59	3617500.48	2.67625	487120.59	3617500.48	2.63318
487170.59	3617500.48	2.56358	487220.59	3617500.48	2.50949

```
         487270.59    3617500.48        2.46240                    487320.59
3617500.48        2.42446
         487370.59    3617500.48        2.31627                    487420.59
3617500.48        2.28656
         487470.59    3617500.48        2.18490                    487520.59
3617500.48        2.05555
         487570.59    3617500.48        1.89596                    487620.59
3617500.48        1.77656
         487670.59    3617500.48        1.68081                    487720.59
3617500.48        1.58864
         487770.59    3617500.48        1.50354                    487820.59
3617500.48        1.42015
         487870.59    3617500.48        1.34018                    487920.59
3617500.48        1.25915
         487970.59    3617500.48        1.19055                    488020.59
3617500.48        1.12660
         488070.59    3617500.48        1.06104                    488120.59
3617500.48        0.99532
         488170.59    3617500.48        0.94716                    488220.59
3617500.48        0.90669
         488270.59    3617500.48        0.87287                    488320.59
3617500.48        0.82886
         488370.59    3617500.48        0.79583                    488420.59
3617500.48        0.76450
         488470.59    3617500.48        0.72707                    488520.59
3617500.48        0.70026
         488570.59    3617500.48        0.66995                    488620.59
3617500.48        0.64999
         486670.59    3617550.48        2.17978                    486720.59
3617550.48        2.24084
         486770.59    3617550.48        2.30259                    486820.59
3617550.48        2.33912
         486870.59    3617550.48        2.39011                    486920.59
3617550.48        2.42300
         486970.59    3617550.48        2.42576                    487020.59
3617550.48        2.40661
         487070.59    3617550.48        2.38409                    487120.59
3617550.48        2.36578
         487170.59    3617550.48        2.32952                    487220.59
3617550.48        2.28036
         487270.59    3617550.48        2.30130                    487320.59
3617550.48        2.30438
         487370.59    3617550.48        2.22990                    487420.59
3617550.48        2.13250
         487470.59    3617550.48        1.97485                    487520.59
3617550.48        1.89249
         487570.59    3617550.48        1.76738                    487620.59
3617550.48        1.68258
         487670.59    3617550.48        1.60267                    487720.59
3617550.48        1.52505
```

                              *** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: MARINE   ***
                                  INCLUDING SOURCE(S):   VOL250   , VOL251
 , VOL252   , VOL253   , VOL254   ,
                 VOL255   , VOL256   , VOL257   , VOL258   , VOL259
 , VOL260   , VOL261   , VOL262   ,
                 VOL263   , VOL264   , VOL265   , VOL266   , VOL267
 , VOL268   , VOL269   , VOL270   ,
                 VOL271   , VOL272   , VOL273   , VOL274   , VOL275
 , VOL276   , VOL277   , . . .   ,

                                       *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                  ** CONC OF PM_10   IN MICROGRAMS/M**3
                  **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         487970.59   3617550.48   1.15687   488020.59
3617550.48   1.09489
         488070.59   3617550.48   1.02897   488120.59
3617550.48   0.97027
         488170.59   3617550.48   0.93179   488220.59
3617550.48   0.89316
         488270.59   3617550.48   0.85829   488320.59
3617550.48   0.81523
         488370.59   3617550.48   0.80799   488420.59
3617550.48   0.75099
         488470.59   3617550.48   0.71847   488520.59
3617550.48   0.68552
         488570.59   3617550.48   0.65935   488620.59
3617550.48   0.64195
         485870.59   3617600.48   1.14639   485920.59
3617600.48   1.20545
         486620.59   3617600.48   1.88667   486670.59

3617600.48 1.95915
486720.59 3617600.48 1.99990 486770.59
3617600.48 2.05232
486820.59 3617600.48 2.09625 486870.59
3617600.48 2.13700
486920.59 3617600.48 2.14207 486970.59
3617600.48 2.15138
487020.59 3617600.48 2.13885 487070.59
3617600.48 2.14123
487120.59 3617600.48 2.12962 487170.59
3617600.48 2.10961
487220.59 3617600.48 2.11122 487270.59
3617600.48 2.17989
487320.59 3617600.48 2.13850 487370.59
3617600.48 2.03126
487420.59 3617600.48 1.88019 487470.59
3617600.48 1.81164
487520.59 3617600.48 1.74073 487570.59
3617600.48 1.66970
487620.59 3617600.48 1.59889 487670.59
3617600.48 1.52806
487720.59 3617600.48 1.45578 487770.59
3617600.48 1.38505
487820.59 3617600.48 1.31736 487870.59
3617600.48 1.25343
487920.59 3617600.48 1.18911 487970.59
3617600.48 1.12454
488020.59 3617600.48 1.05900 488070.59
3617600.48 1.00250
488120.59 3617600.48 0.95807 488170.59
3617600.48 0.91646
488220.59 3617600.48 0.88118 488270.59
3617600.48 0.84739
488320.59 3617600.48 0.82443 488370.59
3617600.48 0.79850
488420.59 3617600.48 0.75328 488470.59
3617600.48 0.71063
488520.59 3617600.48 0.66792 488570.59
3617600.48 0.64918
488620.59 3617600.48 0.62966 485870.59
3617650.48 1.08821
485920.59 3617650.48 1.13458 485970.59
3617650.48 1.18401
486570.59 3617650.48 1.67146 486620.59
3617650.48 1.71463
486670.59 3617650.48 1.75174 486720.59
3617650.48 1.79394
486770.59 3617650.48 1.84697 486820.59
3617650.48 1.87726
486870.59 3617650.48 1.88092 486920.59

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: MARINE ***
INCLUDING SOURCE(S): VOL250 , VOL251 , VOL252 , VOL253 , VOL254 ,
VOL255 , VOL256 , VOL257 , VOL258 , VOL259 , VOL260 , VOL261 , VOL262 ,
VOL263 , VOL264 , VOL265 , VOL266 , VOL267 , VOL268 , VOL269 , VOL270 ,
VOL271 , VOL272 , VOL273 , VOL274 , VOL275 , VOL276 , VOL277 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487720.59	3617650.48	1.38997	487770.59	3617650.48	1.33371
487820.59	3617650.48	1.27208	487870.59	3617650.48	1.21105
487920.59	3617650.48	1.15617	487970.59	3617650.48	1.08991
488020.59	3617650.48	1.02332	488070.59	3617650.48	0.97716

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         488120.59    3617650.48        0.94400                    488170.59
3617650.48        0.90482
         488220.59    3617650.48        0.87200                    488270.59
3617650.48        0.83469
         488320.59    3617650.48        0.80578                    488370.59
3617650.48        0.78907
         488420.59    3617650.48        0.72606                    488470.59
3617650.48        0.69267
         488520.59    3617650.48        0.66327                    488570.59
3617650.48        0.63285
         488620.59    3617650.48        0.62681                    485870.59
3617700.48        1.04354
         485920.59    3617700.48        1.07352                    485970.59
3617700.48        1.12033
         486470.59    3617700.48        1.46623                    486520.59
3617700.48        1.48399
         486570.59    3617700.48        1.52293                    486620.59
3617700.48        1.54637
         486670.59    3617700.48        1.58934                    486720.59
3617700.48        1.63345
         486770.59    3617700.48        1.66242                    486820.59
3617700.48        1.67693
         486870.59    3617700.48        1.67903                    486920.59
3617700.48        1.71155
         486970.59    3617700.48        1.72236                    487020.59
3617700.48        1.72648
         487070.59    3617700.48        1.73960                    487120.59
3617700.48        1.77513
         487270.59    3617700.48        1.76605                    487320.59
3617700.48        1.69615
         487370.59    3617700.48        1.67330                    487420.59
3617700.48        1.62882
         487470.59    3617700.48        1.58247                    487520.59
3617700.48        1.53183
         487570.59    3617700.48        1.48494                    487620.59
3617700.48        1.43692
         487670.59    3617700.48        1.38604                    487720.59
3617700.48        1.33044
         487770.59    3617700.48        1.27738                    487820.59
3617700.48        1.22434
         487870.59    3617700.48        1.17080                    487920.59
3617700.48        1.11272
         487970.59    3617700.48        1.05152                    488020.59
3617700.48        1.00050
         488070.59    3617700.48        0.96824                    488120.59
3617700.48        0.93702
         488170.59    3617700.48        0.90900                    488220.59
3617700.48        0.87792
         488270.59    3617700.48        0.83998                    488320.59
3617700.48        0.80405
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         488370.59    3617700.48        0.77979                      488420.59
3617700.48        0.72418
         488470.59    3617700.48        0.68317                      488520.59
3617700.48        0.65563
         488570.59    3617700.48        0.62647                      488620.59
3617700.48        0.61344
         486420.59    3617750.48        1.31232                      486470.59
3617750.48        1.33104
         486520.59    3617750.48        1.34403                      486570.59
3617750.48        1.38195
         486620.59    3617750.48        1.40478                      486670.59
3617750.48        1.44812
         486720.59    3617750.48        1.47647                      486770.59
3617750.48        1.49050
         486820.59    3617750.48        1.50086                      486870.59
3617750.48        1.52398
         486920.59    3617750.48        1.51866                      486970.59
3617750.48        1.54845
         487020.59    3617750.48        1.57964                      487070.59
3617750.48        1.61299
         487220.59    3617750.48        1.59764                      487270.59
3617750.48        1.58603
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***        12:24:23

                                    PAGE 102
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                               *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: MARINE   ***
                                  INCLUDING SOURCE(S):     VOL250      , VOL251
 , VOL252      , VOL253      , VOL254      ,
                 VOL255      , VOL256      , VOL257      , VOL258      , VOL259
 , VOL260      , VOL261      , VOL262      ,
                 VOL263      , VOL264      , VOL265      , VOL266      , VOL267
 , VOL268      , VOL269      , VOL270      ,
                 VOL271      , VOL272      , VOL273      , VOL274      , VOL275
 , VOL276      , VOL277      ,  . . .      ,

                                       *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                  ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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- -
487320.59 3617750.48 1.56480 487370.59
3617750.48 1.54678
487420.59 3617750.48 1.51526 487470.59
3617750.48 1.47871
487520.59 3617750.48 1.42487 487570.59
3617750.48 1.37649
487620.59 3617750.48 1.34721 487670.59
3617750.48 1.31957
487720.59 3617750.48 1.27449 487770.59
3617750.48 1.22759
487820.59 3617750.48 1.17574 487870.59
3617750.48 1.12897
487920.59 3617750.48 1.07925 487970.59
3617750.48 1.02568
488020.59 3617750.48 0.99086 488070.59
3617750.48 0.98002
488120.59 3617750.48 0.94988 488170.59
3617750.48 0.91390
488220.59 3617750.48 0.88535 488270.59
3617750.48 0.84073
488320.59 3617750.48 0.80628 488370.59
3617750.48 0.76383
488420.59 3617750.48 0.70589 488470.59
3617750.48 0.67180
488520.59 3617750.48 0.64893 488570.59
3617750.48 0.62285
488620.59 3617750.48 0.60118 486420.59
3617800.48 1.20218
486470.59 3617800.48 1.21664 486520.59
3617800.48 1.23280
486570.59 3617800.48 1.26162 486620.59
3617800.48 1.29190
486670.59 3617800.48 1.31275 486720.59
3617800.48 1.33001
486770.59 3617800.48 1.35377 486820.59
3617800.48 1.36925
486870.59 3617800.48 1.37089 486920.59
3617800.48 1.39644
486970.59 3617800.48 1.42458 487170.59
3617800.48 1.47215
487220.59 3617800.48 1.46290 487270.59
3617800.48 1.45720
487320.59 3617800.48 1.44755 487370.59
3617800.48 1.42930
487420.59 3617800.48 1.40731 487470.59
3617800.48 1.38196
487520.59 3617800.48 1.34176 487570.59
3617800.48 1.31173
487620.59 3617800.48 1.27813 487670.59

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3617800.48        1.25697
         487720.59    3617800.48        1.21188                        487770.59
3617800.48        1.17453
         487820.59    3617800.48        1.12297                        487870.59
3617800.48        1.09222
         487920.59    3617800.48        1.05754                        487970.59
3617800.48        1.01782
         488020.59    3617800.48        0.99803                        488070.59
3617800.48        0.98708
         488120.59    3617800.48        0.94779                        488170.59
3617800.48        0.90830
         488220.59    3617800.48        0.87204                        488270.59
3617800.48        0.83274
         488320.59    3617800.48        0.78903                        488370.59
3617800.48        0.74358
         488420.59    3617800.48        0.69373                        488470.59
3617800.48        0.66764
         488520.59    3617800.48        0.64005                        488570.59
3617800.48        0.61261
         488620.59    3617800.48        0.58339                        486470.59
3617850.48        1.11682
         486520.59    3617850.48        1.14589                        486570.59
3617850.48        1.16854
         486620.59    3617850.48        1.18067                        486670.59
3617850.48        1.19693
         486720.59    3617850.48        1.21585                        486770.59
3617850.48        1.23742
         486820.59    3617850.48        1.25148                        486870.59
3617850.48        1.26026
         486920.59    3617850.48        1.28730                        487120.59
3617850.48        1.33774
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                           ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                          ***        12:24:23

                                    PAGE 103
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: MARINE   ***
                                    INCLUDING SOURCE(S):     VOL250      , VOL251
 , VOL252      , VOL253      , VOL254      ,
                 VOL255      , VOL256      , VOL257      , VOL258      , VOL259
 , VOL260      , VOL261      , VOL262      ,
                 VOL263      , VOL264      , VOL265      , VOL266      , VOL267
 , VOL268      , VOL269      , VOL270      ,
                 VOL271      , VOL272      , VOL273      , VOL274      , VOL275
 , VOL276      , VOL277      ,  . . .      ,
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*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487170.59	3617850.48	1.34290	487220.59	3617850.48	1.34597
487270.59	3617850.48	1.34622	487320.59	3617850.48	1.34605
487370.59	3617850.48	1.33378	487420.59	3617850.48	1.31236
487470.59	3617850.48	1.29192	487520.59	3617850.48	1.26421
487570.59	3617850.48	1.24123	487620.59	3617850.48	1.21583
487670.59	3617850.48	1.19221	487720.59	3617850.48	1.15812
487770.59	3617850.48	1.12325	487820.59	3617850.48	1.09388
487870.59	3617850.48	1.05899	487920.59	3617850.48	1.03389
487970.59	3617850.48	1.01699	488020.59	3617850.48	0.99671
488070.59	3617850.48	0.97048	488120.59	3617850.48	0.93292
488170.59	3617850.48	0.89417	488220.59	3617850.48	0.85550
488270.59	3617850.48	0.82038	488320.59	3617850.48	0.78636
488370.59	3617850.48	0.71743	488420.59	3617850.48	0.68282
488470.59	3617850.48	0.65800	488520.59	3617850.48	0.63153
488570.59	3617850.48	0.60548	488620.59	3617850.48	0.57483
486520.59	3617900.48	1.06661	486570.59	3617900.48	1.07899
486620.59	3617900.48	1.09247	486670.59	3617900.48	1.10631
486720.59	3617900.48	1.10622	486770.59	3617900.48	1.14266
486820.59	3617900.48	1.15704	486870.59	3617900.48	1.17317
486920.59	3617900.48	1.25685	487070.59	3617900.48	1.21915

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         487120.59    3617900.48        1.23120                      487170.59
3617900.48        1.23920
         487220.59    3617900.48        1.24734                      487270.59
3617900.48        1.25179
         487320.59    3617900.48        1.25147                      487370.59
3617900.48        1.24276
         487420.59    3617900.48        1.22861                      487470.59
3617900.48        1.20946
         487520.59    3617900.48        1.18726                      487570.59
3617900.48        1.17243
         487620.59    3617900.48        1.15211                      487670.59
3617900.48        1.13220
         487720.59    3617900.48        1.10291                      487770.59
3617900.48        1.07729
         487820.59    3617900.48        1.04973                      487870.59
3617900.48        1.03123
         487920.59    3617900.48        1.01487                      487970.59
3617900.48        1.00501
         488020.59    3617900.48        0.97388                      488070.59
3617900.48        0.94913
         488120.59    3617900.48        0.91320                      488170.59
3617900.48        0.87478
         488220.59    3617900.48        0.84042                      488270.59
3617900.48        0.80793
         488320.59    3617900.48        0.77492                      488370.59
3617900.48        0.70897
         488420.59    3617900.48        0.67798                      488470.59
3617900.48        0.65099
         488520.59    3617900.48        0.62322                      488570.59
3617900.48        0.59820
         488620.59    3617900.48        0.56621                      487077.48
3618005.05        1.04328
         487127.48    3618005.05        1.05011                      487177.48
3618005.05        1.06075
         487227.48    3618005.05        1.07176                      487277.48
3618005.05        1.07688
         487327.48    3618005.05        1.07815                      486570.59
3617950.48        1.00742
         486620.59    3617950.48        1.01797                      486670.59
3617950.48        1.01782
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                              ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                             ***        12:24:23

                                    PAGE 104
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                 *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: MARINE   ***
```

```
                                INCLUDING SOURCE(S):     VOL250      , VOL251
 , VOL252      , VOL253      , VOL254      ,
                 VOL255      , VOL256      , VOL257      , VOL258      , VOL259
 , VOL260      , VOL261      , VOL262      ,
                 VOL263      , VOL264      , VOL265      , VOL266      , VOL267
 , VOL268      , VOL269      , VOL270      ,
                 VOL271      , VOL272      , VOL273      , VOL274      , VOL275
 , VOL276      , VOL277      ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         486720.59    3617950.48        1.01540                       486770.59
3617950.48        1.05314
         486820.59    3617950.48        1.08095                       486970.59
3617950.48        1.14303
         487020.59    3617950.48        1.12107                       487070.59
3617950.48        1.12862
         487120.59    3617950.48        1.13985                       487170.59
3617950.48        1.14643
         487220.59    3617950.48        1.15837                       487270.59
3617950.48        1.16677
         487320.59    3617950.48        1.17025                       487370.59
3617950.48        1.15964
         487420.59    3617950.48        1.15063                       487470.59
3617950.48        1.13541
         487520.59    3617950.48        1.12138                       487570.59
3617950.48        1.10969
         487620.59    3617950.48        1.09252                       487670.59
3617950.48        1.07305
         487720.59    3617950.48        1.05041                       487770.59
3617950.48        1.03017
         487820.59    3617950.48        1.00891                       487870.59
3617950.48        1.00282
         487920.59    3617950.48        1.00009                       487970.59
3617950.48        0.98730
         488020.59    3617950.48        0.95595                       488070.59
3617950.48        0.92596
         488120.59    3617950.48        0.89078                       488170.59
3617950.48        0.85848
         488220.59    3617950.48        0.82446                       488270.59
3617950.48        0.79408
         488320.59    3617950.48        0.76122                       488370.59
```

```
3617950.48        0.70529
         488420.59    3617950.48        0.67020                    488470.59
3617950.48        0.64282
         488520.59    3617950.48        0.61586                    488570.59
3617950.48        0.59188
         488620.59    3617950.48        0.56048                    488590.14
3616298.03        0.94374
         488540.14    3616348.03        1.00263                    488590.14
3616348.03        0.96487
         488440.14    3616398.03        1.11658                    488490.14
3616398.03        1.07976
         488540.14    3616398.03        1.03439                    488590.14
3616398.03        0.98784
         488390.14    3616448.03        1.19025                    488440.14
3616448.03        1.13704
         488490.14    3616448.03        1.09020                    488540.14
3616448.03        1.04259
         488590.14    3616448.03        0.99263                    488340.14
3616498.03        1.25186
         488390.14    3616498.03        1.19084                    488440.14
3616498.03        1.13991
         488490.14    3616498.03        1.09302                    488540.14
3616498.03        1.04455
         488590.14    3616498.03        0.98583                    484613.02
3614429.89        0.24578
         484663.02    3614429.89        0.25725                    484713.02
3614429.89        0.26497
         484763.02    3614429.89        0.26672                    484813.02
3614429.89        0.26835
         484863.02    3614429.89        0.27812                    484913.02
3614429.89        0.28639
         484963.02    3614429.89        0.29786                    484563.02
3614479.89        0.25031
         484613.02    3614479.89        0.25789                    484663.02
3614479.89        0.26619
         484713.02    3614479.89        0.26948                    484763.02
3614479.89        0.26946
         484813.02    3614479.89        0.27618                    484863.02
3614479.89        0.28596
         484913.02    3614479.89        0.29197                    484963.02
3614479.89        0.30428
         484513.02    3614529.89        0.24859                    484563.02
3614529.89        0.25866
         484613.02    3614529.89        0.25890                    484663.02
3614529.89        0.26873
         484713.02    3614529.89        0.26889                    484763.02
3614529.89        0.27288
         484813.02    3614529.89        0.28185                    484863.02
3614529.89        0.28870
```

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

                              *** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: MARINE   ***
                                  INCLUDING SOURCE(S):   VOL250   , VOL251
 , VOL252   , VOL253   , VOL254   ,
                 VOL255   , VOL256   , VOL257   , VOL258   , VOL259
 , VOL260   , VOL261   , VOL262   ,
                 VOL263   , VOL264   , VOL265   , VOL266   , VOL267
 , VOL268   , VOL269   , VOL270   ,
                 VOL271   , VOL272   , VOL273   , VOL274   , VOL275
 , VOL276   , VOL277   , . . .   ,

                                    *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                  ** CONC OF PM_10   IN MICROGRAMS/M**3
                  **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         484913.02   3614529.89   0.29486   484963.02
3614529.89   0.31107
         484463.02   3614579.89   0.24243   484513.02
3614579.89   0.25637
         484563.02   3614579.89   0.25735   484613.02
3614579.89   0.26252
         484663.02   3614579.89   0.27037   484713.02
3614579.89   0.27289
         484763.02   3614579.89   0.28065   484813.02
3614579.89   0.28696
         484863.02   3614579.89   0.29484   484913.02
3614579.89   0.29932
         484963.02   3614579.89   0.31656   484413.02
3614629.89   0.25202
         484463.02   3614629.89   0.25245   484513.02
3614629.89   0.25823
         484563.02   3614629.89   0.26238   484613.02
3614629.89   0.26739
         484663.02   3614629.89   0.27502   484713.02
3614629.89   0.28081
         484763.02   3614629.89   0.28640   484813.02
3614629.89   0.29162

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         484863.02    3614629.89        0.29776                    484913.02
3614629.89        0.30393
         484963.02    3614629.89        0.31088                    484413.02
3614679.89        0.25052
         484463.02    3614679.89        0.26147                    484513.02
3614679.89        0.26439
         484563.02    3614679.89        0.26781                    484613.02
3614679.89        0.27432
         484663.02    3614679.89        0.28092                    484713.02
3614679.89        0.28634
         484763.02    3614679.89        0.29212                    484813.02
3614679.89        0.29609
         484863.02    3614679.89        0.30262                    484913.02
3614679.89        0.30763
         484963.02    3614679.89        0.31467                    484363.02
3614729.89        0.25899
         484413.02    3614729.89        0.25780                    484463.02
3614729.89        0.26393
         484513.02    3614729.89        0.26808                    484563.02
3614729.89        0.27463
         484613.02    3614729.89        0.28040                    484663.02
3614729.89        0.28508
         484713.02    3614729.89        0.29106                    484763.02
3614729.89        0.29695
         484813.02    3614729.89        0.30118                    484863.02
3614729.89        0.30686
         484913.02    3614729.89        0.31368                    484963.02
3614729.89        0.32357
         484313.02    3614779.89        0.25186                    484363.02
3614779.89        0.25773
         484413.02    3614779.89        0.26281                    484463.02
3614779.89        0.26825
         484513.02    3614779.89        0.27455                    484563.02
3614779.89        0.27903
         484613.02    3614779.89        0.28455                    484663.02
3614779.89        0.29002
         484713.02    3614779.89        0.29582                    484763.02
3614779.89        0.30186
         484813.02    3614779.89        0.30692                    484863.02
3614779.89        0.31286
         484913.02    3614779.89        0.32038                    484963.02
3614779.89        0.33481
         484263.02    3614829.89        0.24397                    484313.02
3614829.89        0.25667
         484363.02    3614829.89        0.26199                    484413.02
3614829.89        0.26675
         484463.02    3614829.89        0.27358                    484513.02
3614829.89        0.27790
         484563.02    3614829.89        0.28378                    484613.02
3614829.89        0.28696
```

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: MARINE ***
INCLUDING SOURCE(S): VOL250 , VOL251 , VOL252 , VOL253 , VOL254 ,
VOL255 , VOL256 , VOL257 , VOL258 , VOL259 , VOL260 , VOL261 , VOL262 ,
VOL263 , VOL264 , VOL265 , VOL266 , VOL267 , VOL268 , VOL269 , VOL270 ,
VOL271 , VOL272 , VOL273 , VOL274 , VOL275 , VOL276 , VOL277 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
484263.02	3614879.89	0.25258	484313.02	3614879.89	0.26069
484363.02	3614879.89	0.26555	484413.02	3614879.89	0.27190
484463.02	3614879.89	0.27738	484513.02	3614879.89	0.28163
484563.02	3614879.89	0.28754	484613.02	3614879.89	0.29307
484663.02	3614879.89	0.29842	484713.02	3614879.89	0.30558
484763.02	3614879.89	0.31335	484813.02	3614879.89	0.32257
484863.02	3614879.89	0.33044	484913.02		

3614879.89 0.33970
484963.02 3614879.89 0.35311 484163.02
3614929.89 0.24630
484213.02 3614929.89 0.25705 484263.02
3614929.89 0.26218
484313.02 3614929.89 0.26455 484363.02
3614929.89 0.26966
484413.02 3614929.89 0.27631 484463.02
3614929.89 0.28006
484513.02 3614929.89 0.28471 484563.02
3614929.89 0.29102
484613.02 3614929.89 0.29632 484663.02
3614929.89 0.30371
484713.02 3614929.89 0.31030 484763.02
3614929.89 0.31885
484813.02 3614929.89 0.32832 484863.02
3614929.89 0.33580
484913.02 3614929.89 0.34522 484963.02
3614929.89 0.35797
485013.02 3614929.89 0.38011 484113.02
3614979.89 0.24884
484163.02 3614979.89 0.25201 484213.02
3614979.89 0.26141
484263.02 3614979.89 0.26611 484313.02
3614979.89 0.26577
484363.02 3614979.89 0.27398 484413.02
3614979.89 0.27986
484463.02 3614979.89 0.28395 484513.02
3614979.89 0.29005
484563.02 3614979.89 0.29648 484613.02
3614979.89 0.30244
484663.02 3614979.89 0.31076 484713.02
3614979.89 0.31595
484763.02 3614979.89 0.32534 484813.02
3614979.89 0.33191
484863.02 3614979.89 0.34042 484913.02
3614979.89 0.35206
484963.02 3614979.89 0.36141 485013.02
3614979.89 0.38075
484113.02 3615029.89 0.25160 484163.02
3615029.89 0.25491
484213.02 3615029.89 0.26179 484263.02
3615029.89 0.26288
484313.02 3615029.89 0.27057 484363.02
3615029.89 0.27769
484413.02 3615029.89 0.28444 484463.02
3615029.89 0.28960
484513.02 3615029.89 0.29498 484563.02
3615029.89 0.30246
484613.02 3615029.89 0.30873 484663.02

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3615029.89        0.31597
         484713.02    3615029.89        0.32467                       484763.02
3615029.89        0.33140
         484813.02    3615029.89        0.33810                       484863.02
3615029.89        0.34808
         484913.02    3615029.89        0.35769                       484963.02
3615029.89        0.36769
         485013.02    3615029.89        0.37897                       485063.02
3615029.89        0.40656
         484113.02    3615079.89        0.25433                       484163.02
3615079.89        0.25729
         484213.02    3615079.89        0.26336                       484263.02
3615079.89        0.26883
         484313.02    3615079.89        0.27514                       484363.02
3615079.89        0.28146
         484413.02    3615079.89        0.29023                       484463.02
3615079.89        0.29477
🡅 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                         ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                        ***        12:24:23

                                   PAGE 107
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: MARINE   ***
                                  INCLUDING SOURCE(S):     VOL250      , VOL251
 , VOL252      , VOL253      , VOL254      ,
                VOL255      , VOL256      , VOL257      , VOL258      , VOL259
 , VOL260      , VOL261      , VOL262      ,
                VOL263      , VOL264      , VOL265      , VOL266      , VOL267
 , VOL268      , VOL269      , VOL270      ,
                VOL271      , VOL272      , VOL273      , VOL274      , VOL275
 , VOL276      , VOL277      ,  . . .      ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
         484513.02    3615079.89        0.30052                       484563.02
3615079.89        0.30848
         484613.02    3615079.89        0.31468                       484663.02
3615079.89        0.32317
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         484713.02    3615079.89        0.32769                    484763.02
3615079.89        0.33766
         484813.02    3615079.89        0.34669                    484863.02
3615079.89        0.35464
         484913.02    3615079.89        0.36484                    484963.02
3615079.89        0.37454
         485013.02    3615079.89        0.38510                    485063.02
3615079.89        0.39422
         485113.02    3615079.89        0.42425                    484113.02
3615129.89        0.25608
         484163.02    3615129.89        0.26191                    484213.02
3615129.89        0.26789
         484263.02    3615129.89        0.27361                    484313.02
3615129.89        0.27807
         484363.02    3615129.89        0.28493                    484413.02
3615129.89        0.29684
         484463.02    3615129.89        0.30015                    484513.02
3615129.89        0.30636
         484563.02    3615129.89        0.31404                    484613.02
3615129.89        0.32187
         484663.02    3615129.89        0.32772                    484713.02
3615129.89        0.33572
         484763.02    3615129.89        0.34573                    484813.02
3615129.89        0.35244
         484863.02    3615129.89        0.36232                    484913.02
3615129.89        0.37257
         484963.02    3615129.89        0.38167                    485013.02
3615129.89        0.39181
         485063.02    3615129.89        0.40442                    485113.02
3615129.89        0.41594
         485163.02    3615129.89        0.44684                    484113.02
3615179.89        0.25972
         484163.02    3615179.89        0.26574                    484213.02
3615179.89        0.27254
         484263.02    3615179.89        0.27806                    484313.02
3615179.89        0.28418
         484363.02    3615179.89        0.28833                    484413.02
3615179.89        0.29729
         484463.02    3615179.89        0.30517                    484513.02
3615179.89        0.31189
         484563.02    3615179.89        0.32072                    484613.02
3615179.89        0.32856
         484663.02    3615179.89        0.33562                    484713.02
3615179.89        0.34251
         484763.02    3615179.89        0.35148                    484813.02
3615179.89        0.35900
         484863.02    3615179.89        0.37053                    484913.02
3615179.89        0.38075
         484963.02    3615179.89        0.39035                    485013.02
3615179.89        0.40087
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         485063.02    3615179.89        0.41218                       485113.02
3615179.89        0.42452
         485163.02    3615179.89        0.43253                       485213.02
3615179.89        0.46826
         484113.02    3615229.89        0.26278                       484163.02
3615229.89        0.27037
         484213.02    3615229.89        0.27662                       484263.02
3615229.89        0.28376
         484313.02    3615229.89        0.29097                       484363.02
3615229.89        0.29816
         484413.02    3615229.89        0.30506                       484463.02
3615229.89        0.31225
         484513.02    3615229.89        0.32226                       484563.02
3615229.89        0.32756
         484613.02    3615229.89        0.33490                       484663.02
3615229.89        0.34317
         484713.02    3615229.89        0.35070                       484763.02
3615229.89        0.35882
         484813.02    3615229.89        0.36874                       484863.02
3615229.89        0.37957
         484913.02    3615229.89        0.38944                       484963.02
3615229.89        0.39842
         485013.02    3615229.89        0.41031                       485063.02
3615229.89        0.42102
         485113.02    3615229.89        0.43267                       485163.02
3615229.89        0.44655
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                         ***        12:24:23

                                    PAGE 108
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                               *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: MARINE   ***
                                   INCLUDING SOURCE(S):     VOL250      , VOL251
 , VOL252      , VOL253      , VOL254      ,
                 VOL255      , VOL256      , VOL257      , VOL258      , VOL259
 , VOL260      , VOL261      , VOL262      ,
                 VOL263      , VOL264      , VOL265      , VOL266      , VOL267
 , VOL268      , VOL269      , VOL270      ,
                 VOL271      , VOL272      , VOL273      , VOL274      , VOL275
 , VOL276      , VOL277      ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                           ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **
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X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
485213.02	3615229.89	0.46034	485263.02	3615229.89	0.49102
484113.02	3615279.89	0.26670	484163.02	3615279.89	0.27497
484213.02	3615279.89	0.28464	484263.02	3615279.89	0.29916
484313.02	3615279.89	0.30771	484613.02	3615279.89	0.34233
484663.02	3615279.89	0.34951	484713.02	3615279.89	0.35795
484763.02	3615279.89	0.36713	484813.02	3615279.89	0.37587
484863.02	3615279.89	0.38618	484913.02	3615279.89	0.39779
484963.02	3615279.89	0.40881	485013.02	3615279.89	0.41924
485063.02	3615279.89	0.43077	485113.02	3615279.89	0.44425
485163.02	3615279.89	0.45774	485213.02	3615279.89	0.47259
485263.02	3615279.89	0.48864	485313.02	3615279.89	0.51034
484113.02	3615329.89	0.27268	484163.02	3615329.89	0.28696
484213.02	3615329.89	0.29802	484663.02	3615329.89	0.36143
484713.02	3615329.89	0.36654	484763.02	3615329.89	0.37538
484813.02	3615329.89	0.38409	484863.02	3615329.89	0.39275
484913.02	3615329.89	0.40500	484963.02	3615329.89	0.41833
485013.02	3615329.89	0.42884	485063.02	3615329.89	0.44130
485113.02	3615329.89	0.45513	485163.02	3615329.89	0.46995
485213.02	3615329.89	0.48370	485263.02	3615329.89	0.50032
485313.02	3615329.89	0.51637	485363.02	3615329.89	0.54680
484113.02	3615379.89	0.28549	484163.02	3615379.89	0.29456
484713.02	3615379.89	0.37843	484763.02	3615379.89	0.38339
484813.02	3615379.89	0.39211	484863.02		

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3615379.89        0.40390
         484913.02    3615379.89        0.41314                        484963.02
3615379.89        0.42562
         485013.02    3615379.89        0.43902                        485063.02
3615379.89        0.45269
         485113.02    3615379.89        0.46536                        485163.02
3615379.89        0.47984
         485213.02    3615379.89        0.49417                        485263.02
3615379.89        0.51160
         485313.02    3615379.89        0.52790                        485363.02
3615379.89        0.54614
         485413.02    3615379.89        0.56431                        484763.02
3615429.89        0.40119
         484813.02    3615429.89        0.40208                        484863.02
3615429.89        0.41282
         484913.02    3615429.89        0.42434                        484963.02
3615429.89        0.43565
         485013.02    3615429.89        0.44874                        485063.02
3615429.89        0.46118
         485113.02    3615429.89        0.47414                        485163.02
3615429.89        0.49198
         485213.02    3615429.89        0.50690                        485263.02
3615429.89        0.52451
         485313.02    3615429.89        0.54209                        485363.02
3615429.89        0.56028
         485413.02    3615429.89        0.58393                        485463.02
3615429.89        0.60208
         485513.02    3615429.89        0.62543                        484813.02
3615479.89        0.41849
         484863.02    3615479.89        0.42261                        484913.02
3615479.89        0.43434
         484963.02    3615479.89        0.44677                        485013.02
3615479.89        0.45888
         485063.02    3615479.89        0.47295                        485113.02
3615479.89        0.48647
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                          ***       12:24:23

                                    PAGE 109
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: MARINE   ***
                                    INCLUDING SOURCE(S):     VOL250      , VOL251
 , VOL252      , VOL253      , VOL254      ,
                 VOL255      , VOL256      , VOL257      , VOL258      , VOL259
 , VOL260      , VOL261      , VOL262      ,
                 VOL263      , VOL264      , VOL265      , VOL266      , VOL267
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 , VOL268      , VOL269      , VOL270      ,
                VOL271      , VOL272      , VOL273      , VOL274      , VOL275
 , VOL276      , VOL277      ,  . . .      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
         485163.02    3615479.89        0.50194                      485213.02
3615479.89        0.52062
         485263.02    3615479.89        0.53839                      485313.02
3615479.89        0.55488
         485363.02    3615479.89        0.57240                      485413.02
3615479.89        0.59451
         485463.02    3615479.89        0.61974                      485513.02
3615479.89        0.64510
         485563.02    3615479.89        0.69000                      484863.02
3615529.89        0.44014
         484913.02    3615529.89        0.44440                      484963.02
3615529.89        0.45777
         485013.02    3615529.89        0.47061                      485063.02
3615529.89        0.48536
         485113.02    3615529.89        0.50091                      485163.02
3615529.89        0.51554
         485213.02    3615529.89        0.53234                      485263.02
3615529.89        0.55093
         485313.02    3615529.89        0.56905                      485363.02
3615529.89        0.58735
         485413.02    3615529.89        0.60867                      485463.02
3615529.89        0.63211
         485513.02    3615529.89        0.65990                      484913.02
3615579.89        0.46665
         484963.02    3615579.89        0.46788                      485013.02
3615579.89        0.48163
         485063.02    3615579.89        0.49595                      485113.02
3615579.89        0.50300
         485163.02    3615579.89        0.52404                      485213.02
3615579.89        0.54581
         485263.02    3615579.89        0.56394                      485313.02
3615579.89        0.58492
         485363.02    3615579.89        0.60535                      485413.02
3615579.89        0.62744
         485463.02    3615579.89        0.65465                      484963.02
3615629.89        0.48843
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         485013.02    3615629.89        0.49489                        485063.02
3615629.89        0.50806
         485113.02    3615629.89        0.52518                        485163.02
3615629.89        0.53899
         485213.02    3615629.89        0.56024                        485263.02
3615629.89        0.57935
         485313.02    3615629.89        0.60049                        485363.02
3615629.89        0.62475
         485413.02    3615629.89        0.65012                        485013.02
3615679.89        0.52659
         485063.02    3615679.89        0.52151                        485113.02
3615679.89        0.53745
         485163.02    3615679.89        0.55444                        485213.02
3615679.89        0.57386
         485263.02    3615679.89        0.59779                        485313.02
3615679.89        0.61680
         485363.02    3615679.89        0.63964                        485413.02
3615679.89        0.68176
         485063.02    3615729.89        0.55806                        485113.02
3615729.89        0.55169
         485163.02    3615729.89        0.56985                        485213.02
3615729.89        0.59258
         485263.02    3615729.89        0.61503                        485313.02
3615729.89        0.63769
         485363.02    3615729.89        0.67031                        485113.02
3615779.89        0.57262
         485163.02    3615779.89        0.58839                        485213.02
3615779.89        0.60776
         485263.02    3615779.89        0.63096                        485313.02
3615779.89        0.65962
         485163.02    3615829.89        0.62512                        485213.02
3615829.89        0.62363
         485263.02    3615829.89        0.65126                        485213.02
3615879.89        0.65934
         487082.35    3618053.22        0.96409                        487132.24
3618053.22        0.98205
         487182.13    3618053.22        0.98640                        487232.02
3618053.22        0.99793
         487281.91    3618053.22        0.99892                        486242.77
3618033.89        0.80069
         486286.79    3617997.48        0.84844                        486574.47
3617998.65        0.94806
         486624.36    3617998.65        0.94590                        486674.25
3617998.65        0.93282
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: MARINE ***
INCLUDING SOURCE(S): VOL250 , VOL251 , VOL252 , VOL253 , VOL254 ,
VOL255 , VOL256 , VOL257 , VOL258 , VOL259 , VOL260 , VOL261 , VOL262 ,
VOL263 , VOL264 , VOL265 , VOL266 , VOL267 , VOL268 , VOL269 , VOL270 ,
VOL271 , VOL272 , VOL273 , VOL274 , VOL275 , VOL276 , VOL277 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
486724.14	3617998.65	0.96927	486774.03	3617998.65	0.99437
486923.70	3617998.65	1.01866	486973.59	3617998.65	1.03143
487023.48	3617998.65	1.04489	487082.35	3618103.22	0.91255
487132.24	3618103.22	0.91679	487182.13	3618103.22	0.92394
486165.87	3618094.46	0.73082	486242.77	3618083.89	0.75245
486292.66	3618083.89	0.74833	486499.32	3618054.73	0.84779
486574.47	3618048.65	0.88434	486624.36	3618048.65	0.89865
486674.25	3618048.65	0.91257	486724.14	3618048.65	0.92396
486873.81	3618048.65	0.94358	486923.70	3618048.65	0.94952
486973.59	3618048.65	0.95265	487023.48	3618048.65	0.96715
487082.35	3618153.22	0.85557	487132.24	3618153.22	0.86164
486325.02	3618098.65	0.73652	486242.77	3618133.89	0.69528
486524.58	3618098.65	0.79352	486574.47	3618098.65	0.82770
486624.36	3618098.65	0.84733	486674.25		

3618098.65 0.84617
486823.92 3618098.65 0.87274 486873.81
3618098.65 0.87324
486923.70 3618098.65 0.88324 486973.59
3618098.65 0.89172
487023.48 3618098.65 0.90096 487082.35
3618203.22 0.81506
486275.13 3618148.65 0.68366 486325.02
3618148.65 0.69425
486374.91 3618148.65 0.71396 486474.69
3618148.65 0.74658
486524.58 3618148.65 0.76241 486574.47
3618148.65 0.77681
486624.36 3618148.65 0.75609 486774.03
3618148.65 0.84144
486823.92 3618148.65 0.83914 486873.81
3618148.65 0.83201
486923.70 3618148.65 0.83749 486973.59
3618148.65 0.84130
487023.48 3618148.65 0.84652 486275.13
3618198.65 0.64633
486325.02 3618198.65 0.65877 486374.91
3618198.65 0.67344
486424.80 3618198.65 0.68212 486474.69
3618198.65 0.70506
486524.58 3618198.65 0.72177 486674.25
3618198.65 0.76082
486724.14 3618198.65 0.78902 486774.03
3618198.65 0.80519
486823.92 3618198.65 0.81129 486873.81
3618198.65 0.81272
486923.70 3618198.65 0.80304 486973.59
3618198.65 0.80501
487023.48 3618198.65 0.80875 486275.13
3618248.65 0.61317
486325.02 3618248.65 0.61877 486374.91
3618248.65 0.63393
486424.80 3618248.65 0.65249 486474.69
3618248.65 0.64221
486624.36 3618248.65 0.71442 486674.25
3618248.65 0.72988
486724.14 3618248.65 0.74708 486774.03
3618248.65 0.75946
486823.92 3618248.65 0.77044 486873.81
3618248.65 0.78340
486923.70 3618248.65 0.78837 486973.59
3618248.65 0.78604
487023.48 3618248.65 0.78011 486125.46
3618298.65 0.57594
486275.13 3618298.65 0.58363 486325.02

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: MARINE ***
INCLUDING SOURCE(S): VOL250 , VOL251 , VOL252 , VOL253 , VOL254 ,
VOL255 , VOL256 , VOL257 , VOL258 , VOL259 , VOL260 , VOL261 , VOL262 ,
VOL263 , VOL264 , VOL265 , VOL266 , VOL267 , VOL268 , VOL269 , VOL270 ,
VOL271 , VOL272 , VOL273 , VOL274 , VOL275 , VOL276 , VOL277 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
486574.47	3618298.65	0.66603	486624.36	3618298.65	0.67983
486674.25	3618298.65	0.69226	486724.14	3618298.65	0.70735
486774.03	3618298.65	0.70890	486823.92	3618298.65	0.72461
486873.81	3618298.65	0.73562	486923.70	3618298.65	0.75111
486125.46	3618348.65	0.55793	486175.35	3618348.65	0.54797
486225.24	3618348.65	0.54859	486275.13	3618348.65	0.55732
486325.02	3618348.65	0.56206	486524.58	3618348.65	0.61733
486574.47	3618348.65	0.63338	486624.36	3618348.65	0.64565
486674.25	3618348.65	0.66107	486724.14	3618348.65	0.67091

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        486774.03    3618348.65        0.66815                    486823.92
3618348.65        0.68657
        486873.81    3618348.65        0.70260                    486125.46
3618398.65        0.54149
        486175.35    3618398.65        0.52452                    486225.24
3618398.65        0.53443
        486424.80    3618398.65        0.55568                    486474.69
3618398.65        0.57261
        486524.58    3618398.65        0.58947                    486574.47
3618398.65        0.60513
        486624.36    3618398.65        0.61926                    486674.25
3618398.65        0.63296
        486724.14    3618398.65        0.64534                    486774.03
3618398.65        0.65107
        486823.92    3618398.65        0.65801                    486125.46
3618448.65        0.51479
        486175.35    3618448.65        0.51787                    486374.91
3618448.65        0.51929
        486424.80    3618448.65        0.53673                    486474.69
3618448.65        0.54479
        486524.58    3618448.65        0.56608                    486574.47
3618448.65        0.58002
        486624.36    3618448.65        0.59454                    486674.25
3618448.65        0.60670
        486724.14    3618448.65        0.62126                    486774.03
3618448.65        0.63064
        486125.46    3618498.65        0.52104                    486325.02
3618498.65        0.50042
        486374.91    3618498.65        0.50486                    486424.80
3618498.65        0.51358
        486474.69    3618498.65        0.52984                    486524.58
3618498.65        0.53982
        486574.47    3618498.65        0.55943                    486624.36
3618498.65        0.57106
        486674.25    3618498.65        0.58300                    486105.96
3618586.04        0.49988
        486325.02    3618548.65        0.48205                    486374.91
3618548.65        0.50629
        486424.80    3618548.65        0.52183                    486474.69
3618548.65        0.51251
        486524.58    3618548.65        0.52869                    486574.47
3618548.65        0.53410
        486624.36    3618548.65        0.55008                    486101.02
3618078.36        0.74059
        486155.07    3618149.26        0.68028                    486018.49
3618262.09        0.62667
        485957.41    3618189.14        0.66435                    485842.03
3618300.27        0.59867
        485893.78    3618363.05        0.59249                    485902.87
3618241.99        0.63629
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*** THE SUMMARY OF MAXIMUM PERIOD (26304 HRS) RESULTS ***

** CONC OF PM_10   IN MICROGRAMS/M**3
**

GROUP ID	NETWORK AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
TRUKFWY	1ST HIGHEST VALUE IS	60.97856 AT (487320.59, 3617600.48, 12.30, 21.60, 0.00)	DC	
	2ND HIGHEST VALUE IS	52.21564 AT (486624.36, 3618148.65, 21.39, 22.46, 0.00)	DC	
	3RD HIGHEST VALUE IS	50.86633 AT (486920.59, 3617900.48, 19.34, 22.69, 0.00)	DC	
	4TH HIGHEST VALUE IS	50.37739 AT (486970.59, 3617950.48, 22.78, 24.87, 0.00)	DC	
	5TH HIGHEST VALUE IS	49.39879 AT (486424.80, 3618398.65, 16.99, 21.74, 0.00)	DC	
	6TH HIGHEST VALUE IS	48.69388 AT (486674.25, 3618198.65, 19.90, 19.90, 0.00)	DC	
	7TH HIGHEST VALUE IS	44.99294 AT (486674.25, 3618098.65, 19.87, 21.93, 0.00)	DC	
	8TH HIGHEST VALUE IS	44.76222 AT (487270.59, 3617700.48, 19.45, 21.60, 0.00)	DC	
	9TH HIGHEST VALUE IS	43.54164 AT (487370.59, 3617600.48, 15.81, 20.15, 0.00)	DC	
	10TH HIGHEST VALUE IS	41.97778 AT (486624.36, 3618248.65, 18.36, 23.45, 0.00)	DC	
TRUKSURF	1ST HIGHEST VALUE IS	92.48138 AT (487470.59, 3617500.48, 10.26, 20.64, 0.00)	DC	
	2ND HIGHEST VALUE IS	82.06331 AT (487520.59, 3617550.48, 18.01, 18.01, 0.00)	DC	
	3RD HIGHEST VALUE IS	73.56647 AT (487470.59, 3617350.48,		

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14.59,    14.59,    0.00)  DC
          4TH HIGHEST VALUE IS      73.14228 AT (  487470.59,  3617550.48,
17.95,    19.74,    0.00)  DC
          5TH HIGHEST VALUE IS      71.07471 AT (  487470.59,  3617450.48,
14.30,    17.03,    0.00)  DC
          6TH HIGHEST VALUE IS      70.96838 AT (  487470.59,  3617400.48,
16.00,    16.00,    0.00)  DC
          7TH HIGHEST VALUE IS      64.46069 AT (  487520.59,  3617500.48,
13.96,    13.96,    0.00)  DC
          8TH HIGHEST VALUE IS      64.37620 AT (  487470.59,  3617250.48,
11.05,    11.05,    0.00)  DC
          9TH HIGHEST VALUE IS      61.52975 AT (  487470.59,  3617300.48,
12.85,    12.85,    0.00)  DC
         10TH HIGHEST VALUE IS      60.50734 AT (  487420.59,  3617550.48,
13.18,    20.84,    0.00)  DC

EQUIPMEN  1ST HIGHEST VALUE IS       5.10920 AT (  487320.59,  3617250.48,
10.60,    10.60,    0.00)  DC
          2ND HIGHEST VALUE IS       4.96861 AT (  487370.59,  3617250.48,
10.57,    10.57,    0.00)  DC
          3RD HIGHEST VALUE IS       4.80460 AT (  487420.59,  3617250.48,
10.88,    10.88,    0.00)  DC
          4TH HIGHEST VALUE IS       4.72226 AT (  487170.59,  3617300.48,
11.82,    11.82,    0.00)  DC
          5TH HIGHEST VALUE IS       4.65733 AT (  487220.59,  3617300.48,
11.89,    11.89,    0.00)  DC
          6TH HIGHEST VALUE IS       4.62183 AT (  487470.59,  3617250.48,
11.05,    11.05,    0.00)  DC
          7TH HIGHEST VALUE IS       4.61284 AT (  487270.59,  3617300.48,
11.21,    11.21,    0.00)  DC
          8TH HIGHEST VALUE IS       4.48382 AT (  487320.59,  3617300.48,
12.07,    12.07,    0.00)  DC
          9TH HIGHEST VALUE IS       4.40658 AT (  487520.59,  3617250.48,
11.82,    11.82,    0.00)  DC
         10TH HIGHEST VALUE IS       4.35281 AT (  487370.59,  3617300.48,
12.82,    12.82,    0.00)  DC

MARINE    1ST HIGHEST VALUE IS       3.93163 AT (  487170.59,  3617300.48,
11.82,    11.82,    0.00)  DC
          2ND HIGHEST VALUE IS       3.89296 AT (  487020.59,  3617350.48,
11.66,    11.66,    0.00)  DC
          3RD HIGHEST VALUE IS       3.82837 AT (  487070.59,  3617350.48,
11.40,    11.40,    0.00)  DC
          4TH HIGHEST VALUE IS       3.72868 AT (  487220.59,  3617300.48,
11.89,    11.89,    0.00)  DC
          5TH HIGHEST VALUE IS       3.70147 AT (  487120.59,  3617350.48,
11.88,    11.88,    0.00)  DC
          6TH HIGHEST VALUE IS       3.57914 AT (  487320.59,  3617250.48,
10.60,    10.60,    0.00)  DC
          7TH HIGHEST VALUE IS       3.55295 AT (  487170.59,  3617350.48,
```

```
12.35,    12.35,    0.00)  DC
          8TH HIGHEST VALUE IS       3.53619 AT (  487270.59,  3617300.48,
11.21,    11.21,    0.00)  DC
          9TH HIGHEST VALUE IS       3.48215 AT (  486920.59,  3617400.48,
11.28,    11.28,    0.00)  DC
         10TH HIGHEST VALUE IS       3.46816 AT (  486870.59,  3617400.48,
10.57,    10.57,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
 *** AERMOD - VERSION 21112  ***   *** NASSCO DPM CONSTRUCTION HRA
                          ***        03/17/23
 *** AERMET - VERSION  19191 ***   ***
                           ***       12:24:23

                                    PAGE 113
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of           38 Warning Message(s)
 A Total of          341 Informational Message(s)

 A Total of        26304 Hours Were Processed

 A Total of            6 Calm Hours Identified

 A Total of          335 Missing Hours Identified (  1.27 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186    1999       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 MX W403    1999       PFLCNV: Turbulence data is being used w/o ADJ_U* option
 SigA Data
 MX W441   14167        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
  11081407
 MX W441   14168        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
  11081408
 MX W441   14169        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
```

```
 11081409
MX W441   14170        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081410
MX W441   14171        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081411
MX W441   14172        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081412
MX W441   14173        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081413
MX W441   14174        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081414
MX W441   14175        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081415
MX W441   14176        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081416
MX W441   14177        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081417
MX W441   14178        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081418
MX W441   14191        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081507
MX W441   14192        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081508
MX W441   14193        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081509
MX W441   14194        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081510
MX W441   14195        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081511
MX W441   14196        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081512
MX W441   14197        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081513
MX W441   14198        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081514
MX W441   14199        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081515
MX W441   14200        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081516
MX W441   14201        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081517
MX W441   14202        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081518
MX W441   14215        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081607
MX W441   14216        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081608
MX W441   14217        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081609
MX W441   14218        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
```

```
 11081610
MX W441   14219        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081611
MX W441   14220        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081612
MX W441   14221        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081613
MX W441   14222        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081614
MX W441   14223        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081615
MX W441   14224        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081616
MX W441   14225        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081617
MX W441   14226        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081618

   ************************************
   *** AERMOD Finishes Successfully ***
   ************************************
```

```
** Lakes Environmental AERMOD MPI
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 11.0.1
** Lakes Environmental Software Inc.
** Date: 11/29/2022
** File: C:\Lakes\AERMOD View\Projects\NASSCO\Welding
TACs\POSD_NASSCO_June2022_urban\POSD_NASSCO_June2022_urban.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE NASSCO Revised HRA - Welding TACs
   MODELOPT DFAULT CONC
   AVERTIME 1 8 PERIOD
   URBANOPT 3000000 SD_Region_pop
   POLLUTID TAC
   RUNORNOT RUN
   ERRORFIL POSD_NASSCO_June2022_urban.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION LOCATION1_2  VOLUME     486928.159  3616998.638        3.330
   LOCATION LOCATION2_2  VOLUME     486711.812  3616939.431        3.360
   LOCATION LOCATION2_4  VOLUME     486686.812  3616964.431        4.110
   LOCATION LOCATION2_3  VOLUME     486686.812  3616939.431        3.140
   LOCATION LOCATION2_1  VOLUME     486711.812  3616964.431        4.290
   LOCATION LOCATION1_4  VOLUME     486903.159  3616973.638        1.590
   LOCATION LOCATION1_1  VOLUME     486928.159  3616973.638        1.680
   LOCATION LOCATION1_3  VOLUME     486903.159  3616998.638        3.270
** Source Parameters **
   SRCPARAM LOCATION1_2       0.25     1.000     5.814     0.930
   SRCPARAM LOCATION2_2       0.25     1.000     5.814     0.930
   SRCPARAM LOCATION2_4       0.25     1.000     5.814     0.930
   SRCPARAM LOCATION2_3       0.25     1.000     5.814     0.930
```

```
   SRCPARAM LOCATION2_1       0.25     1.000     5.814     0.930
   SRCPARAM LOCATION1_4       0.25     1.000     5.814     0.930
   SRCPARAM LOCATION1_1       0.25     1.000     5.814     0.930
   SRCPARAM LOCATION1_3       0.25     1.000     5.814     0.930
   URBANSRC ALL
   SRCGROUP Loca1    LOCATION1_1 LOCATION1_2 LOCATION1_4 LOCATION1_3
   SRCGROUP Loca2    LOCATION2_2 LOCATION2_4 LOCATION2_3 LOCATION2_1
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED POSD_NASSCO_June2022_urban.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE PES_2010_2012_sigma_v19191.SFC
   PROFFILE PES_2010_2012_sigma_v19191.PFL
   SURFDATA 23188 2010 SAN_DIEGO/Perkins_Elementary
   UAIRDATA 3190 2010 Lindbergh_Field
   PROFBASE 8.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST POSD_NASSCO_JUNE2022_URBAN.AD\01H1GALL.PLT 31
   PLOTFILE 8 ALL 1ST POSD_NASSCO_JUNE2022_URBAN.AD\08H1GALL.PLT 32
   PLOTFILE 1 Loca1 1ST POSD_NASSCO_JUNE2022_URBAN.AD\01H1G001.PLT 33
   PLOTFILE 8 Loca1 1ST POSD_NASSCO_JUNE2022_URBAN.AD\08H1G001.PLT 34
   PLOTFILE 1 Loca2 1ST POSD_NASSCO_JUNE2022_URBAN.AD\01H1G002.PLT 35
   PLOTFILE 8 Loca2 1ST POSD_NASSCO_JUNE2022_URBAN.AD\08H1G002.PLT 36
   PLOTFILE PERIOD ALL POSD_NASSCO_JUNE2022_URBAN.AD\PE00GALL.PLT 37
   PLOTFILE PERIOD Loca1 POSD_NASSCO_JUNE2022_URBAN.AD\PE00G001.PLT 38
```

```
   PLOTFILE PERIOD Loca2 POSD_NASSCO_JUNE2022_URBAN.AD\PE00G002.PLT 39
   SUMMFILE POSD_NASSCO_June2022_urban.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186      79       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 MX W403      79       PFLCNV: Turbulence data is being used w/o ADJ_U* option
 SigA Data

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                             ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                             ***       14:52:42

                                       PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                              ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -

 ** Model Options Selected:
      * Model Uses Regulatory DEFAULT Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
```

```
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses URBAN Dispersion Algorithm for the SBL for     8 Source(s),
        for Total of    1 Urban Area(s):
   Urban Population =   3000000.0 ;  Urban Roughness Length =  1.000 m
      * Urban Roughness Length of 1.0 Meter Used.
      * CCVR_Sub - Meteorological data includes CCVR substitutions
      * TEMP_Sub - Meteorological data includes TEMP substitutions
      * Model Assumes No FLAGPOLE Receptor Heights.
      * The User Specified a Pollutant Type of: TAC

 **Model Calculates  2 Short Term Average(s) of:   1-HR   8-HR
     and Calculates PERIOD Averages

 **This Run Includes:      8 Source(s);       3 Source Group(s); and    1270
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      8 VOLUME source(s)
                 and:      0 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                 and:      0 SWPOINT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  19191

 **Output Options Selected:
          Model Outputs Tables of PERIOD Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     8.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
```

```
                  Emission Units = GRAMS/SEC                                    ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.8 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 **Detailed Error/Message File:   POSD_NASSCO_June2022_urban.err

 **File for Summary of Results:   POSD_NASSCO_June2022_urban.sum

 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                            ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                           ***        14:52:42

                                     PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 LOCATION1_2      0   0.25000E+00  486928.2 3616998.6     3.3     1.00     5.81
0.93     YES
 LOCATION2_2      0   0.25000E+00  486711.8 3616939.4     3.4     1.00     5.81
0.93     YES
 LOCATION2_4      0   0.25000E+00  486686.8 3616964.4     4.1     1.00     5.81
0.93     YES
 LOCATION2_3      0   0.25000E+00  486686.8 3616939.4     3.1     1.00     5.81
0.93     YES
 LOCATION2_1      0   0.25000E+00  486711.8 3616964.4     4.3     1.00     5.81
0.93     YES
 LOCATION1_4      0   0.25000E+00  486903.2 3616973.6     1.6     1.00     5.81
0.93     YES
 LOCATION1_1      0   0.25000E+00  486928.2 3616973.6     1.7     1.00     5.81
0.93     YES
 LOCATION1_3      0   0.25000E+00  486903.2 3616998.6     3.3     1.00     5.81
```

                                          *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID   SOURCE IDs
 -----------   ----------

  LOCA1   LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

  LOCA2   LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

  ALL   LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,
LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP   SOURCE IDs
  --------   ---------   ----------

              3000000.   LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 ,
LOCATION2_1 , LOCATION1_4 , LOCATION1_1 ,
 LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(488270.6, 3616550.5, 3.9, 3.9, 0.0); (488320.6, 3616550.5, 4.5, 4.5, 0.0);
(488370.6, 3616550.5, 4.9, 4.9, 0.0); (488420.6, 3616550.5, 4.8, 4.8, 0.0);
(488470.6, 3616550.5, 5.5, 5.5, 0.0); (488520.6, 3616550.5, 5.8, 5.8, 0.0);
(488570.6, 3616550.5, 5.2, 5.2, 0.0); (488620.6, 3616550.5, 5.2, 5.2, 0.0);
(488270.6, 3616600.5, 4.3, 4.3, 0.0); (488320.6, 3616600.5, 4.5, 4.5, 0.0);
(488370.6, 3616600.5, 4.1, 4.1, 0.0); (488420.6, 3616600.5, 4.4, 4.4, 0.0);
(488470.6, 3616600.5, 4.8, 4.8, 0.0); (488520.6, 3616600.5, 5.3, 5.3, 0.0);
(488570.6, 3616600.5, 5.0, 5.0, 0.0); (488620.6, 3616600.5, 5.1, 5.1, 0.0);
(488270.6, 3616650.5, 3.9, 3.9, 0.0); (488320.6, 3616650.5, 3.7, 3.7, 0.0);
(488370.6, 3616650.5, 4.0, 4.0, 0.0); (488420.6, 3616650.5, 4.3, 4.3, 0.0);
(488470.6, 3616650.5, 4.5, 4.5, 0.0); (488520.6, 3616650.5, 4.7, 4.7, 0.0);
(488570.6, 3616650.5, 5.1, 5.1, 0.0); (488620.6, 3616650.5, 5.4, 5.4, 0.0);
(488270.6, 3616700.5, 3.5, 3.5, 0.0); (488320.6, 3616700.5, 4.2, 4.2, 0.0);
(488370.6, 3616700.5, 4.3, 4.3, 0.0); (488420.6, 3616700.5, 4.8, 4.8, 0.0);
(488470.6, 3616700.5, 5.0, 5.0, 0.0); (488520.6, 3616700.5, 4.9, 4.9, 0.0);
(488570.6, 3616700.5, 5.4, 5.4, 0.0); (488620.6, 3616700.5, 5.5, 5.5, 0.0);
(488320.6, 3616750.5, 4.3, 4.3, 0.0); (488370.6, 3616750.5, 4.6, 4.6, 0.0);
(488420.6, 3616750.5, 4.8, 4.8, 0.0); (488470.6, 3616750.5, 4.9, 4.9, 0.0);
(488520.6, 3616750.5, 5.4, 5.4, 0.0); (488570.6, 3616750.5, 5.2, 5.2, 0.0);
(488620.6, 3616750.5, 5.0, 5.0, 0.0); (488320.6, 3616800.5, 4.5, 4.5, 0.0);
(488370.6, 3616800.5, 4.8, 4.8, 0.0); (488420.6, 3616800.5, 5.0, 5.0, 0.0);
(488470.6, 3616800.5, 5.0, 5.0, 0.0); (488520.6, 3616800.5, 5.1, 5.1, 0.0);
(488570.6, 3616800.5, 5.1, 5.1, 0.0); (488620.6, 3616800.5, 4.4, 4.4, 0.0);

```
     ( 488370.6, 3616850.5,       4.8,       4.8,       0.0);         ( 488420.6,
3616850.5,       4.8,       4.8,       0.0);
     ( 488470.6, 3616850.5,       5.1,       5.1,       0.0);         ( 488520.6,
3616850.5,       4.9,       4.9,       0.0);
     ( 488570.6, 3616850.5,       5.0,       5.0,       0.0);         ( 488620.6,
3616850.5,       4.2,       4.2,       0.0);
     ( 488420.6, 3616900.5,       4.9,       4.9,       0.0);         ( 488470.6,
3616900.5,       5.0,       5.0,       0.0);
     ( 488520.6, 3616900.5,       5.0,       5.0,       0.0);         ( 488570.6,
3616900.5,       4.6,       4.6,       0.0);
     ( 488620.6, 3616900.5,       4.3,       4.3,       0.0);         ( 488420.6,
3616950.5,       6.2,       9.9,       0.0);
     ( 488470.6, 3616950.5,       4.9,       4.9,       0.0);         ( 488520.6,
3616950.5,       4.7,       4.7,       0.0);
     ( 488570.6, 3616950.5,       4.4,       4.4,       0.0);         ( 488620.6,
3616950.5,       4.3,       4.3,       0.0);
     ( 488470.6, 3617000.5,       4.5,      10.2,       0.0);         ( 488520.6,
3617000.5,       4.4,       4.4,       0.0);
     ( 488570.6, 3617000.5,       4.5,       4.5,       0.0);         ( 488620.6,
3617000.5,       4.4,       4.4,       0.0);
     ( 488470.6, 3617050.5,       6.8,      10.1,       0.0);         ( 488520.6,
3617050.5,       4.3,      10.1,       0.0);
     ( 488570.6, 3617050.5,       3.5,       3.5,       0.0);         ( 488620.6,
3617050.5,       3.5,      10.0,       0.0);
     ( 488370.6, 3617100.5,       6.9,       6.9,       0.0);         ( 488420.6,
3617100.5,       2.1,      15.0,       0.0);
     ( 488470.6, 3617100.5,       7.7,       9.8,       0.0);         ( 488520.6,
3617100.5,       6.1,       9.7,       0.0);
     ( 488570.6, 3617100.5,       4.1,      14.4,       0.0);         ( 488620.6,
3617100.5,       9.3,       9.3,       0.0);
     ( 488320.6, 3617150.5,       8.0,      14.6,       0.0);         ( 488370.6,
3617150.5,       8.3,      14.6,       0.0);
     ( 488420.6, 3617150.5,       6.0,      15.0,       0.0);         ( 488470.6,
3617150.5,       2.7,      15.0,       0.0);
     ( 488520.6, 3617150.5,       6.9,       9.2,       0.0);         ( 488570.6,
3617150.5,       7.1,      14.8,       0.0);
     ( 488620.6, 3617150.5,      11.4,      13.1,       0.0);         ( 488270.6,
3617200.5,      13.0,      13.0,       0.0);
     ( 488320.6, 3617200.5,       8.0,      15.0,       0.0);         ( 488370.6,
3617200.5,      14.2,      14.2,       0.0);
     ( 488420.6, 3617200.5,       8.6,      15.0,       0.0);         ( 488470.6,
3617200.5,       4.3,      16.1,       0.0);
     ( 488520.6, 3617200.5,       5.7,      14.9,       0.0);         ( 488570.6,
3617200.5,       8.5,      15.2,       0.0);
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(488620.6, 3617200.5, 14.7, 14.7, 0.0); (487320.6, 3617250.5, 10.6, 10.6, 0.0);
(487370.6, 3617250.5, 10.6, 10.6, 0.0); (487420.6, 3617250.5, 10.9, 10.9, 0.0);
(487470.6, 3617250.5, 11.1, 11.1, 0.0); (487520.6, 3617250.5, 11.8, 11.8, 0.0);
(487570.6, 3617250.5, 12.8, 12.8, 0.0); (487620.6, 3617250.5, 13.7, 13.7, 0.0);
(487670.6, 3617250.5, 14.2, 14.4, 0.0); (487720.6, 3617250.5, 14.5, 14.5, 0.0);
(487770.6, 3617250.5, 14.6, 14.6, 0.0); (487820.6, 3617250.5, 14.7, 14.7, 0.0);
(487870.6, 3617250.5, 14.9, 14.9, 0.0); (487920.6, 3617250.5, 15.2, 15.2, 0.0);
(487970.6, 3617250.5, 15.6, 15.6, 0.0); (488020.6, 3617250.5, 15.9, 15.9, 0.0);
(488070.6, 3617250.5, 16.1, 16.1, 0.0); (488120.6, 3617250.5, 15.9, 15.9, 0.0);
(488170.6, 3617250.5, 15.8, 15.8, 0.0); (488220.6, 3617250.5, 15.0, 15.0, 0.0);
(488270.6, 3617250.5, 13.9, 13.9, 0.0); (488320.6, 3617250.5, 13.7, 13.7, 0.0);
(488370.6, 3617250.5, 13.9, 13.9, 0.0); (488420.6, 3617250.5, 11.0, 16.9, 0.0);
(488470.6, 3617250.5, 4.8, 16.9, 0.0); (488520.6, 3617250.5, 10.3, 14.2, 0.0);
(488570.6, 3617250.5, 6.5, 15.7, 0.0); (488620.6, 3617250.5, 12.5, 15.7, 0.0);
(487170.6, 3617300.5, 11.8, 11.8, 0.0); (487220.6, 3617300.5, 11.9, 11.9, 0.0);
(487270.6, 3617300.5, 11.2, 11.2, 0.0); (487320.6, 3617300.5, 12.1, 12.1, 0.0);
(487370.6, 3617300.5, 12.8, 12.8, 0.0); (487420.6, 3617300.5, 13.4, 13.4, 0.0);
(487470.6, 3617300.5, 12.9, 12.9, 0.0); (487520.6, 3617300.5, 13.9, 13.9, 0.0);
(487570.6, 3617300.5, 14.9, 14.9, 0.0); (487620.6, 3617300.5, 15.6, 15.6, 0.0);
(487670.6, 3617300.5, 15.6, 15.6, 0.0); (487720.6, 3617300.5, 16.1, 16.1, 0.0);
(487770.6, 3617300.5, 16.0, 16.0, 0.0); (487820.6, 3617300.5, 15.7, 15.7, 0.0);
(487870.6, 3617300.5, 16.8, 16.8, 0.0); (487920.6, 3617300.5, 17.4, 17.4, 0.0);

```
     ( 487970.6, 3617300.5,      18.4,      18.4,       0.0);         ( 488020.6,
3617300.5,      17.9,      17.9,       0.0);
     ( 488070.6, 3617300.5,      17.2,      17.2,       0.0);         ( 488120.6,
3617300.5,      17.8,      17.8,       0.0);
     ( 488170.6, 3617300.5,      16.7,      16.7,       0.0);         ( 488220.6,
3617300.5,      15.1,      15.1,       0.0);
     ( 488270.6, 3617300.5,      14.8,      14.8,       0.0);         ( 488320.6,
3617300.5,      14.9,      14.9,       0.0);
     ( 488370.6, 3617300.5,      16.8,      16.8,       0.0);         ( 488420.6,
3617300.5,      12.4,      16.1,       0.0);
     ( 488470.6, 3617300.5,       6.7,      16.9,       0.0);         ( 488520.6,
3617300.5,      14.6,      14.6,       0.0);
     ( 488570.6, 3617300.5,       9.8,      15.3,       0.0);         ( 488620.6,
3617300.5,       8.6,      15.7,       0.0);
     ( 487020.6, 3617350.5,      11.7,      11.7,       0.0);         ( 487070.6,
3617350.5,      11.4,      11.4,       0.0);
     ( 487120.6, 3617350.5,      11.9,      11.9,       0.0);         ( 487170.6,
3617350.5,      12.4,      12.4,       0.0);
     ( 487220.6, 3617350.5,      12.8,      12.8,       0.0);         ( 487270.6,
3617350.5,      13.1,      13.1,       0.0);
     ( 487320.6, 3617350.5,      13.4,      13.4,       0.0);         ( 487370.6,
3617350.5,      13.9,      13.9,       0.0);
     ( 487420.6, 3617350.5,      14.3,      14.3,       0.0);         ( 487470.6,
3617350.5,      14.6,      14.6,       0.0);
     ( 487520.6, 3617350.5,      14.9,      14.9,       0.0);         ( 487570.6,
3617350.5,      15.8,      15.8,       0.0);
     ( 487620.6, 3617350.5,      16.2,      16.2,       0.0);         ( 487670.6,
3617350.5,      16.6,      16.6,       0.0);
     ( 487720.6, 3617350.5,      16.9,      16.9,       0.0);         ( 487770.6,
3617350.5,      17.0,      17.0,       0.0);
     ( 487820.6, 3617350.5,      16.7,      16.7,       0.0);         ( 487870.6,
3617350.5,      17.8,      17.8,       0.0);
     ( 487920.6, 3617350.5,      18.4,      18.4,       0.0);         ( 487970.6,
3617350.5,      18.9,      18.9,       0.0);
     ( 488020.6, 3617350.5,      18.1,      18.1,       0.0);         ( 488070.6,
3617350.5,      18.1,      18.1,       0.0);
     ( 488120.6, 3617350.5,      18.1,      18.1,       0.0);         ( 488170.6,
3617350.5,      17.0,      17.0,       0.0);
     ( 488220.6, 3617350.5,      15.8,      15.8,       0.0);         ( 488270.6,
3617350.5,      14.9,      14.9,       0.0);
     ( 488320.6, 3617350.5,      13.9,      17.0,       0.0);         ( 488370.6,
3617350.5,      12.2,      17.0,       0.0);
     ( 488420.6, 3617350.5,      12.4,      12.4,       0.0);         ( 488470.6,
3617350.5,       8.0,      15.3,       0.0);
     ( 488520.6, 3617350.5,       9.5,      15.3,       0.0);         ( 488570.6,
3617350.5,       8.3,      15.3,       0.0);
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                          ***       14:52:42
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(488620.6, 3617350.5, 8.3, 8.3, 0.0); (486770.6, 3617400.5, 9.2, 9.2, 0.0);
(486820.6, 3617400.5, 9.9, 9.9, 0.0); (486870.6, 3617400.5, 10.6, 10.6, 0.0);
(486920.6, 3617400.5, 11.3, 11.3, 0.0); (486970.6, 3617400.5, 12.1, 12.1, 0.0);
(487020.6, 3617400.5, 12.7, 12.7, 0.0); (487070.6, 3617400.5, 12.8, 12.8, 0.0);
(487120.6, 3617400.5, 13.1, 13.1, 0.0); (487170.6, 3617400.5, 13.8, 13.8, 0.0);
(487220.6, 3617400.5, 14.3, 14.3, 0.0); (487270.6, 3617400.5, 14.7, 14.7, 0.0);
(487320.6, 3617400.5, 14.7, 14.7, 0.0); (487370.6, 3617400.5, 15.3, 15.3, 0.0);
(487420.6, 3617400.5, 15.7, 15.7, 0.0); (487470.6, 3617400.5, 16.0, 16.0, 0.0);
(487520.6, 3617400.5, 14.1, 14.1, 0.0); (487570.6, 3617400.5, 16.9, 16.9, 0.0);
(487620.6, 3617400.5, 13.9, 16.7, 0.0); (487670.6, 3617400.5, 13.9, 16.8, 0.0);
(487720.6, 3617400.5, 14.1, 17.3, 0.0); (487770.6, 3617400.5, 14.1, 17.5, 0.0);
(487820.6, 3617400.5, 14.0, 17.5, 0.0); (487870.6, 3617400.5, 14.7, 17.9, 0.0);
(487920.6, 3617400.5, 14.9, 18.1, 0.0); (487970.6, 3617400.5, 14.8, 18.6, 0.0);
(488020.6, 3617400.5, 14.4, 18.5, 0.0); (488070.6, 3617400.5, 13.9, 21.0, 0.0);
(488120.6, 3617400.5, 12.8, 21.4, 0.0); (488170.6, 3617400.5, 11.6, 22.5, 0.0);
(488220.6, 3617400.5, 11.1, 21.5, 0.0); (488270.6, 3617400.5, 11.2, 19.9, 0.0);
(488320.6, 3617400.5, 11.3, 17.9, 0.0); (488370.6, 3617400.5, 12.9, 17.8, 0.0);
(488420.6, 3617400.5, 7.9, 17.8, 0.0); (488470.6, 3617400.5, 4.1, 17.8, 0.0);
(488520.6, 3617400.5, 4.7, 15.3, 0.0); (488570.6, 3617400.5, 5.0, 15.3, 0.0);
(488620.6, 3617400.5, 7.9, 9.8, 0.0); (486820.6, 3617450.5, 10.9, 10.9, 0.0);
(486870.6, 3617450.5, 11.4, 11.4, 0.0); (486920.6, 3617450.5, 12.3, 12.3, 0.0);

```
     ( 486970.6, 3617450.5,      13.0,      13.0,       0.0);         ( 487020.6,
3617450.5,      13.1,      13.1,       0.0);
     ( 487070.6, 3617450.5,      13.8,      13.8,       0.0);         ( 487120.6,
3617450.5,      14.4,      14.4,       0.0);
     ( 487170.6, 3617450.5,      15.2,      15.2,       0.0);         ( 487220.6,
3617450.5,      15.6,      15.6,       0.0);
     ( 487270.6, 3617450.5,      15.9,      15.9,       0.0);         ( 487320.6,
3617450.5,      16.0,      16.0,       0.0);
     ( 487370.6, 3617450.5,      16.7,      16.7,       0.0);         ( 487420.6,
3617450.5,      16.9,      16.9,       0.0);
     ( 487470.6, 3617450.5,      14.3,      17.0,       0.0);         ( 487520.6,
3617450.5,      10.9,      17.4,       0.0);
     ( 487570.6, 3617450.5,      11.0,      20.3,       0.0);         ( 487620.6,
3617450.5,      12.5,      19.3,       0.0);
     ( 487670.6, 3617450.5,      14.4,      19.9,       0.0);         ( 487720.6,
3617450.5,      15.1,      19.4,       0.0);
     ( 487770.6, 3617450.5,      15.8,      19.5,       0.0);         ( 487820.6,
3617450.5,      16.2,      19.7,       0.0);
     ( 487870.6, 3617450.5,      16.7,      19.9,       0.0);         ( 487920.6,
3617450.5,      16.9,      20.2,       0.0);
     ( 487970.6, 3617450.5,      17.0,      20.5,       0.0);         ( 488020.6,
3617450.5,      16.9,      20.8,       0.0);
     ( 488070.6, 3617450.5,      16.9,      22.0,       0.0);         ( 488120.6,
3617450.5,      16.7,      22.5,       0.0);
     ( 488170.6, 3617450.5,      16.2,      22.5,       0.0);         ( 488220.6,
3617450.5,      15.4,      21.5,       0.0);
     ( 488270.6, 3617450.5,      15.6,      19.0,       0.0);         ( 488320.6,
3617450.5,      17.9,      17.9,       0.0);
     ( 488370.6, 3617450.5,      17.3,      17.3,       0.0);         ( 488420.6,
3617450.5,       5.0,      20.1,       0.0);
     ( 488470.6, 3617450.5,       3.5,      19.4,       0.0);         ( 488520.6,
3617450.5,       4.6,       4.6,       0.0);
     ( 488570.6, 3617450.5,       4.5,       4.5,       0.0);         ( 488620.6,
3617450.5,       7.4,      10.7,       0.0);
     ( 486770.6, 3617500.5,      11.1,      11.1,       0.0);         ( 486820.6,
3617500.5,      12.0,      12.0,       0.0);
     ( 486870.6, 3617500.5,      12.3,      12.3,       0.0);         ( 486920.6,
3617500.5,      13.0,      13.0,       0.0);
     ( 486970.6, 3617500.5,      13.4,      13.4,       0.0);         ( 487020.6,
3617500.5,      14.4,      14.4,       0.0);
     ( 487070.6, 3617500.5,      15.3,      15.3,       0.0);         ( 487120.6,
3617500.5,      15.9,      15.9,       0.0);
     ( 487170.6, 3617500.5,      16.9,      16.9,       0.0);         ( 487220.6,
3617500.5,      17.0,      17.0,       0.0);
     ( 487270.6, 3617500.5,      16.5,      16.5,       0.0);         ( 487320.6,
3617500.5,      15.0,      15.0,       0.0);
     ( 487370.6, 3617500.5,      16.0,      17.7,       0.0);         ( 487420.6,
3617500.5,      11.2,      19.7,       0.0);
```

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(487470.6, 3617500.5, 10.3, 20.6, 0.0); (487520.6, 3617500.5, 14.0, 14.0, 0.0);
(487570.6, 3617500.5, 17.9, 17.9, 0.0); (487620.6, 3617500.5, 19.2, 19.2, 0.0);
(487670.6, 3617500.5, 19.5, 19.5, 0.0); (487720.6, 3617500.5, 19.7, 19.7, 0.0);
(487770.6, 3617500.5, 19.8, 19.8, 0.0); (487820.6, 3617500.5, 20.0, 20.0, 0.0);
(487870.6, 3617500.5, 20.2, 20.2, 0.0); (487920.6, 3617500.5, 20.9, 20.9, 0.0);
(487970.6, 3617500.5, 20.9, 20.9, 0.0); (488020.6, 3617500.5, 20.9, 20.9, 0.0);
(488070.6, 3617500.5, 21.4, 21.4, 0.0); (488120.6, 3617500.5, 22.5, 22.5, 0.0);
(488170.6, 3617500.5, 22.1, 22.1, 0.0); (488220.6, 3617500.5, 20.9, 20.9, 0.0);
(488270.6, 3617500.5, 19.0, 19.0, 0.0); (488320.6, 3617500.5, 18.9, 18.9, 0.0);
(488370.6, 3617500.5, 17.2, 17.2, 0.0); (488420.6, 3617500.5,   4.1, 20.1, 0.0);
(488470.6, 3617500.5,   3.3, 20.1, 0.0); (488520.6, 3617500.5,   4.4,   4.4, 0.0);
(488570.6, 3617500.5,   4.2, 12.1, 0.0); (488620.6, 3617500.5,   7.5, 12.1, 0.0);
(486670.6, 3617550.5, 10.7, 10.7, 0.0); (486720.6, 3617550.5, 11.4, 11.4, 0.0);
(486770.6, 3617550.5, 11.9, 11.9, 0.0); (486820.6, 3617550.5, 12.9, 12.9, 0.0);
(486870.6, 3617550.5, 13.2, 13.2, 0.0); (486920.6, 3617550.5, 13.8, 13.8, 0.0);
(486970.6, 3617550.5, 14.8, 14.8, 0.0); (487020.6, 3617550.5, 16.0, 16.0, 0.0);
(487070.6, 3617550.5, 16.8, 16.8, 0.0); (487120.6, 3617550.5, 17.2, 17.2, 0.0);
(487170.6, 3617550.5, 17.6, 17.6, 0.0); (487220.6, 3617550.5, 18.2, 18.2, 0.0);
(487270.6, 3617550.5, 15.7, 18.4, 0.0); (487320.6, 3617550.5, 11.7, 18.4, 0.0);
(487370.6, 3617550.5, 11.5, 20.3, 0.0); (487420.6, 3617550.5, 13.2, 20.8, 0.0);

```
     ( 487470.6, 3617550.5,      17.9,      19.7,       0.0);         ( 487520.6,
3617550.5,      18.0,      18.0,       0.0);
     ( 487570.6, 3617550.5,      20.2,      20.2,       0.0);         ( 487620.6,
3617550.5,      20.5,      20.5,       0.0);
     ( 487670.6, 3617550.5,      20.6,      20.6,       0.0);         ( 487720.6,
3617550.5,      20.6,      20.6,       0.0);
     ( 487770.6, 3617550.5,      20.8,      20.8,       0.0);         ( 487820.6,
3617550.5,      21.3,      21.3,       0.0);
     ( 487870.6, 3617550.5,      21.5,      21.5,       0.0);         ( 487920.6,
3617550.5,      21.4,      21.4,       0.0);
     ( 487970.6, 3617550.5,      22.1,      22.1,       0.0);         ( 488020.6,
3617550.5,      22.3,      22.3,       0.0);
     ( 488070.6, 3617550.5,      23.2,      23.2,       0.0);         ( 488120.6,
3617550.5,      23.9,      23.9,       0.0);
     ( 488170.6, 3617550.5,      22.6,      22.6,       0.0);         ( 488220.6,
3617550.5,      21.5,      21.5,       0.0);
     ( 488270.6, 3617550.5,      19.9,      19.9,       0.0);         ( 488320.6,
3617550.5,      20.0,      20.0,       0.0);
     ( 488370.6, 3617550.5,      10.6,      20.1,       0.0);         ( 488420.6,
3617550.5,       4.2,      21.3,       0.0);
     ( 488470.6, 3617550.5,       4.2,      20.1,       0.0);         ( 488520.6,
3617550.5,       3.7,       3.7,       0.0);
     ( 488570.6, 3617550.5,       4.3,      12.6,       0.0);         ( 488620.6,
3617550.5,       8.0,      12.6,       0.0);
     ( 485870.6, 3617600.5,       3.0,       3.0,       0.0);         ( 485920.6,
3617600.5,       2.9,       2.9,       0.0);
     ( 486620.6, 3617600.5,      11.1,      11.1,       0.0);         ( 486670.6,
3617600.5,      11.4,      11.4,       0.0);
     ( 486720.6, 3617600.5,      12.4,      12.4,       0.0);         ( 486770.6,
3617600.5,      13.0,      13.0,       0.0);
     ( 486820.6, 3617600.5,      13.7,      13.7,       0.0);         ( 486870.6,
3617600.5,      14.2,      14.2,       0.0);
     ( 486920.6, 3617600.5,      15.6,      15.6,       0.0);         ( 486970.6,
3617600.5,      16.5,      16.5,       0.0);
     ( 487020.6, 3617600.5,      17.7,      17.7,       0.0);         ( 487070.6,
3617600.5,      18.1,      18.1,       0.0);
     ( 487120.6, 3617600.5,      18.5,      18.5,       0.0);         ( 487170.6,
3617600.5,      18.8,      18.8,       0.0);
     ( 487220.6, 3617600.5,      18.0,      18.0,       0.0);         ( 487270.6,
3617600.5,      13.1,      18.9,       0.0);
     ( 487320.6, 3617600.5,      12.3,      21.6,       0.0);         ( 487370.6,
3617600.5,      15.8,      20.2,       0.0);
     ( 487420.6, 3617600.5,      20.3,      20.3,       0.0);         ( 487470.6,
3617600.5,      20.7,      20.7,       0.0);
     ( 487520.6, 3617600.5,      21.0,      21.0,       0.0);         ( 487570.6,
3617600.5,      21.2,      21.2,       0.0);
     ( 487620.6, 3617600.5,      21.4,      21.4,       0.0);         ( 487670.6,
3617600.5,      21.5,      21.5,       0.0);
     ( 487720.6, 3617600.5,      21.8,      21.8,       0.0);         ( 487770.6,
3617600.5,      22.1,      22.1,       0.0);
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(487820.6, 3617600.5, 22.3, 22.3, 0.0); (487870.6, 3617600.5, 22.4, 22.4, 0.0);
(487920.6, 3617600.5, 22.6, 22.6, 0.0); (487970.6, 3617600.5, 23.1, 23.1, 0.0);
(488020.6, 3617600.5, 24.0, 24.0, 0.0); (488070.6, 3617600.5, 24.4, 24.4, 0.0);
(488120.6, 3617600.5, 23.9, 23.9, 0.0); (488170.6, 3617600.5, 23.2, 23.2, 0.0);
(488220.6, 3617600.5, 21.9, 21.9, 0.0); (488270.6, 3617600.5, 20.4, 20.4, 0.0);
(488320.6, 3617600.5, 16.6, 20.3, 0.0); (488370.6, 3617600.5, 10.5, 21.3, 0.0);
(488420.6, 3617600.5, 6.4, 20.4, 0.0); (488470.6, 3617600.5, 4.9, 4.9, 0.0);
(488520.6, 3617600.5, 2.6, 2.6, 0.0); (488570.6, 3617600.5, 4.3, 15.4, 0.0);
(488620.6, 3617600.5, 6.0, 15.7, 0.0); (485870.6, 3617650.5, 3.3, 3.3, 0.0);
(485920.6, 3617650.5, 3.5, 3.5, 0.0); (485970.6, 3617650.5, 3.6, 3.6, 0.0);
(486570.6, 3617650.5, 10.6, 10.6, 0.0); (486620.6, 3617650.5, 11.5, 11.5, 0.0);
(486670.6, 3617650.5, 12.6, 12.6, 0.0); (486720.6, 3617650.5, 13.5, 13.5, 0.0);
(486770.6, 3617650.5, 13.9, 13.9, 0.0); (486820.6, 3617650.5, 14.9, 14.9, 0.0);
(486870.6, 3617650.5, 16.5, 16.5, 0.0); (486920.6, 3617650.5, 17.5, 17.5, 0.0);
(486970.6, 3617650.5, 18.1, 18.1, 0.0); (487020.6, 3617650.5, 19.0, 19.0, 0.0);
(487070.6, 3617650.5, 19.8, 19.8, 0.0); (487120.6, 3617650.5, 20.4, 20.4, 0.0);
(487170.6, 3617650.5, 20.3, 20.3, 0.0); (487370.6, 3617650.5, 19.5, 19.5, 0.0);
(487420.6, 3617650.5, 21.1, 21.1, 0.0); (487470.6, 3617650.5, 21.7, 21.7, 0.0);
(487520.6, 3617650.5, 22.4, 22.4, 0.0); (487570.6, 3617650.5, 22.7, 22.7, 0.0);

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     ( 487620.6, 3617650.5,      22.4,      22.4,       0.0);         ( 487670.6,
3617650.5,      22.4,      22.4,       0.0);
     ( 487720.6, 3617650.5,      22.9,      22.9,       0.0);         ( 487770.6,
3617650.5,      22.7,      22.7,       0.0);
     ( 487820.6, 3617650.5,      23.0,      23.0,       0.0);         ( 487870.6,
3617650.5,      23.3,      23.3,       0.0);
     ( 487920.6, 3617650.5,      23.2,      23.2,       0.0);         ( 487970.6,
3617650.5,      24.3,      24.3,       0.0);
     ( 488020.6, 3617650.5,      25.7,      25.7,       0.0);         ( 488070.6,
3617650.5,      25.5,      25.5,       0.0);
     ( 488120.6, 3617650.5,      24.1,      24.1,       0.0);         ( 488170.6,
3617650.5,      23.4,      23.4,       0.0);
     ( 488220.6, 3617650.5,      21.9,      21.9,       0.0);         ( 488270.6,
3617650.5,      21.2,      21.2,       0.0);
     ( 488320.6, 3617650.5,      19.1,      19.1,       0.0);         ( 488370.6,
3617650.5,       9.6,      21.3,       0.0);
     ( 488420.6, 3617650.5,       4.3,      21.3,       0.0);         ( 488470.6,
3617650.5,       3.9,      19.1,       0.0);
     ( 488520.6, 3617650.5,       3.8,       3.8,       0.0);         ( 488570.6,
3617650.5,       3.1,      15.7,       0.0);
     ( 488620.6, 3617650.5,       7.5,      15.7,       0.0);         ( 485870.6,
3617700.5,       3.1,       3.1,       0.0);
     ( 485920.6, 3617700.5,       3.8,       3.8,       0.0);         ( 485970.6,
3617700.5,       3.8,       3.8,       0.0);
     ( 486470.6, 3617700.5,       9.2,       9.2,       0.0);         ( 486520.6,
3617700.5,      10.4,      10.4,       0.0);
     ( 486570.6, 3617700.5,      11.2,      11.2,       0.0);         ( 486620.6,
3617700.5,      12.6,      12.6,       0.0);
     ( 486670.6, 3617700.5,      13.4,      13.4,       0.0);         ( 486720.6,
3617700.5,      14.1,      14.1,       0.0);
     ( 486770.6, 3617700.5,      15.1,      15.1,       0.0);         ( 486820.6,
3617700.5,      16.6,      16.6,       0.0);
     ( 486870.6, 3617700.5,      18.2,      18.2,       0.0);         ( 486920.6,
3617700.5,      18.7,      18.7,       0.0);
     ( 486970.6, 3617700.5,      19.6,      19.6,       0.0);         ( 487020.6,
3617700.5,      20.5,      20.5,       0.0);
     ( 487070.6, 3617700.5,      20.8,      20.8,       0.0);         ( 487120.6,
3617700.5,      19.8,      19.8,       0.0);
     ( 487270.6, 3617700.5,      19.4,      21.6,       0.0);         ( 487320.6,
3617700.5,      21.7,      21.7,       0.0);
     ( 487370.6, 3617700.5,      21.6,      21.6,       0.0);         ( 487420.6,
3617700.5,      22.1,      22.1,       0.0);
     ( 487470.6, 3617700.5,      22.6,      22.6,       0.0);         ( 487520.6,
3617700.5,      23.0,      23.0,       0.0);
     ( 487570.6, 3617700.5,      23.1,      23.1,       0.0);         ( 487620.6,
3617700.5,      23.1,      23.1,       0.0);
     ( 487670.6, 3617700.5,      23.2,      23.2,       0.0);         ( 487720.6,
3617700.5,      23.5,      23.5,       0.0);
     ( 487770.6, 3617700.5,      23.6,      23.6,       0.0);         ( 487820.6,
3617700.5,      23.8,      23.8,       0.0);
```

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(487970.6, 3617700.5, 25.7, 25.7, 0.0); (488020.6, 3617700.5, 26.1, 26.1, 0.0);
(488070.6, 3617700.5, 24.9, 24.9, 0.0); (488120.6, 3617700.5, 23.4, 23.4, 0.0);
(488170.6, 3617700.5, 21.3, 21.3, 0.0); (488220.6, 3617700.5, 19.4, 19.4, 0.0);
(488270.6, 3617700.5, 18.7, 18.7, 0.0); (488320.6, 3617700.5, 17.9, 17.9, 0.0);
(488370.6, 3617700.5, 11.9, 19.1, 0.0); (488420.6, 3617700.5, 5.5, 20.4, 0.0);
(488470.6, 3617700.5, 4.2, 4.2, 0.0); (488520.6, 3617700.5, 4.3, 4.3, 0.0);
(488570.6, 3617700.5, 3.8, 14.4, 0.0); (488620.6, 3617700.5, 5.9, 16.0, 0.0);
(486420.6, 3617750.5, 9.2, 9.2, 0.0); (486470.6, 3617750.5, 10.2, 10.2, 0.0);
(486520.6, 3617750.5, 11.5, 11.5, 0.0); (486570.6, 3617750.5, 12.2, 12.2, 0.0);
(486620.6, 3617750.5, 13.6, 13.6, 0.0); (486670.6, 3617750.5, 14.2, 14.2, 0.0);
(486720.6, 3617750.5, 15.3, 15.3, 0.0); (486770.6, 3617750.5, 16.9, 16.9, 0.0);
(486820.6, 3617750.5, 18.4, 18.4, 0.0); (486870.6, 3617750.5, 19.3, 19.3, 0.0);
(486920.6, 3617750.5, 21.1, 21.1, 0.0); (486970.6, 3617750.5, 21.3, 21.3, 0.0);
(487020.6, 3617750.5, 21.2, 21.2, 0.0); (487070.6, 3617750.5, 20.6, 21.5, 0.0);
(487220.6, 3617750.5, 22.1, 22.1, 0.0); (487270.6, 3617750.5, 22.3, 22.3, 0.0);
(487320.6, 3617750.5, 22.8, 22.8, 0.0); (487370.6, 3617750.5, 22.7, 22.7, 0.0);
(487420.6, 3617750.5, 23.1, 23.1, 0.0); (487470.6, 3617750.5, 23.5, 23.5, 0.0);
(487520.6, 3617750.5, 24.6, 24.6, 0.0); (487570.6, 3617750.5, 25.3, 25.3, 0.0);

```
     ( 487620.6, 3617750.5,      24.7,      24.7,       0.0);         ( 487670.6,
3617750.5,      23.9,      23.9,       0.0);
     ( 487720.6, 3617750.5,      23.9,      23.9,       0.0);         ( 487770.6,
3617750.5,      24.1,      24.1,       0.0);
     ( 487820.6, 3617750.5,      24.6,      24.6,       0.0);         ( 487870.6,
3617750.5,      24.8,      24.8,       0.0);
     ( 487920.6, 3617750.5,      25.2,      25.2,       0.0);         ( 487970.6,
3617750.5,      26.0,      26.0,       0.0);
     ( 488020.6, 3617750.5,      25.2,      25.2,       0.0);         ( 488070.6,
3617750.5,      21.6,      25.3,       0.0);
     ( 488120.6, 3617750.5,      19.6,      19.6,       0.0);         ( 488170.6,
3617750.5,      18.3,      19.1,       0.0);
     ( 488220.6, 3617750.5,      14.1,      21.1,       0.0);         ( 488270.6,
3617750.5,      16.0,      16.9,       0.0);
     ( 488320.6, 3617750.5,      14.1,      16.8,       0.0);         ( 488370.6,
3617750.5,       7.9,      20.4,       0.0);
     ( 488420.6, 3617750.5,       4.8,      19.3,       0.0);         ( 488470.6,
3617750.5,       4.2,       4.2,       0.0);
     ( 488520.6, 3617750.5,       4.7,       4.7,       0.0);         ( 488570.6,
3617750.5,       4.7,       4.7,       0.0);
     ( 488620.6, 3617750.5,       5.2,      13.1,       0.0);         ( 486420.6,
3617800.5,       9.9,       9.9,       0.0);
     ( 486470.6, 3617800.5,      11.0,      11.0,       0.0);         ( 486520.6,
3617800.5,      12.3,      12.3,       0.0);
     ( 486570.6, 3617800.5,      13.2,      13.2,       0.0);         ( 486620.6,
3617800.5,      14.2,      14.2,       0.0);
     ( 486670.6, 3617800.5,      15.6,      15.6,       0.0);         ( 486720.6,
3617800.5,      17.1,      17.1,       0.0);
     ( 486770.6, 3617800.5,      18.2,      18.2,       0.0);         ( 486820.6,
3617800.5,      19.4,      19.4,       0.0);
     ( 486870.6, 3617800.5,      21.2,      21.2,       0.0);         ( 486920.6,
3617800.5,      21.6,      21.6,       0.0);
     ( 486970.6, 3617800.5,      21.8,      21.8,       0.0);         ( 487170.6,
3617800.5,      22.8,      22.8,       0.0);
     ( 487220.6, 3617800.5,      23.4,      23.4,       0.0);         ( 487270.6,
3617800.5,      23.6,      23.6,       0.0);
     ( 487320.6, 3617800.5,      23.7,      23.7,       0.0);         ( 487370.6,
3617800.5,      24.0,      24.0,       0.0);
     ( 487420.6, 3617800.5,      24.3,      24.3,       0.0);         ( 487470.6,
3617800.5,      24.4,      24.4,       0.0);
     ( 487520.6, 3617800.5,      25.2,      25.2,       0.0);         ( 487570.6,
3617800.5,      25.3,      25.3,       0.0);
     ( 487620.6, 3617800.5,      25.3,      25.3,       0.0);         ( 487670.6,
3617800.5,      24.4,      24.4,       0.0);
     ( 487720.6, 3617800.5,      24.9,      24.9,       0.0);         ( 487770.6,
3617800.5,      24.9,      24.9,       0.0);
     ( 487820.6, 3617800.5,      25.8,      25.8,       0.0);         ( 487870.6,
3617800.5,      25.1,      25.1,       0.0);
     ( 487920.6, 3617800.5,      24.6,      24.6,       0.0);         ( 487970.6,
3617800.5,      24.5,      24.5,       0.0);
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(488020.6, 3617800.5, 22.2, 22.2, 0.0); (488070.6, 3617800.5, 17.3, 25.9, 0.0);
(488120.6, 3617800.5, 16.5, 16.5, 0.0); (488170.6, 3617800.5, 15.9, 15.9, 0.0);

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(488220.6, 3617800.5, 13.8, 13.8, 0.0); (488270.6, 3617800.5, 10.9, 16.9, 0.0);
(488320.6, 3617800.5, 8.3, 18.0, 0.0); (488370.6, 3617800.5, 6.7, 17.3, 0.0);
(488420.6, 3617800.5, 4.8, 4.8, 0.0); (488470.6, 3617800.5, 5.0, 5.0, 0.0);
(488520.6, 3617800.5, 4.8, 4.8, 0.0); (488570.6, 3617800.5, 4.5, 4.5, 0.0);
(488620.6, 3617800.5, 3.7, 9.3, 0.0); (486470.6, 3617850.5, 11.9, 11.9, 0.0);
(486520.6, 3617850.5, 12.6, 12.6, 0.0); (486570.6, 3617850.5, 13.6, 13.6, 0.0);
(486620.6, 3617850.5, 15.3, 15.3, 0.0); (486670.6, 3617850.5, 16.9, 16.9, 0.0);
(486720.6, 3617850.5, 18.3, 18.3, 0.0); (486770.6, 3617850.5, 19.3, 19.3, 0.0);
(486820.6, 3617850.5, 20.6, 20.6, 0.0); (486870.6, 3617850.5, 22.0, 22.0, 0.0);
(486920.6, 3617850.5, 22.3, 22.3, 0.0); (487120.6, 3617850.5, 24.2, 24.2, 0.0);
(487170.6, 3617850.5, 24.5, 24.5, 0.0); (487220.6, 3617850.5, 24.6, 24.6, 0.0);
(487270.6, 3617850.5, 24.6, 24.6, 0.0); (487320.6, 3617850.5, 24.4, 24.4, 0.0);
(487370.6, 3617850.5, 24.7, 24.7, 0.0); (487420.6, 3617850.5, 25.2, 25.2, 0.0);
(487470.6, 3617850.5, 25.4, 25.4, 0.0); (487520.6, 3617850.5, 25.8, 25.8, 0.0);
(487570.6, 3617850.5, 25.7, 25.7, 0.0); (487620.6, 3617850.5, 25.6, 25.6, 0.0);
(487670.6, 3617850.5, 25.2, 25.2, 0.0); (487720.6, 3617850.5, 25.4, 25.4, 0.0);
(487770.6, 3617850.5, 25.6, 25.6, 0.0); (487820.6, 3617850.5, 25.2, 25.2, 0.0);

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     ( 487870.6, 3617850.5,      25.1,      25.1,       0.0);         ( 487920.6,
3617850.5,      24.0,      24.0,       0.0);
     ( 487970.6, 3617850.5,      21.7,      21.7,       0.0);         ( 488020.6,
3617850.5,      19.0,      19.0,       0.0);
     ( 488070.6, 3617850.5,      15.9,      15.9,       0.0);         ( 488120.6,
3617850.5,      15.0,      15.0,       0.0);
     ( 488170.6, 3617850.5,      11.7,      16.3,       0.0);         ( 488220.6,
3617850.5,      10.9,      10.9,       0.0);
     ( 488270.6, 3617850.5,      11.6,      11.6,       0.0);         ( 488320.6,
3617850.5,      12.8,      12.8,       0.0);
     ( 488370.6, 3617850.5,       5.4,      14.6,       0.0);         ( 488420.6,
3617850.5,       4.9,       4.9,       0.0);
     ( 488470.6, 3617850.5,       5.1,       5.1,       0.0);         ( 488520.6,
3617850.5,       5.0,       5.0,       0.0);
     ( 488570.6, 3617850.5,       4.8,       4.8,       0.0);         ( 488620.6,
3617850.5,       3.7,       3.7,       0.0);
     ( 486520.6, 3617900.5,      12.9,      12.9,       0.0);         ( 486570.6,
3617900.5,      14.4,      14.4,       0.0);
     ( 486620.6, 3617900.5,      16.0,      16.0,       0.0);         ( 486670.6,
3617900.5,      17.7,      17.7,       0.0);
     ( 486720.6, 3617900.5,      20.0,      20.0,       0.0);         ( 486770.6,
3617900.5,      20.1,      20.1,       0.0);
     ( 486820.6, 3617900.5,      21.3,      21.3,       0.0);         ( 486870.6,
3617900.5,      22.2,      22.2,       0.0);
     ( 486920.6, 3617900.5,      19.3,      22.7,       0.0);         ( 487070.6,
3617900.5,      25.2,      25.2,       0.0);
     ( 487120.6, 3617900.5,      25.3,      25.3,       0.0);         ( 487170.6,
3617900.5,      25.5,      25.5,       0.0);
     ( 487220.6, 3617900.5,      25.4,      25.4,       0.0);         ( 487270.6,
3617900.5,      25.4,      25.4,       0.0);
     ( 487320.6, 3617900.5,      25.3,      25.3,       0.0);         ( 487370.6,
3617900.5,      25.5,      25.5,       0.0);
     ( 487420.6, 3617900.5,      25.9,      25.9,       0.0);         ( 487470.6,
3617900.5,      26.3,      26.3,       0.0);
     ( 487520.6, 3617900.5,      26.7,      26.7,       0.0);         ( 487570.6,
3617900.5,      26.4,      26.4,       0.0);
     ( 487620.6, 3617900.5,      26.2,      26.2,       0.0);         ( 487670.6,
3617900.5,      25.9,      25.9,       0.0);
     ( 487720.6, 3617900.5,      26.1,      26.1,       0.0);         ( 487770.6,
3617900.5,      25.9,      25.9,       0.0);
     ( 487820.6, 3617900.5,      25.7,      25.7,       0.0);         ( 487870.6,
3617900.5,      24.5,      24.5,       0.0);
     ( 487920.6, 3617900.5,      22.8,      22.8,       0.0);         ( 487970.6,
3617900.5,      19.4,      19.4,       0.0);
     ( 488020.6, 3617900.5,      18.6,      18.6,       0.0);         ( 488070.6,
3617900.5,      15.2,      15.2,       0.0);
     ( 488120.6, 3617900.5,      12.7,      12.7,       0.0);         ( 488170.6,
3617900.5,      11.1,      11.1,       0.0);
     ( 488220.6, 3617900.5,      11.5,      14.6,       0.0);         ( 488270.6,
3617900.5,      13.1,      13.1,       0.0);
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(488620.6, 3617900.5, 3.8, 5.0, 0.0); (487077.5, 3618005.0, 26.9, 26.9, 0.0);
(487127.5, 3618005.0, 27.4, 27.4, 0.0); (487177.5, 3618005.0, 27.4, 27.4, 0.0);
(487227.5, 3618005.0, 27.2, 27.2, 0.0); (487277.5, 3618005.0, 27.2, 27.2, 0.0);
(487327.5, 3618005.0, 27.3, 27.3, 0.0); (486570.6, 3617950.5, 14.8, 14.8, 0.0);
(486620.6, 3617950.5, 16.5, 16.5, 0.0); (486670.6, 3617950.5, 18.9, 18.9, 0.0);
(486720.6, 3617950.5, 21.4, 21.4, 0.0); (486770.6, 3617950.5, 21.3, 21.3, 0.0);
(486820.6, 3617950.5, 21.6, 21.6, 0.0); (486970.6, 3617950.5, 22.8, 24.9, 0.0);
(487020.6, 3617950.5, 25.4, 25.4, 0.0); (487070.6, 3617950.5, 26.0, 26.0, 0.0);
(487120.6, 3617950.5, 26.2, 26.2, 0.0); (487170.6, 3617950.5, 26.5, 26.5, 0.0);
(487220.6, 3617950.5, 26.3, 26.3, 0.0); (487270.6, 3617950.5, 26.0, 26.0, 0.0);
(487320.6, 3617950.5, 25.9, 25.9, 0.0); (487370.6, 3617950.5, 26.4, 26.4, 0.0);
(487420.6, 3617950.5, 26.6, 26.6, 0.0); (487470.6, 3617950.5, 27.0, 27.0, 0.0);
(487520.6, 3617950.5, 27.1, 27.1, 0.0); (487570.6, 3617950.5, 26.8, 26.8, 0.0);
(487620.6, 3617950.5, 26.8, 26.8, 0.0); (487670.6, 3617950.5, 26.7, 26.7, 0.0);
(487720.6, 3617950.5, 26.7, 26.7, 0.0); (487770.6, 3617950.5, 26.4, 26.4, 0.0);
(487820.6, 3617950.5, 26.0, 26.0, 0.0); (487870.6, 3617950.5, 23.9, 23.9, 0.0);

```
     ( 487920.6, 3617950.5,      20.6,      20.6,       0.0);         ( 487970.6,
3617950.5,      17.0,      17.0,       0.0);
     ( 488020.6, 3617950.5,      16.4,      16.4,       0.0);         ( 488070.6,
3617950.5,      14.5,      14.5,       0.0);
     ( 488120.6, 3617950.5,      12.0,      12.0,       0.0);         ( 488170.6,
3617950.5,      14.8,      19.7,       0.0);
     ( 488220.6, 3617950.5,      15.8,      15.8,       0.0);         ( 488270.6,
3617950.5,      14.2,      14.2,       0.0);
     ( 488320.6, 3617950.5,      11.7,      14.0,       0.0);         ( 488370.6,
3617950.5,       6.6,      14.3,       0.0);
     ( 488420.6, 3617950.5,       5.8,       5.8,       0.0);         ( 488470.6,
3617950.5,       5.6,       5.6,       0.0);
     ( 488520.6, 3617950.5,       5.3,       5.3,       0.0);         ( 488570.6,
3617950.5,       5.2,       5.2,       0.0);
     ( 488620.6, 3617950.5,       4.1,       4.1,       0.0);         ( 488590.1,
3616298.0,       4.8,       4.8,       0.0);
     ( 488540.1, 3616348.0,       4.8,       4.8,       0.0);         ( 488590.1,
3616348.0,       5.2,       5.2,       0.0);
     ( 488440.1, 3616398.0,       4.6,       4.6,       0.0);         ( 488490.1,
3616398.0,       5.4,       5.4,       0.0);
     ( 488540.1, 3616398.0,       5.8,       5.8,       0.0);         ( 488590.1,
3616398.0,       5.9,       5.9,       0.0);
     ( 488390.1, 3616448.0,       4.6,       4.6,       0.0);         ( 488440.1,
3616448.0,       5.1,       5.1,       0.0);
     ( 488490.1, 3616448.0,       5.6,       5.6,       0.0);         ( 488540.1,
3616448.0,       6.0,       6.0,       0.0);
     ( 488590.1, 3616448.0,       6.0,       6.0,       0.0);         ( 488340.1,
3616498.0,       4.2,       4.2,       0.0);
     ( 488390.1, 3616498.0,       4.6,       4.6,       0.0);         ( 488440.1,
3616498.0,       5.1,       5.1,       0.0);
     ( 488490.1, 3616498.0,       5.8,       5.8,       0.0);         ( 488540.1,
3616498.0,       6.1,       6.1,       0.0);
     ( 488590.1, 3616498.0,       5.7,       5.7,       0.0);         ( 484613.0,
3614429.9,       4.9,       6.0,       0.0);
     ( 484663.0, 3614429.9,       3.1,       3.1,       0.0);         ( 484713.0,
3614429.9,       2.4,       2.4,       0.0);
     ( 484763.0, 3614429.9,       3.1,       3.1,       0.0);         ( 484813.0,
3614429.9,       3.8,       3.8,       0.0);
     ( 484863.0, 3614429.9,       2.7,       2.7,       0.0);         ( 484913.0,
3614429.9,       2.0,       2.0,       0.0);
     ( 484963.0, 3614429.9,       0.2,       0.2,       0.0);         ( 484563.0,
3614479.9,       3.7,       3.7,       0.0);
     ( 484613.0, 3614479.9,       3.0,       6.3,       0.0);         ( 484663.0,
3614479.9,       2.2,       2.2,       0.0);
     ( 484713.0, 3614479.9,       2.6,       2.6,       0.0);         ( 484763.0,
3614479.9,       3.7,       3.7,       0.0);
     ( 484813.0, 3614479.9,       3.3,       3.3,       0.0);         ( 484863.0,
3614479.9,       2.3,       2.3,       0.0);
     ( 484913.0, 3614479.9,       2.2,       2.2,       0.0);         ( 484963.0,
3614479.9,       0.3,       0.3,       0.0);
```

(484513.0, 3614529.9, 4.1, 4.1, 0.0); (484563.0, 3614529.9, 2.8, 2.8, 0.0);
(484613.0, 3614529.9, 3.9, 3.9, 0.0); (484663.0, 3614529.9, 2.8, 2.8, 0.0);
(484713.0, 3614529.9, 3.9, 3.9, 0.0); (484763.0, 3614529.9, 4.1, 4.1, 0.0);
(484813.0, 3614529.9, 3.3, 3.3, 0.0); (484863.0, 3614529.9, 3.0, 3.0, 0.0);

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(484913.0, 3614529.9, 2.8, 2.8, 0.0); (484963.0, 3614529.9, 0.2, 0.2, 0.0);
(484463.0, 3614579.9, 5.7, 6.1, 0.0); (484513.0, 3614579.9, 3.3, 3.3, 0.0);
(484563.0, 3614579.9, 4.2, 4.2, 0.0); (484613.0, 3614579.9, 4.2, 4.2, 0.0);
(484663.0, 3614579.9, 3.5, 3.5, 0.0); (484713.0, 3614579.9, 4.2, 4.2, 0.0);
(484763.0, 3614579.9, 3.6, 3.6, 0.0); (484813.0, 3614579.9, 3.4, 3.4, 0.0);
(484863.0, 3614579.9, 3.0, 3.0, 0.0); (484913.0, 3614579.9, 3.2, 3.2, 0.0);
(484963.0, 3614579.9, 0.8, 3.6, 0.0); (484413.0, 3614629.9, 3.1, 3.1, 0.0);
(484463.0, 3614629.9, 4.1, 4.1, 0.0); (484513.0, 3614629.9, 3.9, 3.9, 0.0);
(484563.0, 3614629.9, 4.1, 4.1, 0.0); (484613.0, 3614629.9, 4.2, 4.2, 0.0);
(484663.0, 3614629.9, 3.6, 3.6, 0.0); (484713.0, 3614629.9, 3.6, 3.6, 0.0);
(484763.0, 3614629.9, 3.6, 3.6, 0.0); (484813.0, 3614629.9, 3.7, 3.7, 0.0);
(484863.0, 3614629.9, 3.6, 3.6, 0.0); (484913.0, 3614629.9, 3.6, 3.6, 0.0);
(484963.0, 3614629.9, 3.4, 3.4, 0.0); (484413.0, 3614679.9, 4.4, 4.4, 0.0);
(484463.0, 3614679.9, 3.1, 3.1, 0.0); (484513.0, 3614679.9, 3.5, 3.5, 0.0);
(484563.0, 3614679.9, 4.0, 4.0, 0.0); (484613.0, 3614679.9, 3.7, 3.7, 0.0);

```
     ( 484663.0, 3614679.9,       3.5,       3.5,       0.0);         ( 484713.0,
3614679.9,       3.6,       3.6,       0.0);
     ( 484763.0, 3614679.9,       3.6,       3.6,       0.0);         ( 484813.0,
3614679.9,       4.0,       4.0,       0.0);
     ( 484863.0, 3614679.9,       3.9,       3.9,       0.0);         ( 484913.0,
3614679.9,       4.2,       4.2,       0.0);
     ( 484963.0, 3614679.9,       4.0,       4.0,       0.0);         ( 484363.0,
3614729.9,       2.3,       6.8,       0.0);
     ( 484413.0, 3614729.9,       3.7,       3.7,       0.0);         ( 484463.0,
3614729.9,       3.5,       3.5,       0.0);
     ( 484513.0, 3614729.9,       3.8,       3.8,       0.0);         ( 484563.0,
3614729.9,       3.6,       3.6,       0.0);
     ( 484613.0, 3614729.9,       3.5,       3.5,       0.0);         ( 484663.0,
3614729.9,       3.8,       3.8,       0.0);
     ( 484713.0, 3614729.9,       3.8,       3.8,       0.0);         ( 484763.0,
3614729.9,       3.8,       3.8,       0.0);
     ( 484813.0, 3614729.9,       4.2,       4.2,       0.0);         ( 484863.0,
3614729.9,       4.4,       4.4,       0.0);
     ( 484913.0, 3614729.9,       4.3,       4.3,       0.0);         ( 484963.0,
3614729.9,       3.6,       4.2,       0.0);
     ( 484313.0, 3614779.9,       3.6,       6.5,       0.0);         ( 484363.0,
3614779.9,       3.5,       3.5,       0.0);
     ( 484413.0, 3614779.9,       3.5,       3.5,       0.0);         ( 484463.0,
3614779.9,       3.6,       3.6,       0.0);
     ( 484513.0, 3614779.9,       3.4,       3.4,       0.0);         ( 484563.0,
3614779.9,       3.7,       3.7,       0.0);
     ( 484613.0, 3614779.9,       3.8,       3.8,       0.0);         ( 484663.0,
3614779.9,       3.9,       3.9,       0.0);
     ( 484713.0, 3614779.9,       4.0,       4.0,       0.0);         ( 484763.0,
3614779.9,       4.0,       4.0,       0.0);
     ( 484813.0, 3614779.9,       4.3,       4.3,       0.0);         ( 484863.0,
3614779.9,       4.5,       4.5,       0.0);
     ( 484913.0, 3614779.9,       4.3,       4.3,       0.0);         ( 484963.0,
3614779.9,       2.9,       2.9,       0.0);
     ( 484263.0, 3614829.9,       5.4,       6.3,       0.0);         ( 484313.0,
3614829.9,       3.5,       3.5,       0.0);
     ( 484363.0, 3614829.9,       3.5,       3.5,       0.0);         ( 484413.0,
3614829.9,       3.7,       3.7,       0.0);
     ( 484463.0, 3614829.9,       3.4,       3.4,       0.0);         ( 484513.0,
3614829.9,       3.7,       3.7,       0.0);
     ( 484563.0, 3614829.9,       3.8,       3.8,       0.0);         ( 484613.0,
3614829.9,       4.4,       4.4,       0.0);
     ( 484663.0, 3614829.9,       4.5,       4.5,       0.0);         ( 484713.0,
3614829.9,       4.2,       4.2,       0.0);
     ( 484763.0, 3614829.9,       4.0,       4.0,       0.0);         ( 484813.0,
3614829.9,       4.0,       4.0,       0.0);
     ( 484863.0, 3614829.9,       4.1,       4.1,       0.0);         ( 484913.0,
3614829.9,       4.3,       4.3,       0.0);
     ( 484963.0, 3614829.9,       1.3,       1.3,       0.0);         ( 484213.0,
3614879.9,       4.0,       7.5,       0.0);
```

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
     ( 484263.0, 3614879.9,       4.1,       4.1,       0.0);         ( 484313.0,
3614879.9,       3.5,       3.5,       0.0);
     ( 484363.0, 3614879.9,       3.6,       3.6,       0.0);         ( 484413.0,
3614879.9,       3.5,       3.5,       0.0);
     ( 484463.0, 3614879.9,       3.6,       3.6,       0.0);         ( 484513.0,
3614879.9,       4.0,       4.0,       0.0);
     ( 484563.0, 3614879.9,       4.0,       4.0,       0.0);         ( 484613.0,
3614879.9,       4.2,       4.2,       0.0);
     ( 484663.0, 3614879.9,       4.5,       4.5,       0.0);         ( 484713.0,
3614879.9,       4.4,       4.4,       0.0);
     ( 484763.0, 3614879.9,       4.2,       4.2,       0.0);         ( 484813.0,
3614879.9,       3.8,       3.8,       0.0);
     ( 484863.0, 3614879.9,       3.7,       3.7,       0.0);         ( 484913.0,
3614879.9,       3.3,       3.3,       0.0);
     ( 484963.0, 3614879.9,       2.4,       2.4,       0.0);         ( 484163.0,
3614929.9,       4.0,       4.0,       0.0);
     ( 484213.0, 3614929.9,       2.8,       2.8,       0.0);         ( 484263.0,
3614929.9,       2.9,       2.9,       0.0);
     ( 484313.0, 3614929.9,       3.5,       3.5,       0.0);         ( 484363.0,
3614929.9,       3.7,       3.7,       0.0);
     ( 484413.0, 3614929.9,       3.5,       3.5,       0.0);         ( 484463.0,
3614929.9,       4.0,       4.0,       0.0);
     ( 484513.0, 3614929.9,       4.4,       4.4,       0.0);         ( 484563.0,
3614929.9,       4.4,       4.4,       0.0);
     ( 484613.0, 3614929.9,       4.7,       4.7,       0.0);         ( 484663.0,
3614929.9,       4.6,       4.6,       0.0);
     ( 484713.0, 3614929.9,       4.7,       4.7,       0.0);         ( 484763.0,
3614929.9,       4.3,       4.3,       0.0);
     ( 484813.0, 3614929.9,       3.9,       3.9,       0.0);         ( 484863.0,
3614929.9,       4.0,       4.0,       0.0);
     ( 484913.0, 3614929.9,       3.7,       3.7,       0.0);         ( 484963.0,
3614929.9,       2.9,       2.9,       0.0);
     ( 485013.0, 3614929.9,       0.2,       0.2,       0.0);         ( 484113.0,
3614979.9,       3.0,       4.4,       0.0);
     ( 484163.0, 3614979.9,       3.5,       3.5,       0.0);         ( 484213.0,
3614979.9,       2.7,       2.7,       0.0);
     ( 484263.0, 3614979.9,       2.9,       2.9,       0.0);         ( 484313.0,
3614979.9,       4.2,       4.2,       0.0);
```

```
     ( 484363.0, 3614979.9,       3.7,       3.7,       0.0);         ( 484413.0,
3614979.9,       3.8,       3.8,       0.0);
     ( 484463.0, 3614979.9,       4.2,       4.2,       0.0);         ( 484513.0,
3614979.9,       4.3,       4.3,       0.0);
     ( 484563.0, 3614979.9,       4.4,       4.4,       0.0);         ( 484613.0,
3614979.9,       4.6,       4.6,       0.0);
     ( 484663.0, 3614979.9,       4.3,       4.3,       0.0);         ( 484713.0,
3614979.9,       4.8,       4.8,       0.0);
     ( 484763.0, 3614979.9,       4.3,       4.3,       0.0);         ( 484813.0,
3614979.9,       4.6,       4.6,       0.0);
     ( 484863.0, 3614979.9,       4.4,       4.4,       0.0);         ( 484913.0,
3614979.9,       3.8,       3.8,       0.0);
     ( 484963.0, 3614979.9,       3.6,       3.6,       0.0);         ( 485013.0,
3614979.9,       2.0,       2.0,       0.0);
     ( 484113.0, 3615029.9,       3.2,       3.2,       0.0);         ( 484163.0,
3615029.9,       3.7,       3.7,       0.0);
     ( 484213.0, 3615029.9,       3.4,       3.4,       0.0);         ( 484263.0,
3615029.9,       4.5,       4.5,       0.0);
     ( 484313.0, 3615029.9,       4.1,       4.1,       0.0);         ( 484363.0,
3615029.9,       3.9,       3.9,       0.0);
     ( 484413.0, 3615029.9,       3.8,       3.8,       0.0);         ( 484463.0,
3615029.9,       4.1,       4.1,       0.0);
     ( 484513.0, 3615029.9,       4.4,       4.4,       0.0);         ( 484563.0,
3615029.9,       4.2,       4.2,       0.0);
     ( 484613.0, 3615029.9,       4.4,       4.4,       0.0);         ( 484663.0,
3615029.9,       4.4,       4.4,       0.0);
     ( 484713.0, 3615029.9,       4.2,       4.2,       0.0);         ( 484763.0,
3615029.9,       4.4,       4.4,       0.0);
     ( 484813.0, 3615029.9,       4.7,       4.7,       0.0);         ( 484863.0,
3615029.9,       4.3,       4.3,       0.0);
     ( 484913.0, 3615029.9,       4.1,       4.1,       0.0);         ( 484963.0,
3615029.9,       3.9,       3.9,       0.0);
     ( 485013.0, 3615029.9,       3.6,       3.6,       0.0);         ( 485063.0,
3615029.9,       0.6,       3.5,       0.0);
     ( 484113.0, 3615079.9,       3.3,       3.3,       0.0);         ( 484163.0,
3615079.9,       4.0,       4.0,       0.0);
     ( 484213.0, 3615079.9,       3.9,       3.9,       0.0);         ( 484263.0,
3615079.9,       4.0,       4.0,       0.0);
     ( 484313.0, 3615079.9,       4.0,       4.0,       0.0);         ( 484363.0,
3615079.9,       4.0,       4.0,       0.0);
     ( 484413.0, 3615079.9,       3.5,       3.5,       0.0);         ( 484463.0,
3615079.9,       4.0,       4.0,       0.0);
     ( 484513.0, 3615079.9,       4.3,       4.3,       0.0);         ( 484563.0,
3615079.9,       4.1,       4.1,       0.0);
     ( 484613.0, 3615079.9,       4.4,       4.4,       0.0);         ( 484663.0,
3615079.9,       4.2,       4.2,       0.0);
     ( 484713.0, 3615079.9,       4.9,       4.9,       0.0);         ( 484763.0,
3615079.9,       4.5,       4.5,       0.0);
     ( 484813.0, 3615079.9,       4.4,       4.4,       0.0);         ( 484863.0,
3615079.9,       4.5,       4.5,       0.0);
```

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(484463.0, 3615129.9, 3.9, 3.9, 0.0); (484513.0, 3615129.9, 4.1, 4.1, 0.0);
(484563.0, 3615129.9, 4.1, 4.1, 0.0); (484613.0, 3615129.9, 4.1, 4.1, 0.0);
(484663.0, 3615129.9, 4.5, 4.5, 0.0); (484713.0, 3615129.9, 4.5, 4.5, 0.0);
(484763.0, 3615129.9, 4.2, 4.2, 0.0); (484813.0, 3615129.9, 4.6, 4.6, 0.0);
(484863.0, 3615129.9, 4.5, 4.5, 0.0); (484913.0, 3615129.9, 4.3, 4.3, 0.0);
(484963.0, 3615129.9, 4.4, 4.4, 0.0); (485013.0, 3615129.9, 4.3, 4.3, 0.0);
(485063.0, 3615129.9, 3.9, 3.9, 0.0); (485113.0, 3615129.9, 3.8, 3.8, 0.0);
(485163.0, 3615129.9, 1.0, 4.6, 0.0); (484113.0, 3615179.9, 3.7, 3.7, 0.0);
(484163.0, 3615179.9, 3.7, 3.7, 0.0); (484213.0, 3615179.9, 3.6, 3.6, 0.0);
(484263.0, 3615179.9, 3.8, 3.8, 0.0); (484313.0, 3615179.9, 3.9, 3.9, 0.0);
(484363.0, 3615179.9, 4.5, 4.5, 0.0); (484413.0, 3615179.9, 4.0, 4.0, 0.0);
(484463.0, 3615179.9, 3.9, 3.9, 0.0); (484513.0, 3615179.9, 4.1, 4.1, 0.0);
(484563.0, 3615179.9, 3.9, 3.9, 0.0); (484613.0, 3615179.9, 3.9, 3.9, 0.0);

```
     ( 484663.0, 3615179.9,       4.1,       4.1,       0.0);         ( 484713.0,
3615179.9,       4.5,       4.5,       0.0);
     ( 484763.0, 3615179.9,       4.4,       4.4,       0.0);         ( 484813.0,
3615179.9,       4.7,       4.7,       0.0);
     ( 484863.0, 3615179.9,       4.3,       4.3,       0.0);         ( 484913.0,
3615179.9,       4.3,       4.3,       0.0);
     ( 484963.0, 3615179.9,       4.3,       4.3,       0.0);         ( 485013.0,
3615179.9,       4.3,       4.3,       0.0);
     ( 485063.0, 3615179.9,       4.2,       4.2,       0.0);         ( 485113.0,
3615179.9,       4.0,       4.0,       0.0);
     ( 485163.0, 3615179.9,       4.6,       4.6,       0.0);         ( 485213.0,
3615179.9,       1.4,       4.4,       0.0);
     ( 484113.0, 3615229.9,       3.8,       3.8,       0.0);         ( 484163.0,
3615229.9,       3.5,       3.5,       0.0);
     ( 484213.0, 3615229.9,       3.5,       3.5,       0.0);         ( 484263.0,
3615229.9,       3.4,       3.4,       0.0);
     ( 484313.0, 3615229.9,       3.3,       3.3,       0.0);         ( 484363.0,
3615229.9,       3.3,       3.3,       0.0);
     ( 484413.0, 3615229.9,       3.4,       3.4,       0.0);         ( 484463.0,
3615229.9,       3.5,       3.5,       0.0);
     ( 484513.0, 3615229.9,       3.1,       3.1,       0.0);         ( 484563.0,
3615229.9,       3.6,       3.6,       0.0);
     ( 484613.0, 3615229.9,       3.8,       3.8,       0.0);         ( 484663.0,
3615229.9,       3.9,       3.9,       0.0);
     ( 484713.0, 3615229.9,       4.1,       4.1,       0.0);         ( 484763.0,
3615229.9,       4.3,       4.3,       0.0);
     ( 484813.0, 3615229.9,       4.3,       4.3,       0.0);         ( 484863.0,
3615229.9,       4.1,       4.1,       0.0);
     ( 484913.0, 3615229.9,       4.2,       4.2,       0.0);         ( 484963.0,
3615229.9,       4.4,       4.4,       0.0);
     ( 485013.0, 3615229.9,       4.3,       4.3,       0.0);         ( 485063.0,
3615229.9,       4.4,       4.4,       0.0);
     ( 485113.0, 3615229.9,       4.4,       4.4,       0.0);         ( 485163.0,
3615229.9,       4.1,       4.1,       0.0);
     ( 485213.0, 3615229.9,       3.9,       3.9,       0.0);         ( 485263.0,
3615229.9,       1.8,       1.8,       0.0);
     ( 484113.0, 3615279.9,       3.7,       3.7,       0.0);         ( 484163.0,
3615279.9,       3.3,       3.3,       0.0);
     ( 484213.0, 3615279.9,       2.7,       2.7,       0.0);         ( 484263.0,
3615279.9,       1.0,       1.0,       0.0);
     ( 484313.0, 3615279.9,       0.6,       0.6,       0.0);         ( 484613.0,
3615279.9,       3.6,       3.6,       0.0);
     ( 484663.0, 3615279.9,       3.9,       3.9,       0.0);         ( 484713.0,
3615279.9,       4.0,       4.0,       0.0);
     ( 484763.0, 3615279.9,       4.1,       4.1,       0.0);         ( 484813.0,
3615279.9,       4.3,       4.3,       0.0);
     ( 484863.0, 3615279.9,       4.3,       4.3,       0.0);         ( 484913.0,
3615279.9,       4.2,       4.2,       0.0);
     ( 484963.0, 3615279.9,       4.2,       4.2,       0.0);         ( 485013.0,
3615279.9,       4.3,       4.3,       0.0);
```

(485063.0, 3615279.9, 4.4, 4.4, 0.0); (485113.0, 3615279.9, 4.2, 4.2, 0.0);
(485163.0, 3615279.9, 4.1, 4.1, 0.0); (485213.0, 3615279.9, 3.9, 3.9, 0.0);
(485263.0, 3615279.9, 3.6, 3.6, 0.0); (485313.0, 3615279.9, 2.8, 2.8, 0.0);
(484113.0, 3615329.9, 3.1, 3.1, 0.0); (484163.0, 3615329.9, 1.5, 1.5, 0.0);
(484213.0, 3615329.9, 0.0, 0.0, 0.0); (484663.0, 3615329.9, 3.0, 3.0, 0.0);
(484713.0, 3615329.9, 3.7, 3.7, 0.0); (484763.0, 3615329.9, 3.9, 3.9, 0.0);
(484813.0, 3615329.9, 4.2, 4.2, 0.0); (484863.0, 3615329.9, 4.6, 4.6, 0.0);

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(484913.0, 3615329.9, 4.4, 4.4, 0.0); (484963.0, 3615329.9, 4.1, 4.1, 0.0);
(485013.0, 3615329.9, 4.3, 4.3, 0.0); (485063.0, 3615329.9, 4.3, 4.3, 0.0);
(485113.0, 3615329.9, 4.2, 4.2, 0.0); (485163.0, 3615329.9, 4.0, 4.0, 0.0);
(485213.0, 3615329.9, 4.0, 4.0, 0.0); (485263.0, 3615329.9, 3.8, 3.8, 0.0);
(485313.0, 3615329.9, 3.6, 3.6, 0.0); (485363.0, 3615329.9, 2.1, 2.1, 0.0);
(484113.0, 3615379.9, 1.0, 1.0, 0.0); (484163.0, 3615379.9, 0.0, 0.0, 0.0);
(484713.0, 3615379.9, 3.0, 3.0, 0.0); (484763.0, 3615379.9, 3.8, 3.8, 0.0);
(484813.0, 3615379.9, 4.1, 4.1, 0.0); (484863.0, 3615379.9, 4.1, 4.1, 0.0);
(484913.0, 3615379.9, 4.5, 4.5, 0.0); (484963.0, 3615379.9, 4.4, 4.4, 0.0);
(485013.0, 3615379.9, 4.3, 4.3, 0.0); (485063.0, 3615379.9, 4.2, 4.2, 0.0);
(485113.0, 3615379.9, 4.3, 4.3, 0.0); (485163.0, 3615379.9, 4.3, 4.3, 0.0);
(485213.0, 3615379.9, 4.3, 4.3, 0.0); (485263.0, 3615379.9, 4.0, 4.0, 0.0);

```
     ( 485313.0, 3615379.9,       4.0,       4.0,       0.0);         ( 485363.0,
3615379.9,       3.8,       3.8,       0.0);
     ( 485413.0, 3615379.9,       3.6,       3.6,       0.0);         ( 484763.0,
3615429.9,       2.3,       2.3,       0.0);
     ( 484813.0, 3615429.9,       3.8,       3.8,       0.0);         ( 484863.0,
3615429.9,       3.9,       3.9,       0.0);
     ( 484913.0, 3615429.9,       4.1,       4.1,       0.0);         ( 484963.0,
3615429.9,       4.3,       4.3,       0.0);
     ( 485013.0, 3615429.9,       4.3,       4.3,       0.0);         ( 485063.0,
3615429.9,       4.5,       4.5,       0.0);
     ( 485113.0, 3615429.9,       4.7,       4.7,       0.0);         ( 485163.0,
3615429.9,       4.2,       4.2,       0.0);
     ( 485213.0, 3615429.9,       4.3,       4.3,       0.0);         ( 485263.0,
3615429.9,       4.1,       4.1,       0.0);
     ( 485313.0, 3615429.9,       4.0,       4.0,       0.0);         ( 485363.0,
3615429.9,       3.9,       3.9,       0.0);
     ( 485413.0, 3615429.9,       3.4,       3.4,       0.0);         ( 485463.0,
3615429.9,       3.4,       3.4,       0.0);
     ( 485513.0, 3615429.9,       3.1,       3.1,       0.0);         ( 484813.0,
3615479.9,       2.6,       2.6,       0.0);
     ( 484863.0, 3615479.9,       3.7,       3.7,       0.0);         ( 484913.0,
3615479.9,       3.9,       3.9,       0.0);
     ( 484963.0, 3615479.9,       4.0,       4.0,       0.0);         ( 485013.0,
3615479.9,       4.3,       4.3,       0.0);
     ( 485063.0, 3615479.9,       4.3,       4.3,       0.0);         ( 485113.0,
3615479.9,       4.5,       4.5,       0.0);
     ( 485163.0, 3615479.9,       4.5,       4.5,       0.0);         ( 485213.0,
3615479.9,       4.2,       4.2,       0.0);
     ( 485263.0, 3615479.9,       4.1,       4.1,       0.0);         ( 485313.0,
3615479.9,       4.3,       4.3,       0.0);
     ( 485363.0, 3615479.9,       4.4,       4.4,       0.0);         ( 485413.0,
3615479.9,       4.1,       4.1,       0.0);
     ( 485463.0, 3615479.9,       3.5,       3.5,       0.0);         ( 485513.0,
3615479.9,       3.1,       3.1,       0.0);
     ( 485563.0, 3615479.9,       1.1,       1.1,       0.0);         ( 484863.0,
3615529.9,       2.5,       2.5,       0.0);
     ( 484913.0, 3615529.9,       3.7,       3.7,       0.0);         ( 484963.0,
3615529.9,       3.8,       3.8,       0.0);
     ( 485013.0, 3615529.9,       4.0,       4.0,       0.0);         ( 485063.0,
3615529.9,       4.1,       4.1,       0.0);
     ( 485113.0, 3615529.9,       4.1,       4.1,       0.0);         ( 485163.0,
3615529.9,       4.4,       4.4,       0.0);
     ( 485213.0, 3615529.9,       4.4,       4.4,       0.0);         ( 485263.0,
3615529.9,       4.4,       4.4,       0.0);
     ( 485313.0, 3615529.9,       4.4,       4.4,       0.0);         ( 485363.0,
3615529.9,       4.6,       4.6,       0.0);
     ( 485413.0, 3615529.9,       4.5,       4.5,       0.0);         ( 485463.0,
3615529.9,       4.2,       4.2,       0.0);
     ( 485513.0, 3615529.9,       3.7,       3.7,       0.0);         ( 484913.0,
3615579.9,       2.1,       2.1,       0.0);
```

(484963.0, 3615579.9, 3.8, 3.8, 0.0); (485013.0, 3615579.9, 3.9, 3.9, 0.0);
(485063.0, 3615579.9, 4.2, 4.2, 0.0); (485113.0, 3615579.9, 5.5, 5.5, 0.0);
(485163.0, 3615579.9, 4.9, 4.9, 0.0); (485213.0, 3615579.9, 4.5, 4.5, 0.0);
(485263.0, 3615579.9, 4.5, 4.5, 0.0); (485313.0, 3615579.9, 4.4, 4.4, 0.0);
(485363.0, 3615579.9, 4.4, 4.4, 0.0); (485413.0, 3615579.9, 4.4, 4.4, 0.0);
(485463.0, 3615579.9, 3.9, 3.9, 0.0); (484963.0, 3615629.9, 2.5, 2.5, 0.0);
(485013.0, 3615629.9, 3.6, 3.6, 0.0); (485063.0, 3615629.9, 4.0, 4.0, 0.0);
(485113.0, 3615629.9, 4.1, 4.1, 0.0); (485163.0, 3615629.9, 4.6, 4.6, 0.0);

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(485213.0, 3615629.9, 4.4, 4.4, 0.0); (485263.0, 3615629.9, 4.5, 4.5, 0.0);
(485313.0, 3615629.9, 4.5, 4.5, 0.0); (485363.0, 3615629.9, 4.2, 4.2, 0.0);
(485413.0, 3615629.9, 4.0, 4.0, 0.0); (485013.0, 3615679.9, 1.1, 1.1, 0.0);
(485063.0, 3615679.9, 3.8, 3.8, 0.0); (485113.0, 3615679.9, 4.0, 4.0, 0.0);
(485163.0, 3615679.9, 4.3, 4.3, 0.0); (485213.0, 3615679.9, 4.4, 4.4, 0.0);
(485263.0, 3615679.9, 4.1, 4.1, 0.0); (485313.0, 3615679.9, 4.5, 4.5, 0.0);
(485363.0, 3615679.9, 4.5, 4.5, 0.0); (485413.0, 3615679.9, 3.0, 4.1, 0.0);
(485063.0, 3615729.9, 0.9, 0.9, 0.0); (485113.0, 3615729.9, 3.8, 3.8, 0.0);
(485163.0, 3615729.9, 4.0, 4.0, 0.0); (485213.0, 3615729.9, 3.9, 3.9, 0.0);
(485263.0, 3615729.9, 3.9, 3.9, 0.0); (485313.0, 3615729.9, 4.0, 4.0, 0.0);
(485363.0, 3615729.9, 3.3, 3.3, 0.0); (485113.0, 3615779.9, 2.9, 3.6, 0.0);

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     ( 485163.0, 3615779.9,       3.5,       3.5,       0.0);         ( 485213.0,
3615779.9,       3.8,       3.8,       0.0);
     ( 485263.0, 3615779.9,       3.9,       3.9,       0.0);         ( 485313.0,
3615779.9,       3.6,       3.6,       0.0);
     ( 485163.0, 3615829.9,       1.2,       3.6,       0.0);         ( 485213.0,
3615829.9,       3.7,       3.7,       0.0);
     ( 485263.0, 3615829.9,       3.4,       3.4,       0.0);         ( 485213.0,
3615879.9,       1.8,       3.3,       0.0);
     ( 487082.3, 3618053.2,      28.6,      28.6,       0.0);         ( 487132.2,
3618053.2,      28.2,      28.2,       0.0);
     ( 487182.1, 3618053.2,      28.6,      28.6,       0.0);         ( 487232.0,
3618053.2,      28.4,      28.4,       0.0);
     ( 487281.9, 3618053.2,      28.7,      28.7,       0.0);         ( 486242.8,
3618033.9,      10.5,      10.5,       0.0);
     ( 486286.8, 3617997.5,      10.8,      10.8,       0.0);         ( 486574.5,
3617998.6,      15.1,      15.1,       0.0);
     ( 486624.4, 3617998.6,      17.6,      17.6,       0.0);         ( 486674.2,
3617998.6,      20.9,      22.2,       0.0);
     ( 486724.1, 3617998.6,      20.8,      20.8,       0.0);         ( 486774.0,
3617998.6,      21.3,      21.3,       0.0);
     ( 486923.7, 3617998.6,      25.2,      25.2,       0.0);         ( 486973.6,
3617998.6,      25.8,      25.8,       0.0);
     ( 487023.5, 3617998.6,      26.2,      26.2,       0.0);         ( 487082.3,
3618103.2,      28.5,      28.5,       0.0);
     ( 487132.2, 3618103.2,      29.1,      29.1,       0.0);         ( 487182.1,
3618103.2,      29.3,      29.3,       0.0);
     ( 486165.9, 3618094.5,      10.0,      10.0,       0.0);         ( 486242.8,
3618083.9,      11.0,      11.0,       0.0);
     ( 486292.7, 3618083.9,      12.4,      12.4,       0.0);         ( 486499.3,
3618054.7,      14.6,      14.6,       0.0);
     ( 486574.5, 3618048.6,      15.8,      15.8,       0.0);         ( 486624.4,
3618048.6,      17.2,      17.2,       0.0);
     ( 486674.2, 3618048.6,      18.6,      18.6,       0.0);         ( 486724.1,
3618048.6,      20.1,      20.1,       0.0);
     ( 486873.8, 3618048.6,      24.8,      24.8,       0.0);         ( 486923.7,
3618048.6,      26.0,      26.0,       0.0);
     ( 486973.6, 3618048.6,      27.2,      27.2,       0.0);         ( 487023.5,
3618048.6,      27.4,      27.4,       0.0);
     ( 487082.3, 3618153.2,      29.2,      29.2,       0.0);         ( 487132.2,
3618153.2,      29.6,      29.6,       0.0);
     ( 486325.0, 3618098.6,      13.4,      13.4,       0.0);         ( 486242.8,
3618133.9,      12.2,      12.2,       0.0);
     ( 486524.6, 3618098.6,      16.7,      18.6,       0.0);         ( 486574.5,
3618098.6,      16.5,      16.5,       0.0);
     ( 486624.4, 3618098.6,      17.4,      22.5,       0.0);         ( 486674.2,
3618098.6,      19.9,      21.9,       0.0);
     ( 486823.9, 3618098.6,      24.4,      24.4,       0.0);         ( 486873.8,
3618098.6,      26.3,      26.3,       0.0);
     ( 486923.7, 3618098.6,      27.1,      27.1,       0.0);         ( 486973.6,
3618098.6,      27.9,      27.9,       0.0);
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(487023.5, 3618098.6, 28.4, 28.4, 0.0); (487082.3, 3618203.2, 28.9, 28.9, 0.0);
(486275.1, 3618148.6, 13.2, 13.2, 0.0); (486325.0, 3618148.6, 13.8, 13.8, 0.0);
(486374.9, 3618148.6, 14.0, 14.0, 0.0); (486474.7, 3618148.6, 15.2, 15.2, 0.0);
(486524.6, 3618148.6, 16.0, 23.3, 0.0); (486574.5, 3618148.6, 17.1, 23.6, 0.0);
(486624.4, 3618148.6, 21.4, 22.5, 0.0); (486774.0, 3618148.6, 21.1, 21.1, 0.0);
(486823.9, 3618148.6, 23.4, 23.4, 0.0); (486873.8, 3618148.6, 25.9, 25.9, 0.0);
(486923.7, 3618148.6, 27.0, 27.0, 0.0); (486973.6, 3618148.6, 28.2, 28.2, 0.0);
(487023.5, 3618148.6, 29.0, 29.0, 0.0); (486275.1, 3618198.6, 13.6, 13.6, 0.0);
(486325.0, 3618198.6, 14.1, 14.1, 0.0); (486374.9, 3618198.6, 14.5, 14.5, 0.0);

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(486424.8, 3618198.6, 15.5, 15.5, 0.0); (486474.7, 3618198.6, 15.6, 23.5, 0.0);
(486524.6, 3618198.6, 16.3, 23.7, 0.0); (486674.2, 3618198.6, 19.9, 19.9, 0.0);
(486724.1, 3618198.6, 19.7, 19.7, 0.0); (486774.0, 3618198.6, 20.4, 20.4, 0.0);
(486823.9, 3618198.6, 21.9, 21.9, 0.0); (486873.8, 3618198.6, 23.7, 23.7, 0.0);
(486923.7, 3618198.6, 26.3, 26.3, 0.0); (486973.6, 3618198.6, 27.6, 27.6, 0.0);
(487023.5, 3618198.6, 28.5, 28.5, 0.0); (486275.1, 3618248.6, 13.9, 13.9, 0.0);
(486325.0, 3618248.6, 14.9, 14.9, 0.0); (486374.9, 3618248.6, 15.2, 15.2, 0.0);
(486424.8, 3618248.6, 15.4, 23.5, 0.0); (486474.7, 3618248.6, 18.3, 23.5, 0.0);
(486624.4, 3618248.6, 18.4, 23.4, 0.0); (486674.2, 3618248.6, 19.3, 19.3, 0.0);
(486724.1, 3618248.6, 19.9, 19.9, 0.0); (486774.0, 3618248.6, 20.9, 20.9, 0.0);

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     ( 486823.9, 3618248.6,      21.9,      21.9,       0.0);         ( 486873.8,
3618248.6,      22.6,      22.6,       0.0);
     ( 486923.7, 3618248.6,      23.8,      23.8,       0.0);         ( 486973.6,
3618248.6,      25.5,      25.5,       0.0);
     ( 487023.5, 3618248.6,      27.4,      27.4,       0.0);         ( 486125.5,
3618298.6,      11.3,      11.3,       0.0);
     ( 486275.1, 3618298.6,      14.2,      14.2,       0.0);         ( 486325.0,
3618298.6,      15.0,      15.0,       0.0);
     ( 486374.9, 3618298.6,      15.4,      22.2,       0.0);         ( 486424.8,
3618298.6,      17.1,      23.5,       0.0);
     ( 486574.5, 3618298.6,      17.5,      17.5,       0.0);         ( 486624.4,
3618298.6,      18.4,      18.4,       0.0);
     ( 486674.2, 3618298.6,      19.6,      19.6,       0.0);         ( 486724.1,
3618298.6,      20.3,      20.3,       0.0);
     ( 486774.0, 3618298.6,      22.5,      22.5,       0.0);         ( 486823.9,
3618298.6,      22.9,      22.9,       0.0);
     ( 486873.8, 3618298.6,      23.6,      23.6,       0.0);         ( 486923.7,
3618298.6,      23.7,      23.7,       0.0);
     ( 486125.5, 3618348.6,      11.0,      11.0,       0.0);         ( 486175.3,
3618348.6,      12.7,      12.7,       0.0);
     ( 486225.2, 3618348.6,      13.8,      13.8,       0.0);         ( 486275.1,
3618348.6,      14.3,      20.8,       0.0);
     ( 486325.0, 3618348.6,      15.3,      20.8,       0.0);         ( 486524.6,
3618348.6,      17.2,      23.2,       0.0);
     ( 486574.5, 3618348.6,      17.8,      17.8,       0.0);         ( 486624.4,
3618348.6,      18.8,      18.8,       0.0);
     ( 486674.2, 3618348.6,      19.4,      19.4,       0.0);         ( 486724.1,
3618348.6,      20.7,      20.7,       0.0);
     ( 486774.0, 3618348.6,      23.4,      23.4,       0.0);         ( 486823.9,
3618348.6,      23.4,      23.4,       0.0);
     ( 486873.8, 3618348.6,      23.4,      23.4,       0.0);         ( 486125.5,
3618398.6,      10.6,      10.6,       0.0);
     ( 486175.3, 3618398.6,      12.9,      22.4,       0.0);         ( 486225.2,
3618398.6,      13.1,      22.4,       0.0);
     ( 486424.8, 3618398.6,      17.0,      21.7,       0.0);         ( 486474.7,
3618398.6,      17.1,      17.1,       0.0);
     ( 486524.6, 3618398.6,      17.3,      17.3,       0.0);         ( 486574.5,
3618398.6,      17.8,      17.8,       0.0);
     ( 486624.4, 3618398.6,      18.5,      18.5,       0.0);         ( 486674.2,
3618398.6,      19.2,      19.2,       0.0);
     ( 486724.1, 3618398.6,      20.1,      20.1,       0.0);         ( 486774.0,
3618398.6,      21.7,      21.7,       0.0);
     ( 486823.9, 3618398.6,      23.0,      23.0,       0.0);         ( 486125.5,
3618448.6,      11.0,      23.5,       0.0);
     ( 486175.3, 3618448.6,      11.7,      23.5,       0.0);         ( 486374.9,
3618448.6,      16.8,      19.7,       0.0);
     ( 486424.8, 3618448.6,      16.6,      16.6,       0.0);         ( 486474.7,
3618448.6,      17.6,      17.6,       0.0);
     ( 486524.6, 3618448.6,      17.2,      17.2,       0.0);         ( 486574.5,
3618448.6,      17.7,      17.7,       0.0);
```

```
     ( 486624.4, 3618448.6,      18.2,      18.2,       0.0);         ( 486674.2,
3618448.6,      19.1,      19.1,       0.0);
     ( 486724.1, 3618448.6,      19.5,      19.5,       0.0);         ( 486774.0,
3618448.6,      20.6,      20.6,       0.0);
     ( 486125.5, 3618498.6,       9.0,      23.5,       0.0);         ( 486325.0,
3618498.6,      15.0,      15.0,       0.0);
     ( 486374.9, 3618498.6,      16.1,      16.1,       0.0);         ( 486424.8,
3618498.6,      16.8,      16.8,       0.0);
     ( 486474.7, 3618498.6,      16.7,      16.7,       0.0);         ( 486524.6,
3618498.6,      17.5,      17.5,       0.0);
     ( 486574.5, 3618498.6,      17.2,      17.2,       0.0);         ( 486624.4,
3618498.6,      18.0,      18.0,       0.0);
     ( 486674.2, 3618498.6,      18.8,      18.8,       0.0);         ( 486106.0,
3618586.0,       7.8,      23.5,       0.0);
     ( 486325.0, 3618548.6,      14.9,      14.9,       0.0);         ( 486374.9,
3618548.6,      13.7,      13.7,       0.0);
     ( 486424.8, 3618548.6,      13.4,      13.4,       0.0);         ( 486474.7,
3618548.6,      16.2,      16.2,       0.0);
     ( 486524.6, 3618548.6,      16.1,      16.1,       0.0);         ( 486574.5,
3618548.6,      17.6,      17.6,       0.0);
*** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                          ***       14:52:42

                                    PAGE  19
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                          *** DISCRETE CARTESIAN RECEPTORS ***
                                       (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                   (METERS)

     ( 486624.4, 3618548.6,      17.6,      17.6,       0.0);         ( 486101.0,
3618078.4,       8.8,       8.8,       0.0);
     ( 486155.1, 3618149.3,      10.6,      10.6,       0.0);         ( 486018.5,
3618262.1,       7.5,       7.5,       0.0);
     ( 485957.4, 3618189.1,       6.5,       6.5,       0.0);         ( 485842.0,
3618300.3,       4.6,       4.6,       0.0);
     ( 485893.8, 3618363.0,       3.9,       3.9,       0.0);         ( 485902.9,
3618242.0,       5.3,       5.3,       0.0);
     ( 485966.0, 3618313.1,       5.8,       5.8,       0.0);         ( 486011.9,
3618082.6,       7.3,       7.3,       0.0);
*** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                          ***       14:52:42

                                    PAGE  20
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data
```

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

```
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: PES_2010_2012_sigma_v19191.SFC
Met Version: 19191
Profile file: PES_2010_2012_sigma_v19191.PFL

Surface format: FREE

Profile format: FREE

```
   Surface station no.:    23188                  Upper air station no.:     3190
                  Name: SAN_DIEGO/PERKINS_ELEMENTARY               Name:
LINDBERGH_FIELD
                  Year:   2010                                     Year:   2010

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -
 10 01 01   1 01   -2.4  0.055 -9.000 -9.000 -999.   31.      6.3  0.39   0.57
1.00    0.89   20.   10.0  283.6   10.0
 10 01 01   1 02   -2.5  0.057 -9.000 -9.000 -999.   32.      6.6  0.43   0.57
1.00    0.89  359.   10.0  283.6   10.0
 10 01 01   1 03   -2.5  0.056 -9.000 -9.000 -999.   31.      6.4  0.41   0.57
1.00    0.89   30.   10.0  283.6   10.0
 10 01 01   1 04   -2.5  0.056 -9.000 -9.000 -999.   31.      6.4  0.41   0.57
1.00    0.89   54.   10.0  283.1   10.0
 10 01 01   1 05   -2.4  0.055 -9.000 -9.000 -999.   31.      6.3  0.39   0.57
1.00    0.89   24.   10.0  282.5   10.0
 10 01 01   1 06   -2.5  0.056 -9.000 -9.000 -999.   31.      6.4  0.41   0.57
1.00    0.89   30.   10.0  282.5   10.0
 10 01 01   1 07   -1.9  0.055 -9.000 -9.000 -999.   31.      7.9  0.39   0.57
1.00    0.89   18.   10.0  281.9   10.0
 10 01 01   1 08   -1.4  0.055 -9.000 -9.000 -999.   31.     10.7  0.39   0.57
0.48    0.89    7.   10.0  283.1   10.0
 10 01 01   1 09   14.3  0.058  0.253  0.016   41.   34.     -1.2  0.05   0.57
0.28    0.44  185.   10.0  285.9   10.0
 10 01 01   1 10   45.4  0.154  0.482  0.009   90.  145.     -7.4  0.32   0.57
0.21    0.89  270.   10.0  288.1   10.0
 10 01 01   1 11   44.3  0.203  0.537  0.009  127.  219.    -17.2  0.32   0.57
0.19    1.34  283.   10.0  290.4   10.0
 10 01 01   1 12   50.3  0.345  0.707  0.008  256.  487.    -74.7  0.32   0.57
0.18    2.68  283.   10.0  291.9   10.0
 10 01 01   1 13   49.8  0.298  0.774  0.008  339.  392.    -48.5  0.32   0.57
0.18    2.23  289.   10.0  293.1   10.0
 10 01 01   1 14   42.6  0.389  0.774  0.008  395.  583.   -125.6  0.32   0.57
0.19    3.12  280.   10.0  293.1   10.0
 10 01 01   1 15   29.0  0.432  0.700  0.008  428.  681.   -252.3  0.32   0.57
0.22    3.57  291.   10.0  291.9   10.0
 10 01 01   1 16   16.0  0.334  0.581  0.008  446.  469.   -211.6  0.35   0.57
0.31    2.68  314.   10.0  291.4   10.0
 10 01 01   1 17  -15.7  0.314 -9.000 -9.000 -999.  423.    179.6  0.43   0.57
0.59    2.68  331.   10.0  290.9   10.0
 10 01 01   1 18   -9.4  0.170 -9.000 -9.000 -999.  182.     47.6  0.43   0.57
1.00    1.78  340.   10.0  290.4   10.0
 10 01 01   1 19   -1.6  0.052 -9.000 -9.000 -999.   48.      8.0  0.32   0.57
1.00    0.89  279.   10.0  289.8   10.0
 10 01 01   1 20   -9.4  0.170 -9.000 -9.000 -999.  168.     47.2  0.43   0.57
1.00    1.78  357.   10.0  289.2   10.0
```

```
 10 01 01   1 21   -1.9  0.056 -9.000 -9.000 -999.   44.      8.1  0.41   0.57
1.00    0.89   39.   10.0  288.6   10.0
 10 01 01   1 22   -2.2  0.054 -9.000 -9.000 -999.   30.      6.5  0.38   0.57
1.00    0.89   86.   10.0  287.5   10.0
 10 01 01   1 23   -2.3  0.053 -9.000 -9.000 -999.   29.      6.0  0.35   0.57
1.00    0.89  312.   10.0  287.5   10.0
 10 01 01   1 24   -2.4  0.056 -9.000 -9.000 -999.   31.      6.4  0.41   0.57
1.00    0.89   38.   10.0  286.9   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01   10.0 1   20.    0.89   283.7   15.0  -99.00    0.23

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                            ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                           ***        14:52:42

                                     PAGE  22
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: LOCA1    ***
                                    INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                            ** CONC OF TAC      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         488270.59    3616550.48        1.04937                        488320.59
3616550.48        0.99566
         488370.59    3616550.48        0.94604                        488420.59
3616550.48        0.90021
         488470.59    3616550.48        0.85749                        488520.59
3616550.48        0.81789
         488570.59    3616550.48        0.78128                        488620.59
3616550.48        0.74702
         488270.59    3616600.48        1.08091                        488320.59
3616600.48        1.02397
         488370.59    3616600.48        0.97170                        488420.59
3616600.48        0.92322
```

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         488470.59    3616600.48        0.87837                    488520.59
3616600.48        0.83680
         488570.59    3616600.48        0.79841                    488620.59
3616600.48        0.76262
         488270.59    3616650.48        1.11170                    488320.59
3616650.48        1.05156
         488370.59    3616650.48        0.99624                    488420.59
3616650.48        0.94529
         488470.59    3616650.48        0.89837                    488520.59
3616650.48        0.85499
         488570.59    3616650.48        0.81477                    488620.59
3616650.48        0.77749
         488270.59    3616700.48        1.14089                    488320.59
3616700.48        1.07734
         488370.59    3616700.48        1.01932                    488420.59
3616700.48        0.96597
         488470.59    3616700.48        0.91698                    488520.59
3616700.48        0.87187
         488570.59    3616700.48        0.83006                    488620.59
3616700.48        0.79143
         488320.59    3616750.48        1.10103                    488370.59
3616750.48        1.04037
         488420.59    3616750.48        0.98488                    488470.59
3616750.48        0.93398
         488520.59    3616750.48        0.88705                    488570.59
3616750.48        0.84392
         488620.59    3616750.48        0.80407                    488320.59
3616800.48        1.12133
         488370.59    3616800.48        1.05835                    488420.59
3616800.48        1.00088
         488470.59    3616800.48        0.94829                    488520.59
3616800.48        0.89997
         488570.59    3616800.48        0.85551                    488620.59
3616800.48        0.81460
         488370.59    3616850.48        1.07195                    488420.59
3616850.48        1.01292
         488470.59    3616850.48        0.95891                    488520.59
3616850.48        0.90947
         488570.59    3616850.48        0.86399                    488620.59
3616850.48        0.82219
         488420.59    3616900.48        1.01967                    488470.59
3616900.48        0.96485
         488520.59    3616900.48        0.91466                    488570.59
3616900.48        0.86862
         488620.59    3616900.48        0.82622                    488420.59
3616950.48        1.02000
         488470.59    3616950.48        0.96529                    488520.59
3616950.48        0.91498
         488570.59    3616950.48        0.86881                    488620.59
3616950.48        0.82628
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         488470.59    3617000.48        0.96000                      488520.59
3617000.48        0.91014
         488570.59    3617000.48        0.86431                      488620.59
3617000.48        0.82214
         488470.59    3617050.48        0.94987                      488520.59
3617050.48        0.90041
         488570.59    3617050.48        0.85559                      488620.59
3617050.48        0.81419
         488370.59    3617100.48        1.04232                      488420.59
3617100.48        0.98595
         488470.59    3617100.48        0.93524                      488520.59
3617100.48        0.88621
         488570.59    3617100.48        0.84301                      488620.59
3617100.48        0.80908
         488320.59    3617150.48        1.07893                      488370.59
3617150.48        1.02031
         488420.59    3617150.48        0.96491                      488470.59
3617150.48        0.91595
```



```
                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: LOCA1    ***
                                  INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF TAC      IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         488520.59    3617150.48        0.86978                      488570.59
3617150.48        0.82778
         488620.59    3617150.48        0.80190                      488270.59
3617200.48        1.11957
         488320.59    3617200.48        1.05090                      488370.59
3617200.48        1.00666
         488420.59    3617200.48        0.94305                      488470.59
3617200.48        0.89567
         488520.59    3617200.48        0.85132                      488570.59
```

3617200.48 0.81132
488620.59 3617200.48 0.79067 487320.59
3617250.48 6.37227
487370.59 3617250.48 5.40948 487420.59
3617250.48 4.65654
487470.59 3617250.48 4.05420 487520.59
3617250.48 3.55717
487570.59 3617250.48 3.14732 487620.59
3617250.48 2.81286
487670.59 3617250.48 2.53846 487720.59
3617250.48 2.30957
487770.59 3617250.48 2.11462 487820.59
3617250.48 1.94557
487870.59 3617250.48 1.79756 487920.59
3617250.48 1.66680
487970.59 3617250.48 1.55014 488020.59
3617250.48 1.44659
488070.59 3617250.48 1.35457 488120.59
3617250.48 1.27389
488170.59 3617250.48 1.20132 488220.59
3617250.48 1.13713
488270.59 3617250.48 1.07766 488320.59
3617250.48 1.02100
488370.59 3617250.48 0.96903 488420.59
3617250.48 0.91844
488470.59 3617250.48 0.87509 488520.59
3617250.48 0.83139
488570.59 3617250.48 0.79329 488620.59
3617250.48 0.76098
487170.59 3617300.48 9.93374 487220.59
3617300.48 8.46119
487270.59 3617300.48 7.07881 487320.59
3617300.48 6.10545
487370.59 3617300.48 5.25226 487420.59
3617300.48 4.52052
487470.59 3617300.48 3.90293 487520.59
3617300.48 3.41967
487570.59 3617300.48 3.01658 487620.59
3617300.48 2.68694
487670.59 3617300.48 2.42406 487720.59
3617300.48 2.19784
487770.59 3617300.48 2.01416 487820.59
3617300.48 1.85737
487870.59 3617300.48 1.70563 487920.59
3617300.48 1.57665
487970.59 3617300.48 1.45857 488020.59
3617300.48 1.36945
488070.59 3617300.48 1.29088 488120.59
3617300.48 1.20831
488170.59 3617300.48 1.14844 488220.59

3617300.48 1.09364
488270.59 3617300.48 1.03637 488320.59
3617300.48 0.98249
488370.59 3617300.48 0.92547 488420.59
3617300.48 0.89076
488470.59 3617300.48 0.85427 488520.59
3617300.48 0.80858
488570.59 3617300.48 0.77334 488620.59
3617300.48 0.74010
487020.59 3617350.48 10.49317 487070.59
3617350.48 10.20835
487120.59 3617350.48 9.57025 487170.59
3617350.48 8.62981
487220.59 3617350.48 7.63609 487270.59
3617350.48 6.69550
487320.59 3617350.48 5.83581 487370.59
3617350.48 5.08188
487420.59 3617350.48 4.42094 487470.59
3617350.48 3.84775
487520.59 3617350.48 3.36672 487570.59
3617350.48 2.96501

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487620.59	3617350.48	2.62958	487670.59	3617350.48	2.35475
487720.59	3617350.48	2.12679	487770.59	3617350.48	1.94017
487820.59	3617350.48	1.78757	487870.59	3617350.48	1.63886

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         487920.59    3617350.48        1.51484                    487970.59
3617350.48        1.40590
         488020.59    3617350.48        1.32212                    488070.59
3617350.48        1.24007
         488120.59    3617350.48        1.16658                    488170.59
3617350.48        1.10833
         488220.59    3617350.48        1.05431                    488270.59
3617350.48        1.00170
         488320.59    3617350.48        0.95336                    488370.59
3617350.48        0.90936
         488420.59    3617350.48        0.86472                    488470.59
3617350.48        0.83379
         488520.59    3617350.48        0.79176                    488570.59
3617350.48        0.75826
         488620.59    3617350.48        0.72457                    486770.59
3617400.48        6.84810
         486820.59    3617400.48        7.27049                    486870.59
3617400.48        7.65378
         486920.59    3617400.48        8.02699                    486970.59
3617400.48        8.32307
         487020.59    3617400.48        8.44522                    487070.59
3617400.48        8.37245
         487120.59    3617400.48        8.07088                    487170.59
3617400.48        7.53657
         487220.59    3617400.48        6.85877                    487270.59
3617400.48        6.17432
         487320.59    3617400.48        5.48884                    487370.59
3617400.48        4.87301
         487420.59    3617400.48        4.29857                    487470.59
3617400.48        3.78283
         487520.59    3617400.48        3.29343                    487570.59
3617400.48        2.93923
         487620.59    3617400.48        2.59843                    487670.59
3617400.48        2.33244
         487720.59    3617400.48        2.10915                    487770.59
3617400.48        1.92053
         487820.59    3617400.48        1.76107                    487870.59
3617400.48        1.62183
         487920.59    3617400.48        1.50264                    487970.59
3617400.48        1.39921
         488020.59    3617400.48        1.30924                    488070.59
3617400.48        1.22970
         488120.59    3617400.48        1.16094                    488170.59
3617400.48        1.10047
         488220.59    3617400.48        1.04274                    488270.59
3617400.48        0.98641
         488320.59    3617400.48        0.93500                    488370.59
3617400.48        0.88274
         488420.59    3617400.48        0.85636                    488470.59
3617400.48        0.81815
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         488520.59    3617400.48        0.78002                       488570.59
3617400.48        0.74476
         488620.59    3617400.48        0.71021                       486820.59
3617450.48        5.98360
         486870.59    3617450.48        6.27887                       486920.59
3617450.48        6.57373
         486970.59    3617450.48        6.83722                       487020.59
3617450.48        6.94708
         487070.59    3617450.48        6.94787                       487120.59
3617450.48        6.82361
         487170.59    3617450.48        6.53494                       487220.59
3617450.48        6.08736
         487270.59    3617450.48        5.58484                       487320.59
3617450.48        5.07569
         487370.59    3617450.48        4.58995                       487420.59
3617450.48        4.11274
         487470.59    3617450.48        3.59952                       487520.59
3617450.48        3.03476
         487570.59    3617450.48        2.74025                       487620.59
3617450.48        2.52364
         487670.59    3617450.48        2.31094                       487720.59
3617450.48        2.09152
         487770.59    3617450.48        1.89787                       487820.59
3617450.48        1.72956
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                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: LOCA1    ***
                                  INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                       *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF TAC      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         487870.59    3617450.48        1.58518                       487920.59
3617450.48        1.46247
         487970.59    3617450.48        1.35789                       488020.59
```

3617450.48 1.26743
488070.59 3617450.48 1.18759 488120.59
3617450.48 1.11714
488170.59 3617450.48 1.05494 488220.59
3617450.48 0.99953
488270.59 3617450.48 0.94602 488320.59
3617450.48 0.88734
488370.59 3617450.48 0.84621 488420.59
3617450.48 0.84044
488470.59 3617450.48 0.80112 488520.59
3617450.48 0.76415
488570.59 3617450.48 0.73007 488620.59
3617450.48 0.69684
486770.59 3617500.48 4.80865 486820.59
3617500.48 5.00580
486870.59 3617500.48 5.24743 486920.59
3617500.48 5.50538
486970.59 3617500.48 5.73268 487020.59
3617500.48 5.83266
487070.59 3617500.48 5.83538 487120.59
3617500.48 5.78192
487170.59 3617500.48 5.62649 487220.59
3617500.48 5.36125
487270.59 3617500.48 5.00819 487320.59
3617500.48 4.58152
487370.59 3617500.48 4.22943 487420.59
3617500.48 3.54707
487470.59 3617500.48 3.14213 487520.59
3617500.48 3.07955
487570.59 3617500.48 2.84791 487620.59
3617500.48 2.55183
487670.59 3617500.48 2.29473 487720.59
3617500.48 2.06718
487770.59 3617500.48 1.86974 487820.59
3617500.48 1.69669
487870.59 3617500.48 1.54738 487920.59
3617500.48 1.41542
487970.59 3617500.48 1.30861 488020.59
3617500.48 1.21733
488070.59 3617500.48 1.13326 488120.59
3617500.48 1.05531
488170.59 3617500.48 0.99686 488220.59
3617500.48 0.94889
488270.59 3617500.48 0.91020 488320.59
3617500.48 0.86359
488370.59 3617500.48 0.82875 488420.59
3617500.48 0.82295
488470.59 3617500.48 0.78474 488520.59
3617500.48 0.74899
488570.59 3617500.48 0.71600 488620.59

3617500.48 0.68343
486670.59 3617550.48 3.77309 486720.59
3617550.48 3.94680
486770.59 3617550.48 4.11725 486820.59
3617550.48 4.25214
486870.59 3617550.48 4.45479 486920.59
3617550.48 4.68401
486970.59 3617550.48 4.87710 487020.59
3617550.48 4.94930
487070.59 3617550.48 4.93409 487120.59
3617550.48 4.91511
487170.59 3617550.48 4.85304 487220.59
3617550.48 4.70192
487270.59 3617550.48 4.47744 487320.59
3617550.48 3.96455
487370.59 3617550.48 3.62664 487420.59
3617550.48 3.45315
487470.59 3617550.48 3.32497 487520.59
3617550.48 3.03892
487570.59 3617550.48 2.74882 487620.59
3617550.48 2.48944
487670.59 3617550.48 2.25709 487720.59
3617550.48 2.04957
487770.59 3617550.48 1.86207 487820.59
3617550.48 1.69072
487870.59 3617550.48 1.54269 487920.59
3617550.48 1.41487

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC X-COORD (M) Y-COORD (M) CONC
- -

```
         487970.59    3617550.48        1.29747                    488020.59
3617550.48        1.20008
         488070.59    3617550.48        1.11010                    488120.59
3617550.48        1.03398
         488170.59    3617550.48        0.98019                    488220.59
3617550.48        0.93121
         488270.59    3617550.48        0.88946                    488320.59
3617550.48        0.84297
         488370.59    3617550.48        0.83203                    488420.59
3617550.48        0.80579
         488470.59    3617550.48        0.76875                    488520.59
3617550.48        0.73446
         488570.59    3617550.48        0.70237                    488620.59
3617550.48        0.67008
         485870.59    3617600.48        1.24606                    485920.59
3617600.48        1.32339
         486620.59    3617600.48        3.15244                    486670.59
3617600.48        3.31228
         486720.59    3617600.48        3.41579                    486770.59
3617600.48        3.53823
         486820.59    3617600.48        3.66339                    486870.59
3617600.48        3.82678
         486920.59    3617600.48        3.99918                    486970.59
3617600.48        4.17520
         487020.59    3617600.48        4.21751                    487070.59
3617600.48        4.21920
         487120.59    3617600.48        4.20128                    487170.59
3617600.48        4.18154
         487220.59    3617600.48        4.15884                    487270.59
3617600.48        3.92725
         487320.59    3617600.48        3.64457                    487370.59
3617600.48        3.56104
         487420.59    3617600.48        3.32900                    487470.59
3617600.48        3.09938
         487520.59    3617600.48        2.86973                    487570.59
3617600.48        2.64083
         487620.59    3617600.48        2.41731                    487670.59
3617600.48        2.20648
         487720.59    3617600.48        2.01193                    487770.59
3617600.48        1.83684
         487820.59    3617600.48        1.68049                    487870.59
3617600.48        1.54099
         487920.59    3617600.48        1.41329                    487970.59
3617600.48        1.29683
         488020.59    3617600.48        1.19051                    488070.59
3617600.48        1.10151
         488120.59    3617600.48        1.03090                    488170.59
3617600.48        0.96983
         488220.59    3617600.48        0.91962                    488270.59
3617600.48        0.87573
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         488320.59    3617600.48        0.84451                      488370.59
3617600.48        0.81561
         488420.59    3617600.48        0.78853                      488470.59
3617600.48        0.75317
         488520.59    3617600.48        0.72025                      488570.59
3617600.48        0.68912
         488620.59    3617600.48        0.65996                      485870.59
3617650.48        1.20253
         485920.59    3617650.48        1.27378                      485970.59
3617650.48        1.35081
         486570.59    3617650.48        2.70763                      486620.59
3617650.48        2.81241
         486670.59    3617650.48        2.89263                      486720.59
3617650.48        2.97261
         486770.59    3617650.48        3.07924                      486820.59
3617650.48        3.16270
         486870.59    3617650.48        3.24395                      486920.59
3617650.48        3.41935
         486970.59    3617650.48        3.59180                      487020.59
3617650.48        3.63921
         487070.59    3617650.48        3.61357                      487120.59
3617650.48        3.58327
         487170.59    3617650.48        3.60236                      487370.59
3617650.48        3.26756
         487420.59    3617650.48        3.06388                      487470.59
3617650.48        2.87528
         487520.59    3617650.48        2.68698                      487570.59
3617650.48        2.50399
         487620.59    3617650.48        2.32604                      487670.59
3617650.48        2.14559
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***       11/29/22
 *** AERMET - VERSION  19191 ***   ***
                           ***       14:52:42

                                     PAGE  27
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: LOCA1    ***
                                    INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                    ** CONC OF TAC      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)
```

Y-COORD (M) CONC

487720.59	3617650.48	1.96685	487770.59	3617650.48	1.80975
487820.59	3617650.48	1.66245	487870.59	3617650.48	1.52884
487920.59	3617650.48	1.41161	487970.59	3617650.48	1.29403
488020.59	3617650.48	1.18437	488070.59	3617650.48	1.10050
488120.59	3617650.48	1.03406	488170.59	3617650.48	0.96961
488220.59	3617650.48	0.91634	488270.59	3617650.48	0.86573
488320.59	3617650.48	0.82648	488370.59	3617650.48	0.80258
488420.59	3617650.48	0.77251	488470.59	3617650.48	0.73818
488520.59	3617650.48	0.70615	488570.59	3617650.48	0.67628
488620.59	3617650.48	0.64651	485870.59	3617700.48	1.15926
485920.59	3617700.48	1.22469	485970.59	3617700.48	1.29512
486470.59	3617700.48	2.25909	486520.59	3617700.48	2.34558
486570.59	3617700.48	2.43684	486620.59	3617700.48	2.49092
486670.59	3617700.48	2.56213	486720.59	3617700.48	2.63302
486770.59	3617700.48	2.68095	486820.59	3617700.48	2.72200
486870.59	3617700.48	2.79020	486920.59	3617700.48	2.98001
486970.59	3617700.48	3.11644	487020.59	3617700.48	3.15634
487070.59	3617700.48	3.16042	487120.59	3617700.48	3.20976
487270.59	3617700.48	3.20525	487320.59	3617700.48	3.06290
487370.59	3617700.48	2.95417	487420.59	3617700.48	2.80873
487470.59	3617700.48	2.66165	487520.59	3617700.48	2.51187
487570.59	3617700.48	2.36867	487620.59	3617700.48	2.22342
487670.59	3617700.48	2.07273	487720.59	3617700.48	1.91818
487770.59	3617700.48	1.77164	487820.59		

3617700.48   1.63536
         487870.59   3617700.48   1.51037   487920.59
3617700.48   1.39206
         487970.59   3617700.48   1.27989   488020.59
3617700.48   1.18535
         488070.59   3617700.48   1.11380   488120.59
3617700.48   1.04650
         488170.59   3617700.48   0.98587   488220.59
3617700.48   0.92925
         488270.59   3617700.48   0.87435   488320.59
3617700.48   0.82623
         488370.59   3617700.48   0.78317   488420.59
3617700.48   0.75597
         488470.59   3617700.48   0.72313   488520.59
3617700.48   0.69223
         488570.59   3617700.48   0.66343   488620.59
3617700.48   0.63609
         486420.59   3617750.48   1.97939   486470.59
3617750.48   2.05676
         486520.59   3617750.48   2.11336   486570.59
3617750.48   2.18362
         486620.59   3617750.48   2.21840   486670.59
3617750.48   2.27894
         486720.59   3617750.48   2.30941   486770.59
3617750.48   2.31738
         486820.59   3617750.48   2.34677   486870.59
3617750.48   2.45524
         486920.59   3617750.48   2.56115   486970.59
3617750.48   2.71593
         487020.59   3617750.48   2.79760   487070.59
3617750.48   2.83677
         487220.59   3617750.48   2.79408   487270.59
3617750.48   2.79081

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

                               *** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: LOCA1   ***
                                    INCLUDING SOURCE(S):   LOCATION1_2 ,
LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                               ** CONC OF TAC   IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487320.59	3617750.48	2.75126	487370.59	3617750.48	2.68232
487420.59	3617750.48	2.57511	487470.59	3617750.48	2.45832
487520.59	3617750.48	2.32086	487570.59	3617750.48	2.19291
487620.59	3617750.48	2.09121	487670.59	3617750.48	1.98635
487720.59	3617750.48	1.86037	487770.59	3617750.48	1.73196
487820.59	3617750.48	1.60288	487870.59	3617750.48	1.48625
487920.59	3617750.48	1.37624	487970.59	3617750.48	1.27151
488020.59	3617750.48	1.19346	488070.59	3617750.48	1.13807
488120.59	3617750.48	1.06886	488170.59	3617750.48	1.00051
488220.59	3617750.48	0.92599	488270.59	3617750.48	0.87842
488320.59	3617750.48	0.82233	488370.59	3617750.48	0.77296
488420.59	3617750.48	0.73996	488470.59	3617750.48	0.70827
488520.59	3617750.48	0.67846	488570.59	3617750.48	0.65063
488620.59	3617750.48	0.62447	486420.59	3617800.48	1.81961
486470.59	3617800.48	1.87573	486520.59	3617800.48	1.91816
486570.59	3617800.48	1.96364	486620.59	3617800.48	2.00040
486670.59	3617800.48	2.00935	486720.59	3617800.48	2.00876
486770.59	3617800.48	2.03890	486820.59	3617800.48	2.08054
486870.59	3617800.48	2.14200	486920.59	3617800.48	2.29113
486970.59	3617800.48	2.42855	487170.59	3617800.48	2.47975
487220.59	3617800.48	2.46748	487270.59	3617800.48	2.47437
487320.59	3617800.48	2.47107	487370.59	3617800.48	2.42917

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         487420.59    3617800.48        2.35669                     487470.59
3617800.48        2.26959
         487520.59    3617800.48        2.16177                     487570.59
3617800.48        2.06738
         487620.59    3617800.48        1.97149                     487670.59
3617800.48        1.89044
         487720.59    3617800.48        1.78260                     487770.59
3617800.48        1.67879
         487820.59    3617800.48        1.55988                     487870.59
3617800.48        1.46368
         487920.59    3617800.48        1.36944                     487970.59
3617800.48        1.27825
         488020.59    3617800.48        1.21023                     488070.59
3617800.48        1.14111
         488120.59    3617800.48        1.06565                     488170.59
3617800.48        0.99611
         488220.59    3617800.48        0.91995                     488270.59
3617800.48        0.84375
         488320.59    3617800.48        0.79220                     488370.59
3617800.48        0.75616
         488420.59    3617800.48        0.72394                     488470.59
3617800.48        0.69341
         488520.59    3617800.48        0.66485                     488570.59
3617800.48        0.63810
         488620.59    3617800.48        0.61304                     486470.59
3617850.48        1.71208
         486520.59    3617850.48        1.76078                     486570.59
3617850.48        1.79065
         486620.59    3617850.48        1.78649                     486670.59
3617850.48        1.77907
         486720.59    3617850.48        1.78392                     486770.59
3617850.48        1.81215
         486820.59    3617850.48        1.85165                     486870.59
3617850.48        1.92159
         486920.59    3617850.48        2.05983                     487120.59
3617850.48        2.19930
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                           ***       14:52:42

                                     PAGE  29
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                  *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: LOCA1    ***
                                     INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                                  *** DISCRETE CARTESIAN RECEPTOR POINTS
```

***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487170.59	3617850.48	2.19473	487220.59	3617850.48	2.19882
487270.59	3617850.48	2.21036	487320.59	3617850.48	2.22784
487370.59	3617850.48	2.21319	487420.59	3617850.48	2.16138
487470.59	3617850.48	2.09513	487520.59	3617850.48	2.01440
487570.59	3617850.48	1.93830	487620.59	3617850.48	1.85972
487670.59	3617850.48	1.78575	487720.59	3617850.48	1.70170
487770.59	3617850.48	1.61530	487820.59	3617850.48	1.53041
487870.59	3617850.48	1.43866	487920.59	3617850.48	1.35658
487970.59	3617850.48	1.28257	488020.59	3617850.48	1.20732
488070.59	3617850.48	1.12002	488120.59	3617850.48	1.04379
488170.59	3617850.48	0.93625	488220.59	3617850.48	0.87633
488270.59	3617850.48	0.83872	488320.59	3617850.48	0.80609
488370.59	3617850.48	0.73910	488420.59	3617850.48	0.70803
488470.59	3617850.48	0.67877	488520.59	3617850.48	0.65135
488570.59	3617850.48	0.62560	488620.59	3617850.48	0.60148
486520.59	3617900.48	1.61876	486570.59	3617900.48	1.62571
486620.59	3617900.48	1.61884	486670.59	3617900.48	1.60628
486720.59	3617900.48	1.57404	486770.59	3617900.48	1.63541
486820.59	3617900.48	1.67467	486870.59	3617900.48	1.75228
486920.59	3617900.48	1.97007	487070.59	3617900.48	1.97919
487120.59	3617900.48	1.97483	487170.59		

3617900.48 1.97323
487220.59 3617900.48 1.98219 487270.59
3617900.48 1.99465
487320.59 3617900.48 2.00914 487370.59
3617900.48 2.00958
487420.59 3617900.48 1.98564 487470.59
3617900.48 1.93546
487520.59 3617900.48 1.87187 487570.59
3617900.48 1.81487
487620.59 3617900.48 1.74934 487670.59
3617900.48 1.68535
487720.59 3617900.48 1.61360 487770.59
3617900.48 1.54729
487820.59 3617900.48 1.47669 487870.59
3617900.48 1.40967
487920.59 3617900.48 1.33929 487970.59
3617900.48 1.26534
488020.59 3617900.48 1.18871 488070.59
3617900.48 1.09455
488120.59 3617900.48 0.99321 488170.59
3617900.48 0.91086
488220.59 3617900.48 0.87067 488270.59
3617900.48 0.84748
488320.59 3617900.48 0.81359 488370.59
3617900.48 0.72191
488420.59 3617900.48 0.69218 488470.59
3617900.48 0.66422
488520.59 3617900.48 0.63794 488570.59
3617900.48 0.61319
488620.59 3617900.48 0.59000 487077.48
3618005.05 1.62259
487127.48 3618005.05 1.61064 487177.48
3618005.05 1.61259
487227.48 3618005.05 1.62311 487277.48
3618005.05 1.62920
487327.48 3618005.05 1.63652 486570.59
3617950.48 1.49451
486620.59 3617950.48 1.48044 486670.59
3617950.48 1.43919

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 ,

LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
486720.59	3617950.48	1.40850	486770.59	3617950.48	1.47305
486820.59	3617950.48	1.53641	486970.59	3617950.48	1.81636
487020.59	3617950.48	1.79883	487070.59	3617950.48	1.79463
487120.59	3617950.48	1.78911	487170.59	3617950.48	1.78353
487220.59	3617950.48	1.79658	487270.59	3617950.48	1.81087
487320.59	3617950.48	1.82641	487370.59	3617950.48	1.82517
487420.59	3617950.48	1.82082	487470.59	3617950.48	1.79020
487520.59	3617950.48	1.74747	487570.59	3617950.48	1.70191
487620.59	3617950.48	1.64697	487670.59	3617950.48	1.58834
487720.59	3617950.48	1.52788	487770.59	3617950.48	1.47322
487820.59	3617950.48	1.41791	487870.59	3617950.48	1.37078
487920.59	3617950.48	1.31018	487970.59	3617950.48	1.22399
488020.59	3617950.48	1.15204	488070.59	3617950.48	1.06356
488120.59	3617950.48	0.96021	488170.59	3617950.48	0.95768
488220.59	3617950.48	0.91631	488270.59	3617950.48	0.85197
488320.59	3617950.48	0.77694	488370.59	3617950.48	0.70484
488420.59	3617950.48	0.67656	488470.59	3617950.48	0.64983
488520.59	3617950.48	0.62465	488570.59	3617950.48	0.60088
488620.59	3617950.48	0.57857	488590.14	3616298.03	0.67889

```
         488540.14    3616348.03        0.72587                      488590.14
3616348.03        0.69665
         488440.14    3616398.03        0.81312                      488490.14
3616398.03        0.77796
         488540.14    3616398.03        0.74515                      488590.14
3616398.03        0.71443
         488390.14    3616448.03        0.87599                      488440.14
3616448.03        0.83626
         488490.14    3616448.03        0.79916                      488540.14
3616448.03        0.76453
         488590.14    3616448.03        0.73218                      488340.14
3616498.03        0.94674
         488390.14    3616498.03        0.90149                      488440.14
3616498.03        0.85936
         488490.14    3616498.03        0.82012                      488540.14
3616498.03        0.78359
         488590.14    3616498.03        0.74967                      484613.02
3614429.89        0.22063
         484663.02    3614429.89        0.22422                      484713.02
3614429.89        0.22782
         484763.02    3614429.89        0.23145                      484813.02
3614429.89        0.23512
         484863.02    3614429.89        0.23887                      484913.02
3614429.89        0.24264
         484963.02    3614429.89        0.24641                      484563.02
3614479.89        0.22103
         484613.02    3614479.89        0.22467                      484663.02
3614479.89        0.22836
         484713.02    3614479.89        0.23210                      484763.02
3614479.89        0.23588
         484813.02    3614479.89        0.23973                      484863.02
3614479.89        0.24363
         484913.02    3614479.89        0.24757                      484963.02
3614479.89        0.25151
         484513.02    3614529.89        0.22122                      484563.02
3614529.89        0.22496
         484613.02    3614529.89        0.22872                      484663.02
3614529.89        0.23258
         484713.02    3614529.89        0.23646                      484763.02
3614529.89        0.24040
         484813.02    3614529.89        0.24443                      484863.02
3614529.89        0.24850
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                          ***       14:52:42

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data
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*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
484913.02	3614529.89	0.25261	484963.02	3614529.89	0.25675
484463.02	3614579.89	0.22122	484513.02	3614579.89	0.22509
484563.02	3614579.89	0.22893	484613.02	3614579.89	0.23286
484663.02	3614579.89	0.23688	484713.02	3614579.89	0.24091
484763.02	3614579.89	0.24505	484813.02	3614579.89	0.24924
484863.02	3614579.89	0.25349	484913.02	3614579.89	0.25778
484963.02	3614579.89	0.26213	484413.02	3614629.89	0.22120
484463.02	3614629.89	0.22505	484513.02	3614629.89	0.22900
484563.02	3614629.89	0.23301	484613.02	3614629.89	0.23709
484663.02	3614629.89	0.24127	484713.02	3614629.89	0.24550
484763.02	3614629.89	0.24979	484813.02	3614629.89	0.25416
484863.02	3614629.89	0.25859	484913.02	3614629.89	0.26309
484963.02	3614629.89	0.26765	484413.02	3614679.89	0.22487
484463.02	3614679.89	0.22891	484513.02	3614679.89	0.23300
484563.02	3614679.89	0.23716	484613.02	3614679.89	0.24142
484663.02	3614679.89	0.24575	484713.02	3614679.89	0.25016
484763.02	3614679.89	0.25464	484813.02	3614679.89	0.25918
484863.02	3614679.89	0.26381	484913.02		

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3614679.89        0.26850
         484963.02    3614679.89        0.27328                    484363.02
3614729.89        0.22458
         484413.02    3614729.89        0.22864                    484463.02
3614729.89        0.23281
         484513.02    3614729.89        0.23706                    484563.02
3614729.89        0.24140
         484613.02    3614729.89        0.24582                    484663.02
3614729.89        0.25032
         484713.02    3614729.89        0.25491                    484763.02
3614729.89        0.25958
         484813.02    3614729.89        0.26432                    484863.02
3614729.89        0.26915
         484913.02    3614729.89        0.27407                    484963.02
3614729.89        0.27908
         484313.02    3614779.89        0.22408                    484363.02
3614779.89        0.22822
         484413.02    3614779.89        0.23245                    484463.02
3614779.89        0.23677
         484513.02    3614779.89        0.24119                    484563.02
3614779.89        0.24569
         484613.02    3614779.89        0.25029                    484663.02
3614779.89        0.25497
         484713.02    3614779.89        0.25975                    484763.02
3614779.89        0.26462
         484813.02    3614779.89        0.26957                    484863.02
3614779.89        0.27462
         484913.02    3614779.89        0.27977                    484963.02
3614779.89        0.28503
         484263.02    3614829.89        0.22339                    484313.02
3614829.89        0.22764
         484363.02    3614829.89        0.23193                    484413.02
3614829.89        0.23631
         484463.02    3614829.89        0.24080                    484513.02
3614829.89        0.24537
         484563.02    3614829.89        0.25006                    484613.02
3614829.89        0.25481
         484663.02    3614829.89        0.25969                    484713.02
3614829.89        0.26469
         484763.02    3614829.89        0.26978                    484813.02
3614829.89        0.27496
         484863.02    3614829.89        0.28024                    484913.02
3614829.89        0.28561
         484963.02    3614829.89        0.29111                    484213.02
3614879.89        0.22265
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                              ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                              ***       14:52:42
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
484263.02	3614879.89	0.22688	484313.02	3614879.89	0.23124
484363.02	3614879.89	0.23568	484413.02	3614879.89	0.24023
484463.02	3614879.89	0.24488	484513.02	3614879.89	0.24962
484563.02	3614879.89	0.25448	484613.02	3614879.89	0.25945
484663.02	3614879.89	0.26452	484713.02	3614879.89	0.26972
484763.02	3614879.89	0.27503	484813.02	3614879.89	0.28045
484863.02	3614879.89	0.28597	484913.02	3614879.89	0.29161
484963.02	3614879.89	0.29735	484163.02	3614929.89	0.22171
484213.02	3614929.89	0.22601	484263.02	3614929.89	0.23039
484313.02	3614929.89	0.23488	484363.02	3614929.89	0.23948
484413.02	3614929.89	0.24419	484463.02	3614929.89	0.24900
484513.02	3614929.89	0.25392	484563.02	3614929.89	0.25898
484613.02	3614929.89	0.26414	484663.02	3614929.89	0.26943
484713.02	3614929.89	0.27484	484763.02	3614929.89	0.28038
484813.02	3614929.89	0.28604	484863.02	3614929.89	0.29181
484913.02	3614929.89	0.29771	484963.02	3614929.89	0.30372

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         485013.02    3614929.89        0.30980                    484113.02
3614979.89        0.22064
         484163.02    3614979.89        0.22495                    484213.02
3614979.89        0.22938
         484263.02    3614979.89        0.23391                    484313.02
3614979.89        0.23853
         484363.02    3614979.89        0.24331                    484413.02
3614979.89        0.24820
         484463.02    3614979.89        0.25318                    484513.02
3614979.89        0.25831
         484563.02    3614979.89        0.26355                    484613.02
3614979.89        0.26892
         484663.02    3614979.89        0.27444                    484713.02
3614979.89        0.28006
         484763.02    3614979.89        0.28584                    484813.02
3614979.89        0.29172
         484863.02    3614979.89        0.29776                    484913.02
3614979.89        0.30394
         484963.02    3614979.89        0.31024                    485013.02
3614979.89        0.31668
         484113.02    3615029.89        0.22375                    484163.02
3615029.89        0.22819
         484213.02    3615029.89        0.23277                    484263.02
3615029.89        0.23742
         484313.02    3615029.89        0.24225                    484363.02
3615029.89        0.24719
         484413.02    3615029.89        0.25225                    484463.02
3615029.89        0.25743
         484513.02    3615029.89        0.26274                    484563.02
3615029.89        0.26820
         484613.02    3615029.89        0.27378                    484663.02
3615029.89        0.27951
         484713.02    3615029.89        0.28539                    484763.02
3615029.89        0.29139
         484813.02    3615029.89        0.29754                    484863.02
3615029.89        0.30385
         484913.02    3615029.89        0.31030                    484963.02
3615029.89        0.31690
         485013.02    3615029.89        0.32364                    485063.02
3615029.89        0.33049
         484113.02    3615079.89        0.22687                    484163.02
3615079.89        0.23145
         484213.02    3615079.89        0.23617                    484263.02
3615079.89        0.24101
         484313.02    3615079.89        0.24599                    484363.02
3615079.89        0.25109
         484413.02    3615079.89        0.25635                    484463.02
3615079.89        0.26172
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***       11/29/22
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
484513.02	3615079.89	0.26723	484563.02	3615079.89	0.27290
484613.02	3615079.89	0.27870	484663.02	3615079.89	0.28467
484713.02	3615079.89	0.29076	484763.02	3615079.89	0.29705
484813.02	3615079.89	0.30348	484863.02	3615079.89	0.31005
484913.02	3615079.89	0.31680	484963.02	3615079.89	0.32370
485013.02	3615079.89	0.33077	485063.02	3615079.89	0.33797
485113.02	3615079.89	0.34537	484113.02	3615129.89	0.22999
484163.02	3615129.89	0.23474	484213.02	3615129.89	0.23961
484263.02	3615129.89	0.24461	484313.02	3615129.89	0.24974
484363.02	3615129.89	0.25503	484413.02	3615129.89	0.26048
484463.02	3615129.89	0.26605	484513.02	3615129.89	0.27177
484563.02	3615129.89	0.27766	484613.02	3615129.89	0.28370
484663.02	3615129.89	0.28989	484713.02	3615129.89	0.29626
484763.02	3615129.89	0.30281	484813.02	3615129.89	0.30949
484863.02	3615129.89	0.31638	484913.02		

3615129.89 0.32344
484963.02 3615129.89 0.33066 485013.02
3615129.89 0.33806
485063.02 3615129.89 0.34565 485113.02
3615129.89 0.35340
485163.02 3615129.89 0.36132 484113.02
3615179.89 0.23313
484163.02 3615179.89 0.23803 484213.02
3615179.89 0.24306
484263.02 3615179.89 0.24823 484313.02
3615179.89 0.25354
484363.02 3615179.89 0.25899 484413.02
3615179.89 0.26463
484463.02 3615179.89 0.27042 484513.02
3615179.89 0.27636
484563.02 3615179.89 0.28247 484613.02
3615179.89 0.28875
484663.02 3615179.89 0.29520 484713.02
3615179.89 0.30182
484763.02 3615179.89 0.30864 484813.02
3615179.89 0.31562
484863.02 3615179.89 0.32283 484913.02
3615179.89 0.33020
484963.02 3615179.89 0.33777 485013.02
3615179.89 0.34552
485063.02 3615179.89 0.35348 485113.02
3615179.89 0.36163
485163.02 3615179.89 0.36993 485213.02
3615179.89 0.37852
484113.02 3615229.89 0.23628 484163.02
3615229.89 0.24133
484213.02 3615229.89 0.24651 484263.02
3615229.89 0.25186
484313.02 3615229.89 0.25736 484363.02
3615229.89 0.26301
484413.02 3615229.89 0.26884 484463.02
3615229.89 0.27483
484513.02 3615229.89 0.28100 484563.02
3615229.89 0.28734
484613.02 3615229.89 0.29386 484663.02
3615229.89 0.30057
484713.02 3615229.89 0.30747 484763.02
3615229.89 0.31456
484813.02 3615229.89 0.32187 484863.02
3615229.89 0.32939
484913.02 3615229.89 0.33710 484963.02
3615229.89 0.34501
485013.02 3615229.89 0.35315 485063.02
3615229.89 0.36149
485113.02 3615229.89 0.37005 485163.02

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
485213.02	3615229.89	0.38784	485263.02	3615229.89	0.39707
484113.02	3615279.89	0.23942	484163.02	3615279.89	0.24463
484213.02	3615279.89	0.24999	484263.02	3615279.89	0.25548
484313.02	3615279.89	0.26115	484613.02	3615279.89	0.29902
484663.02	3615279.89	0.30599	484713.02	3615279.89	0.31318
484763.02	3615279.89	0.32058	484813.02	3615279.89	0.32819
484863.02	3615279.89	0.33603	484913.02	3615279.89	0.34411
484963.02	3615279.89	0.35240	485013.02	3615279.89	0.36092
485063.02	3615279.89	0.36968	485113.02	3615279.89	0.37869
485163.02	3615279.89	0.38794	485213.02	3615279.89	0.39743
485263.02	3615279.89	0.40715	485313.02	3615279.89	0.41712
484113.02	3615329.89	0.24257	484163.02	3615329.89	0.24792
484213.02	3615329.89	0.25340	484663.02	3615329.89	0.31149

```
         484713.02    3615329.89        0.31896                    484763.02
3615329.89        0.32667
         484813.02    3615329.89        0.33460                    484863.02
3615329.89        0.34278
         484913.02    3615329.89        0.35122                    484963.02
3615329.89        0.35992
         485013.02    3615329.89        0.36885                    485063.02
3615329.89        0.37805
         485113.02    3615329.89        0.38752                    485163.02
3615329.89        0.39726
         485213.02    3615329.89        0.40725                    485263.02
3615329.89        0.41752
         485313.02    3615329.89        0.42805                    485363.02
3615329.89        0.43886
         484113.02    3615379.89        0.24568                    484163.02
3615379.89        0.25117
         484713.02    3615379.89        0.32480                    484763.02
3615379.89        0.33282
         484813.02    3615379.89        0.34109                    484863.02
3615379.89        0.34965
         484913.02    3615379.89        0.35845                    484963.02
3615379.89        0.36754
         485013.02    3615379.89        0.37692                    485063.02
3615379.89        0.38659
         485113.02    3615379.89        0.39653                    485163.02
3615379.89        0.40677
         485213.02    3615379.89        0.41730                    485263.02
3615379.89        0.42815
         485313.02    3615379.89        0.43929                    485363.02
3615379.89        0.45072
         485413.02    3615379.89        0.46244                    484763.02
3615429.89        0.33904
         484813.02    3615429.89        0.34767                    484863.02
3615429.89        0.35658
         484913.02    3615429.89        0.36580                    484963.02
3615429.89        0.37530
         485013.02    3615429.89        0.38513                    485063.02
3615429.89        0.39525
         485113.02    3615429.89        0.40570                    485163.02
3615429.89        0.41650
         485213.02    3615429.89        0.42761                    485263.02
3615429.89        0.43906
         485313.02    3615429.89        0.45084                    485363.02
3615429.89        0.46296
         485413.02    3615429.89        0.47542                    485463.02
3615429.89        0.48818
         485513.02    3615429.89        0.50127                    484813.02
3615479.89        0.35430
         484863.02    3615479.89        0.36360                    484913.02
3615479.89        0.37323
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
484963.02	3615479.89	0.38318	485013.02	3615479.89	0.39346
485063.02	3615479.89	0.40409	485113.02	3615479.89	0.41507
485163.02	3615479.89	0.42641	485213.02	3615479.89	0.43815
485263.02	3615479.89	0.45024	485313.02	3615479.89	0.46268
485363.02	3615479.89	0.47550	485413.02	3615479.89	0.48873
485463.02	3615479.89	0.50235	485513.02	3615479.89	0.51631
485563.02	3615479.89	0.53058	484863.02	3615529.89	0.37069
484913.02	3615529.89	0.38073	484963.02	3615529.89	0.39115
485013.02	3615529.89	0.40192	485063.02	3615529.89	0.41307
485113.02	3615529.89	0.42462	485163.02	3615529.89	0.43654
485213.02	3615529.89	0.44888	485263.02	3615529.89	0.46165
485313.02	3615529.89	0.47482	485363.02	3615529.89	0.48841
485413.02	3615529.89	0.50244	485463.02	3615529.89	0.51690
485513.02	3615529.89	0.53182	484913.02		

3615579.89 0.38833
484963.02 3615579.89 0.39919 485013.02 3615579.89 0.41047
485063.02 3615579.89 0.42216 485113.02 3615579.89 0.43420
485163.02 3615579.89 0.44680 485213.02 3615579.89 0.45984
485263.02 3615579.89 0.47331 485313.02 3615579.89 0.48725
485363.02 3615579.89 0.50166 485413.02 3615579.89 0.51655
485463.02 3615579.89 0.53197 484963.02 3615629.89 0.40733
485013.02 3615629.89 0.41913 485063.02 3615629.89 0.43138
485113.02 3615629.89 0.44411 485163.02 3615629.89 0.45728
485213.02 3615629.89 0.47100 485263.02 3615629.89 0.48521
485313.02 3615629.89 0.49995 485363.02 3615629.89 0.51524
485413.02 3615629.89 0.53107 485013.02 3615679.89 0.42783
485063.02 3615679.89 0.44069 485113.02 3615679.89 0.45403
485163.02 3615679.89 0.46790 485213.02 3615679.89 0.48233
485263.02 3615679.89 0.49736 485313.02 3615679.89 0.51291
485363.02 3615679.89 0.52907 485413.02 3615679.89 0.54596
485063.02 3615729.89 0.45004 485113.02 3615729.89 0.46407
485163.02 3615729.89 0.47865 485213.02 3615729.89 0.49386
485263.02 3615729.89 0.50968 485313.02 3615729.89 0.52613
485363.02 3615729.89 0.54330 485113.02 3615779.89 0.47420
485163.02 3615779.89 0.48951 485213.02 3615779.89 0.50548
485263.02 3615779.89 0.52216 485313.02 3615779.89 0.53956
485163.02 3615829.89 0.50040 485213.02 3615829.89 0.51722
485263.02 3615829.89 0.53479 485213.02 3615879.89 0.52904
487082.35 3618053.22 1.47100 487132.24 3618053.22 1.47963
487182.13 3618053.22 1.47119 487232.02

3618053.22 1.48229
 487281.91 3618053.22 1.48027 486242.77
3618033.89 1.15450
 486286.79 3617997.48 1.23905 486574.47
3617998.65 1.38501
 486624.36 3617998.65 1.34249 486674.25
3617998.65 1.27978

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
486724.14	3617998.65	1.33186	486774.03	3617998.65	1.37152
486923.70	3617998.65	1.53343	486973.59	3617998.65	1.60764
487023.48	3617998.65	1.64548	487082.35	3618103.22	1.37333
487132.24	3618103.22	1.35978	487182.13	3618103.22	1.35578
486165.87	3618094.46	1.03038	486242.77	3618083.89	1.08526
486292.66	3618083.89	1.09553	486499.32	3618054.73	1.23941
486574.47	3618048.65	1.26959	486624.36	3618048.65	1.26375
486674.25	3618048.65	1.25916	486724.14	3618048.65	1.25845
486873.81	3618048.65	1.33606	486923.70	3618048.65	1.40366
486973.59	3618048.65	1.45638	487023.48	3618048.65	1.49510

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         487082.35    3618153.22        1.26960                    487132.24
3618153.22        1.26067
         486325.02    3618098.65        1.08047                    486242.77
3618133.89        1.00738
         486524.58    3618098.65        1.12724                    486574.47
3618098.65        1.16769
         486624.36    3618098.65        1.17502                    486674.25
3618098.65        1.14154
         486823.92    3618098.65        1.17793                    486873.81
3618098.65        1.21512
         486923.70    3618098.65        1.28328                    486973.59
3618098.65        1.34007
         487023.48    3618098.65        1.36948                    487082.35
3618203.22        1.19540
         486275.13    3618148.65        0.99424                    486325.02
3618148.65        1.01114
         486374.91    3618148.65        1.03823                    486474.69
3618148.65        1.07073
         486524.58    3618148.65        1.07803                    486574.47
3618148.65        1.07719
         486624.36    3618148.65        1.00171                    486774.03
3618148.65        1.11734
         486823.92    3618148.65        1.12239                    486873.81
3618148.65        1.14342
         486923.70    3618148.65        1.19921                    486973.59
3618148.65        1.24478
         487023.48    3618148.65        1.26744                    486275.13
3618198.65        0.93442
         486325.02    3618198.65        0.95201                    486374.91
3618198.65        0.97006
         486424.80    3618198.65        0.97335                    486474.69
3618198.65        0.99869
         486524.58    3618198.65        1.00781                    486674.25
3618198.65        1.00370
         486724.14    3618198.65        1.03991                    486774.03
3618198.65        1.06072
         486823.92    3618198.65        1.07800                    486873.81
3618198.65        1.10780
         486923.70    3618198.65        1.13515                    486973.59
3618198.65        1.17480
         487023.48    3618198.65        1.19524                    486275.13
3618248.65        0.88067
         486325.02    3618248.65        0.88565                    486374.91
3618248.65        0.90295
         486424.80    3618248.65        0.92359                    486474.69
3618248.65        0.87918
         486624.36    3618248.65        0.95070                    486674.25
3618248.65        0.95755
         486724.14    3618248.65        0.97280                    486774.03
3618248.65        0.98719
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*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
486823.92	3618248.65	1.01248	486873.81	3618248.65	1.05784
486923.70	3618248.65	1.10254	486973.59	3618248.65	1.13308
487023.48	3618248.65	1.13924	486125.46	3618298.65	0.80879
486275.13	3618298.65	0.83235	486325.02	3618298.65	0.83893
486374.91	3618298.65	0.85211	486424.80	3618298.65	0.83827
486574.47	3618298.65	0.89305	486624.36	3618298.65	0.89541
486674.25	3618298.65	0.89764	486724.14	3618298.65	0.90992
486774.03	3618298.65	0.90595	486823.92	3618298.65	0.93950
486873.81	3618298.65	0.98023	486923.70	3618298.65	1.03766
486125.46	3618348.65	0.77696	486175.35	3618348.65	0.77481
486225.24	3618348.65	0.77812	486275.13	3618348.65	0.78928
486325.02	3618348.65	0.79096	486524.58	3618348.65	0.83097
486574.47	3618348.65	0.83968	486624.36	3618348.65	0.84046
486674.25	3618348.65	0.85004	486724.14		

3618348.65 0.85321
486774.03 3618348.65 0.84284 486823.92
3618348.65 0.88030
486873.81 3618348.65 0.92688 486125.46
3618398.65 0.74707
486175.35 3618398.65 0.73810 486225.24
3618398.65 0.75265
486424.80 3618398.65 0.75726 486474.69
3618398.65 0.77270
486524.58 3618398.65 0.78579 486574.47
3618398.65 0.79503
486624.36 3618398.65 0.80096 486674.25
3618398.65 0.80801
486724.14 3618398.65 0.81639 486774.03
3618398.65 0.81984
486823.92 3618398.65 0.83698 486125.46
3618448.65 0.71068
486175.35 3618448.65 0.72031 486374.91
3618448.65 0.70892
486424.80 3618448.65 0.72851 486474.69
3618448.65 0.72606
486524.58 3618448.65 0.74958 486574.47
3618448.65 0.75640
486624.36 3618448.65 0.76436 486674.25
3618448.65 0.76916
486724.14 3618448.65 0.78218 486774.03
3618448.65 0.79176
486125.46 3618498.65 0.69604 486325.02
3618498.65 0.69051
486374.91 3618498.65 0.68816 486424.80
3618498.65 0.69050
486474.69 3618498.65 0.70610 486524.58
3618498.65 0.70686
486574.47 3618498.65 0.72659 486624.36
3618498.65 0.72970
486674.25 3618498.65 0.73489 486105.96
3618586.04 0.64667
486325.02 3618548.65 0.66087 486374.91
3618548.65 0.69174
486424.80 3618548.65 0.70745 486474.69
3618548.65 0.68033
486524.58 3618548.65 0.69479 486574.47
3618548.65 0.68653
486624.36 3618548.65 0.69959 486101.02
3618078.36 1.01179
486155.07 3618149.26 0.96114 486018.49
3618262.09 0.81468
485957.41 3618189.14 0.83714 485842.03
3618300.27 0.71099
485893.78 3618363.05 0.69903 485902.87

3618241.99 0.77326
485966.01 3618313.09 0.75888 486011.91
3618082.61 0.95209

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 ,
LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF TAC IN MICROGRAMS/M**3
**

X-COORD (M) Y-COORD (M) CONC X-COORD (M)
Y-COORD (M) CONC
- -
- -
488270.59 3616550.48 0.85867 488320.59
3616550.48 0.81872
488370.59 3616550.48 0.78159 488420.59
3616550.48 0.74710
488470.59 3616550.48 0.71479 488520.59
3616550.48 0.68469
488570.59 3616550.48 0.65674 488620.59
3616550.48 0.63044
488270.59 3616600.48 0.87817 488320.59
3616600.48 0.83644
488370.59 3616600.48 0.79783 488420.59
3616600.48 0.76188
488470.59 3616600.48 0.72841 488520.59
3616600.48 0.69718
488570.59 3616600.48 0.66817 488620.59
3616600.48 0.64096
488270.59 3616650.48 0.89674 488320.59
3616650.48 0.85330
488370.59 3616650.48 0.81308 488420.59
3616650.48 0.77577
488470.59 3616650.48 0.74114 488520.59
3616650.48 0.70891
488570.59 3616650.48 0.67882 488620.59
3616650.48 0.65073

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        488270.59    3616700.48        0.91373                    488320.59
3616700.48        0.86859
        488370.59    3616700.48        0.82693                    488420.59
3616700.48        0.78833
        488470.59    3616700.48        0.75256                    488520.59
3616700.48        0.71935
        488570.59    3616700.48        0.68836                    488620.59
3616700.48        0.65951
        488320.59    3616750.48        0.88177                    488370.59
3616750.48        0.83879
        488420.59    3616750.48        0.79909                    488470.59
3616750.48        0.76233
        488520.59    3616750.48        0.72816                    488570.59
3616750.48        0.69647
        488620.59    3616750.48        0.66696                    488320.59
3616800.48        0.89196
        488370.59    3616800.48        0.84792                    488420.59
3616800.48        0.80729
        488470.59    3616800.48        0.76973                    488520.59
3616800.48        0.73491
        488570.59    3616800.48        0.70257                    488620.59
3616800.48        0.67253
        488370.59    3616850.48        0.85356                    488420.59
3616850.48        0.81232
        488470.59    3616850.48        0.77420                    488520.59
3616850.48        0.73894
        488570.59    3616850.48        0.70619                    488620.59
3616850.48        0.67578
        488420.59    3616900.48        0.81360                    488470.59
3616900.48        0.77530
        488520.59    3616900.48        0.73986                    488570.59
3616900.48        0.70700
        488620.59    3616900.48        0.67645                    488420.59
3616950.48        0.81071
        488470.59    3616950.48        0.77277                    488520.59
3616950.48        0.73752
        488570.59    3616950.48        0.70481                    488620.59
3616950.48        0.67440
        488470.59    3617000.48        0.76671                    488520.59
3617000.48        0.73196
        488570.59    3617000.48        0.69967                    488620.59
3617000.48        0.66966
        488470.59    3617050.48        0.75716                    488520.59
3617050.48        0.72353
        488570.59    3617050.48        0.69196                    488620.59
3617050.48        0.66255
        488370.59    3617100.48        0.81932                    488420.59
3617100.48        0.78135
        488470.59    3617100.48        0.74523                    488520.59
3617100.48        0.71256
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488570.59 3617100.48 0.68211 488620.59
3617100.48 0.65425
488320.59 3617150.48 0.84313 488370.59
3617150.48 0.80319
488420.59 3617150.48 0.76660 488470.59
3617150.48 0.73252

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
488520.59	3617150.48	0.70012	488570.59	3617150.48	0.67034
488620.59	3617150.48	0.64710	488270.59	3617200.48	0.86865
488320.59	3617200.48	0.82493	488370.59	3617200.48	0.79363
488420.59	3617200.48	0.75070	488470.59	3617200.48	0.71838
488520.59	3617200.48	0.68726	488570.59	3617200.48	0.65807
488620.59	3617200.48	0.64260	487320.59	3617250.48	3.34520
487370.59	3617250.48	2.99599	487420.59	3617250.48	2.69813
487470.59	3617250.48	2.44590	487520.59	3617250.48	2.22085
487570.59	3617250.48	2.02413	487620.59	3617250.48	1.85736
487670.59	3617250.48	1.71519	487720.59	3617250.48	1.59262
487770.59	3617250.48	1.48466	487820.59		

3617250.48 1.38826
487870.59 3617250.48 1.30166 487920.59
3617250.48 1.22363
487970.59 3617250.48 1.15287 488020.59
3617250.48 1.08876
488070.59 3617250.48 1.03059 488120.59
3617250.48 0.97801
488170.59 3617250.48 0.92978 488220.59
3617250.48 0.88536
488270.59 3617250.48 0.84362 488320.59
3617250.48 0.80476
488370.59 3617250.48 0.76901 488420.59
3617250.48 0.73392
488470.59 3617250.48 0.70402 488520.59
3617250.48 0.67291
488570.59 3617250.48 0.64597 488620.59
3617250.48 0.62044
487170.59 3617300.48 4.68197 487220.59
3617300.48 4.09484
487270.59 3617300.48 3.58725 487320.59
3617300.48 3.20065
487370.59 3617300.48 2.86129 487420.59
3617300.48 2.56884
487470.59 3617300.48 2.33002 487520.59
3617300.48 2.11415
487570.59 3617300.48 1.93073 487620.59
3617300.48 1.77564
487670.59 3617300.48 1.64416 487720.59
3617300.48 1.52603
487770.59 3617300.48 1.42451 487820.59
3617300.48 1.33461
487870.59 3617300.48 1.24786 487920.59
3617300.48 1.17060
487970.59 3617300.48 1.09792 488020.59
3617300.48 1.04154
488070.59 3617300.48 0.99066 488120.59
3617300.48 0.93716
488170.59 3617300.48 0.89656 488220.59
3617300.48 0.85703
488270.59 3617300.48 0.81771 488320.59
3617300.48 0.78078
488370.59 3617300.48 0.74420 488420.59
3617300.48 0.71532
488470.59 3617300.48 0.68960 488520.59
3617300.48 0.65766
488570.59 3617300.48 0.63248 488620.59
3617300.48 0.60804
487020.59 3617350.48 6.45290 487070.59
3617350.48 5.63954
487120.59 3617350.48 5.00996 487170.59

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487620.59	3617350.48	1.72335	487670.59	3617350.48	1.59182
487720.59	3617350.48	1.47629	487770.59	3617350.48	1.37611
487820.59	3617350.48	1.28972	487870.59	3617350.48	1.20403
487920.59	3617350.48	1.12936	487970.59	3617350.48	1.06191
488020.59	3617350.48	1.00885	488070.59	3617350.48	0.95605
488120.59	3617350.48	0.90795	488170.59	3617350.48	0.86873
488220.59	3617350.48	0.83081	488270.59	3617350.48	0.79416
488320.59	3617350.48	0.76043	488370.59	3617350.48	0.73004
488420.59	3617350.48	0.69822	488470.59	3617350.48	0.67591

```
         488520.59    3617350.48        0.64654                    488570.59
3617350.48        0.62161
         488620.59    3617350.48        0.59714                    486770.59
3617400.48        7.18660
         486820.59    3617400.48        7.17801                    486870.59
3617400.48        7.04977
         486920.59    3617400.48        6.78808                    486970.59
3617400.48        6.38288
         487020.59    3617400.48        5.86699                    487070.59
3617400.48        5.27504
         487120.59    3617400.48        4.74997                    487170.59
3617400.48        4.30785
         487220.59    3617400.48        3.87386                    487270.59
3617400.48        3.47446
         487320.59    3617400.48        3.09345                    487370.59
3617400.48        2.77692
         487420.59    3617400.48        2.49262                    487470.59
3617400.48        2.24397
         487520.59    3617400.48        2.01565                    487570.59
3617400.48        1.84581
         487620.59    3617400.48        1.69112                    487670.59
3617400.48        1.56217
         487720.59    3617400.48        1.44928                    487770.59
3617400.48        1.35090
         487820.59    3617400.48        1.26453                    487870.59
3617400.48        1.18388
         487920.59    3617400.48        1.11367                    487970.59
3617400.48        1.05101
         488020.59    3617400.48        0.99530                    488070.59
3617400.48        0.94528
         488120.59    3617400.48        0.90219                    488170.59
3617400.48        0.86324
         488220.59    3617400.48        0.82423                    488270.59
3617400.48        0.78542
         488320.59    3617400.48        0.74956                    488370.59
3617400.48        0.71169
         488420.59    3617400.48        0.69225                    488470.59
3617400.48        0.66383
         488520.59    3617400.48        0.63657                    488570.59
3617400.48        0.61109
         488620.59    3617400.48        0.58678                    486820.59
3617450.48        6.02138
         486870.59    3617450.48        5.97051                    486920.59
3617450.48        5.86996
         486970.59    3617450.48        5.63746                    487020.59
3617450.48        5.24113
         487070.59    3617450.48        4.85632                    487120.59
3617450.48        4.46629
         487170.59    3617450.48        4.11336                    487220.59
3617450.48        3.74230
```

487270.59   3617450.48   3.38490   487320.59
3617450.48   3.04653
487370.59   3617450.48   2.75488   487420.59
3617450.48   2.47996
487470.59   3617450.48   2.18888   487520.59
3617450.48   1.93288
487570.59   3617450.48   1.78377   487620.59
3617450.48   1.65505
487670.59   3617450.48   1.53291   487720.59
3617450.48   1.42008
487770.59   3617450.48   1.32044   487820.59
3617450.48   1.23220

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2   ***
INCLUDING SOURCE(S):   LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487870.59	3617450.48	1.15381	487920.59	3617450.48	1.08402
487970.59	3617450.48	1.02192	488020.59	3617450.48	0.96620
488070.59	3617450.48	0.91559	488120.59	3617450.48	0.86975
488170.59	3617450.48	0.82810	488220.59	3617450.48	0.79036
488270.59	3617450.48	0.75403	488320.59	3617450.48	0.71515
488370.59	3617450.48	0.68618	488420.59	3617450.48	0.67978
488470.59	3617450.48	0.65162	488520.59	3617450.48	0.62513
488570.59	3617450.48	0.60040	488620.59		

3617450.48 0.57678
486770.59 3617500.48 5.10583 486820.59
3617500.48 5.14712
486870.59 3617500.48 5.13510 486920.59
3617500.48 5.08756
486970.59 3617500.48 4.94282 487020.59
3617500.48 4.74475
487070.59 3617500.48 4.47076 487120.59
3617500.48 4.16964
487170.59 3617500.48 3.88191 487220.59
3617500.48 3.56640
487270.59 3617500.48 3.23979 487320.59
3617500.48 2.88471
487370.59 3617500.48 2.65841 487420.59
3617500.48 2.21625
487470.59 3617500.48 2.00961 487520.59
3617500.48 1.94957
487570.59 3617500.48 1.83208 487620.59
3617500.48 1.66740
487670.59 3617500.48 1.52376 487720.59
3617500.48 1.39891
487770.59 3617500.48 1.29253 487820.59
3617500.48 1.19993
487870.59 3617500.48 1.11918 487920.59
3617500.48 1.04551
487970.59 3617500.48 0.98407 488020.59
3617500.48 0.92943
488070.59 3617500.48 0.87673 488120.59
3617500.48 0.82600
488170.59 3617500.48 0.78756 488220.59
3617500.48 0.75572
488270.59 3617500.48 0.72952 488320.59
3617500.48 0.69722
488370.59 3617500.48 0.67243 488420.59
3617500.48 0.66734
488470.59 3617500.48 0.63988 488520.59
3617500.48 0.61415
488570.59 3617500.48 0.59011 488620.59
3617500.48 0.56709
486670.59 3617550.48 4.21992 486720.59
3617550.48 4.32787
486770.59 3617550.48 4.40765 486820.59
3617550.48 4.46341
486870.59 3617550.48 4.46916 486920.59
3617550.48 4.44716
486970.59 3617550.48 4.39344 487020.59
3617550.48 4.27967
487070.59 3617550.48 4.08238 487120.59
3617550.48 3.83863
487170.59 3617550.48 3.59323 487220.59

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487970.59	3617550.48	0.96618	488020.59	3617550.48	0.90958
488070.59	3617550.48	0.85504	488120.59	3617550.48	0.80721
488170.59	3617550.48	0.77297	488220.59	3617550.48	0.74103
488270.59	3617550.48	0.71338	488320.59	3617550.48	0.68131
488370.59	3617550.48	0.67735	488420.59	3617550.48	0.65519
488470.59	3617550.48	0.62852	488520.59	3617550.48	0.60358

```
        488570.59    3617550.48        0.58015                    488620.59
3617550.48        0.55770
        485870.59    3617600.48        1.57952                    485920.59
3617600.48        1.68251
        486620.59    3617600.48        3.57231                    486670.59
3617600.48        3.67698
        486720.59    3617600.48        3.77483                    486770.59
3617600.48        3.86221
        486820.59    3617600.48        3.91191                    486870.59
3617600.48        3.92808
        486920.59    3617600.48        3.93450                    486970.59
3617600.48        3.90432
        487020.59    3617600.48        3.82901                    487070.59
3617600.48        3.69316
        487120.59    3617600.48        3.51082                    487170.59
3617600.48        3.31417
        487220.59    3617600.48        3.10564                    487270.59
3617600.48        2.68754
        487320.59    3617600.48        2.43891                    487370.59
3617600.48        2.44183
        487420.59    3617600.48        2.32104                    487470.59
3617600.48        2.13256
        487520.59    3617600.48        1.95643                    487570.59
3617600.48        1.79562
        487620.59    3617600.48        1.64981                    487670.59
3617600.48        1.51724
        487720.59    3617600.48        1.39593                    487770.59
3617600.48        1.28625
        487820.59    3617600.48        1.18841                    487870.59
3617600.48        1.10236
        487920.59    3617600.48        1.02554                    487970.59
3617600.48        0.95679
        488020.59    3617600.48        0.89431                    488070.59
3617600.48        0.84149
        488120.59    3617600.48        0.79889                    488170.59
3617600.48        0.76106
        488220.59    3617600.48        0.72941                    488270.59
3617600.48        0.70114
        488320.59    3617600.48        0.67926                    488370.59
3617600.48        0.66511
        488420.59    3617600.48        0.64302                    488470.59
3617600.48        0.61740
        488520.59    3617600.48        0.59320                    488570.59
3617600.48        0.57047
        488620.59    3617600.48        0.54891                    485870.59
3617650.48        1.50340
        485920.59    3617650.48        1.59543                    485970.59
3617650.48        1.69384
        486570.59    3617650.48        3.07497                    486620.59
3617650.48        3.15056
```

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
486670.59	3617650.48	3.22639	486720.59	3617650.48	3.32643
486770.59	3617650.48	3.41434	486820.59	3617650.48	3.46651
486870.59	3617650.48	3.48483	486920.59	3617650.48	3.46631
486970.59	3617650.48	3.44399	487020.59	3617650.48	3.39833
487070.59	3617650.48	3.31327	487120.59	3617650.48	3.18314
487170.59	3617650.48	3.03841	487370.59	3617650.48	2.39671
487420.59	3617650.48	2.23416	487470.59	3617650.48	2.06941
487520.59	3617650.48	1.90822	487570.59	3617650.48	1.75887
487620.59	3617650.48	1.62601	487670.59	3617650.48	1.50348
487720.59	3617650.48	1.38832	487770.59	3617650.48	1.28684
487820.59	3617650.48	1.19151	487870.59	3617650.48	1.10448
487920.59	3617650.48	1.02793	487970.59	3617650.48	0.95385
488020.59	3617650.48	0.88623	488070.59	3617650.48	0.83434
488120.59	3617650.48	0.79367	488170.59		

3617650.48 0.75442
488220.59 3617650.48 0.72184 488270.59
3617650.48 0.68985
488320.59 3617650.48 0.66473 488370.59
3617650.48 0.65508
488420.59 3617650.48 0.63167 488470.59
3617650.48 0.60664
488520.59 3617650.48 0.58312 488570.59
3617650.48 0.56101
488620.59 3617650.48 0.53986 485870.59
3617700.48 1.43000
485920.59 3617700.48 1.51214 485970.59
3617700.48 1.59921
486470.59 3617700.48 2.60373 486520.59
3617700.48 2.67030
486570.59 3617700.48 2.73724 486620.59
3617700.48 2.78501
486670.59 3617700.48 2.86108 486720.59
3617700.48 2.95693
486770.59 3617700.48 3.04402 486820.59
3617700.48 3.09181
486870.59 3617700.48 3.07455 486920.59
3617700.48 3.06134
486970.59 3617700.48 3.03172 487020.59
3617700.48 3.00100
487070.59 3617700.48 2.96891 487120.59
3617700.48 2.91408
487270.59 3617700.48 2.54041 487320.59
3617700.48 2.39845
487370.59 3617700.48 2.26794 487420.59
3617700.48 2.13204
487470.59 3617700.48 1.99511 487520.59
3617700.48 1.85694
487570.59 3617700.48 1.72421 487620.59
3617700.48 1.59923
487670.59 3617700.48 1.48326 487720.59
3617700.48 1.37538
487770.59 3617700.48 1.27806 487820.59
3617700.48 1.18872
487870.59 3617700.48 1.10599 487920.59
3617700.48 1.02736
487970.59 3617700.48 0.95304 488020.59
3617700.48 0.88947
488070.59 3617700.48 0.84043 488120.59
3617700.48 0.79661
488170.59 3617700.48 0.75911 488220.59
3617700.48 0.72493
488270.59 3617700.48 0.69076 488320.59
3617700.48 0.65998
488370.59 3617700.48 0.63693 488420.59

3617700.48   0.62003
        488470.59   3617700.48   0.59592   488520.59
3617700.48   0.57313
        488570.59   3617700.48   0.55171   488620.59
3617700.48   0.53132
        486420.59   3617750.48   2.28030   486470.59
3617750.48   2.34254
        486520.59   3617750.48   2.38702   486570.59
3617750.48   2.44058
        486620.59   3617750.48   2.47913   486670.59
3617750.48   2.55522
        486720.59   3617750.48   2.64475   486770.59
3617750.48   2.72599
        486820.59   3617750.48   2.74703   486870.59
3617750.48   2.73394
        486920.59   3617750.48   2.67341   486970.59
3617750.48   2.66903
        487020.59   3617750.48   2.67826   487070.59
3617750.48   2.68658
        487220.59   3617750.48   2.45523   487270.59
3617750.48   2.34977

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2   ***
INCLUDING SOURCE(S):   LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487320.59	3617750.48	2.23929	487370.59	3617750.48	2.13189
487420.59	3617750.48	2.02043	487470.59	3617750.48	1.90813
487520.59	3617750.48	1.78684	487570.59	3617750.48	1.66667

```
         487620.59    3617750.48        1.55986                    487670.59
3617750.48        1.45960
         487720.59    3617750.48        1.35908                    487770.59
3617750.48        1.26630
         487820.59    3617750.48        1.17894                    487870.59
3617750.48        1.10118
         487920.59    3617750.48        1.02768                    487970.59
3617750.48        0.95717
         488020.59    3617750.48        0.90085                    488070.59
3617750.48        0.85753
         488120.59    3617750.48        0.81051                    488170.59
3617750.48        0.76605
         488220.59    3617750.48        0.71859                    488270.59
3617750.48        0.68742
         488320.59    3617750.48        0.65235                    488370.59
3617750.48        0.63324
         488420.59    3617750.48        0.60874                    488470.59
3617750.48        0.58533
         488520.59    3617750.48        0.56323                    488570.59
3617750.48        0.54245
         488620.59    3617750.48        0.52280                    486420.59
3617800.48        2.07149
         486470.59    3617800.48        2.11717                    486520.59
3617800.48        2.14995
         486570.59    3617800.48        2.18710                    486620.59
3617800.48        2.23032
         486670.59    3617800.48        2.28663                    486720.59
3617800.48        2.36798
         486770.59    3617800.48        2.44188                    486820.59
3617800.48        2.45940
         486870.59    3617800.48        2.41889                    486920.59
3617800.48        2.40233
         486970.59    3617800.48        2.39817                    487170.59
3617800.48        2.33440
         487220.59    3617800.48        2.25727                    487270.59
3617800.48        2.17471
         487320.59    3617800.48        2.08793                    487370.59
3617800.48        1.99576
         487420.59    3617800.48        1.90355                    487470.59
3617800.48        1.81247
         487520.59    3617800.48        1.71407                    487570.59
3617800.48        1.62006
         487620.59    3617800.48        1.52266                    487670.59
3617800.48        1.43288
         487720.59    3617800.48        1.33600                    487770.59
3617800.48        1.24951
         487820.59    3617800.48        1.16229                    487870.59
3617800.48        1.09415
         487920.59    3617800.48        1.02945                    487970.59
3617800.48        0.96697
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         488020.59    3617800.48        0.91626                       488070.59
3617800.48        0.86238
         488120.59    3617800.48        0.80931                       488170.59
3617800.48        0.76151
         488220.59    3617800.48        0.71231                       488270.59
3617800.48        0.67365
         488320.59    3617800.48        0.64643                       488370.59
3617800.48        0.62124
         488420.59    3617800.48        0.59744                       488470.59
3617800.48        0.57477
         488520.59    3617800.48        0.55344                       488570.59
3617800.48        0.53333
         488620.59    3617800.48        0.51435                       486470.59
3617850.48        1.91907
         486520.59    3617850.48        1.95654                       486570.59
3617850.48        1.98340
         486620.59    3617850.48        2.00380                       486670.59
3617850.48        2.05371
         486720.59    3617850.48        2.12860                       486770.59
3617850.48        2.19481
         486820.59    3617850.48        2.20861                       486870.59
3617850.48        2.17930
         486920.59    3617850.48        2.16941                       487120.59
3617850.48        2.13435
↑ *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                         ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                        ***        14:52:42

                                   PAGE  45
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: LOCA2    ***
                                  INCLUDING SOURCE(S):     LOCATION2_2 ,
LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

                                       *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF TAC      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         487170.59    3617850.48        2.11658                       487220.59
3617850.48        2.07481
         487270.59    3617850.48        2.01461                       487320.59
```

3617850.48 1.94885
487370.59 3617850.48 1.87298 487420.59
3617850.48 1.79135
487470.59 3617850.48 1.71358 487520.59
3617850.48 1.63418
487570.59 3617850.48 1.55848 487620.59
3617850.48 1.47901
487670.59 3617850.48 1.39843 487720.59
3617850.48 1.31326
487770.59 3617850.48 1.23110 487820.59
3617850.48 1.15724
487870.59 3617850.48 1.08661 487920.59
3617850.48 1.02680
487970.59 3617850.48 0.97384 488020.59
3617850.48 0.91877
488070.59 3617850.48 0.85101 488120.59
3617850.48 0.79586
488170.59 3617850.48 0.72830 488220.59
3617850.48 0.69210
488270.59 3617850.48 0.66412 488320.59
3617850.48 0.63812
488370.59 3617850.48 0.60932 488420.59
3617850.48 0.58621
488470.59 3617850.48 0.56433 488520.59
3617850.48 0.54371
488570.59 3617850.48 0.52425 488620.59
3617850.48 0.50587
486520.59 3617900.48 1.78674 486570.59
3617900.48 1.79856
486620.59 3617900.48 1.81951 486670.59
3617900.48 1.86194
486720.59 3617900.48 1.90649 486770.59
3617900.48 1.98863
486820.59 3617900.48 2.00345 486870.59
3617900.48 1.98887
486920.59 3617900.48 2.05444 487070.59
3617900.48 1.92180
487120.59 3617900.48 1.92766 487170.59
3617900.48 1.92685
487220.59 3617900.48 1.91038 487270.59
3617900.48 1.87089
487320.59 3617900.48 1.81727 487370.59
3617900.48 1.75451
487420.59 3617900.48 1.68721 487470.59
3617900.48 1.61738
487520.59 3617900.48 1.54888 487570.59
3617900.48 1.48893
487620.59 3617900.48 1.42451 487670.59
3617900.48 1.35762
487720.59 3617900.48 1.28360 487770.59

3617900.48 1.21178
487820.59 3617900.48 1.14157 487870.59
3617900.48 1.07996
487920.59 3617900.48 1.02305 487970.59
3617900.48 0.96757
488020.59 3617900.48 0.91187 488070.59
3617900.48 0.83723
488120.59 3617900.48 0.76390 488170.59
3617900.48 0.71244
488220.59 3617900.48 0.68375 488270.59
3617900.48 0.66358
488320.59 3617900.48 0.63869 488370.59
3617900.48 0.59726
488420.59 3617900.48 0.57499 488470.59
3617900.48 0.55392
488520.59 3617900.48 0.53405 488570.59
3617900.48 0.51523
488620.59 3617900.48 0.49746 487077.48
3618005.05 1.58243
487127.48 3618005.05 1.58020 487177.48
3618005.05 1.59059
487227.48 3618005.05 1.60037 487277.48
3618005.05 1.59067
487327.48 3618005.05 1.56259 486570.59
3617950.48 1.64809
486620.59 3617950.48 1.66437 486670.59
3617950.48 1.68252

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC X-COORD (M) Y-COORD (M) CONC
- -

```
         486720.59    3617950.48        1.71952                    486770.59
3617950.48        1.80259
         486820.59    3617950.48        1.83596                    486970.59
3617950.48        1.81480
         487020.59    3617950.48        1.75566                    487070.59
3617950.48        1.74615
         487120.59    3617950.48        1.75054                    487170.59
3617950.48        1.75360
         487220.59    3617950.48        1.75643                    487270.59
3617950.48        1.73726
         487320.59    3617950.48        1.69894                    487370.59
3617950.48        1.64322
         487420.59    3617950.48        1.58824                    487470.59
3617950.48        1.52792
         487520.59    3617950.48        1.47067                    487570.59
3617950.48        1.41876
         487620.59    3617950.48        1.36469                    487670.59
3617950.48        1.30836
         487720.59    3617950.48        1.24771                    487770.59
3617950.48        1.18640
         487820.59    3617950.48        1.12428                    487870.59
3617950.48        1.06979
         487920.59    3617950.48        1.01373                    487970.59
3617950.48        0.94257
         488020.59    3617950.48        0.88807                    488070.59
3617950.48        0.81909
         488120.59    3617950.48        0.74369                    488170.59
3617950.48        0.74336
         488220.59    3617950.48        0.71511                    488270.59
3617950.48        0.66680
         488320.59    3617950.48        0.61827                    488370.59
3617950.48        0.58525
         488420.59    3617950.48        0.56389                    488470.59
3617950.48        0.54361
         488520.59    3617950.48        0.52444                    488570.59
3617950.48        0.50625
         488620.59    3617950.48        0.48908                    488590.14
3616298.03        0.58519
         488540.14    3616348.03        0.62112                    488590.14
3616348.03        0.59779
         488440.14    3616398.03        0.68792                    488490.14
3616398.03        0.66032
         488540.14    3616398.03        0.63443                    488590.14
3616398.03        0.61010
         488390.14    3616448.03        0.73422                    488440.14
3616448.03        0.70346
         488490.14    3616448.03        0.67460                    488540.14
3616448.03        0.64756
         488590.14    3616448.03        0.62221                    488340.14
3616498.03        0.78533
```

```
         488390.14    3616498.03        0.75089                      488440.14
3616498.03        0.71868
         488490.14    3616498.03        0.68853                      488540.14
3616498.03        0.66036
         488590.14    3616498.03        0.63410                      484613.02
3614429.89        0.23951
         484663.02    3614429.89        0.24338                      484713.02
3614429.89        0.24727
         484763.02    3614429.89        0.25122                      484813.02
3614429.89        0.25521
         484863.02    3614429.89        0.25921                      484913.02
3614429.89        0.26325
         484963.02    3614429.89        0.26727                      484563.02
3614479.89        0.24028
         484613.02    3614479.89        0.24425                      484663.02
3614479.89        0.24826
         484713.02    3614479.89        0.25234                      484763.02
3614479.89        0.25648
         484813.02    3614479.89        0.26064                      484863.02
3614479.89        0.26483
         484913.02    3614479.89        0.26907                      484963.02
3614479.89        0.27329
         484513.02    3614529.89        0.24086                      484563.02
3614529.89        0.24494
         484613.02    3614529.89        0.24909                      484663.02
3614529.89        0.25328
         484713.02    3614529.89        0.25755                      484763.02
3614529.89        0.26186
         484813.02    3614529.89        0.26622                      484863.02
3614529.89        0.27063
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***       11/29/22
 *** AERMET - VERSION  19191 ***   ***
                           ***       14:52:42

                                     PAGE  47
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: LOCA2    ***
                                    INCLUDING SOURCE(S):     LOCATION2_2 ,
LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                    ** CONC OF TAC      IN MICROGRAMS/M**3
                  **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
```

Y-COORD (M)   CONC
- -
484913.02   3614529.89   0.27508   484963.02
3614529.89   0.27949
484463.02   3614579.89   0.24120   484513.02
3614579.89   0.24545
484563.02   3614579.89   0.24971   484613.02
3614579.89   0.25403
484663.02   3614579.89   0.25843   484713.02
3614579.89   0.26288
484763.02   3614579.89   0.26740   484813.02
3614579.89   0.27196
484863.02   3614579.89   0.27658   484913.02
3614579.89   0.28126
484963.02   3614579.89   0.28591   484413.02
3614629.89   0.24146
484463.02   3614629.89   0.24576   484513.02
3614629.89   0.25014
484563.02   3614629.89   0.25458   484613.02
3614629.89   0.25910
484663.02   3614629.89   0.26369   484713.02
3614629.89   0.26835
484763.02   3614629.89   0.27307   484813.02
3614629.89   0.27786
484863.02   3614629.89   0.28271   484913.02
3614629.89   0.28761
484963.02   3614629.89   0.29257   484413.02
3614679.89   0.24588
484463.02   3614679.89   0.25036   484513.02
3614679.89   0.25492
484563.02   3614679.89   0.25956   484613.02
3614679.89   0.26428
484663.02   3614679.89   0.26908   484713.02
3614679.89   0.27395
484763.02   3614679.89   0.27889   484813.02
3614679.89   0.28391
484863.02   3614679.89   0.28899   484913.02
3614679.89   0.29414
484963.02   3614679.89   0.29935   484363.02
3614729.89   0.24580
484413.02   3614729.89   0.25040   484463.02
3614729.89   0.25506
484513.02   3614729.89   0.25981   484563.02
3614729.89   0.26465
484613.02   3614729.89   0.26957   484663.02
3614729.89   0.27459
484713.02   3614729.89   0.27968   484763.02
3614729.89   0.28486
484813.02   3614729.89   0.29011   484863.02

3614729.89   0.29544
         484913.02   3614729.89   0.30086   484963.02
3614729.89   0.30635
         484313.02   3614779.89   0.24557   484363.02
3614779.89   0.25023
         484413.02   3614779.89   0.25498   484463.02
3614779.89   0.25984
         484513.02   3614779.89   0.26479   484563.02
3614779.89   0.26984
         484613.02   3614779.89   0.27498   484663.02
3614779.89   0.28022
         484713.02   3614779.89   0.28555   484763.02
3614779.89   0.29098
         484813.02   3614779.89   0.29648   484863.02
3614779.89   0.30208
         484913.02   3614779.89   0.30777   484963.02
3614779.89   0.31353
         484263.02   3614829.89   0.24509   484313.02
3614829.89   0.24986
         484363.02   3614829.89   0.25471   484413.02
3614829.89   0.25965
         484463.02   3614829.89   0.26471   484513.02
3614829.89   0.26987
         484563.02   3614829.89   0.27514   484613.02
3614829.89   0.28050
         484663.02   3614829.89   0.28597   484713.02
3614829.89   0.29156
         484763.02   3614829.89   0.29725   484813.02
3614829.89   0.30303
         484863.02   3614829.89   0.30891   484913.02
3614829.89   0.31487
         484963.02   3614829.89   0.32088   484213.02
3614879.89   0.24450

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

                                *** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: LOCA2   ***
                                    INCLUDING SOURCE(S):   LOCATION2_2 ,
LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

                                                 *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                                ** CONC OF TAC   IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
484263.02	3614879.89	0.24930	484313.02	3614879.89	0.25422
484363.02	3614879.89	0.25926	484413.02	3614879.89	0.26440
484463.02	3614879.89	0.26967	484513.02	3614879.89	0.27504
484563.02	3614879.89	0.28054	484613.02	3614879.89	0.28614
484663.02	3614879.89	0.29186	484713.02	3614879.89	0.29771
484763.02	3614879.89	0.30366	484813.02	3614879.89	0.30974
484863.02	3614879.89	0.31591	484913.02	3614879.89	0.32218
484963.02	3614879.89	0.32854	484163.02	3614929.89	0.24368
484213.02	3614929.89	0.24854	484263.02	3614929.89	0.25353
484313.02	3614929.89	0.25865	484363.02	3614929.89	0.26388
484413.02	3614929.89	0.26923	484463.02	3614929.89	0.27470
484513.02	3614929.89	0.28030	484563.02	3614929.89	0.28603
484613.02	3614929.89	0.29189	484663.02	3614929.89	0.29788
484713.02	3614929.89	0.30399	484763.02	3614929.89	0.31023
484813.02	3614929.89	0.31660	484863.02	3614929.89	0.32309
484913.02	3614929.89	0.32969	484963.02	3614929.89	0.33639
485013.02	3614929.89	0.34309	484113.02	3614979.89	0.24268
484163.02	3614979.89	0.24761	484213.02	3614979.89	0.25264
484263.02	3614979.89	0.25782	484313.02	3614979.89	0.26312
484363.02	3614979.89	0.26856	484413.02	3614979.89	0.27413
484463.02	3614979.89	0.27983	484513.02	3614979.89	0.28567
484563.02	3614979.89	0.29165	484613.02	3614979.89	0.29776

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         484663.02    3614979.89        0.30403                       484713.02
3614979.89        0.31041
         484763.02    3614979.89        0.31696                       484813.02
3614979.89        0.32363
         484863.02    3614979.89        0.33044                       484913.02
3614979.89        0.33739
         484963.02    3614979.89        0.34446                       485013.02
3614979.89        0.35161
         484113.02    3615029.89        0.24647                       484163.02
3615029.89        0.25157
         484213.02    3615029.89        0.25679                       484263.02
3615029.89        0.26215
         484313.02    3615029.89        0.26766                       484363.02
3615029.89        0.27331
         484413.02    3615029.89        0.27910                       484463.02
3615029.89        0.28504
         484513.02    3615029.89        0.29112                       484563.02
3615029.89        0.29736
         484613.02    3615029.89        0.30375                       484663.02
3615029.89        0.31029
         484713.02    3615029.89        0.31699                       484763.02
3615029.89        0.32383
         484813.02    3615029.89        0.33083                       484863.02
3615029.89        0.33799
         484913.02    3615029.89        0.34529                       484963.02
3615029.89        0.35274
         485013.02    3615029.89        0.36033                       485063.02
3615029.89        0.36792
         484113.02    3615079.89        0.25028                       484163.02
3615079.89        0.25556
         484213.02    3615079.89        0.26098                       484263.02
3615079.89        0.26654
         484313.02    3615079.89        0.27226                       484363.02
3615079.89        0.27812
         484413.02    3615079.89        0.28415                       484463.02
3615079.89        0.29033
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                           ***       14:52:42

                                     PAGE  49
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                  *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: LOCA2    ***
                                     INCLUDING SOURCE(S):     LOCATION2_2 ,
LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

                                                  *** DISCRETE CARTESIAN RECEPTOR POINTS
```

***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
484513.02	3615079.89	0.29666	484563.02	3615079.89	0.30317
484613.02	3615079.89	0.30984	484663.02	3615079.89	0.31668
484713.02	3615079.89	0.32367	484763.02	3615079.89	0.33086
484813.02	3615079.89	0.33821	484863.02	3615079.89	0.34572
484913.02	3615079.89	0.35340	484963.02	3615079.89	0.36124
485013.02	3615079.89	0.36924	485063.02	3615079.89	0.37740
485113.02	3615079.89	0.38561	484113.02	3615129.89	0.25412
484163.02	3615129.89	0.25959	484213.02	3615129.89	0.26520
484263.02	3615129.89	0.27097	484313.02	3615129.89	0.27689
484363.02	3615129.89	0.28299	484413.02	3615129.89	0.28925
484463.02	3615129.89	0.29569	484513.02	3615129.89	0.30229
484563.02	3615129.89	0.30908	484613.02	3615129.89	0.31605
484663.02	3615129.89	0.32318	484713.02	3615129.89	0.33052
484763.02	3615129.89	0.33804	484813.02	3615129.89	0.34574
484863.02	3615129.89	0.35363	484913.02	3615129.89	0.36171
484963.02	3615129.89	0.36997	485013.02	3615129.89	0.37841
485063.02	3615129.89	0.38703	485113.02	3615129.89	0.39582
485163.02	3615129.89	0.40466	484113.02	3615179.89	0.25798
484163.02	3615179.89	0.26363	484213.02	3615179.89	0.26945
484263.02	3615179.89	0.27543	484313.02	3615179.89	0.28158
484363.02	3615179.89	0.28790	484413.02		

3615179.89 0.29442
  484463.02 3615179.89 0.30112 484513.02
3615179.89 0.30800
  484563.02 3615179.89 0.31508 484613.02
3615179.89 0.32235
  484663.02 3615179.89 0.32982 484713.02
3615179.89 0.33748
  484763.02 3615179.89 0.34536 484813.02
3615179.89 0.35343
  484863.02 3615179.89 0.36173 484913.02
3615179.89 0.37023
  484963.02 3615179.89 0.37893 485013.02
3615179.89 0.38783
  485063.02 3615179.89 0.39694 485113.02
3615179.89 0.40624
  485163.02 3615179.89 0.41571 485213.02
3615179.89 0.42531
  484113.02 3615229.89 0.26186 484163.02
3615229.89 0.26770
  484213.02 3615229.89 0.27372 484263.02
3615229.89 0.27992
  484313.02 3615229.89 0.28630 484363.02
3615229.89 0.29288
  484413.02 3615229.89 0.29964 484463.02
3615229.89 0.30661
  484513.02 3615229.89 0.31377 484563.02
3615229.89 0.32116
  484613.02 3615229.89 0.32875 484663.02
3615229.89 0.33656
  484713.02 3615229.89 0.34458 484763.02
3615229.89 0.35283
  484813.02 3615229.89 0.36131 484863.02
3615229.89 0.37002
  484913.02 3615229.89 0.37896 484963.02
3615229.89 0.38811
  485013.02 3615229.89 0.39751 485063.02
3615229.89 0.40713
  485113.02 3615229.89 0.41697 485163.02
3615229.89 0.42703

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 ,

LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
485213.02	3615229.89	0.43730	485263.02	3615229.89	0.44769
484113.02	3615279.89	0.26574	484163.02	3615279.89	0.27179
484213.02	3615279.89	0.27800	484263.02	3615279.89	0.28437
484313.02	3615279.89	0.29097	484613.02	3615279.89	0.33524
484663.02	3615279.89	0.34340	484713.02	3615279.89	0.35180
484763.02	3615279.89	0.36044	484813.02	3615279.89	0.36933
484863.02	3615279.89	0.37847	484913.02	3615279.89	0.38788
484963.02	3615279.89	0.39753	485013.02	3615279.89	0.40744
485063.02	3615279.89	0.41760	485113.02	3615279.89	0.42802
485163.02	3615279.89	0.43869	485213.02	3615279.89	0.44960
485263.02	3615279.89	0.46073	485313.02	3615279.89	0.47207
484113.02	3615329.89	0.26963	484163.02	3615329.89	0.27583
484213.02	3615329.89	0.28222	484663.02	3615329.89	0.35033
484713.02	3615329.89	0.35913	484763.02	3615329.89	0.36818
484813.02	3615329.89	0.37750	484863.02	3615329.89	0.38709
484913.02	3615329.89	0.39699	484963.02	3615329.89	0.40717
485013.02	3615329.89	0.41762	485063.02	3615329.89	0.42836
485113.02	3615329.89	0.43939	485163.02	3615329.89	0.45070
485213.02	3615329.89	0.46228	485263.02	3615329.89	0.47414

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         485313.02    3615329.89        0.48625                       485363.02
3615329.89        0.49854
         484113.02    3615379.89        0.27346                       484163.02
3615379.89        0.27987
         484713.02    3615379.89        0.36655                       484763.02
3615379.89        0.37604
         484813.02    3615379.89        0.38582                       484863.02
3615379.89        0.39591
         484913.02    3615379.89        0.40629                       484963.02
3615379.89        0.41701
         485013.02    3615379.89        0.42804                       485063.02
3615379.89        0.43940
         485113.02    3615379.89        0.45107                       485163.02
3615379.89        0.46306
         485213.02    3615379.89        0.47537                       485263.02
3615379.89        0.48799
         485313.02    3615379.89        0.50091                       485363.02
3615379.89        0.51412
         485413.02    3615379.89        0.52760                       484763.02
3615429.89        0.38398
         484813.02    3615429.89        0.39427                       484863.02
3615429.89        0.40486
         484913.02    3615429.89        0.41579                       484963.02
3615429.89        0.42707
         485013.02    3615429.89        0.43871                       485063.02
3615429.89        0.45070
         485113.02    3615429.89        0.46305                       485163.02
3615429.89        0.47578
         485213.02    3615429.89        0.48886                       485263.02
3615429.89        0.50230
         485313.02    3615429.89        0.51608                       485363.02
3615429.89        0.53020
         485413.02    3615429.89        0.54463                       485463.02
3615429.89        0.55938
         485513.02    3615429.89        0.57440                       484813.02
3615479.89        0.40282
         484863.02    3615479.89        0.41397                       484913.02
3615479.89        0.42546
         484963.02    3615479.89        0.43734                       485013.02
3615479.89        0.44961
         485063.02    3615479.89        0.46228                       485113.02
3615479.89        0.47536
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                          ***       14:52:42

                                   PAGE  51
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data
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*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
485163.02	3615479.89	0.48884	485213.02	3615479.89	0.50275
485263.02	3615479.89	0.51706	485313.02	3615479.89	0.53175
485363.02	3615479.89	0.54684	485413.02	3615479.89	0.56233
485463.02	3615479.89	0.57818	485513.02	3615479.89	0.59435
485563.02	3615479.89	0.61065	484863.02	3615529.89	0.42317
484913.02	3615529.89	0.43529	484963.02	3615529.89	0.44780
485013.02	3615529.89	0.46074	485063.02	3615529.89	0.47413
485113.02	3615529.89	0.48797	485163.02	3615529.89	0.50227
485213.02	3615529.89	0.51703	485263.02	3615529.89	0.53226
485313.02	3615529.89	0.54795	485363.02	3615529.89	0.56409
485413.02	3615529.89	0.58068	485463.02	3615529.89	0.59772
485513.02	3615529.89	0.61516	484913.02	3615579.89	0.44520
484963.02	3615579.89	0.45843	485013.02	3615579.89	0.47207
485063.02	3615579.89	0.48621	485113.02	3615579.89	0.50077
485163.02	3615579.89	0.51598	485213.02	3615579.89	0.53171
485263.02	3615579.89	0.54792	485313.02	3615579.89	0.56467
485363.02	3615579.89	0.58194	485413.02	3615579.89	0.59973
485463.02	3615579.89	0.61805	484963.02		

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3615629.89        0.46917
         485013.02    3615629.89        0.48360                    485063.02
3615629.89        0.49853
         485113.02    3615629.89        0.51403                    485163.02
3615629.89        0.53008
         485213.02    3615629.89        0.54676                    485263.02
3615629.89        0.56403
         485313.02    3615629.89        0.58190                    485363.02
3615629.89        0.60039
         485413.02    3615629.89        0.61948                    485013.02
3615679.89        0.49515
         485063.02    3615679.89        0.51106                    485113.02
3615679.89        0.52745
         485163.02    3615679.89        0.54448                    485213.02
3615679.89        0.56218
         485263.02    3615679.89        0.58057                    485313.02
3615679.89        0.59963
         485363.02    3615679.89        0.61939                    485413.02
3615679.89        0.63987
         485063.02    3615729.89        0.52359                    485113.02
3615729.89        0.54111
         485163.02    3615729.89        0.55915                    485213.02
3615729.89        0.57795
         485263.02    3615729.89        0.59752                    485313.02
3615729.89        0.61787
         485363.02    3615729.89        0.63901                    485113.02
3615779.89        0.55494
         485163.02    3615779.89        0.57408                    485213.02
3615779.89        0.59403
         485263.02    3615779.89        0.61484                    485313.02
3615779.89        0.63655
         485163.02    3615829.89        0.58904                    485213.02
3615829.89        0.61038
         485263.02    3615829.89        0.63251                    485213.02
3615879.89        0.62685
         487082.35    3618053.22        1.43964                    487132.24
3618053.22        1.45352
         487182.13    3618053.22        1.45466                    487232.02
3618053.22        1.46941
         487281.91    3618053.22        1.46414                    486242.77
3618033.89        1.29841
         486286.79    3617997.48        1.39474                    486574.47
3617998.65        1.52413
         486624.36    3617998.65        1.52122                    486674.25
3617998.65        1.51808
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                          ***       14:52:42
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
486724.14	3617998.65	1.60989	486774.03	3617998.65	1.66996
486923.70	3617998.65	1.62881	486973.59	3617998.65	1.61514
487023.48	3617998.65	1.60963	487082.35	3618103.22	1.34363
487132.24	3618103.22	1.33692	487182.13	3618103.22	1.34026
486165.87	3618094.46	1.15642	486242.77	3618083.89	1.21282
486292.66	3618083.89	1.22347	486499.32	3618054.73	1.35805
486574.47	3618048.65	1.40001	486624.36	3618048.65	1.42067
486674.25	3618048.65	1.45657	486724.14	3618048.65	1.50326
486873.81	3618048.65	1.52226	486923.70	3618048.65	1.49535
486973.59	3618048.65	1.46903	487023.48	3618048.65	1.46768
487082.35	3618153.22	1.24368	487132.24	3618153.22	1.24000
486325.02	3618098.65	1.20269	486242.77	3618133.89	1.12378
486524.58	3618098.65	1.24742	486574.47	3618098.65	1.29063
486624.36	3618098.65	1.31867	486674.25	3618098.65	1.33066
486823.92	3618098.65	1.41488	486873.81	3618098.65	1.38884
486923.70	3618098.65	1.37115	486973.59	3618098.65	1.35537

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         487023.48    3618098.65        1.34781                     487082.35
3618203.22        1.17048
         486275.13    3618148.65        1.10634                     486325.02
3618148.65        1.12000
         486374.91    3618148.65        1.14180                     486474.69
3618148.65        1.16944
         486524.58    3618148.65        1.18113                     486574.47
3618148.65        1.19296
         486624.36    3618148.65        1.15251                     486774.03
3618148.65        1.34040
         486823.92    3618148.65        1.33793                     486873.81
3618148.65        1.30524
         486923.70    3618148.65        1.28334                     486973.59
3618148.65        1.26188
         487023.48    3618148.65        1.24952                     486275.13
3618198.65        1.03485
         486325.02    3618198.65        1.04904                     486374.91
3618198.65        1.06338
         486424.80    3618198.65        1.06634                     486474.69
3618198.65        1.08908
         486524.58    3618198.65        1.10249                     486674.25
3618198.65        1.16181
         486724.14    3618198.65        1.22176                     486774.03
3618198.65        1.26009
         486823.92    3618198.65        1.27081                     486873.81
3618198.65        1.25640
         486923.70    3618198.65        1.21582                     486973.59
3618198.65        1.19316
         487023.48    3618198.65        1.17918                     486275.13
3618248.65        0.97090
         486325.02    3618248.65        0.97443                     486374.91
3618248.65        0.98859
         486424.80    3618248.65        1.00612                     486474.69
3618248.65        0.97210
         486624.36    3618248.65        1.06633                     486674.25
3618248.65        1.09934
         486724.14    3618248.65        1.14176                     486774.03
3618248.65        1.17440
         486823.92    3618248.65        1.19083                     486873.81
3618248.65        1.19390
         486923.70    3618248.65        1.17823                     486973.59
3618248.65        1.15178
         487023.48    3618248.65        1.12439                     486125.46
3618298.65        0.89199
         486275.13    3618298.65        0.91373                     486325.02
3618298.65        0.91869
         486374.91    3618298.65        0.92956                     486424.80
3618298.65        0.91962
```

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
486574.47	3618298.65	0.98322	486624.36	3618298.65	1.00245
486674.25	3618298.65	1.03000	486724.14	3618298.65	1.06823
486774.03	3618298.65	1.08663	486823.92	3618298.65	1.10860
486873.81	3618298.65	1.11036	486923.70	3618298.65	1.11038
486125.46	3618348.65	0.85079	486175.35	3618348.65	0.85092
486225.24	3618348.65	0.85370	486275.13	3618348.65	0.86276
486325.02	3618348.65	0.86376	486524.58	3618348.65	0.90709
486574.47	3618348.65	0.92390	486624.36	3618348.65	0.94095
486674.25	3618348.65	0.97208	486724.14	3618348.65	1.00177
486774.03	3618348.65	1.01317	486823.92	3618348.65	1.03894
486873.81	3618348.65	1.04872	486125.46	3618398.65	0.81240
486175.35	3618398.65	0.80709	486225.24	3618398.65	0.81937
486424.80	3618398.65	0.82445	486474.69	3618398.65	0.84021
486524.58	3618398.65	0.85638	486574.47	3618398.65	0.87316
486624.36	3618398.65	0.89318	486674.25		

3618398.65   0.92039
         486724.14   3618398.65   0.95103   486774.03
3618398.65   0.97203
         486823.92   3618398.65   0.98385   486125.46
3618448.65   0.77079
         486175.35   3618448.65   0.77985   486374.91
3618448.65   0.77088
         486424.80   3618448.65   0.78864   486474.69
3618448.65   0.78961
         486524.58   3618448.65   0.81426   486574.47
3618448.65   0.82866
         486624.36   3618448.65   0.84914   486674.25
3618448.65   0.87293
         486724.14   3618448.65   0.90411   486774.03
3618448.65   0.92767
         486125.46   3618498.65   0.74584   486325.02
3618498.65   0.74373
         486374.91   3618498.65   0.74261   486424.80
3618498.65   0.74648
         486474.69   3618498.65   0.76226   486524.58
3618498.65   0.76805
         486574.47   3618498.65   0.79226   486624.36
3618498.65   0.80798
         486674.25   3618498.65   0.83036   486105.96
3618586.04   0.68579
         486325.02   3618548.65   0.70923   486374.91
3618548.65   0.73508
         486424.80   3618548.65   0.74889   486474.69
3618548.65   0.73075
         486524.58   3618548.65   0.74691   486574.47
3618548.65   0.74910
         486624.36   3618548.65   0.77135   486101.02
3618078.36   1.14248
         486155.07   3618149.26   1.07349   486018.49
3618262.09   0.89779
         485957.41   3618189.14   0.93272   485842.03
3618300.27   0.78678
         485893.78   3618363.05   0.76555   485902.87
3618241.99   0.85869
         485966.01   3618313.09   0.83159   486011.91
3618082.61   1.07702

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

                              *** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION

VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
488270.59	3616550.48	1.90804	488320.59	3616550.48	1.81438
488370.59	3616550.48	1.72763	488420.59	3616550.48	1.64732
488470.59	3616550.48	1.57228	488520.59	3616550.48	1.50258
488570.59	3616550.48	1.43802	488620.59	3616550.48	1.37746
488270.59	3616600.48	1.95908	488320.59	3616600.48	1.86041
488370.59	3616600.48	1.76952	488420.59	3616600.48	1.68510
488470.59	3616600.48	1.60677	488520.59	3616600.48	1.53398
488570.59	3616600.48	1.46657	488620.59	3616600.48	1.40358
488270.59	3616650.48	2.00844	488320.59	3616650.48	1.90486
488370.59	3616650.48	1.80932	488420.59	3616650.48	1.72107
488470.59	3616650.48	1.63951	488520.59	3616650.48	1.56389
488570.59	3616650.48	1.49359	488620.59	3616650.48	1.42822
488270.59	3616700.48	2.05462	488320.59	3616700.48	1.94593
488370.59	3616700.48	1.84625	488420.59	3616700.48	1.75431
488470.59	3616700.48	1.66954	488520.59	3616700.48	1.59122
488570.59	3616700.48	1.51841	488620.59	3616700.48	1.45093
488320.59	3616750.48	1.98280	488370.59	3616750.48	1.87916
488420.59	3616750.48	1.78396	488470.59		

3616750.48 1.69630
488520.59 3616750.48 1.61521 488570.59
3616750.48 1.54040
488620.59 3616750.48 1.47103 488320.59
3616800.48 2.01329
488370.59 3616800.48 1.90627 488420.59
3616800.48 1.80817
488470.59 3616800.48 1.71802 488520.59
3616800.48 1.63488
488570.59 3616800.48 1.55808 488620.59
3616800.48 1.48714
488370.59 3616850.48 1.92550 488420.59
3616850.48 1.82524
488470.59 3616850.48 1.73311 488520.59
3616850.48 1.64842
488570.59 3616850.48 1.57018 488620.59
3616850.48 1.49797
488420.59 3616900.48 1.83327 488470.59
3616900.48 1.74015
488520.59 3616900.48 1.65451 488570.59
3616900.48 1.57562
488620.59 3616900.48 1.50268 488420.59
3616950.48 1.83071
488470.59 3616950.48 1.73806 488520.59
3616950.48 1.65250
488570.59 3616950.48 1.57362 488620.59
3616950.48 1.50067
488470.59 3617000.48 1.72672 488520.59
3617000.48 1.64209
488570.59 3617000.48 1.56398 488620.59
3617000.48 1.49180
488470.59 3617050.48 1.70703 488520.59
3617050.48 1.62394
488570.59 3617050.48 1.54755 488620.59
3617050.48 1.47675
488370.59 3617100.48 1.86163 488420.59
3617100.48 1.76730
488470.59 3617100.48 1.68047 488520.59
3617100.48 1.59877
488570.59 3617100.48 1.52512 488620.59
3617100.48 1.46333
488320.59 3617150.48 1.92206 488370.59
3617150.48 1.82351
488420.59 3617150.48 1.73151 488470.59
3617150.48 1.64848

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
488520.59	3617150.48	1.56990	488570.59	3617150.48	1.49812
488620.59	3617150.48	1.44899	488270.59	3617200.48	1.98823
488320.59	3617200.48	1.87583	488370.59	3617200.48	1.80029
488420.59	3617200.48	1.69374	488470.59	3617200.48	1.61405
488520.59	3617200.48	1.53858	488570.59	3617200.48	1.46938
488620.59	3617200.48	1.43327	487320.59	3617250.48	9.71747
487370.59	3617250.48	8.40547	487420.59	3617250.48	7.35467
487470.59	3617250.48	6.50010	487520.59	3617250.48	5.77802
487570.59	3617250.48	5.17144	487620.59	3617250.48	4.67022
487670.59	3617250.48	4.25365	487720.59	3617250.48	3.90219
487770.59	3617250.48	3.59927	487820.59	3617250.48	3.33383
487870.59	3617250.48	3.09921	487920.59	3617250.48	2.89043
487970.59	3617250.48	2.70301	488020.59	3617250.48	2.53536
488070.59	3617250.48	2.38516	488120.59	3617250.48	2.25191
488170.59	3617250.48	2.13110	488220.59	3617250.48	2.02249
488270.59	3617250.48	1.92129	488320.59		

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3617250.48        1.82576
         488370.59    3617250.48        1.73803                     488420.59
3617250.48        1.65236
         488470.59    3617250.48        1.57911                     488520.59
3617250.48        1.50430
         488570.59    3617250.48        1.43927                     488620.59
3617250.48        1.38142
         487170.59    3617300.48       14.61571                     487220.59
3617300.48       12.55603
         487270.59    3617300.48       10.66607                     487320.59
3617300.48        9.30610
         487370.59    3617300.48        8.11355                     487420.59
3617300.48        7.08936
         487470.59    3617300.48        6.23295                     487520.59
3617300.48        5.53382
         487570.59    3617300.48        4.94731                     487620.59
3617300.48        4.46258
         487670.59    3617300.48        4.06821                     487720.59
3617300.48        3.72387
         487770.59    3617300.48        3.43867                     487820.59
3617300.48        3.19198
         487870.59    3617300.48        2.95349                     487920.59
3617300.48        2.74725
         487970.59    3617300.48        2.55649                     488020.59
3617300.48        2.41099
         488070.59    3617300.48        2.28154                     488120.59
3617300.48        2.14546
         488170.59    3617300.48        2.04500                     488220.59
3617300.48        1.95067
         488270.59    3617300.48        1.85408                     488320.59
3617300.48        1.76327
         488370.59    3617300.48        1.66967                     488420.59
3617300.48        1.60609
         488470.59    3617300.48        1.54387                     488520.59
3617300.48        1.46624
         488570.59    3617300.48        1.40582                     488620.59
3617300.48        1.34815
         487020.59    3617350.48       16.94607                     487070.59
3617350.48       15.84788
         487120.59    3617350.48       14.58021                     487170.59
3617350.48       13.08419
         487220.59    3617350.48       11.59572                     487270.59
3617350.48       10.21241
         487320.59    3617350.48        8.96420                     487370.59
3617350.48        7.87850
         487420.59    3617350.48        6.93025                     487470.59
3617350.48        6.11049
         487520.59    3617350.48        5.42096                     487570.59
3617350.48        4.84111
1 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
```

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487620.59	3617350.48	4.35293	487670.59	3617350.48	3.94657
487720.59	3617350.48	3.60308	487770.59	3617350.48	3.31628
487820.59	3617350.48	3.07729	487870.59	3617350.48	2.84289
487920.59	3617350.48	2.64420	487970.59	3617350.48	2.46780
488020.59	3617350.48	2.33097	488070.59	3617350.48	2.19612
488120.59	3617350.48	2.07453	488170.59	3617350.48	1.97706
488220.59	3617350.48	1.88512	488270.59	3617350.48	1.79586
488320.59	3617350.48	1.71378	488370.59	3617350.48	1.63939
488420.59	3617350.48	1.56294	488470.59	3617350.48	1.50970
488520.59	3617350.48	1.43830	488570.59	3617350.48	1.37987
488620.59	3617350.48	1.32170	486770.59	3617400.48	14.03470
486820.59	3617400.48	14.44850	486870.59	3617400.48	14.70355
486920.59	3617400.48	14.81507	486970.59	3617400.48	14.70595
487020.59	3617400.48	14.31221	487070.59		

3617400.48 13.64749
487120.59 3617400.48 12.82085 487170.59
3617400.48 11.84442
487220.59 3617400.48 10.73264 487270.59
3617400.48 9.64878
487320.59 3617400.48 8.58229 487370.59
3617400.48 7.64993
487420.59 3617400.48 6.79119 487470.59
3617400.48 6.02680
487520.59 3617400.48 5.30908 487570.59
3617400.48 4.78504
487620.59 3617400.48 4.28955 487670.59
3617400.48 3.89462
487720.59 3617400.48 3.55843 487770.59
3617400.48 3.27142
487820.59 3617400.48 3.02560 487870.59
3617400.48 2.80570
487920.59 3617400.48 2.61631 487970.59
3617400.48 2.45022
488020.59 3617400.48 2.30454 488070.59
3617400.48 2.17498
488120.59 3617400.48 2.06313 488170.59
3617400.48 1.96371
488220.59 3617400.48 1.86698 488270.59
3617400.48 1.77183
488320.59 3617400.48 1.68457 488370.59
3617400.48 1.59443
488420.59 3617400.48 1.54861 488470.59
3617400.48 1.48198
488520.59 3617400.48 1.41659 488570.59
3617400.48 1.35585
488620.59 3617400.48 1.29698 486820.59
3617450.48 12.00497
486870.59 3617450.48 12.24938 486920.59
3617450.48 12.44369
486970.59 3617450.48 12.47468 487020.59
3617450.48 12.18822
487070.59 3617450.48 11.80420 487120.59
3617450.48 11.28990
487170.59 3617450.48 10.64830 487220.59
3617450.48 9.82966
487270.59 3617450.48 8.96974 487320.59
3617450.48 8.12222
487370.59 3617450.48 7.34483 487420.59
3617450.48 6.59270
487470.59 3617450.48 5.78840 487520.59
3617450.48 4.96764
487570.59 3617450.48 4.52402 487620.59
3617450.48 4.17869
487670.59 3617450.48 3.84385 487720.59

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487870.59	3617450.48	2.73899	487920.59	3617450.48	2.54649
487970.59	3617450.48	2.37981	488020.59	3617450.48	2.23364
488070.59	3617450.48	2.10318	488120.59	3617450.48	1.98689
488170.59	3617450.48	1.88304	488220.59	3617450.48	1.78990
488270.59	3617450.48	1.70005	488320.59	3617450.48	1.60249
488370.59	3617450.48	1.53239	488420.59	3617450.48	1.52021
488470.59	3617450.48	1.45274	488520.59	3617450.48	1.38927
488570.59	3617450.48	1.33047	488620.59	3617450.48	1.27362
486770.59	3617500.48	9.91448	486820.59	3617500.48	10.15292
486870.59	3617500.48	10.38252	486920.59	3617500.48	10.59295
486970.59	3617500.48	10.67549	487020.59	3617500.48	10.57740
487070.59	3617500.48	10.30614	487120.59		

3617500.48 9.95156
487170.59 3617500.48 9.50839 487220.59
3617500.48 8.92765
487270.59 3617500.48 8.24797 487320.59
3617500.48 7.46623
487370.59 3617500.48 6.88784 487420.59
3617500.48 5.76332
487470.59 3617500.48 5.15175 487520.59
3617500.48 5.02912
487570.59 3617500.48 4.67999 487620.59
3617500.48 4.21923
487670.59 3617500.48 3.81849 487720.59
3617500.48 3.46609
487770.59 3617500.48 3.16227 487820.59
3617500.48 2.89662
487870.59 3617500.48 2.66657 487920.59
3617500.48 2.46092
487970.59 3617500.48 2.29269 488020.59
3617500.48 2.14675
488070.59 3617500.48 2.00999 488120.59
3617500.48 1.88130
488170.59 3617500.48 1.78441 488220.59
3617500.48 1.70461
488270.59 3617500.48 1.63972 488320.59
3617500.48 1.56081
488370.59 3617500.48 1.50118 488420.59
3617500.48 1.49029
488470.59 3617500.48 1.42461 488520.59
3617500.48 1.36314
488570.59 3617500.48 1.30611 488620.59
3617500.48 1.25052
486670.59 3617550.48 7.99301 486720.59
3617550.48 8.27467
486770.59 3617550.48 8.52490 486820.59
3617550.48 8.71556
486870.59 3617550.48 8.92395 486920.59
3617550.48 9.13118
486970.59 3617550.48 9.27053 487020.59
3617550.48 9.22897
487070.59 3617550.48 9.01647 487120.59
3617550.48 8.75374
487170.59 3617550.48 8.44627 487220.59
3617550.48 8.05009
487270.59 3617550.48 7.49709 487320.59
3617550.48 6.50594
487370.59 3617550.48 5.94828 487420.59
3617550.48 5.68097
487470.59 3617550.48 5.50387 487520.59
3617550.48 5.03065
487570.59 3617550.48 4.56766 487620.59

3617550.48 4.15148
487670.59 3617550.48 3.77933 487720.59
3617550.48 3.44755
487770.59 3617550.48 3.14961 487820.59
3617550.48 2.87934
487870.59 3617550.48 2.64743 487920.59
3617550.48 2.44791

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487970.59	3617550.48	2.26365	488020.59	3617550.48	2.10966
488070.59	3617550.48	1.96514	488120.59	3617550.48	1.84119
488170.59	3617550.48	1.75316	488220.59	3617550.48	1.67224
488270.59	3617550.48	1.60284	488320.59	3617550.48	1.52428
488370.59	3617550.48	1.50938	488420.59	3617550.48	1.46098
488470.59	3617550.48	1.39727	488520.59	3617550.48	1.33804
488570.59	3617550.48	1.28252	488620.59	3617550.48	1.22779
485870.59	3617600.48	2.82558	485920.59	3617600.48	3.00590
486620.59	3617600.48	6.72475	486670.59	3617600.48	6.98927
486720.59	3617600.48	7.19062	486770.59		

3617600.48 7.40044
486820.59 3617600.48 7.57530 486870.59
3617600.48 7.75485
486920.59 3617600.48 7.93368 486970.59
3617600.48 8.07952
487020.59 3617600.48 8.04652 487070.59
3617600.48 7.91236
487120.59 3617600.48 7.71210 487170.59
3617600.48 7.49572
487220.59 3617600.48 7.26448 487270.59
3617600.48 6.61478
487320.59 3617600.48 6.08348 487370.59
3617600.48 6.00287
487420.59 3617600.48 5.65004 487470.59
3617600.48 5.23195
487520.59 3617600.48 4.82616 487570.59
3617600.48 4.43646
487620.59 3617600.48 4.06712 487670.59
3617600.48 3.72372
487720.59 3617600.48 3.40786 487770.59
3617600.48 3.12309
487820.59 3617600.48 2.86890 487870.59
3617600.48 2.64335
487920.59 3617600.48 2.43883 487970.59
3617600.48 2.25363
488020.59 3617600.48 2.08482 488070.59
3617600.48 1.94301
488120.59 3617600.48 1.82979 488170.59
3617600.48 1.73090
488220.59 3617600.48 1.64902 488270.59
3617600.48 1.57687
488320.59 3617600.48 1.52377 488370.59
3617600.48 1.48073
488420.59 3617600.48 1.43155 488470.59
3617600.48 1.37056
488520.59 3617600.48 1.31346 488570.59
3617600.48 1.25960
488620.59 3617600.48 1.20887 485870.59
3617650.48 2.70593
485920.59 3617650.48 2.86921 485970.59
3617650.48 3.04465
486570.59 3617650.48 5.78261 486620.59
3617650.48 5.96297
486670.59 3617650.48 6.11902 486720.59
3617650.48 6.29904
486770.59 3617650.48 6.49358 486820.59
3617650.48 6.62921
486870.59 3617650.48 6.72878 486920.59
3617650.48 6.88566
486970.59 3617650.48 7.03579 487020.59

3617650.48 7.03755
 487070.59 3617650.48 6.92684 487120.59
3617650.48 6.76640
 487170.59 3617650.48 6.64076 487370.59
3617650.48 5.66428
 487420.59 3617650.48 5.29805 487470.59
3617650.48 4.94469
 487520.59 3617650.48 4.59520 487570.59
3617650.48 4.26287
 487620.59 3617650.48 3.95206 487670.59
3617650.48 3.64907

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
487720.59	3617650.48	3.35517	487770.59	3617650.48	3.09659
487820.59	3617650.48	2.85397	487870.59	3617650.48	2.63333
487920.59	3617650.48	2.43953	487970.59	3617650.48	2.24788
488020.59	3617650.48	2.07060	488070.59	3617650.48	1.93484
488120.59	3617650.48	1.82772	488170.59	3617650.48	1.72402
488220.59	3617650.48	1.63818	488270.59	3617650.48	1.55558
488320.59	3617650.48	1.49122	488370.59	3617650.48	1.45766
488420.59	3617650.48	1.40419	488470.59		

3617650.48 1.34482
488520.59 3617650.48 1.28927 488570.59
3617650.48 1.23730
488620.59 3617650.48 1.18638 485870.59
3617700.48 2.58925
485920.59 3617700.48 2.73683 485970.59
3617700.48 2.89434
486470.59 3617700.48 4.86283 486520.59
3617700.48 5.01587
486570.59 3617700.48 5.17408 486620.59
3617700.48 5.27593
486670.59 3617700.48 5.42321 486720.59
3617700.48 5.58995
486770.59 3617700.48 5.72497 486820.59
3617700.48 5.81382
486870.59 3617700.48 5.86475 486920.59
3617700.48 6.04135
486970.59 3617700.48 6.14816 487020.59
3617700.48 6.15734
487070.59 3617700.48 6.12933 487120.59
3617700.48 6.12384
487270.59 3617700.48 5.74567 487320.59
3617700.48 5.46135
487370.59 3617700.48 5.22211 487420.59
3617700.48 4.94077
487470.59 3617700.48 4.65676 487520.59
3617700.48 4.36882
487570.59 3617700.48 4.09288 487620.59
3617700.48 3.82265
487670.59 3617700.48 3.55599 487720.59
3617700.48 3.29356
487770.59 3617700.48 3.04970 487820.59
3617700.48 2.82408
487870.59 3617700.48 2.61637 487920.59
3617700.48 2.41942
487970.59 3617700.48 2.23293 488020.59
3617700.48 2.07482
488070.59 3617700.48 1.95422 488120.59
3617700.48 1.84311
488170.59 3617700.48 1.74498 488220.59
3617700.48 1.65418
488270.59 3617700.48 1.56511 488320.59
3617700.48 1.48621
488370.59 3617700.48 1.42011 488420.59
3617700.48 1.37600
488470.59 3617700.48 1.31905 488520.59
3617700.48 1.26536
488570.59 3617700.48 1.21514 488620.59
3617700.48 1.16741
486420.59 3617750.48 4.25969 486470.59

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3617750.48        4.39930
         486520.59    3617750.48        4.50037                      486570.59
3617750.48        4.62420
         486620.59    3617750.48        4.69753                      486670.59
3617750.48        4.83416
         486720.59    3617750.48        4.95416                      486770.59
3617750.48        5.04338
         486820.59    3617750.48        5.09379                      486870.59
3617750.48        5.18918
         486920.59    3617750.48        5.23456                      486970.59
3617750.48        5.38496
         487020.59    3617750.48        5.47587                      487070.59
3617750.48        5.52335
         487220.59    3617750.48        5.24931                      487270.59
3617750.48        5.14058
🡅 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                        ***        14:52:42

                                   PAGE  60
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,
                 LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF TAC      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         487320.59    3617750.48        4.99054                      487370.59
3617750.48        4.81420
         487420.59    3617750.48        4.59554                      487470.59
3617750.48        4.36646
         487520.59    3617750.48        4.10769                      487570.59
3617750.48        3.85958
         487620.59    3617750.48        3.65106                      487670.59
3617750.48        3.44596
         487720.59    3617750.48        3.21945                      487770.59
3617750.48        2.99826
         487820.59    3617750.48        2.78182                      487870.59
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3617750.48 2.58743
487920.59 3617750.48 2.40392 487970.59
3617750.48 2.22868
488020.59 3617750.48 2.09431 488070.59
3617750.48 1.99560
488120.59 3617750.48 1.87937 488170.59
3617750.48 1.76656
488220.59 3617750.48 1.64458 488270.59
3617750.48 1.56584
488320.59 3617750.48 1.47468 488370.59
3617750.48 1.40621
488420.59 3617750.48 1.34870 488470.59
3617750.48 1.29361
488520.59 3617750.48 1.24169 488570.59
3617750.48 1.19308
488620.59 3617750.48 1.14727 486420.59
3617800.48 3.89110
486470.59 3617800.48 3.99290 486520.59
3617800.48 4.06812
486570.59 3617800.48 4.15074 486620.59
3617800.48 4.23071
486670.59 3617800.48 4.29599 486720.59
3617800.48 4.37675
486770.59 3617800.48 4.48078 486820.59
3617800.48 4.53995
486870.59 3617800.48 4.56089 486920.59
3617800.48 4.69346
486970.59 3617800.48 4.82672 487170.59
3617800.48 4.81415
487220.59 3617800.48 4.72475 487270.59
3617800.48 4.64909
487320.59 3617800.48 4.55901 487370.59
3617800.48 4.42492
487420.59 3617800.48 4.26024 487470.59
3617800.48 4.08207
487520.59 3617800.48 3.87584 487570.59
3617800.48 3.68745
487620.59 3617800.48 3.49415 487670.59
3617800.48 3.32332
487720.59 3617800.48 3.11859 487770.59
3617800.48 2.92829
487820.59 3617800.48 2.72217 487870.59
3617800.48 2.55783
487920.59 3617800.48 2.39889 487970.59
3617800.48 2.24522
488020.59 3617800.48 2.12648 488070.59
3617800.48 2.00349
488120.59 3617800.48 1.87496 488170.59
3617800.48 1.75762
488220.59 3617800.48 1.63226 488270.59

3617800.48   1.51740
         488320.59   3617800.48   1.43863   488370.59
3617800.48   1.37740
         488420.59   3617800.48   1.32138   488470.59
3617800.48   1.26817
         488520.59   3617800.48   1.21829   488570.59
3617800.48   1.17142
         488620.59   3617800.48   1.12738   486470.59
3617850.48   3.63114
         486520.59   3617850.48   3.71732   486570.59
3617850.48   3.77405
         486620.59   3617850.48   3.79029   486670.59
3617850.48   3.83279
         486720.59   3617850.48   3.91252   486770.59
3617850.48   4.00695
         486820.59   3617850.48   4.06026   486870.59
3617850.48   4.10088
         486920.59   3617850.48   4.22925   487120.59
3617850.48   4.33365

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

                                *** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                    INCLUDING SOURCE(S):   LOCATION1_2 ,
LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,
                 LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                            ** CONC OF TAC   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         487170.59   3617850.48   4.31131   487220.59
3617850.48   4.27363
         487270.59   3617850.48   4.22497   487320.59
3617850.48   4.17669
         487370.59   3617850.48   4.08617   487420.59
3617850.48   3.95273
         487470.59   3617850.48   3.80871   487520.59

3617850.48 3.64858
487570.59 3617850.48 3.49678 487620.59
3617850.48 3.33873
487670.59 3617850.48 3.18418 487720.59
3617850.48 3.01496
487770.59 3617850.48 2.84639 487820.59
3617850.48 2.68764
487870.59 3617850.48 2.52527 487920.59
3617850.48 2.38338
487970.59 3617850.48 2.25641 488020.59
3617850.48 2.12608
488070.59 3617850.48 1.97103 488120.59
3617850.48 1.83964
488170.59 3617850.48 1.66455 488220.59
3617850.48 1.56843
488270.59 3617850.48 1.50285 488320.59
3617850.48 1.44421
488370.59 3617850.48 1.34842 488420.59
3617850.48 1.29424
488470.59 3617850.48 1.24309 488520.59
3617850.48 1.19506
488570.59 3617850.48 1.14984 488620.59
3617850.48 1.10735
486520.59 3617900.48 3.40551 486570.59
3617900.48 3.42426
486620.59 3617900.48 3.43835 486670.59
3617900.48 3.46823
486720.59 3617900.48 3.48053 486770.59
3617900.48 3.62404
486820.59 3617900.48 3.67812 486870.59
3617900.48 3.74115
486920.59 3617900.48 4.02451 487070.59
3617900.48 3.90099
487120.59 3617900.48 3.90250 487170.59
3617900.48 3.90008
487220.59 3617900.48 3.89258 487270.59
3617900.48 3.86554
487320.59 3617900.48 3.82640 487370.59
3617900.48 3.76409
487420.59 3617900.48 3.67285 487470.59
3617900.48 3.55284
487520.59 3617900.48 3.42075 487570.59
3617900.48 3.30380
487620.59 3617900.48 3.17385 487670.59
3617900.48 3.04297
487720.59 3617900.48 2.89720 487770.59
3617900.48 2.75907
487820.59 3617900.48 2.61826 487870.59
3617900.48 2.48963
487920.59 3617900.48 2.36234 487970.59

```
3617900.48        2.23291
         488020.59    3617900.48        2.10058                      488070.59
3617900.48        1.93178
         488120.59    3617900.48        1.75711                      488170.59
3617900.48        1.62330
         488220.59    3617900.48        1.55443                      488270.59
3617900.48        1.51106
         488320.59    3617900.48        1.45228                      488370.59
3617900.48        1.31917
         488420.59    3617900.48        1.26717                      488470.59
3617900.48        1.21814
         488520.59    3617900.48        1.17199                      488570.59
3617900.48        1.12842
         488620.59    3617900.48        1.08746                      487077.48
3618005.05        3.20502
         487127.48    3618005.05        3.19085                      487177.48
3618005.05        3.20318
         487227.48    3618005.05        3.22348                      487277.48
3618005.05        3.21987
         487327.48    3618005.05        3.19911                      486570.59
3617950.48        3.14260
         486620.59    3617950.48        3.14481                      486670.59
3617950.48        3.12171
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                         ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                        ***        14:52:42

                                   PAGE  62
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,
                 LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                       *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF TAC      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - -
         486720.59    3617950.48        3.12802                      486770.59
3617950.48        3.27564
         486820.59    3617950.48        3.37237                      486970.59
```

3617950.48 3.63116
487020.59 3617950.48 3.55448 487070.59
3617950.48 3.54078
487120.59 3617950.48 3.53966 487170.59
3617950.48 3.53714
487220.59 3617950.48 3.55302 487270.59
3617950.48 3.54813
487320.59 3617950.48 3.52535 487370.59
3617950.48 3.46839
487420.59 3617950.48 3.40905 487470.59
3617950.48 3.31812
487520.59 3617950.48 3.21814 487570.59
3617950.48 3.12067
487620.59 3617950.48 3.01165 487670.59
3617950.48 2.89670
487720.59 3617950.48 2.77559 487770.59
3617950.48 2.65962
487820.59 3617950.48 2.54219 487870.59
3617950.48 2.44058
487920.59 3617950.48 2.32391 487970.59
3617950.48 2.16655
488020.59 3617950.48 2.04011 488070.59
3617950.48 1.88265
488120.59 3617950.48 1.70390 488170.59
3617950.48 1.70104
488220.59 3617950.48 1.63142 488270.59
3617950.48 1.51877
488320.59 3617950.48 1.39521 488370.59
3617950.48 1.29009
488420.59 3617950.48 1.24045 488470.59
3617950.48 1.19344
488520.59 3617950.48 1.14908 488570.59
3617950.48 1.10713
488620.59 3617950.48 1.06765 488590.14
3616298.03 1.26407
488540.14 3616348.03 1.34699 488590.14
3616348.03 1.29445
488440.14 3616398.03 1.50104 488490.14
3616398.03 1.43828
488540.14 3616398.03 1.37958 488590.14
3616398.03 1.32453
488390.14 3616448.03 1.61021 488440.14
3616448.03 1.53972
488490.14 3616448.03 1.47376 488540.14
3616448.03 1.41208
488590.14 3616448.03 1.35439 488340.14
3616498.03 1.73207
488390.14 3616498.03 1.65238 488440.14
3616498.03 1.57803
488490.14 3616498.03 1.50865 488540.14

3616498.03   1.44395
         488590.14   3616498.03   1.38377   484613.02
3614429.89   0.46014
         484663.02   3614429.89   0.46760   484713.02
3614429.89   0.47509
         484763.02   3614429.89   0.48267   484813.02
3614429.89   0.49033
         484863.02   3614429.89   0.49808   484913.02
3614429.89   0.50589
         484963.02   3614429.89   0.51368   484563.02
3614479.89   0.46131
         484613.02   3614479.89   0.46892   484663.02
3614479.89   0.47662
         484713.02   3614479.89   0.48444   484763.02
3614479.89   0.49235
         484813.02   3614479.89   0.50037   484863.02
3614479.89   0.50846
         484913.02   3614479.89   0.51664   484963.02
3614479.89   0.52481
         484513.02   3614529.89   0.46208   484563.02
3614529.89   0.46990
         484613.02   3614529.89   0.47781   484663.02
3614529.89   0.48586
         484713.02   3614529.89   0.49401   484763.02
3614529.89   0.50226
         484813.02   3614529.89   0.51065   484863.02
3614529.89   0.51913

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

                                *** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                    INCLUDING SOURCE(S):   LOCATION1_2 ,
LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,
                LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                    ** CONC OF TAC   IN MICROGRAMS/M**3
                  **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -

- -
484913.02 3614529.89 0.52769 484963.02
3614529.89 0.53624
484463.02 3614579.89 0.46242 484513.02
3614579.89 0.47054
484563.02 3614579.89 0.47864 484613.02
3614579.89 0.48690
484663.02 3614579.89 0.49531 484713.02
3614579.89 0.50379
484763.02 3614579.89 0.51245 484813.02
3614579.89 0.52120
484863.02 3614579.89 0.53007 484913.02
3614579.89 0.53904
484963.02 3614579.89 0.54804 484413.02
3614629.89 0.46266
484463.02 3614629.89 0.47081 484513.02
3614629.89 0.47914
484563.02 3614629.89 0.48759 484613.02
3614629.89 0.49619
484663.02 3614629.89 0.50496 484713.02
3614629.89 0.51385
484763.02 3614629.89 0.52287 484813.02
3614629.89 0.53202
484863.02 3614629.89 0.54130 484913.02
3614629.89 0.55070
484963.02 3614629.89 0.56022 484413.02
3614679.89 0.47075
484463.02 3614679.89 0.47927 484513.02
3614679.89 0.48793
484563.02 3614679.89 0.49672 484613.02
3614679.89 0.50570
484663.02 3614679.89 0.51483 484713.02
3614679.89 0.52411
484763.02 3614679.89 0.53353 484813.02
3614679.89 0.54309
484863.02 3614679.89 0.55281 484913.02
3614679.89 0.56264
484963.02 3614679.89 0.57263 484363.02
3614729.89 0.47038
484413.02 3614729.89 0.47904 484463.02
3614729.89 0.48787
484513.02 3614729.89 0.49686 484563.02
3614729.89 0.50604
484613.02 3614729.89 0.51539 484663.02
3614729.89 0.52490
484713.02 3614729.89 0.53459 484763.02
3614729.89 0.54444
484813.02 3614729.89 0.55443 484863.02
3614729.89 0.56459
484913.02 3614729.89 0.57492 484963.02

3614729.89   0.58543
         484313.02   3614779.89   0.46965   484363.02
3614779.89   0.47845
         484413.02   3614779.89   0.48744   484463.02
3614779.89   0.49661
         484513.02   3614779.89   0.50598   484563.02
3614779.89   0.51553
         484613.02   3614779.89   0.52527   484663.02
3614779.89   0.53519
         484713.02   3614779.89   0.54530   484763.02
3614779.89   0.55560
         484813.02   3614779.89   0.56606   484863.02
3614779.89   0.57670
         484913.02   3614779.89   0.58753   484963.02
3614779.89   0.59856
         484263.02   3614829.89   0.46848   484313.02
3614829.89   0.47750
         484363.02   3614829.89   0.48663   484413.02
3614829.89   0.49597
         484463.02   3614829.89   0.50551   484513.02
3614829.89   0.51524
         484563.02   3614829.89   0.52519   484613.02
3614829.89   0.53531
         484663.02   3614829.89   0.54566   484713.02
3614829.89   0.55625
         484763.02   3614829.89   0.56702   484813.02
3614829.89   0.57798
         484863.02   3614829.89   0.58914   484913.02
3614829.89   0.60048
         484963.02   3614829.89   0.61199   484213.02
3614879.89   0.46715

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

                                *** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                    INCLUDING SOURCE(S):   LOCATION1_2 ,
LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,
                LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF TAC   IN MICROGRAMS/M**3
                  **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
484263.02	3614879.89	0.47619	484313.02	3614879.89	0.48546
484363.02	3614879.89	0.49494	484413.02	3614879.89	0.50463
484463.02	3614879.89	0.51454	484513.02	3614879.89	0.52466
484563.02	3614879.89	0.53502	484613.02	3614879.89	0.54559
484663.02	3614879.89	0.55638	484713.02	3614879.89	0.56742
484763.02	3614879.89	0.57869	484813.02	3614879.89	0.59019
484863.02	3614879.89	0.60188	484913.02	3614879.89	0.61379
484963.02	3614879.89	0.62589	484163.02	3614929.89	0.46539
484213.02	3614929.89	0.47455	484263.02	3614929.89	0.48392
484313.02	3614929.89	0.49352	484363.02	3614929.89	0.50335
484413.02	3614929.89	0.51342	484463.02	3614929.89	0.52370
484513.02	3614929.89	0.53423	484563.02	3614929.89	0.54501
484613.02	3614929.89	0.55602	484663.02	3614929.89	0.56731
484713.02	3614929.89	0.57882	484763.02	3614929.89	0.59061
484813.02	3614929.89	0.60265	484863.02	3614929.89	0.61490
484913.02	3614929.89	0.62739	484963.02	3614929.89	0.64011
485013.02	3614929.89	0.65289	484113.02	3614979.89	0.46332
484163.02	3614979.89	0.47255	484213.02	3614979.89	0.48202
484263.02	3614979.89	0.49173	484313.02	3614979.89	0.50166
484363.02	3614979.89	0.51188	484413.02	3614979.89	0.52233
484463.02	3614979.89	0.53301	484513.02	3614979.89	0.54397
484563.02	3614979.89	0.55520	484613.02	3614979.89	0.56668
484663.02	3614979.89	0.57847	484713.02		

3614979.89 0.59047
484763.02 3614979.89 0.60280 484813.02
3614979.89 0.61535
484863.02 3614979.89 0.62819 484913.02
3614979.89 0.64134
484963.02 3614979.89 0.65470 485013.02
3614979.89 0.66828
484113.02 3615029.89 0.47021 484163.02
3615029.89 0.47976
484213.02 3615029.89 0.48956 484263.02
3615029.89 0.49958
484313.02 3615029.89 0.50991 484363.02
3615029.89 0.52050
484413.02 3615029.89 0.53135 484463.02
3615029.89 0.54247
484513.02 3615029.89 0.55386 484563.02
3615029.89 0.56556
484613.02 3615029.89 0.57753 484663.02
3615029.89 0.58980
484713.02 3615029.89 0.60238 484763.02
3615029.89 0.61523
484813.02 3615029.89 0.62836 484863.02
3615029.89 0.64184
484913.02 3615029.89 0.65559 484963.02
3615029.89 0.66964
485013.02 3615029.89 0.68396 485063.02
3615029.89 0.69841
484113.02 3615079.89 0.47715 484163.02
3615079.89 0.48701
484213.02 3615079.89 0.49715 484263.02
3615079.89 0.50755
484313.02 3615079.89 0.51824 484363.02
3615079.89 0.52922
484413.02 3615079.89 0.54049 484463.02
3615079.89 0.55204

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS

***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
484513.02	3615079.89	0.56389	484563.02	3615079.89	0.57607
484613.02	3615079.89	0.58854	484663.02	3615079.89	0.60136
484713.02	3615079.89	0.61443	484763.02	3615079.89	0.62791
484813.02	3615079.89	0.64168	484863.02	3615079.89	0.65577
484913.02	3615079.89	0.67020	484963.02	3615079.89	0.68495
485013.02	3615079.89	0.70001	485063.02	3615079.89	0.71537
485113.02	3615079.89	0.73098	484113.02	3615129.89	0.48412
484163.02	3615129.89	0.49432	484213.02	3615129.89	0.50481
484263.02	3615129.89	0.51558	484313.02	3615129.89	0.52663
484363.02	3615129.89	0.53802	484413.02	3615129.89	0.54973
484463.02	3615129.89	0.56174	484513.02	3615129.89	0.57406
484563.02	3615129.89	0.58674	484613.02	3615129.89	0.59975
484663.02	3615129.89	0.61307	484713.02	3615129.89	0.62677
484763.02	3615129.89	0.64085	484813.02	3615129.89	0.65523
484863.02	3615129.89	0.67001	484913.02	3615129.89	0.68515
484963.02	3615129.89	0.70063	485013.02	3615129.89	0.71647
485063.02	3615129.89	0.73268	485113.02	3615129.89	0.74922
485163.02	3615129.89	0.76598	484113.02	3615179.89	0.49112
484163.02	3615179.89	0.50166	484213.02	3615179.89	0.51251
484263.02	3615179.89	0.52366	484313.02	3615179.89	0.53513
484363.02	3615179.89	0.54689	484413.02		

3615179.89 0.55905
484463.02 3615179.89 0.57153 484513.02
3615179.89 0.58435
484563.02 3615179.89 0.59755 484613.02
3615179.89 0.61110
484663.02 3615179.89 0.62502 484713.02
3615179.89 0.63930
484763.02 3615179.89 0.65400 484813.02
3615179.89 0.66905
484863.02 3615179.89 0.68456 484913.02
3615179.89 0.70044
484963.02 3615179.89 0.71670 485013.02
3615179.89 0.73336
485063.02 3615179.89 0.75042 485113.02
3615179.89 0.76787
485163.02 3615179.89 0.78564 485213.02
3615179.89 0.80382
484113.02 3615229.89 0.49814 484163.02
3615229.89 0.50903
484213.02 3615229.89 0.52024 484263.02
3615229.89 0.53178
484313.02 3615229.89 0.54366 484363.02
3615229.89 0.55589
484413.02 3615229.89 0.56848 484463.02
3615229.89 0.58144
484513.02 3615229.89 0.59477 484563.02
3615229.89 0.60850
484613.02 3615229.89 0.62261 484663.02
3615229.89 0.63713
484713.02 3615229.89 0.65205 484763.02
3615229.89 0.66739
484813.02 3615229.89 0.68318 484863.02
3615229.89 0.69941
484913.02 3615229.89 0.71605 484963.02
3615229.89 0.73312
485013.02 3615229.89 0.75066 485063.02
3615229.89 0.76862
485113.02 3615229.89 0.78702 485163.02
3615229.89 0.80587

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 ,

LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,
LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
485213.02	3615229.89	0.82514	485263.02	3615229.89	0.84476
484113.02	3615279.89	0.50517	484163.02	3615279.89	0.51641
484213.02	3615279.89	0.52799	484263.02	3615279.89	0.53986
484313.02	3615279.89	0.55212	484613.02	3615279.89	0.63426
484663.02	3615279.89	0.64939	484713.02	3615279.89	0.66498
484763.02	3615279.89	0.68102	484813.02	3615279.89	0.69752
484863.02	3615279.89	0.71451	484913.02	3615279.89	0.73198
484963.02	3615279.89	0.74994	485013.02	3615279.89	0.76836
485063.02	3615279.89	0.78729	485113.02	3615279.89	0.80672
485163.02	3615279.89	0.82663	485213.02	3615279.89	0.84703
485263.02	3615279.89	0.86789	485313.02	3615279.89	0.88918
484113.02	3615329.89	0.51220	484163.02	3615329.89	0.52376
484213.02	3615329.89	0.53562	484663.02	3615329.89	0.66182
484713.02	3615329.89	0.67809	484763.02	3615329.89	0.69485
484813.02	3615329.89	0.71210	484863.02	3615329.89	0.72987
484913.02	3615329.89	0.74821	484963.02	3615329.89	0.76709
485013.02	3615329.89	0.78647	485063.02	3615329.89	0.80641
485113.02	3615329.89	0.82691	485163.02	3615329.89	0.84796
485213.02	3615329.89	0.86953	485263.02		

```
3615329.89        0.89166
         485313.02    3615329.89        0.91430                        485363.02
3615329.89        0.93740
         484113.02    3615379.89        0.51914                        484163.02
3615379.89        0.53104
         484713.02    3615379.89        0.69134                        484763.02
3615379.89        0.70886
         484813.02    3615379.89        0.72691                        484863.02
3615379.89        0.74555
         484913.02    3615379.89        0.76474                        484963.02
3615379.89        0.78455
         485013.02    3615379.89        0.80497                        485063.02
3615379.89        0.82599
         485113.02    3615379.89        0.84759                        485163.02
3615379.89        0.86983
         485213.02    3615379.89        0.89267                        485263.02
3615379.89        0.91615
         485313.02    3615379.89        0.94019                        485363.02
3615379.89        0.96484
         485413.02    3615379.89        0.99004                        484763.02
3615429.89        0.72302
         484813.02    3615429.89        0.74194                        484863.02
3615429.89        0.76145
         484913.02    3615429.89        0.78159                        484963.02
3615429.89        0.80238
         485013.02    3615429.89        0.82384                        485063.02
3615429.89        0.84595
         485113.02    3615429.89        0.86874                        485163.02
3615429.89        0.89229
         485213.02    3615429.89        0.91646                        485263.02
3615429.89        0.94136
         485313.02    3615429.89        0.96692                        485363.02
3615429.89        0.99315
         485413.02    3615429.89        1.02005                        485463.02
3615429.89        1.04756
         485513.02    3615429.89        1.07567                        484813.02
3615479.89        0.75713
         484863.02    3615479.89        0.77757                        484913.02
3615479.89        0.79869
         484963.02    3615479.89        0.82052                        485013.02
3615479.89        0.84307
         485063.02    3615479.89        0.86638                        485113.02
3615479.89        0.89042
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
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                                   PAGE  67
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data
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*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
485163.02	3615479.89	0.91526	485213.02	3615479.89	0.94090
485263.02	3615479.89	0.96729	485313.02	3615479.89	0.99443
485363.02	3615479.89	1.02235	485413.02	3615479.89	1.05107
485463.02	3615479.89	1.08052	485513.02	3615479.89	1.11065
485563.02	3615479.89	1.14124	484863.02	3615529.89	0.79387
484913.02	3615529.89	0.81602	484963.02	3615529.89	0.83894
485013.02	3615529.89	0.86266	485063.02	3615529.89	0.88720
485113.02	3615529.89	0.91259	485163.02	3615529.89	0.93881
485213.02	3615529.89	0.96591	485263.02	3615529.89	0.99391
485313.02	3615529.89	1.02277	485363.02	3615529.89	1.05249
485413.02	3615529.89	1.08312	485463.02	3615529.89	1.11462
485513.02	3615529.89	1.14698	484913.02	3615579.89	0.83353
484963.02	3615579.89	0.85762	485013.02	3615579.89	0.88254
485063.02	3615579.89	0.90837	485113.02	3615579.89	0.93498
485163.02	3615579.89	0.96278	485213.02	3615579.89	0.99155
485263.02	3615579.89	1.02122	485313.02	3615579.89	1.05192
485363.02	3615579.89	1.08360	485413.02		

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3615579.89        1.11629
         485463.02    3615579.89        1.15002                        484963.02
3615629.89        0.87650
         485013.02    3615629.89        0.90273                        485063.02
3615629.89        0.92990
         485113.02    3615629.89        0.95813                        485163.02
3615629.89        0.98736
         485213.02    3615629.89        1.01777                        485263.02
3615629.89        1.04924
         485313.02    3615629.89        1.08185                        485363.02
3615629.89        1.11563
         485413.02    3615629.89        1.15055                        485013.02
3615679.89        0.92298
         485063.02    3615679.89        0.95175                        485113.02
3615679.89        0.98148
         485163.02    3615679.89        1.01238                        485213.02
3615679.89        1.04451
         485263.02    3615679.89        1.07793                        485313.02
3615679.89        1.11254
         485363.02    3615679.89        1.14847                        485413.02
3615679.89        1.18582
         485063.02    3615729.89        0.97362                        485113.02
3615729.89        1.00518
         485163.02    3615729.89        1.03780                        485213.02
3615729.89        1.07181
         485263.02    3615729.89        1.10720                        485313.02
3615729.89        1.14400
         485363.02    3615729.89        1.18231                        485113.02
3615779.89        1.02913
         485163.02    3615779.89        1.06359                        485213.02
3615779.89        1.09951
         485263.02    3615779.89        1.13700                        485313.02
3615779.89        1.17611
         485163.02    3615829.89        1.08944                        485213.02
3615829.89        1.12760
         485263.02    3615829.89        1.16731                        485213.02
3615879.89        1.15588
         487082.35    3618053.22        2.91064                        487132.24
3618053.22        2.93315
         487182.13    3618053.22        2.92585                        487232.02
3618053.22        2.95169
         487281.91    3618053.22        2.94441                        486242.77
3618033.89        2.45291
         486286.79    3617997.48        2.63379                        486574.47
3617998.65        2.90914
         486624.36    3617998.65        2.86371                        486674.25
3617998.65        2.79786
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                              ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
486724.14	3617998.65	2.94175	486774.03	3617998.65	3.04149
486923.70	3617998.65	3.16224	486973.59	3617998.65	3.22278
487023.48	3617998.65	3.25510	487082.35	3618103.22	2.71697
487132.24	3618103.22	2.69670	487182.13	3618103.22	2.69604
486165.87	3618094.46	2.18680	486242.77	3618083.89	2.29808
486292.66	3618083.89	2.31900	486499.32	3618054.73	2.59747
486574.47	3618048.65	2.66960	486624.36	3618048.65	2.68443
486674.25	3618048.65	2.71573	486724.14	3618048.65	2.76170
486873.81	3618048.65	2.85832	486923.70	3618048.65	2.89900
486973.59	3618048.65	2.92542	487023.48	3618048.65	2.96278
487082.35	3618153.22	2.51327	487132.24	3618153.22	2.50067
486325.02	3618098.65	2.28316	486242.77	3618133.89	2.13116
486524.58	3618098.65	2.37466	486574.47	3618098.65	2.45832
486624.36	3618098.65	2.49369	486674.25	3618098.65	2.47220
486823.92	3618098.65	2.59281	486873.81		

3618098.65 2.60396
486923.70 3618098.65 2.65442 486973.59
3618098.65 2.69544
487023.48 3618098.65 2.71728 487082.35
3618203.22 2.36588
486275.13 3618148.65 2.10058 486325.02
3618148.65 2.13114
486374.91 3618148.65 2.18003 486474.69
3618148.65 2.24018
486524.58 3618148.65 2.25916 486574.47
3618148.65 2.27015
486624.36 3618148.65 2.15422 486774.03
3618148.65 2.45774
486823.92 3618148.65 2.46032 486873.81
3618148.65 2.44866
486923.70 3618148.65 2.48255 486973.59
3618148.65 2.50666
487023.48 3618148.65 2.51696 486275.13
3618198.65 1.96927
486325.02 3618198.65 2.00106 486374.91
3618198.65 2.03344
486424.80 3618198.65 2.03969 486474.69
3618198.65 2.08777
486524.58 3618198.65 2.11030 486674.25
3618198.65 2.16552
486724.14 3618198.65 2.26167 486774.03
3618198.65 2.32081
486823.92 3618198.65 2.34880 486873.81
3618198.65 2.36420
486923.70 3618198.65 2.35097 486973.59
3618198.65 2.36796
487023.48 3618198.65 2.37442 486275.13
3618248.65 1.85157
486325.02 3618248.65 1.86008 486374.91
3618248.65 1.89154
486424.80 3618248.65 1.92971 486474.69
3618248.65 1.85127
486624.36 3618248.65 2.01702 486674.25
3618248.65 2.05689
486724.14 3618248.65 2.11457 486774.03
3618248.65 2.16158
486823.92 3618248.65 2.20331 486873.81
3618248.65 2.25174
486923.70 3618248.65 2.28078 486973.59
3618248.65 2.28485
487023.48 3618248.65 2.26363 486125.46
3618298.65 1.70078
486275.13 3618298.65 1.74609 486325.02
3618298.65 1.75762
486374.91 3618298.65 1.78167 486424.80

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
486574.47	3618298.65	1.87627	486624.36	3618298.65	1.89786
486674.25	3618298.65	1.92765	486724.14	3618298.65	1.97815
486774.03	3618298.65	1.99258	486823.92	3618298.65	2.04810
486873.81	3618298.65	2.09059	486923.70	3618298.65	2.14804
486125.46	3618348.65	1.62775	486175.35	3618348.65	1.62573
486225.24	3618348.65	1.63182	486275.13	3618348.65	1.65204
486325.02	3618348.65	1.65471	486524.58	3618348.65	1.73806
486574.47	3618348.65	1.76357	486624.36	3618348.65	1.78141
486674.25	3618348.65	1.82213	486724.14	3618348.65	1.85498
486774.03	3618348.65	1.85601	486823.92	3618348.65	1.91924
486873.81	3618348.65	1.97560	486125.46	3618398.65	1.55947
486175.35	3618398.65	1.54518	486225.24	3618398.65	1.57203
486424.80	3618398.65	1.58171	486474.69		

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3618398.65        1.61292
         486524.58    3618398.65        1.64217                    486574.47
3618398.65        1.66820
         486624.36    3618398.65        1.69414                    486674.25
3618398.65        1.72840
         486724.14    3618398.65        1.76742                    486774.03
3618398.65        1.79187
         486823.92    3618398.65        1.82084                    486125.46
3618448.65        1.48147
         486175.35    3618448.65        1.50016                    486374.91
3618448.65        1.47980
         486424.80    3618448.65        1.51716                    486474.69
3618448.65        1.51566
         486524.58    3618448.65        1.56384                    486574.47
3618448.65        1.58507
         486624.36    3618448.65        1.61350                    486674.25
3618448.65        1.64209
         486724.14    3618448.65        1.68629                    486774.03
3618448.65        1.71943
         486125.46    3618498.65        1.44189                    486325.02
3618498.65        1.43424
         486374.91    3618498.65        1.43077                    486424.80
3618498.65        1.43698
         486474.69    3618498.65        1.46836                    486524.58
3618498.65        1.47491
         486574.47    3618498.65        1.51884                    486624.36
3618498.65        1.53768
         486674.25    3618498.65        1.56525                    486105.96
3618586.04        1.33246
         486325.02    3618548.65        1.37011                    486374.91
3618548.65        1.42683
         486424.80    3618548.65        1.45633                    486474.69
3618548.65        1.41108
         486524.58    3618548.65        1.44170                    486574.47
3618548.65        1.43562
         486624.36    3618548.65        1.47095                    486101.02
3618078.36        2.15427
         486155.07    3618149.26        2.03463                    486018.49
3618262.09        1.71247
         485957.41    3618189.14        1.76986                    485842.03
3618300.27        1.49777
         485893.78    3618363.05        1.46458                    485902.87
3618241.99        1.63195
         485966.01    3618313.09        1.59048                    486011.91
3618082.61        2.02912
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                           ***       14:52:42
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
488270.59	3616550.48	10.09936	(12042005)	488320.59	3616550.48	9.98411	(12042005)
488370.59	3616550.48	9.79626	(12042005)	488420.59	3616550.48	9.74887	(10051221)
488470.59	3616550.48	9.85630	(10051221)	488520.59	3616550.48	9.89835	(10051221)
488570.59	3616550.48	9.88341	(10051221)	488620.59	3616550.48	9.81309	(10051221)
488270.59	3616600.48	11.84577	(10051221)	488320.59	3616600.48	11.89289	(10051221)
488370.59	3616600.48	11.85425	(10051221)	488420.59	3616600.48	11.73743	(10051221)
488470.59	3616600.48	11.55538	(10051221)	488520.59	3616600.48	11.31914	(10051221)
488570.59	3616600.48	11.04117	(10051221)	488620.59	3616600.48	10.72730	(10051221)
488270.59	3616650.48	14.10065	(10051221)	488320.59	3616650.48	13.73711	(10051221)
488370.59	3616650.48	13.31437	(10051221)	488420.59	3616650.48	12.84813	(10051221)
488470.59	3616650.48	12.35236	(10051221)	488520.59	3616650.48	11.83721	(10051221)
488570.59	3616650.48	11.31168	(10051221)	488620.59	3616650.48	10.78397	(10051221)
488270.59	3616700.48	15.01351	(10051221)	488320.59	3616700.48	14.24707	(10051221)
488370.59	3616700.48	13.48275	(10051221)	488420.59	3616700.48	12.72831	(10051221)
488470.59	3616700.48	11.99357	(10051221)	488520.59	3616700.48	11.28400	(10051221)
488570.59	3616700.48	10.60126	(10051221)	488620.59	3616700.48	9.95064	(10051221)

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       488320.59   3616750.48       13.22003  (10051221)                488370.59
3616750.48       12.27303  (10051221)
       488420.59   3616750.48       11.38744  (10051221)                488470.59
3616750.48       10.56228  (10051221)
       488520.59   3616750.48        9.79424  (10051221)                488570.59
3616750.48        9.08361  (10051221)
       488620.59   3616750.48        8.42578  (10051221)                488320.59
3616800.48       10.96266  (10051221)
       488370.59   3616800.48       10.03879  (10051221)                488420.59
3616800.48        9.20117  (10051221)
       488470.59   3616800.48        8.44177  (10051221)                488520.59
3616800.48        7.75252  (10051221)
       488570.59   3616800.48        7.12714  (10051221)                488620.59
3616800.48        6.56032  (10051221)
       488370.59   3616850.48        7.40901  (10051221)                488420.59
3616850.48        6.74722  (10051221)
       488470.59   3616850.48        6.15586  (10051221)                488520.59
3616850.48        5.62749  (10051221)
       488570.59   3616850.48        5.15347  (10051221)                488620.59
3616850.48        4.72851  (10051221)
       488420.59   3616900.48        4.94680  (12012717)                488470.59
3616900.48        4.62750  (12012717)
       488520.59   3616900.48        4.33617  (12012717)                488570.59
3616900.48        4.06186  (12012717)
       488620.59   3616900.48        3.81017  (12012717)                488420.59
3616950.48        3.92492  (12012717)
       488470.59   3616950.48        3.64652  (12012717)                488520.59
3616950.48        3.40424  (12012717)
       488570.59   3616950.48        3.18313  (12012717)                488620.59
3616950.48        2.98239  (12012717)
       488470.59   3617000.48        3.63646  (12040818)                488520.59
3617000.48        3.43088  (12040818)
       488570.59   3617000.48        3.25097  (12040818)                488620.59
3617000.48        3.07665  (12040818)
       488470.59   3617050.48        3.82607  (12040818)                488520.59
3617050.48        3.53754  (12040818)
       488570.59   3617050.48        3.33107  (12040818)                488620.59
3617050.48        3.16372  (12040818)
       488370.59   3617100.48        3.96512  (12020217)                488420.59
3617100.48        3.75141  (10110310)
       488470.59   3617100.48        3.64509  (10110310)                488520.59
3617100.48        3.53484  (10110310)
       488570.59   3617100.48        3.42897  (10110310)                488620.59
3617100.48        5.90456  (10032919)
       488320.59   3617150.48        4.06487  (10110310)                488370.59
3617150.48        3.97902  (10110310)
       488420.59   3617150.48        3.88970  (10110310)                488470.59
3617150.48        3.79721  (10110310)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
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*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
488520.59	3617150.48	3.71836	(10110310)	488570.59	3617150.48	3.63366	(10110310)
488620.59	3617150.48	8.76597	(10032919)	488270.59	3617200.48	15.61758	(12032220)
488320.59	3617200.48	4.50631	(10041718)	488370.59	3617200.48	17.76856	(12032220)
488420.59	3617200.48	3.80352	(10041718)	488470.59	3617200.48	3.61368	(10110310)
488520.59	3617200.48	3.57421	(10110310)	488570.59	3617200.48	3.53204	(10110310)
488620.59	3617200.48	15.21076	(12032220)	487320.59	3617250.48	75.55606	(12033120)
487370.59	3617250.48	56.19086	(10080620)	487420.59	3617250.48	46.97156	(10080620)
487470.59	3617250.48	34.71460	(10072605)	487520.59	3617250.48	27.27731	(10072605)
487570.59	3617250.48	31.65468	(10122220)	487620.59	3617250.48	33.83377	(10122219)
487670.59	3617250.48	35.17403	(10122219)	487720.59	3617250.48	33.66074	(10122219)
487770.59	3617250.48	30.91150	(10122219)	487820.59	3617250.48	27.93444	(10122219)
487870.59	3617250.48	25.03326	(10122219)	487920.59	3617250.48	23.18576	(10021118)
487970.59	3617250.48	23.27869	(12110121)	488020.59	3617250.48	23.15122	(12110121)
488070.59	3617250.48	22.50164	(12110121)	488120.59	3617250.48	20.91563	(12110121)
488170.59	3617250.48	19.76416	(10022106)	488220.59			

3617250.48 18.11522 (12032220)
488270.59 3617250.48 15.77932 (12032220) 488320.59
3617250.48 15.04341 (12032220)
488370.59 3617250.48 15.26837 (12032220) 488420.59
3617250.48 7.01253 (12021718)
488470.59 3617250.48 3.99494 (10041718) 488520.59
3617250.48 5.41918 (12021718)
488570.59 3617250.48 3.51116 (10041718) 488620.59
3617250.48 10.26675 (12032220)
487170.59 3617300.48 149.78862 (12081024) 487220.59
3617300.48 153.66344 (12090605)
487270.59 3617300.48 119.13396 (12090605) 487320.59
3617300.48 103.50312 (11072602)
487370.59 3617300.48 90.39958 (12033120) 487420.59
3617300.48 77.37798 (12033120)
487470.59 3617300.48 61.28601 (10080620) 487520.59
3617300.48 53.32550 (10072605)
487570.59 3617300.48 50.52094 (12121120) 487620.59
3617300.48 49.35632 (12121120)
487670.59 3617300.48 40.80204 (12121120) 487720.59
3617300.48 38.78658 (10122220)
487770.59 3617300.48 35.96600 (10122219) 487820.59
3617300.48 33.30354 (10122219)
487870.59 3617300.48 34.72442 (10122219) 487920.59
3617300.48 33.30248 (10122219)
487970.59 3617300.48 31.61857 (10122219) 488020.59
3617300.48 28.77503 (12101121)
488070.59 3617300.48 25.69982 (12101121) 488120.59
3617300.48 26.11535 (12101121)
488170.59 3617300.48 21.39435 (12101121) 488220.59
3617300.48 16.52159 (12110121)
488270.59 3617300.48 14.88195 (12110121) 488320.59
3617300.48 14.51388 (12110121)
488370.59 3617300.48 17.95768 (12110121) 488420.59
3617300.48 9.43139 (12032220)
488470.59 3617300.48 4.12457 (10041718) 488520.59
3617300.48 13.38281 (12032220)
488570.59 3617300.48 4.04511 (12021718) 488620.59
3617300.48 3.59212 (10041718)
487020.59 3617350.48 131.34560 (12112419) 487070.59
3617350.48 136.62402 (12031201)
487120.59 3617350.48 277.89277 (12081903) 487170.59
3617350.48 139.37409 (12081024)
487220.59 3617350.48 122.66465 (12081024) 487270.59
3617350.48 143.72108 (12090605)
487320.59 3617350.48 129.70890 (12090605) 487370.59
3617350.48 103.03223 (11072602)
487420.59 3617350.48 89.25251 (10111618) 487470.59
3617350.48 79.95877 (12033120)
487520.59 3617350.48 70.27735 (12101122) 487570.59

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1   ***
INCLUDING SOURCE(S):   LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487620.59	3617350.48	52.04503	(12121120)	487670.59	3617350.48	51.80183	(12121120)
487720.59	3617350.48	48.27297	(12121120)	487770.59	3617350.48	41.20102	(12121120)
487820.59	3617350.48	35.37659	(10122220)	487870.59	3617350.48	37.15057	(10030324)
487920.59	3617350.48	37.46471	(10030324)	487970.59	3617350.48	36.30233	(10030324)
488020.59	3617350.48	31.67536	(10122219)	488070.59	3617350.48	29.14040	(10122219)
488120.59	3617350.48	26.32981	(10122219)	488170.59	3617350.48	21.83665	(10122219)
488220.59	3617350.48	17.80249	(10021118)	488270.59	3617350.48	14.89476	(10021118)
488320.59	3617350.48	12.25074	(10022018)	488370.59	3617350.48	8.14258	(10022018)
488420.59	3617350.48	8.33175	(10022018)	488470.59	3617350.48	3.73988	(10041718)
488520.59	3617350.48	3.68865	(10041718)	488570.59	3617350.48	3.59091	(10041718)
488620.59	3617350.48	3.49323	(10041718)	486770.59	3617400.48	108.34491	(12111719)
486820.59	3617400.48	127.97904	(11112921)	486870.59	3617400.48	149.97101	(10021721)
486920.59	3617400.48	251.76655	(12100221)	486970.59	3617400.48	237.60416	(12072003)

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       487020.59   3617400.48      162.43447  (12112419)                487070.59
3617400.48      125.79839  (12031201)
       487120.59   3617400.48      211.66662  (12081903)                487170.59
3617400.48      202.20827  (12081903)
       487220.59   3617400.48      139.20215  (12081024)                487270.59
3617400.48      115.88707  (11080423)
       487320.59   3617400.48      124.09072  (12090605)                487370.59
3617400.48      111.64583  (12090605)
       487420.59   3617400.48       98.46398  (11072602)                487470.59
3617400.48       87.36133  (10111618)
       487520.59   3617400.48       70.14370  (12033120)                487570.59
3617400.48       79.47564  (12101122)
       487620.59   3617400.48       51.06420  (10080620)                487670.59
3617400.48       42.83959  (10072605)
       487720.59   3617400.48       35.02872  (10072605)                487770.59
3617400.48       30.35082  (12121120)
       487820.59   3617400.48       27.15563  (12121120)                487870.59
3617400.48       27.19983  (12121120)
       487920.59   3617400.48       25.40084  (10122220)                487970.59
3617400.48       23.23775  (10122220)
       488020.59   3617400.48       20.66559  (10122219)                488070.59
3617400.48       18.54065  (10122219)
       488120.59   3617400.48       13.89554  (10122219)                488170.59
3617400.48        8.78623  (10122219)
       488220.59   3617400.48        6.20768  (10122219)                488270.59
3617400.48        6.21953  (10122219)
       488320.59   3617400.48        6.08386  (10122219)                488370.59
3617400.48        9.85541  (10122219)
       488420.59   3617400.48        3.45114  (11041218)                488470.59
3617400.48        3.23137  (11041218)
       488520.59   3617400.48        3.13998  (11041218)                488570.59
3617400.48        3.12136  (12012911)
       488620.59   3617400.48        3.15691  (12012911)                486820.59
3617450.48      124.02080  (12102721)
       486870.59   3617450.48      142.13039  (10021721)                486920.59
3617450.48      230.23817  (12100221)
       486970.59   3617450.48      226.17606  (12072003)                487020.59
3617450.48      168.54823  (12112419)
       487070.59   3617450.48      116.99691  (10102817)                487120.59
3617450.48      127.14723  (12031201)
       487170.59   3617450.48      219.76831  (12081903)                487220.59
3617450.48      114.79749  (10090719)
       487270.59   3617450.48      114.25198  (11080423)                487320.59
3617450.48      104.74096  (11080423)
       487370.59   3617450.48      101.50593  (12092521)                487420.59
3617450.48       98.67287  (10022102)
       487470.59   3617450.48       79.09379  (11072602)                487520.59
3617450.48       52.15348  (11072602)
       487570.59   3617450.48       44.28406  (10111618)                487620.59
3617450.48       48.35420  (12033120)
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487670.59	3617450.48	50.17112	(12101122)	487720.59	3617450.48	46.27537	(10080620)
487770.59	3617450.48	41.85144	(11051703)	487820.59	3617450.48	37.56991	(12121120)
487870.59	3617450.48	38.26376	(12121120)	487920.59	3617450.48	36.18611	(12121120)
487970.59	3617450.48	32.12645	(12121120)	488020.59	3617450.48	27.97781	(10122220)
488070.59	3617450.48	25.98250	(10122220)	488120.59	3617450.48	23.69863	(10030324)
488170.59	3617450.48	21.85359	(10122219)	488220.59	3617450.48	19.57810	(10122219)
488270.59	3617450.48	19.25863	(10122219)	488320.59	3617450.48	22.61136	(10122219)
488370.59	3617450.48	20.28652	(10122219)	488420.59	3617450.48	3.32451	(10020117)
488470.59	3617450.48	3.12570	(11012111)	488520.59	3617450.48	3.03794	(11012111)
488570.59	3617450.48	2.93578	(11012111)	488620.59	3617450.48	2.82632	(11012111)
486770.59	3617500.48	110.78320	(12012623)	486820.59	3617500.48	124.40495	(12102721)
486870.59	3617500.48	133.93215	(10021721)	486920.59	3617500.48	202.55853	(12100221)
486970.59	3617500.48	204.35198	(12072003)	487020.59	3617500.48	165.23669	(12112419)
487070.59	3617500.48	112.97383	(12110517)	487120.59			

3617500.48 120.71859 (12031201)
487170.59 3617500.48 149.81794 (12081903) 487220.59
3617500.48 161.85140 (12081903)
487270.59 3617500.48 103.41507 (12072905) 487320.59
3617500.48 97.95400 (12081024)
487370.59 3617500.48 87.08990 (11080423) 487420.59
3617500.48 69.20362 (12090605)
487470.59 3617500.48 48.64686 (12090605) 487520.59
3617500.48 67.09077 (11072602)
487570.59 3617500.48 78.32595 (11072602) 487620.59
3617500.48 75.98668 (11032821)
487670.59 3617500.48 73.91873 (10022101) 487720.59
3617500.48 71.91778 (12101122)
487770.59 3617500.48 61.88065 (10101707) 487820.59
3617500.48 55.82610 (10101707)
487870.59 3617500.48 45.48357 (11041121) 487920.59
3617500.48 46.40974 (12121120)
487970.59 3617500.48 45.68371 (12121120) 488020.59
3617500.48 42.32053 (12121120)
488070.59 3617500.48 38.25993 (12121120) 488120.59
3617500.48 33.95034 (12032321)
488170.59 3617500.48 32.07889 (10022105) 488220.59
3617500.48 29.47018 (10030324)
488270.59 3617500.48 25.82420 (10030324) 488320.59
3617500.48 25.03701 (10030324)
488370.59 3617500.48 20.38443 (10122219) 488420.59
3617500.48 3.06711 (10020117)
488470.59 3617500.48 3.04270 (11012111) 488520.59
3617500.48 3.02456 (11012111)
488570.59 3617500.48 2.98450 (11012111) 488620.59
3617500.48 2.93119 (11012111)
486670.59 3617550.48 82.96804 (12111719) 486720.59
3617550.48 95.07685 (12111719)
486770.59 3617550.48 106.65358 (12012623) 486820.59
3617550.48 120.40589 (12102721)
486870.59 3617550.48 125.29071 (10021721) 486920.59
3617550.48 177.97842 (12100221)
486970.59 3617550.48 180.93108 (12072003) 487020.59
3617550.48 145.48856 (12112419)
487070.59 3617550.48 111.87720 (11021522) 487120.59
3617550.48 112.89769 (10102817)
487170.59 3617550.48 120.89998 (12012018) 487220.59
3617550.48 154.97270 (12081903)
487270.59 3617550.48 110.29932 (12081903) 487320.59
3617550.48 73.12268 (12081024)
487370.59 3617550.48 63.22769 (12081024) 487420.59
3617550.48 60.59932 (12082305)
487470.59 3617550.48 86.13950 (12092521) 487520.59
3617550.48 83.19484 (10022102)
487570.59 3617550.48 81.31119 (10050822) 487620.59

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487970.59	3617550.48	41.24734	(12121120)	488020.59	3617550.48	43.68747	(12121120)
488070.59	3617550.48	44.75613	(12121120)	488120.59	3617550.48	42.73097	(12121120)
488170.59	3617550.48	36.44081	(12121120)	488220.59	3617550.48	29.94808	(12121120)
488270.59	3617550.48	26.17942	(10122220)	488320.59	3617550.48	24.57876	(10122220)
488370.59	3617550.48	4.12296	(10050820)	488420.59	3617550.48	2.73740	(10020417)
488470.59	3617550.48	2.75788	(11012111)	488520.59	3617550.48	2.80881	(11012111)
488570.59	3617550.48	2.83703	(11012111)	488620.59	3617550.48	2.84654	(11012111)
485870.59	3617600.48	3.78641	(12110808)	485920.59	3617600.48	4.32991	(12110808)
486620.59	3617600.48	59.38728	(12111719)	486670.59	3617600.48	87.00536	(12111719)
486720.59	3617600.48	88.24590	(12012623)	486770.59	3617600.48	100.28154	(12012623)

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       486820.59   3617600.48      113.47861  (12102721)                486870.59
3617600.48      117.19301  (10021721)
       486920.59   3617600.48      153.16495  (12100221)                486970.59
3617600.48      160.06834  (12100221)
       487020.59   3617600.48      119.07718  (12112419)                487070.59
3617600.48      107.55618  (11021522)
       487120.59   3617600.48      115.48046  (12110517)                487170.59
3617600.48      110.62565  (12012018)
       487220.59   3617600.48      112.25339  (12081903)                487270.59
3617600.48      147.01416  (12081903)
       487320.59   3617600.48       64.71095  (12081903)                487370.59
3617600.48       80.81738  (12081024)
       487420.59   3617600.48       99.49204  (11080423)                487470.59
3617600.48       85.19757  (11070322)
       487520.59   3617600.48       89.01303  (12092521)                487570.59
3617600.48       84.76872  (10022102)
       487620.59   3617600.48       76.70869  (10050822)                487670.59
3617600.48       71.96085  (10022021)
       487720.59   3617600.48       70.38820  (11032821)                487770.59
3617600.48       64.68824  (10080701)
       487820.59   3617600.48       65.16727  (10022101)                487870.59
3617600.48       63.92893  (12101122)
       487920.59   3617600.48       58.13389  (10101707)                487970.59
3617600.48       55.88783  (10101707)
       488020.59   3617600.48       48.26493  (10101707)                488070.59
3617600.48       39.87321  (12121120)
       488120.59   3617600.48       41.43440  (12121120)                488170.59
3617600.48       40.17531  (12121120)
       488220.59   3617600.48       35.89425  (12121120)                488270.59
3617600.48       30.24050  (12121120)
       488320.59   3617600.48       20.32000  (12121120)                488370.59
3617600.48        3.94213  (10030804)
       488420.59   3617600.48        2.64745  (10070608)                488470.59
3617600.48        2.43677  (10020417)
       488520.59   3617600.48        2.44091  (11012111)                488570.59
3617600.48        2.52747  (11012111)
       488620.59   3617600.48        2.59327  (11012111)                485870.59
3617650.48        4.08441  (12110808)
       485920.59   3617650.48        4.41677  (12110808)                485970.59
3617650.48        4.60878  (12110808)
       486570.59   3617650.48       36.42553  (12111719)                486620.59
3617650.48       68.45421  (12111719)
       486670.59   3617650.48       88.34436  (12111719)                486720.59
3617650.48       93.69760  (12012623)
       486770.59   3617650.48       94.33284  (11112921)                486820.59
3617650.48      107.18641  (12102721)
       486870.59   3617650.48      114.39610  (12111722)                486920.59
3617650.48      128.66104  (12071924)
       486970.59   3617650.48      144.35173  (12100221)                487020.59
3617650.48      102.91120  (12042301)
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*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487070.59	3617650.48	105.67767	(11070123)	487120.59	3617650.48	113.65017	(12110517)
487170.59	3617650.48	101.50736	(12060621)	487370.59	3617650.48	85.42442	(12072905)
487420.59	3617650.48	87.48959	(11080423)	487470.59	3617650.48	91.50628	(11080423)
487520.59	3617650.48	79.43737	(10073106)	487570.59	3617650.48	85.01231	(12092521)
487620.59	3617650.48	79.56209	(10022102)	487670.59	3617650.48	71.91792	(10050822)
487720.59	3617650.48	70.71820	(10022021)	487770.59	3617650.48	64.93942	(11032821)
487820.59	3617650.48	63.10098	(11032821)	487870.59	3617650.48	60.37128	(10022101)
487920.59	3617650.48	60.40499	(12101122)	487970.59	3617650.48	58.52792	(12101122)
488020.59	3617650.48	58.03535	(10101707)	488070.59	3617650.48	52.40642	(10101707)
488120.59	3617650.48	41.29259	(10101707)	488170.59	3617650.48	35.09623	(12121120)
488220.59	3617650.48	34.70031	(12121120)	488270.59	3617650.48	33.24213	(12121120)
488320.59	3617650.48	27.94592	(12121120)	488370.59	3617650.48	4.63775	(10030804)
488420.59	3617650.48	2.76781	(10070608)	488470.59	3617650.48	2.62804	(10070608)
488520.59	3617650.48	2.45720	(10070608)	488570.59			

3617650.48 2.26472 (10070608)
488620.59 3617650.48 2.22318 (11012111) 485870.59
3617700.48 4.04837 (12110808)
485920.59 3617700.48 4.13837 (12110808) 485970.59
3617700.48 4.06305 (12110808)
486470.59 3617700.48 9.26819 (12111719) 486520.59
3617700.48 22.02138 (12111719)
486570.59 3617700.48 46.39017 (12111719) 486620.59
3617700.48 76.74690 (12111719)
486670.59 3617700.48 79.55960 (12111719) 486720.59
3617700.48 91.66422 (12012623)
486770.59 3617700.48 92.92044 (12010320) 486820.59
3617700.48 104.63288 (10021622)
486870.59 3617700.48 108.63957 (12111722) 486920.59
3617700.48 112.56054 (12071924)
486970.59 3617700.48 130.38619 (12100221) 487020.59
3617700.48 96.37282 (12042301)
487070.59 3617700.48 104.68728 (11070123) 487120.59
3617700.48 94.94000 (11021522)
487270.59 3617700.48 91.11808 (11092724) 487320.59
3617700.48 101.26849 (12081903)
487370.59 3617700.48 80.72537 (10090719) 487420.59
3617700.48 85.52533 (10041721)
487470.59 3617700.48 86.29274 (11080423) 487520.59
3617700.48 82.97767 (11080423)
487570.59 3617700.48 74.28153 (10073106) 487620.59
3617700.48 78.64019 (12092521)
487670.59 3617700.48 73.97575 (10022102) 487720.59
3617700.48 67.36773 (10050822)
487770.59 3617700.48 67.34960 (10022021) 487820.59
3617700.48 59.37959 (11032821)
487870.59 3617700.48 60.92059 (11032821) 487920.59
3617700.48 57.33390 (10080701)
487970.59 3617700.48 58.14708 (10022101) 488020.59
3617700.48 58.18698 (12101122)
488070.59 3617700.48 51.63589 (10101707) 488120.59
3617700.48 48.12634 (10101707)
488170.59 3617700.48 38.78267 (10101707) 488220.59
3617700.48 29.70067 (11051703)
488270.59 3617700.48 25.46826 (12121120) 488320.59
3617700.48 24.50219 (12121120)
488370.59 3617700.48 9.11944 (10072605) 488420.59
3617700.48 2.62236 (10070608)
488470.59 3617700.48 2.60300 (10070608) 488520.59
3617700.48 2.53975 (10070608)
488570.59 3617700.48 2.43534 (10070608) 488620.59
3617700.48 2.30447 (10070608)
486420.59 3617750.48 5.89435 (10110318) 486470.59
3617750.48 13.21885 (12111719)
486520.59 3617750.48 30.45109 (12111719) 486570.59

3617750.48 56.67249 (12111719)
  486620.59 3617750.48 78.87395 (12111719) 486670.59
3617750.48 71.02158 (12012623)
  486720.59 3617750.48 89.35788 (12012623) 486770.59
3617750.48 97.06457 (12010320)
  486820.59 3617750.48 103.75396 (11011822) 486870.59
3617750.48 102.06332 (12100223)
  486920.59 3617750.48 95.56405 (12071924) 486970.59
3617750.48 117.23174 (12100221)
  487020.59 3617750.48 89.60556 (12012622) 487070.59
3617750.48 95.29172 (11070123)
  487220.59 3617750.48 90.45499 (12052922) 487270.59
3617750.48 94.39926 (12012018)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487320.59	3617750.48	92.29786	(12021307)	487370.59	3617750.48	78.29832	(12081903)
487420.59	3617750.48	78.55881	(12072905)	487470.59	3617750.48	79.30043	(10041721)
487520.59	3617750.48	84.08895	(11080423)	487570.59	3617750.48	76.29651	(11070322)
487620.59	3617750.48	70.83977	(10073106)	487670.59	3617750.48	73.65086	(12092521)
487720.59	3617750.48	69.06366	(10022102)	487770.59	3617750.48	63.71843	(10022102)
487820.59	3617750.48	64.06607	(10022021)	487870.59	3617750.48	57.27495	(10022021)
487920.59	3617750.48	58.02046	(11032821)	487970.59	3617750.48	54.08516	(11032821)

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       488020.59   3617750.48       52.96717  (10022101)              488070.59
3617750.48       47.89190  (12101122)
       488120.59   3617750.48       42.04422  (12101122)              488170.59
3617750.48       34.44555  (12101122)
       488220.59   3617750.48       22.27726  (10080620)              488270.59
3617750.48       24.06315  (11051703)
       488320.59   3617750.48       17.79748  (10072605)              488370.59
3617750.48        4.19664  (10111019)
       488420.59   3617750.48        2.66108  (10012121)              488470.59
3617750.48        2.43328  (10012121)
       488520.59   3617750.48        2.39214  (10070608)              488570.59
3617750.48        2.39324  (10070608)
       488620.59   3617750.48        2.35363  (10070608)              486420.59
3617800.48        8.10952  (12111719)
       486470.59   3617800.48       18.57743  (12111719)              486520.59
3617800.48       39.20388  (12111719)
       486570.59   3617800.48       64.23987  (12111719)              486620.59
3617800.48       73.82663  (12111719)
       486670.59   3617800.48       77.28226  (12012623)              486720.59
3617800.48       84.42936  (12012623)
       486770.59   3617800.48       95.79255  (12010320)              486820.59
3617800.48       99.53151  (11011822)
       486870.59   3617800.48       98.50338  (12100223)              486920.59
3617800.48       87.30769  (12100223)
       486970.59   3617800.48      108.92280  (12100221)              487170.59
3617800.48       95.70656  (12110517)
       487220.59   3617800.48       86.08250  (12060621)              487270.59
3617800.48       92.31660  (12012018)
       487320.59   3617800.48       86.94719  (11092724)              487370.59
3617800.48       82.19091  (12021307)
       487420.59   3617800.48       70.16629  (11031121)              487470.59
3617800.48       78.32124  (10041721)
       487520.59   3617800.48       71.22394  (10041721)              487570.59
3617800.48       79.22598  (11080423)
       487620.59   3617800.48       70.88443  (11070322)              487670.59
3617800.48       65.23236  (10073106)
       487720.59   3617800.48       69.68775  (12092521)              487770.59
3617800.48       64.80920  (10022102)
       487820.59   3617800.48       61.66163  (10022102)              487870.59
3617800.48       59.73569  (10022021)
       487920.59   3617800.48       54.85070  (10022021)              487970.59
3617800.48       52.71203  (11032821)
       488020.59   3617800.48       48.08593  (11032821)              488070.59
3617800.48       36.81530  (12033120)
       488120.59   3617800.48       33.57610  (10022101)              488170.59
3617800.48       30.52424  (12101122)
       488220.59   3617800.48       22.54534  (10080620)              488270.59
3617800.48       13.53803  (10080620)
       488320.59   3617800.48        6.19769  (10111019)              488370.59
3617800.48        4.16105  (10111019)
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3617850.48       61.77108  (10073106)
       487770.59   3617850.48       65.50599  (12092521)                487820.59
3617850.48       60.36130  (10022102)
       487870.59   3617850.48       57.69204  (10022102)                487920.59
3617850.48       53.25944  (10050822)
       487970.59   3617850.48       47.44880  (11072602)                488020.59
3617850.48       41.48876  (11072602)
       488070.59   3617850.48       33.57794  (10111618)                488120.59
3617850.48       29.35228  (12033120)
       488170.59   3617850.48       19.80388  (12033120)                488220.59
3617850.48       16.05763  (12033120)
       488270.59   3617850.48       16.06941  (12033120)                488320.59
3617850.48       18.17296  (10080620)
       488370.59   3617850.48        3.73265  (10111019)                488420.59
3617850.48        3.38965  (10111019)
       488470.59   3617850.48        3.04712  (10111019)                488520.59
3617850.48        2.71718  (10111019)
       488570.59   3617850.48        2.40747  (10111019)                488620.59
3617850.48        2.19384  (10012121)
       486520.59   3617900.48       51.47424  (12111719)                486570.59
3617900.48       65.37171  (12111719)
       486620.59   3617900.48       61.33970  (11121919)                486670.59
3617900.48       78.23422  (12012623)
       486720.59   3617900.48       82.24815  (11010720)                486770.59
3617900.48       85.52838  (12010320)
       486820.59   3617900.48       88.49055  (11011822)                486870.59
3617900.48       88.68265  (12100223)
       486920.59   3617900.48       79.76018  (12071924)                487070.59
3617900.48       80.06457  (12090521)
       487120.59   3617900.48       85.59411  (11070123)                487170.59
3617900.48       81.67887  (11021522)
       487220.59   3617900.48       87.38647  (12110517)                487270.59
3617900.48       77.45838  (12060621)
       487320.59   3617900.48       82.65633  (12012018)                487370.59
3617900.48       77.78179  (11092724)
       487420.59   3617900.48       74.93763  (12021307)                487470.59
3617900.48       64.92865  (11062805)
       487520.59   3617900.48       66.65086  (10041721)                487570.59
3617900.48       69.80388  (10041721)
       487620.59   3617900.48       65.84835  (10050823)                487670.59
3617900.48       68.01243  (11080423)
       487720.59   3617900.48       61.62218  (11070322)                487770.59
3617900.48       58.05881  (10073106)
       487820.59   3617900.48       61.29528  (12092521)                487870.59
3617900.48       55.52364  (10022102)
       487920.59   3617900.48       51.86770  (10022102)                487970.59
3617900.48       42.54585  (10050822)
       488020.59   3617900.48       40.31231  (11072602)                488070.59
3617900.48       33.02260  (11072602)
       488120.59   3617900.48       24.35136  (11072602)                488170.59
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*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
488220.59	3617900.48	18.53024	(10111618)	488270.59	3617900.48	18.21088	(12033120)
488320.59	3617900.48	21.40518	(12033120)	488370.59	3617900.48	21.34047	(12033120)
488420.59	3617900.48	3.91041	(10111019)	488470.59	3617900.48	3.63252	(10111019)
488520.59	3617900.48	3.33376	(10111019)	488570.59	3617900.48	3.02818	(10111019)
488620.59	3617900.48	2.72648	(10111019)	487077.48	3618005.05	2.43761	(10111019)
487127.48	3618005.05	72.83803	(11102206)	487177.48	3618005.05	78.29074	(11070123)
487227.48	3618005.05	73.62821	(11021522)	487277.48	3618005.05	77.01560	(12110517)
487327.48	3618005.05	71.75202	(12110517)	486570.59	3617950.48	70.00137	(12052922)
486620.59	3617950.48	59.99684	(12111719)	486670.59	3617950.48	61.79432	(12012623)
486720.59	3617950.48	74.69863	(12012623)	486770.59	3617950.48	78.52753	(12010320)
486820.59	3617950.48	84.02439	(10021622)	486970.59	3617950.48	83.46422	(12111722)
487020.59	3617950.48	88.37040	(12100221)	487070.59	3617950.48	73.98412	(12080805)
487120.59	3617950.48	76.10321	(11102206)	487170.59	3617950.48	82.75144	(11070123)
487220.59	3617950.48	78.72504	(11021522)				

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       487220.59   3617950.48       83.40402  (12110517)               487270.59
3617950.48       72.31045  (12060621)
       487320.59   3617950.48       74.19344  (12012018)               487370.59
3617950.48       72.59083  (12012018)
       487420.59   3617950.48       73.90280  (12021307)               487470.59
3617950.48       66.03049  (11111822)
       487520.59   3617950.48       59.51967  (12073023)               487570.59
3617950.48       66.33001  (10041721)
       487620.59   3617950.48       62.32993  (10041721)               487670.59
3617950.48       64.12278  (11080423)
       487720.59   3617950.48       62.80120  (11080423)               487770.59
3617950.48       57.37976  (11070322)
       487820.59   3617950.48       54.39152  (10073106)               487870.59
3617950.48       55.13525  (12092521)
       487920.59   3617950.48       46.33542  (10022102)               487970.59
3617950.48       37.93719  (10022102)
       488020.59   3617950.48       33.67393  (12032424)               488070.59
3617950.48       30.23014  (11072602)
       488120.59   3617950.48       23.83445  (11072602)               488170.59
3617950.48       27.79861  (11072602)
       488220.59   3617950.48       28.20141  (10111618)               488270.59
3617950.48       23.65597  (12033120)
       488320.59   3617950.48       17.04927  (12033120)               488370.59
3617950.48        3.94152  (10111019)
       488420.59   3617950.48        3.75096  (10111019)               488470.59
3617950.48        3.52010  (10111019)
       488520.59   3617950.48        3.26350  (10111019)               488570.59
3617950.48        2.99331  (10111019)
       488620.59   3617950.48        2.72083  (10111019)               488590.14
3616298.03        4.65164  (10051219)
       488540.14   3616348.03        5.38885  (10051220)               488590.14
3616348.03        5.52161  (10051220)
       488440.14   3616398.03        6.22354  (10051220)               488490.14
3616398.03        6.33728  (10051220)
       488540.14   3616398.03        6.40414  (10051220)               488590.14
3616398.03        6.42747  (10051220)
       488390.14   3616448.03        7.31013  (10051220)               488440.14
3616448.03        7.33159  (10051220)
       488490.14   3616448.03        7.31461  (12042005)               488540.14
3616448.03        7.38195  (12042005)
       488590.14   3616448.03        7.39645  (12042005)               488340.14
3616498.03        8.48646  (12042005)
       488390.14   3616498.03        8.54772  (12042005)               488440.14
3616498.03        8.53819  (12042005)
       488490.14   3616498.03        8.46609  (12042005)               488540.14
3616498.03        8.34051  (12042005)
       488590.14   3616498.03        8.17119  (12042005)               484613.02
3614429.89        1.04784  (10021008)
       484663.02   3614429.89        1.09674  (10021008)               484713.02
3614429.89        1.13168  (10021008)
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       484763.02   3614429.89        1.15208  (10021008)                484813.02
 3614429.89        1.15390  (10021008)
       484863.02   3614429.89        1.13400  (10021008)                484913.02
 3614429.89        1.09603  (10021008)
       484963.02   3614429.89        1.04007  (10021008)                484563.02
 3614479.89        0.95992  (11063006)
       484613.02   3614479.89        1.00347  (10021008)                484663.02
 3614479.89        1.06554  (10021008)
       484713.02   3614479.89        1.11618  (10021008)                484763.02
 3614479.89        1.15247  (10021008)
       484813.02   3614479.89        1.16893  (10021008)                484863.02
 3614479.89        1.16464  (10021008)
       484913.02   3614479.89        1.14233  (10021008)                484963.02
 3614479.89        1.09919  (10021008)
       484513.02   3614529.89        0.91477  (11063006)                484563.02
 3614529.89        0.94367  (11063006)
       484613.02   3614529.89        0.97368  (11063006)                484663.02
 3614529.89        1.02458  (10021008)
       484713.02   3614529.89        1.08893  (10021008)                484763.02
 3614529.89        1.13934  (10021008)
       484813.02   3614529.89        1.17114  (10021008)                484863.02
 3614529.89        1.18487  (10021008)
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                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA1    ***
                                  INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF TAC      IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - -
       484913.02   3614529.89        1.17882  (10021008)                484963.02
 3614529.89        1.14911  (10021008)
       484463.02   3614579.89        0.92109  (10020808)                484513.02
 3614579.89        0.88419  (11063006)
       484563.02   3614579.89        0.92850  (11063006)                484613.02
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3614579.89        0.96249  (11063006)
       484663.02   3614579.89        0.98544  (11063006)                484713.02
3614579.89        1.04780  (10021008)
       484763.02   3614579.89        1.11075  (10021008)                484813.02
3614579.89        1.15941  (10021008)
       484863.02   3614579.89        1.18986  (10021008)                484913.02
3614579.89        1.20187  (10021008)
       484963.02   3614579.89        1.18859  (10021008)                484413.02
3614629.89        1.03397  (10020808)
       484463.02   3614629.89        0.98923  (10020808)                484513.02
3614629.89        0.93480  (10020808)
       484563.02   3614629.89        0.89980  (11063006)                484613.02
3614629.89        0.94150  (11063006)
       484663.02   3614629.89        0.97293  (11063006)                484713.02
3614629.89        0.99900  (11063006)
       484763.02   3614629.89        1.06997  (10021008)                484813.02
3614629.89        1.13348  (10021008)
       484863.02   3614629.89        1.18126  (10021008)                484913.02
3614629.89        1.21047  (10021008)
       484963.02   3614629.89        1.21873  (10021008)                484413.02
3614679.89        1.09773  (10020808)
       484463.02   3614679.89        1.05347  (10020808)                484513.02
3614679.89        1.00692  (10020808)
       484563.02   3614679.89        0.95314  (10020808)                484613.02
3614679.89        0.91042  (11063006)
       484663.02   3614679.89        0.95156  (11063006)                484713.02
3614679.89        0.98639  (11063006)
       484763.02   3614679.89        1.01706  (10021008)                484813.02
3614679.89        1.09387  (10021008)
       484863.02   3614679.89        1.15714  (10021008)                484913.02
3614679.89        1.20461  (10021008)
       484963.02   3614679.89        1.23127  (10021008)                484363.02
3614729.89        1.16331  (10020808)
       484413.02   3614729.89        1.14615  (10020808)                484463.02
3614729.89        1.11465  (10020808)
       484513.02   3614729.89        1.07525  (10020808)                484563.02
3614729.89        1.02657  (10020808)
       484613.02   3614729.89        0.97097  (10020808)                484663.02
3614729.89        0.92355  (11063006)
       484713.02   3614729.89        0.96601  (11063006)                484763.02
3614729.89        1.00128  (11063006)
       484813.02   3614729.89        1.04101  (10021008)                484863.02
3614729.89        1.11871  (10021008)
       484913.02   3614729.89        1.18202  (10021008)                484963.02
3614729.89        1.22589  (10021008)
       484313.02   3614779.89        1.19949  (10020808)                484363.02
3614779.89        1.19795  (10020808)
       484413.02   3614779.89        1.18717  (10020808)                484463.02
3614779.89        1.16633  (10020808)
       484513.02   3614779.89        1.13533  (10020808)                484563.02
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3614779.89 1.09589 (10020808)
484613.02 3614779.89 1.04724 (10020808) 484663.02
3614779.89 0.99098 (10020808)
484713.02 3614779.89 0.93807 (11063006) 484763.02
3614779.89 0.98187 (11063006)
484813.02 3614779.89 1.01982 (11063006) 484863.02
3614779.89 1.06565 (10021008)
484913.02 3614779.89 1.14367 (10021008) 484963.02
3614779.89 1.20399 (10021008)
484263.02 3614829.89 1.19525 (10020808) 484313.02
3614829.89 1.20558 (10020808)
484363.02 3614829.89 1.21600 (10020808) 484413.02
3614829.89 1.21711 (10020808)
484463.02 3614829.89 1.20688 (10020808) 484513.02
3614829.89 1.18783 (10020808)
484563.02 3614829.89 1.15766 (10020808) 484613.02
3614829.89 1.12048 (10020808)
484663.02 3614829.89 1.07118 (10020808) 484713.02
3614829.89 1.01205 (10020808)
484763.02 3614829.89 0.95206 (11063006) 484813.02
3614829.89 0.99646 (11063006)
484863.02 3614829.89 1.03250 (11063006) 484913.02
3614829.89 1.09070 (10021008)
484963.02 3614829.89 1.16503 (10021008) 484213.02
3614879.89 1.13206 (10020808)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
484263.02	3614879.89	1.17060	(10020808)	484313.02	3614879.89	1.19853	(10020808)

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       484363.02   3614879.89        1.22092  (10020808)               484413.02
3614879.89        1.23317  (10020808)
       484463.02   3614879.89        1.23597  (10020808)               484513.02
3614879.89        1.22970  (10020808)
       484563.02   3614879.89        1.21114  (10020808)               484613.02
3614879.89        1.18237  (10020808)
       484663.02   3614879.89        1.14329  (10020808)               484713.02
3614879.89        1.09256  (10020808)
       484763.02   3614879.89        1.03287  (10020808)               484813.02
3614879.89        0.96535  (10020808)
       484863.02   3614879.89        1.00858  (11063006)               484913.02
3614879.89        1.04317  (11063006)
       484963.02   3614879.89        1.11469  (10021008)               484163.02
3614929.89        1.03939  (10020808)
       484213.02   3614929.89        1.08816  (10020808)               484263.02
3614929.89        1.13510  (10020808)
       484313.02   3614929.89        1.17770  (10020808)               484363.02
3614929.89        1.21128  (10020808)
       484413.02   3614929.89        1.23547  (10020808)               484463.02
3614929.89        1.25291  (10020808)
       484513.02   3614929.89        1.25989  (10020808)               484563.02
3614929.89        1.25359  (10020808)
       484613.02   3614929.89        1.23748  (10020808)               484663.02
3614929.89        1.20731  (10020808)
       484713.02   3614929.89        1.16728  (10020808)               484763.02
3614929.89        1.11506  (10020808)
       484813.02   3614929.89        1.05345  (10020808)               484863.02
3614929.89        0.98587  (10020808)
       484913.02   3614929.89        1.02356  (11063006)               484963.02
3614929.89        1.05598  (11063006)
       485013.02   3614929.89        1.13891  (10021008)               484113.02
3614979.89        1.01017  (10021408)
       484163.02   3614979.89        1.02119  (10021408)               484213.02
3614979.89        1.03651  (10020808)
       484263.02   3614979.89        1.09158  (10020808)               484313.02
3614979.89        1.14584  (10020808)
       484363.02   3614979.89        1.18713  (10020808)               484413.02
3614979.89        1.22346  (10020808)
       484463.02   3614979.89        1.25399  (10020808)               484513.02
3614979.89        1.27225  (10020808)
       484563.02   3614979.89        1.27951  (10020808)               484613.02
3614979.89        1.27621  (10020808)
       484663.02   3614979.89        1.25789  (10020808)               484713.02
3614979.89        1.23206  (10020808)
       484763.02   3614979.89        1.18949  (10020808)               484813.02
3614979.89        1.13947  (10020808)
       484863.02   3614979.89        1.07776  (10020808)               484913.02
3614979.89        1.00607  (10020808)
       484963.02   3614979.89        1.03864  (11063006)               485013.02
3614979.89        1.07531  (10021008)
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       484113.02   3615029.89        1.00397  (10021408)                484163.02
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       484213.02   3615029.89        1.03377  (10021408)                484263.02
 3615029.89        1.04593  (10021408)
       484313.02   3615029.89        1.09744  (10020808)                484363.02
 3615029.89        1.14948  (10020808)
       484413.02   3615029.89        1.19594  (10020808)                484463.02
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       484513.02   3615029.89        1.26954  (10020808)                484563.02
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       484613.02   3615029.89        1.29987  (10020808)                484663.02
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       484713.02   3615029.89        1.28080  (10020808)                484763.02
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       484813.02   3615029.89        1.21619  (10020808)                484863.02
 3615029.89        1.16267  (10020808)
       484913.02   3615029.89        1.09972  (10020808)                484963.02
 3615029.89        1.02802  (10020808)
       485013.02   3615029.89        1.05391  (11063006)                485063.02
 3615029.89        1.10117  (10021008)
       484113.02   3615079.89        1.01905  (10091607)                484163.02
 3615079.89        1.02059  (10091607)
       484213.02   3615079.89        1.03375  (10021408)                484263.02
 3615079.89        1.04916  (10021408)
       484313.02   3615079.89        1.05737  (10021408)                484363.02
 3615079.89        1.09881  (10020808)
       484413.02   3615079.89        1.15343  (10020808)                484463.02
 3615079.89        1.20541  (10020808)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                          ***       14:52:42

                                    PAGE  81
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA1    ***
                                   INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF TAC      IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       484513.02   3615079.89        1.24981  (10020808)               484563.02
 3615079.89        1.28254  (10020808)
       484613.02   3615079.89        1.30779  (10020808)               484663.02
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       484713.02   3615079.89        1.32309  (10020808)               484763.02
 3615079.89        1.30690  (10020808)
       484813.02   3615079.89        1.27937  (10020808)               484863.02
 3615079.89        1.24059  (10020808)
       484913.02   3615079.89        1.18727  (10020808)               484963.02
 3615079.89        1.12382  (10020808)
       485013.02   3615079.89        1.05052  (10020808)               485063.02
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       485113.02   3615079.89        1.13042  (10021008)               484113.02
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       484163.02   3615129.89        1.03401  (10091607)               484213.02
 3615129.89        1.03836  (10091607)
       484263.02   3615129.89        1.04229  (10021408)               484313.02
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       484363.02   3615129.89        1.07372  (10021408)               484413.02
 3615129.89        1.09742  (10020808)
       484463.02   3615129.89        1.15883  (10020808)               484513.02
 3615129.89        1.21375  (10020808)
       484563.02   3615129.89        1.25973  (10020808)               484613.02
 3615129.89        1.29671  (10020808)
       484663.02   3615129.89        1.32648  (10020808)               484713.02
 3615129.89        1.34166  (10020808)
       484763.02   3615129.89        1.34132  (10020808)               484813.02
 3615129.89        1.33267  (10020808)
       484863.02   3615129.89        1.30592  (10020808)               484913.02
 3615129.89        1.26557  (10020808)
       484963.02   3615129.89        1.21396  (10020808)               485013.02
 3615129.89        1.14960  (10020808)
       485063.02   3615129.89        1.07355  (10020808)               485113.02
 3615129.89        1.08709  (11063006)
       485163.02   3615129.89        1.15987  (10021008)               484113.02
 3615179.89        1.03591  (10100707)
       484163.02   3615179.89        1.03041  (10091607)               484213.02
 3615179.89        1.04671  (10091607)
       484263.02   3615179.89        1.05555  (10091607)               484313.02
 3615179.89        1.05586  (10091607)
       484363.02   3615179.89        1.07546  (10021408)               484413.02
 3615179.89        1.08620  (10021408)
       484463.02   3615179.89        1.09923  (10020808)               484513.02
 3615179.89        1.16305  (10020808)
       484563.02   3615179.89        1.21908  (10020808)               484613.02
 3615179.89        1.26907  (10020808)
       484663.02   3615179.89        1.31146  (10020808)               484713.02
 3615179.89        1.34400  (10020808)
       484763.02   3615179.89        1.36171  (10020808)               484813.02
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3615179.89 1.36872 (10020808)
484863.02 3615179.89 1.35593 (10020808) 484913.02
3615179.89 1.33115 (10020808)
484963.02 3615179.89 1.29316 (10020808) 485013.02
3615179.89 1.24058 (10020808)
485063.02 3615179.89 1.17495 (10020808) 485113.02
3615179.89 1.09800 (10020808)
485163.02 3615179.89 1.11229 (11063006) 485213.02
3615179.89 1.19123 (10021008)
484113.02 3615229.89 1.08953 (10100707) 484163.02
3615229.89 1.06900 (10100707)
484213.02 3615229.89 1.04391 (10100707) 484263.02
3615229.89 1.05778 (10091607)
484313.02 3615229.89 1.07066 (10091607) 484363.02
3615229.89 1.07495 (10091607)
484413.02 3615229.89 1.07889 (10021408) 484463.02
3615229.89 1.09631 (10021408)
484513.02 3615229.89 1.10481 (10021408) 484563.02
3615229.89 1.16366 (10020808)
484613.02 3615229.89 1.22504 (10020808) 484663.02
3615229.89 1.27905 (10020808)
484713.02 3615229.89 1.32546 (10020808) 484763.02
3615229.89 1.36076 (10020808)
484813.02 3615229.89 1.38138 (10020808) 484863.02
3615229.89 1.38732 (10020808)
484913.02 3615229.89 1.38048 (10020808) 484963.02
3615229.89 1.36003 (10020808)
485013.02 3615229.89 1.32078 (10020808) 485063.02
3615229.89 1.26883 (10020808)
485113.02 3615229.89 1.20263 (10020808) 485163.02
3615229.89 1.12329 (10020808)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
485213.02	3615229.89	1.13139	(10110318)	485263.02	3615229.89	1.22385	(10021008)
484113.02	3615279.89	1.12995	(10100707)	484163.02	3615279.89	1.11804	(10100707)
484213.02	3615279.89	1.09919	(10100707)	484263.02	3615279.89	1.07358	(10100707)
484313.02	3615279.89	1.06262	(10091607)	484613.02	3615279.89	1.16504	(10020808)
484663.02	3615279.89	1.23088	(10020808)	484713.02	3615279.89	1.28957	(10020808)
484763.02	3615279.89	1.33874	(10020808)	484813.02	3615279.89	1.37807	(10020808)
484863.02	3615279.89	1.40285	(10020808)	484913.02	3615279.89	1.41189	(10020808)
484963.02	3615279.89	1.40702	(10020808)	485013.02	3615279.89	1.38750	(10020808)
485063.02	3615279.89	1.35076	(10020808)	485113.02	3615279.89	1.29661	(10020808)
485163.02	3615279.89	1.22883	(10020808)	485213.02	3615279.89	1.15947	(10110318)
485263.02	3615279.89	1.18819	(10110318)	485313.02	3615279.89	1.25904	(10021008)
484113.02	3615329.89	1.15411	(10100707)	484163.02	3615329.89	1.14825	(10100707)
484213.02	3615329.89	1.13947	(10100707)	484663.02	3615329.89	1.16387	(10020808)
484713.02	3615329.89	1.23457	(10020808)	484763.02	3615329.89	1.29746	(10020808)
484813.02	3615329.89	1.35254	(10020808)	484863.02	3615329.89	1.39742	(10020808)
484913.02	3615329.89	1.42440	(10020808)	484963.02	3615329.89	1.43552	(10020808)
485013.02	3615329.89	1.43554	(10020808)	485063.02	3615329.89	1.41640	(10020808)
485113.02	3615329.89	1.37903	(10020808)	485163.02	3615329.89	1.32476	(10020808)
485213.02	3615329.89	1.25713	(10020808)	485263.02	3615329.89	1.21858	(10110318)
485313.02	3615329.89	1.24968	(10110318)	485363.02	3615329.89	1.29267	(10021008)
484113.02	3615379.89	1.15833	(10100707)	484163.02	3615379.89	1.16606	(10100707)
484713.02	3615379.89	1.16308	(10020808)	484763.02	3615379.89	1.23834	(10020808)
484813.02	3615379.89	1.30707	(10020808)	484863.02	3615379.89	1.36369	(10020808)

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       484913.02   3615379.89        1.41338  (10020808)               484963.02
 3615379.89        1.44560  (10020808)
       485013.02   3615379.89        1.46180  (10020808)               485063.02
 3615379.89        1.46161  (10020808)
       485113.02   3615379.89        1.44597  (10020808)               485163.02
 3615379.89        1.41044  (10020808)
       485213.02   3615379.89        1.35821  (10020808)               485263.02
 3615379.89        1.28691  (10020808)
       485313.02   3615379.89        1.28265  (10110318)               485363.02
 3615379.89        1.31643  (10110318)
       485413.02   3615379.89        1.35105  (10110318)               484763.02
 3615429.89        1.18750  (12110208)
       484813.02   3615429.89        1.24067  (10020808)               484863.02
 3615429.89        1.31253  (10020808)
       484913.02   3615429.89        1.37543  (10020808)               484963.02
 3615429.89        1.42820  (10020808)
       485013.02   3615429.89        1.46554  (10020808)               485063.02
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       485113.02   3615429.89        1.49498  (10020808)               485163.02
 3615429.89        1.47571  (10020808)
       485213.02   3615429.89        1.44279  (10020808)               485263.02
 3615429.89        1.38850  (10020808)
       485313.02   3615429.89        1.31789  (10020808)               485363.02
 3615429.89        1.35229  (10110318)
       485413.02   3615429.89        1.38908  (10110318)               485463.02
 3615429.89        1.42680  (10110318)
       485513.02   3615429.89        1.47470  (10021008)               484813.02
 3615479.89        1.22803  (12110208)
       484863.02   3615479.89        1.24158  (10020808)               484913.02
 3615479.89        1.31793  (10020808)
       484963.02   3615479.89        1.38596  (10020808)               485013.02
 3615479.89        1.44419  (10020808)
       485063.02   3615479.89        1.48664  (10020808)               485113.02
 3615479.89        1.51473  (10020808)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                          ***       14:52:42

                                    PAGE  83
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA1    ***
                                   INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***
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** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
485163.02	3615479.89	1.52251	(10020808)	485213.02	3615479.89	1.50680	(10020808)
485263.02	3615479.89	1.47365	(10020808)	485313.02	3615479.89	1.42331	(10020808)
485363.02	3615479.89	1.38912	(10110318)	485413.02	3615479.89	1.42818	(10110318)
485463.02	3615479.89	1.46835	(10110318)	485513.02	3615479.89	1.50957	(10110318)
485563.02	3615479.89	1.55171	(10110318)	484863.02	3615529.89	1.26829	(12110208)
484913.02	3615529.89	1.26513	(12110208)	484963.02	3615529.89	1.32202	(10020808)
485013.02	3615529.89	1.39621	(10020808)	485063.02	3615529.89	1.45774	(10020808)
485113.02	3615529.89	1.50505	(10020808)	485163.02	3615529.89	1.53828	(10020808)
485213.02	3615529.89	1.55037	(10020808)	485263.02	3615529.89	1.54033	(10020808)
485313.02	3615529.89	1.51090	(10020808)	485363.02	3615529.89	1.46092	(10020808)
485413.02	3615529.89	1.46840	(10110318)	485463.02	3615529.89	1.51112	(10110318)
485513.02	3615529.89	1.55510	(10110318)	484913.02	3615579.89	1.30796	(12110208)
484963.02	3615579.89	1.31610	(12110208)	485013.02	3615579.89	1.32651	(10020808)
485063.02	3615579.89	1.40619	(10020808)	485113.02	3615579.89	1.48643	(10020808)
485163.02	3615579.89	1.53444	(10020808)	485213.02	3615579.89	1.56423	(10020808)
485263.02	3615579.89	1.58143	(10020808)	485313.02	3615579.89	1.57389	(10020808)
485363.02	3615579.89	1.54611	(10020808)	485413.02	3615579.89	1.50973	(10110318)
485463.02	3615579.89	1.55521	(10110318)	484963.02	3615629.89	1.34712	(12110208)
485013.02	3615629.89	1.36780	(12110208)	485063.02	3615629.89	1.36148	(12110208)
485113.02	3615629.89	1.41291	(10020808)	485163.02	3615629.89	1.49194	(10020808)
485213.02	3615629.89	1.54732	(10020808)	485263.02	3615629.89	1.58980	(10020808)
485313.02	3615629.89	1.61018	(10020808)	485363.02			

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 3615629.89        1.60467  (10020808)
       485413.02   3615629.89        1.57563  (10020808)                485013.02
 3615679.89        1.38452  (12110208)
       485063.02   3615679.89        1.41997  (12110208)                485113.02
 3615679.89        1.42687  (12110208)
       485163.02   3615679.89        1.42168  (10020808)                485213.02
 3615679.89        1.50191  (10020808)
       485263.02   3615679.89        1.56251  (10020808)                485313.02
 3615679.89        1.61448  (10020808)
       485363.02   3615679.89        1.64120  (10020808)                485413.02
 3615679.89        1.62426  (10020808)
       485063.02   3615729.89        1.42044  (12110208)                485113.02
 3615729.89        1.47216  (12110208)
       485163.02   3615729.89        1.49445  (12110208)                485213.02
 3615729.89        1.48400  (12110208)
       485263.02   3615729.89        1.50659  (10020808)                485313.02
 3615729.89        1.57893  (10020808)
       485363.02   3615729.89        1.62441  (10020808)                485113.02
 3615779.89        1.45432  (12110208)
       485163.02   3615779.89        1.52375  (12110208)                485213.02
 3615779.89        1.56375  (12110208)
       485263.02   3615779.89        1.56930  (12110208)                485313.02
 3615779.89        1.57593  (10110318)
       485163.02   3615829.89        1.48426  (12110208)                485213.02
 3615829.89        1.57420  (12110208)
       485263.02   3615829.89        1.63447  (12110208)                485213.02
 3615879.89        1.54413  (10110318)
       487082.35   3618053.22       71.24415  (11102206)                487132.24
 3618053.22       73.94114  (11070123)
       487182.13   3618053.22       68.55258  (11021522)                487232.02
 3618053.22       70.35292  (12110517)
       487281.91   3618053.22       73.16656  (12110517)                486242.77
 3618033.89        3.49067  (10110318)
       486286.79   3617997.48        3.75993  (10110318)                486574.47
 3617998.65       51.80360  (12111719)
       486624.36   3617998.65       65.89656  (12012623)                486674.25
 3617998.65       76.36382  (11010720)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                         ***        14:52:42

                                    PAGE  84
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA1    ***
                                   INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,
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*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
486724.14	3617998.65	77.19949	(12010320)	486774.03	3617998.65	80.13240	(10021622)
486923.70	3617998.65	69.47139	(12101507)	486973.59	3617998.65	77.47632	(12100221)
487023.48	3617998.65	70.59620	(12080805)	487082.35	3618103.22	67.69712	(11011120)
487132.24	3618103.22	67.99789	(11070123)	487182.13	3618103.22	66.69301	(12092402)
486165.87	3618094.46	3.09604	(10110318)	486242.77	3618083.89	3.30005	(10110318)
486292.66	3618083.89	6.67956	(12111719)	486499.32	3618054.73	53.52016	(12111719)
486574.47	3618048.65	49.36062	(11121919)	486624.36	3618048.65	63.16576	(12012623)
486674.25	3618048.65	64.62528	(11010720)	486724.14	3618048.65	72.58135	(12010320)
486873.81	3618048.65	77.49373	(12100223)	486923.70	3618048.65	66.80856	(12101507)
486973.59	3618048.65	73.71297	(11110320)	487023.48	3618048.65	66.97701	(12080805)
487082.35	3618153.22	65.61753	(11011120)	487132.24	3618153.22	62.34969	(12090521)
486325.02	3618098.65	12.10159	(12111719)	486242.77	3618133.89	4.24453	(12111719)
486524.58	3618098.65	52.47179	(12111719)	486574.47	3618098.65	50.50107	(12012623)
486624.36	3618098.65	60.12610	(12012623)	486674.25	3618098.65	63.96533	(11010720)
486823.92	3618098.65	73.98653	(12072002)	486873.81	3618098.65	74.03098	(12100223)
486923.70	3618098.65	64.73381	(12101507)	486973.59	3618098.65	70.34767	(11110320)
487023.48	3618098.65	63.82378	(12022321)	487082.35	3618203.22	62.03115	(11011120)
486275.13	3618148.65	7.66391	(12111719)	486325.02	3618148.65	16.06527	(12111719)
486374.91	3618148.65	28.82034	(12111719)	486474.69	3618148.65	49.55072	(12111719)
486524.58	3618148.65	43.90180	(12111719)	486574.47	3618148.65	52.68627	(12012623)

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       486624.36   3618148.65       62.35211  (11010720)                486774.03
 3618148.65       67.12210  (11011822)
       486823.92   3618148.65       68.72211  (12111722)                486873.81
 3618148.65       70.38719  (12100223)
       486923.70   3618148.65       61.08762  (12101507)                486973.59
 3618148.65       67.00482  (11110320)
       487023.48   3618148.65       61.81829  (12083004)                486275.13
 3618198.65       10.47257  (12111719)
       486325.02   3618198.65       20.36433  (12111719)                486374.91
 3618198.65       33.40705  (12111719)
       486424.80   3618198.65       45.72411  (12111719)                486474.69
 3618198.65       46.67546  (12111719)
       486524.58   3618198.65       42.86385  (11121919)                486674.25
 3618198.65       57.22403  (12010320)
       486724.14   3618198.65       58.45865  (12010320)                486774.03
 3618198.65       61.87731  (11011822)
       486823.92   3618198.65       63.18084  (12111722)                486873.81
 3618198.65       65.89628  (12100223)
       486923.70   3618198.65       56.91620  (11111420)                486973.59
 3618198.65       63.45399  (11110320)
       487023.48   3618198.65       59.45476  (12083004)                486275.13
 3618248.65       13.79227  (12111719)
       486325.02   3618248.65       24.99335  (12111719)                486374.91
 3618248.65       37.50269  (12111719)
       486424.80   3618248.65       44.68259  (12111719)                486474.69
 3618248.65       45.75133  (12111719)
       486624.36   3618248.65       50.74594  (11010720)                486674.25
 3618248.65       55.12406  (12010320)
       486724.14   3618248.65       57.06143  (10021622)                486774.03
 3618248.65       59.27831  (11011822)
       486823.92   3618248.65       59.42999  (12111722)                486873.81
 3618248.65       61.71748  (12100223)
       486923.70   3618248.65       51.47971  (11111420)                486973.59
 3618248.65       58.87538  (11110320)
       487023.48   3618248.65       56.57409  (12022321)                486125.46
 3618298.65        2.55594  (12102409)
       486275.13   3618298.65       17.41826  (12111719)                486325.02
 3618298.65       28.93506  (12111719)
       486374.91   3618298.65       39.56878  (12111719)                486424.80
 3618298.65       45.67265  (12111719)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                       ***        14:52:42

                                  PAGE  85
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA1    ***
```

INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
486574.47	3618298.65	48.53293	(12012623)	486624.36	3618298.65	48.07702	(11010720)
486674.25	3618298.65	54.02441	(12010320)	486724.14	3618298.65	55.67216	(10021622)
486774.03	3618298.65	58.16562	(11011822)	486823.92	3618298.65	56.79038	(12111722)
486873.81	3618298.65	59.69833	(12100223)	486923.70	3618298.65	48.84958	(11111420)
486125.46	3618348.65	3.35995	(12111719)	486175.35	3618348.65	6.20191	(12111719)
486225.24	3618348.65	11.95571	(12111719)	486275.13	3618348.65	21.04987	(12111719)
486325.02	3618348.65	32.39103	(12111719)	486524.58	3618348.65	43.95862	(12012623)
486574.47	3618348.65	45.55586	(12012623)	486624.36	3618348.65	45.55524	(11010720)
486674.25	3618348.65	51.69446	(12010320)	486724.14	3618348.65	53.95958	(10021622)
486774.03	3618348.65	55.61498	(11011822)	486823.92	3618348.65	53.78713	(12111722)
486873.81	3618348.65	56.79999	(12100223)	486125.46	3618398.65	4.54057	(12111719)
486175.35	3618398.65	8.19827	(12111719)	486225.24	3618398.65	14.77607	(12111719)
486424.80	3618398.65	37.17412	(12111719)	486474.69	3618398.65	38.21566	(11121919)
486524.58	3618398.65	43.48875	(12012623)	486574.47	3618398.65	41.73812	(12012623)
486624.36	3618398.65	42.38981	(12010320)	486674.25	3618398.65	48.83205	(12010320)
486724.14	3618398.65	50.34133	(10021622)	486774.03	3618398.65	51.50769	(12111722)
486823.92	3618398.65	50.31939	(12111722)	486125.46	3618448.65	5.81427	(12111719)
486175.35	3618448.65	10.28885	(12111719)	486374.91	3618448.65	38.74135	(12111719)
486424.80	3618448.65	31.80348	(12111719)	486474.69			

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 3618448.65       38.02662  (11121919)
       486524.58   3618448.65       41.69240  (12012623)               486574.47
 3618448.65       39.78762  (11010720)
       486624.36   3618448.65       41.89802  (12010320)               486674.25
 3618448.65       45.78230  (12010320)
       486724.14   3618448.65       46.69715  (10021622)               486774.03
 3618448.65       48.42072  (12111722)
       486125.46   3618498.65        6.60524  (12111719)               486325.02
 3618498.65       34.24046  (12111719)
       486374.91   3618498.65       34.43397  (12111719)               486424.80
 3618498.65       32.67522  (11121919)
       486474.69   3618498.65       36.57751  (12012623)               486524.58
 3618498.65       40.18526  (12012623)
       486574.47   3618498.65       37.09413  (11112921)               486624.36
 3618498.65       40.98771  (12010320)
       486674.25   3618498.65       42.96683  (12102721)               486105.96
 3618586.04        5.58322  (12111719)
       486325.02   3618548.65       32.80757  (12111719)               486374.91
 3618548.65       27.36857  (12111719)
       486424.80   3618548.65       25.27865  (12012623)               486474.69
 3618548.65       35.69737  (12012623)
       486524.58   3618548.65       35.43398  (12012623)               486574.47
 3618548.65       35.54134  (11112921)
       486624.36   3618548.65       39.42336  (12010320)               486101.02
 3618078.36        3.00520  (10110318)
       486155.07   3618149.26        2.90567  (10110318)               486018.49
 3618262.09        2.39819  (10110318)
       485957.41   3618189.14        2.45567  (10110318)               485842.03
 3618300.27        2.08389  (10110318)
       485893.78   3618363.05        2.04807  (10110318)               485902.87
 3618241.99        2.26733  (10110318)
       485966.01   3618313.09        2.22463  (10110318)               486011.91
 3618082.61        2.80278  (10110318)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                          ***        14:52:42

                                    PAGE  86
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA2    ***
                                   INCLUDING SOURCE(S):     LOCATION2_2 ,
LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF TAC      IN MICROGRAMS/M**3
```

**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
488270.59	3616550.48	11.06045	(10051221)	488320.59	3616550.48	10.89953	(10051221)
488370.59	3616550.48	10.68991	(10051221)	488420.59	3616550.48	10.44099	(10051221)
488470.59	3616550.48	10.15915	(10051221)	488520.59	3616550.48	9.85299	(10051221)
488570.59	3616550.48	9.52996	(10051221)	488620.59	3616550.48	9.19308	(10051221)
488270.59	3616600.48	12.08418	(10051221)	488320.59	3616600.48	11.64400	(10051221)
488370.59	3616600.48	11.18528	(10051221)	488420.59	3616600.48	10.71527	(10051221)
488470.59	3616600.48	10.24082	(10051221)	488520.59	3616600.48	9.76750	(10051221)
488570.59	3616600.48	9.30069	(10051221)	488620.59	3616600.48	8.84259	(10051221)
488270.59	3616650.48	12.01959	(10051221)	488320.59	3616650.48	11.36259	(10051221)
488370.59	3616650.48	10.72426	(10051221)	488420.59	3616650.48	10.10804	(10051221)
488470.59	3616650.48	9.51676	(10051221)	488520.59	3616650.48	8.95209	(10051221)
488570.59	3616650.48	8.41487	(10051221)	488620.59	3616650.48	7.90565	(10051221)
488270.59	3616700.48	10.85953	(10051221)	488320.59	3616700.48	10.11103	(10051221)
488370.59	3616700.48	9.41070	(10051221)	488420.59	3616700.48	8.75724	(10051221)
488470.59	3616700.48	8.14918	(10051221)	488520.59	3616700.48	7.58428	(10051221)
488570.59	3616700.48	7.05949	(10051221)	488620.59	3616700.48	6.57317	(10051221)
488320.59	3616750.48	8.20828	(10051221)	488370.59	3616750.48	7.56491	(10051221)
488420.59	3616750.48	6.97778	(10051221)	488470.59	3616750.48	6.44191	(10051221)
488520.59	3616750.48	5.95231	(10051221)	488570.59	3616750.48	5.50549	(10051221)
488620.59	3616750.48	5.09710	(10051221)	488320.59	3616800.48	6.10516	(10051221)
488370.59	3616800.48	5.59733	(10051221)	488420.59	3616800.48	5.13992	(10051221)
488470.59	3616800.48	4.72730	(10051221)	488520.59	3616800.48	4.35436	(10051221)

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       488570.59   3616800.48        4.01687  (10051221)               488620.59
 3616800.48        3.71118  (10051221)
       488370.59   3616850.48        4.17868  (12012717)               488420.59
 3616850.48        3.93703  (12012717)
       488470.59   3616850.48        3.71754  (12012717)               488520.59
 3616850.48        3.50525  (12012717)
       488570.59   3616850.48        3.31265  (12012717)               488620.59
 3616850.48        3.12673  (12012717)
       488420.59   3616900.48        3.18902  (12012717)               488470.59
 3616900.48        2.99699  (12012717)
       488520.59   3616900.48        2.81957  (12012717)               488570.59
 3616900.48        2.65418  (12012717)
       488620.59   3616900.48        2.50306  (12012717)               488420.59
 3616950.48        2.94244  (12040818)
       488470.59   3616950.48        2.75854  (12040818)               488520.59
 3616950.48        2.61655  (12040818)
       488570.59   3616950.48        2.48488  (12040818)               488620.59
 3616950.48        2.36568  (12040818)
       488470.59   3617000.48        2.94363  (12040818)               488520.59
 3617000.48        2.79866  (12040818)
       488570.59   3617000.48        2.66793  (12040818)               488620.59
 3617000.48        2.54213  (12040818)
       488470.59   3617050.48        3.08145  (10110310)               488520.59
 3617050.48        2.99138  (10110310)
       488570.59   3617050.48        2.90435  (10110310)               488620.59
 3617050.48        2.82237  (10110310)
       488370.59   3617100.48        3.57026  (10110310)               488420.59
 3617100.48        3.46940  (10110310)
       488470.59   3617100.48        3.39283  (10110310)               488520.59
 3617100.48        3.30603  (10110310)
       488570.59   3617100.48        3.22111  (10110310)               488620.59
 3617100.48        3.14573  (10110310)
       488320.59   3617150.48        3.63568  (10110310)               488370.59
 3617150.48        3.57652  (10110310)
       488420.59   3617150.48        3.51281  (10110310)               488470.59
 3617150.48        3.44369  (10110310)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                           ***       14:52:42

                                    PAGE  87
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA2    ***
                                   INCLUDING SOURCE(S):     LOCATION2_2 ,
LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
```

***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
488520.59	3617150.48	3.38968	(10110310)	488570.59	3617150.48	3.32731	(10110310)
488620.59	3617150.48	5.51442	(10032919)	488270.59	3617200.48	9.37083	(12032220)
488320.59	3617200.48	3.53234	(10041718)	488370.59	3617200.48	11.96614	(12032220)
488420.59	3617200.48	3.27446	(10110310)	488470.59	3617200.48	3.24914	(10110310)
488520.59	3617200.48	3.22358	(10110310)	488570.59	3617200.48	3.19593	(10110310)
488620.59	3617200.48	10.82578	(12032220)	487320.59	3617250.48	19.24040	(12032604)
487370.59	3617250.48	15.15537	(10030804)	487420.59	3617250.48	12.21067	(10030804)
487470.59	3617250.48	9.47154	(10030804)	487520.59	3617250.48	9.36026	(10050820)
487570.59	3617250.48	14.82945	(10122219)	487620.59	3617250.48	18.58050	(10122219)
487670.59	3617250.48	19.46627	(10122219)	487720.59	3617250.48	18.43367	(10122219)
487770.59	3617250.48	16.79860	(10122219)	487820.59	3617250.48	15.53194	(10022018)
487870.59	3617250.48	15.30373	(10022018)	487920.59	3617250.48	15.12828	(10022018)
487970.59	3617250.48	15.13584	(10022018)	488020.59	3617250.48	15.05409	(12110121)
488070.59	3617250.48	15.02896	(10022106)	488120.59	3617250.48	14.72884	(12032220)
488170.59	3617250.48	14.44538	(12032220)	488220.59	3617250.48	13.02004	(12032220)
488270.59	3617250.48	10.65057	(12032220)	488320.59	3617250.48	9.95820	(12032220)
488370.59	3617250.48	10.25646	(12032220)	488420.59	3617250.48	3.84470	(12021718)
488470.59	3617250.48	3.34101	(12012911)	488520.59	3617250.48	3.23882	(12012911)
488570.59	3617250.48	3.12945	(12012911)	488620.59	3617250.48	5.93386	(12032220)
487170.59	3617300.48	67.80784	(11072602)	487220.59	3617300.48	54.63468	(12033120)
487270.59	3617300.48	37.64806	(12033120)	487320.59			

3617300.48 37.69344 (10080620)
  487370.59 3617300.48 33.84431 (10080620) 487420.59
3617300.48 28.41611 (10072605)
  487470.59 3617300.48 19.16715 (10072605) 487520.59
3617300.48 22.33623 (10122220)
  487570.59 3617300.48 25.40653 (10122220) 487620.59
3617300.48 26.13525 (10122219)
  487670.59 3617300.48 25.22453 (10122219) 487720.59
3617300.48 25.86752 (10122219)
  487770.59 3617300.48 23.59640 (10122219) 487820.59
3617300.48 20.76838 (10122219)
  487870.59 3617300.48 21.78236 (10122219) 487920.59
3617300.48 20.73294 (10122219)
  487970.59 3617300.48 22.26079 (12101121) 488020.59
3617300.48 19.93203 (12101121)
  488070.59 3617300.48 17.06858 (12101121) 488120.59
3617300.48 17.86381 (12110121)
  488170.59 3617300.48 14.85489 (12110121) 488220.59
3617300.48 10.97002 (10022018)
  488270.59 3617300.48   9.92250 (12032220) 488320.59
3617300.48 10.19394 (12032220)
  488370.59 3617300.48 13.13796 (10022106) 488420.59
3617300.48   5.55914 (12032220)
  488470.59 3617300.48   3.43520 (12012911) 488520.59
3617300.48   9.68422 (12032220)
  488570.59 3617300.48   3.29978 (12012911) 488620.59
3617300.48   3.22206 (12012911)
  487020.59 3617350.48 79.12716 (11020518) 487070.59
3617350.48 64.74734 (10060724)
  487120.59 3617350.48 86.90079 (12090605) 487170.59
3617350.48 71.87975 (11072602)
  487220.59 3617350.48 69.43620 (11072602) 487270.59
3617350.48 59.72324 (12033120)
  487320.59 3617350.48 53.37574 (12033120) 487370.59
3617350.48 47.83480 (10080620)
  487420.59 3617350.48 41.96214 (10080620) 487470.59
3617350.48 34.96485 (10072605)
  487520.59 3617350.48 29.28531 (12121120) 487570.59
3617350.48 31.74301 (12121120)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 ,

LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487620.59	3617350.48	29.89777	(12121120)	487670.59	3617350.48	28.19030	(10122220)
487720.59	3617350.48	26.89413	(10122220)	487770.59	3617350.48	25.90044	(10122219)
487820.59	3617350.48	24.10097	(10122219)	487870.59	3617350.48	25.97881	(10122219)
487920.59	3617350.48	25.58791	(10122219)	487970.59	3617350.48	24.57507	(10122219)
488020.59	3617350.48	21.17215	(10122219)	488070.59	3617350.48	19.07896	(10122219)
488120.59	3617350.48	18.24806	(12101121)	488170.59	3617350.48	14.90444	(10021118)
488220.59	3617350.48	12.05825	(10022018)	488270.59	3617350.48	10.18342	(10022018)
488320.59	3617350.48	7.97925	(10022018)	488370.59	3617350.48	4.55476	(12021718)
488420.59	3617350.48	4.78963	(12021718)	488470.59	3617350.48	3.27899	(12012911)
488520.59	3617350.48	3.26689	(12012911)	488570.59	3617350.48	3.24253	(12012911)
488620.59	3617350.48	3.21019	(12012911)	486770.59	3617400.48	65.08333	(12101805)
486820.59	3617400.48	62.30031	(12101805)	486870.59	3617400.48	76.04050	(12052919)
486920.59	3617400.48	138.09683	(12081903)	486970.59	3617400.48	165.15606	(12081903)
487020.59	3617400.48	97.47592	(12081024)	487070.59	3617400.48	82.09529	(12081024)
487120.59	3617400.48	86.76264	(12090605)	487170.59	3617400.48	110.87958	(12090605)
487220.59	3617400.48	74.71352	(12090605)	487270.59	3617400.48	74.95293	(11072602)
487320.59	3617400.48	63.93605	(10111618)	487370.59	3617400.48	60.48175	(12033120)
487420.59	3617400.48	53.97984	(12101122)	487470.59	3617400.48	48.16685	(10080620)
487520.59	3617400.48	33.25990	(10072605)	487570.59	3617400.48	36.93931	(12121120)

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       487620.59   3617400.48       20.76283  (10072605)                487670.59
3617400.48       17.32703  (12121120)
       487720.59   3617400.48       17.01071  (10122220)                487770.59
3617400.48       16.20466  (10122220)
       487820.59   3617400.48       14.67566  (10122220)                487870.59
3617400.48       15.71197  (10122220)
       487920.59   3617400.48       16.00826  (10122219)                487970.59
3617400.48       15.40005  (10122219)
       488020.59   3617400.48       13.64380  (10122219)                488070.59
3617400.48       11.38525  (10122219)
       488120.59   3617400.48        7.12778  (10122219)                488170.59
3617400.48        3.62893  (10020117)
       488220.59   3617400.48        3.40549  (10020117)                488270.59
3617400.48        3.18686  (10020117)
       488320.59   3617400.48        3.04340  (11041218)                488370.59
3617400.48        5.49230  (10022018)
       488420.59   3617400.48        2.85600  (12012911)                488470.59
3617400.48        2.91088  (12012911)
       488520.59   3617400.48        2.95026  (12012911)                488570.59
3617400.48        2.97755  (12012911)
       488620.59   3617400.48        2.99510  (12012911)                486820.59
3617450.48       65.43625  (10021623)
       486870.59   3617450.48       65.15144  (12052919)                486920.59
3617450.48       87.15022  (12052919)
       486970.59   3617450.48      189.52295  (12081903)                487020.59
3617450.48      111.42571  (12081903)
       487070.59   3617450.48      103.11218  (12081024)                487120.59
3617450.48       78.75826  (11080423)
       487170.59   3617450.48       87.11459  (12090605)                487220.59
3617450.48      102.32510  (12090605)
       487270.59   3617450.48       71.83067  (11081202)                487320.59
3617450.48       73.28887  (11072602)
       487370.59   3617450.48       66.77943  (10111618)                487420.59
3617450.48       62.34230  (12033120)
       487470.59   3617450.48       44.91928  (12101102)                487520.59
3617450.48       20.38562  (12032604)
       487570.59   3617450.48       17.80461  (10080620)                487620.59
3617450.48       21.98319  (10080620)
       487670.59   3617450.48       23.86805  (10072605)                487720.59
3617450.48       22.76493  (12121120)
       487770.59   3617450.48       24.27094  (12121120)                487820.59
3617450.48       23.55554  (12121120)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                         ***        14:52:42

                                   PAGE  89
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data
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*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487870.59	3617450.48	22.20727	(10122220)	487920.59	3617450.48	21.56072	(10122220)
487970.59	3617450.48	20.06792	(10122220)	488020.59	3617450.48	18.85569	(10122219)
488070.59	3617450.48	18.51130	(10122219)	488120.59	3617450.48	17.61225	(10122219)
488170.59	3617450.48	15.94056	(10122219)	488220.59	3617450.48	13.43601	(10122219)
488270.59	3617450.48	13.01064	(10122219)	488320.59	3617450.48	15.88404	(10122219)
488370.59	3617450.48	13.88869	(10122219)	488420.59	3617450.48	2.88689	(11012111)
488470.59	3617450.48	2.79349	(11012111)	488520.59	3617450.48	2.69569	(11012111)
488570.59	3617450.48	2.59007	(11012111)	488620.59	3617450.48	2.62137	(12012911)
486770.59	3617500.48	114.18763	(12072003)	486820.59	3617500.48	99.11810	(12112419)
486870.59	3617500.48	62.97732	(10092206)	486920.59	3617500.48	83.96208	(12031201)
486970.59	3617500.48	137.60680	(12081903)	487020.59	3617500.48	165.85939	(12081903)
487070.59	3617500.48	82.54285	(10090719)	487120.59	3617500.48	95.84112	(12081024)
487170.59	3617500.48	85.10463	(11080423)	487220.59	3617500.48	77.27153	(10060724)
487270.59	3617500.48	88.56519	(12090605)	487320.59	3617500.48	66.28186	(12090605)
487370.59	3617500.48	65.42624	(11072602)	487420.59	3617500.48	34.42817	(11072602)
487470.59	3617500.48	22.65473	(11072602)	487520.59	3617500.48	40.92291	(12101102)
487570.59	3617500.48	53.03984	(12101122)	487620.59	3617500.48	50.16304	(11051703)
487670.59	3617500.48	45.57249	(11051703)	487720.59			

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 3617500.48       37.89474  (11051703)
       487770.59   3617500.48       37.10222  (12121120)                487820.59
 3617500.48       36.88928  (12121120)
       487870.59   3617500.48       35.09383  (12121120)                487920.59
 3617500.48       32.86279  (12121120)
       487970.59   3617500.48       28.43350  (12121120)                488020.59
 3617500.48       26.63604  (10122220)
       488070.59   3617500.48       25.70157  (10030324)                488120.59
 3617500.48       27.68635  (10030324)
       488170.59   3617500.48       26.70237  (10030324)                488220.59
 3617500.48       23.97169  (10030324)
       488270.59   3617500.48       19.24985  (10122219)                488320.59
 3617500.48       18.44665  (10122219)
       488370.59   3617500.48       15.04421  (10122219)                488420.59
 3617500.48        2.87894  (11012111)
       488470.59   3617500.48        2.83973  (11012111)                488520.59
 3617500.48        2.78923  (11012111)
       488570.59   3617500.48        2.72423  (11012111)                488620.59
 3617500.48        2.65290  (11012111)
       486670.59   3617550.48       76.79317  (10021721)                486720.59
 3617550.48      150.26086  (12100221)
       486770.59   3617550.48      129.29952  (12072003)                486820.59
 3617550.48      114.94030  (12112419)
       486870.59   3617550.48       70.09921  (10092206)                486920.59
 3617550.48       74.68933  (12031201)
       486970.59   3617550.48       85.34372  (12031201)                487020.59
 3617550.48      160.01206  (12081903)
       487070.59   3617550.48      111.20290  (12081903)                487120.59
 3617550.48       80.51409  (12072905)
       487170.59   3617550.48       87.32848  (11080423)                487220.59
 3617550.48       78.69072  (11080423)
       487270.59   3617550.48       69.26941  (12090605)                487320.59
 3617550.48       48.06419  (12090605)
       487370.59   3617550.48       33.99078  (11072602)                487420.59
 3617550.48       46.17056  (11072602)
       487470.59   3617550.48       60.35384  (11072602)                487520.59
 3617550.48       54.76919  (10111618)
       487570.59   3617550.48       59.81622  (10022101)                487620.59
 3617550.48       59.05372  (12101122)
       487670.59   3617550.48       53.22854  (12101122)                487720.59
 3617550.48       47.54571  (11051703)
       487770.59   3617550.48       41.89641  (11051703)                487820.59
 3617550.48       35.00068  (12121120)
       487870.59   3617550.48       36.71041  (12121120)                487920.59
 3617550.48       36.10125  (12121120)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                       ***        14:52:42
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487970.59	3617550.48	35.28977	(12121120)	488020.59	3617550.48	32.19081	(12121120)
488070.59	3617550.48	29.10978	(12121120)	488120.59	3617550.48	27.63084	(12032321)
488170.59	3617550.48	25.13682	(10022105)	488220.59	3617550.48	23.07794	(10030324)
488270.59	3617550.48	20.63904	(10030324)	488320.59	3617550.48	20.32078	(10030324)
488370.59	3617550.48	2.65891	(11012111)	488420.59	3617550.48	2.69740	(11012111)
488470.59	3617550.48	2.71784	(11012111)	488520.59	3617550.48	2.71885	(11012111)
488570.59	3617550.48	2.70533	(11012111)	488620.59	3617550.48	2.68036	(11012111)
485870.59	3617600.48	4.63403	(10110318)	485920.59	3617600.48	4.93563	(10110318)
486620.59	3617600.48	73.35761	(10021721)	486670.59	3617600.48	74.08901	(10021721)
486720.59	3617600.48	157.67309	(12100221)	486770.59	3617600.48	140.59075	(12072003)
486820.59	3617600.48	114.50026	(12112419)	486870.59	3617600.48	74.51026	(12101521)
486920.59	3617600.48	80.28399	(10102817)	486970.59	3617600.48	90.02589	(12031201)
487020.59	3617600.48	108.20072	(12081903)	487070.59	3617600.48	133.02807	(12081903)
487120.59	3617600.48	81.93742	(10090719)	487170.59	3617600.48	79.71687	(11020518)
487220.59	3617600.48	80.92755	(11080423)	487270.59	3617600.48	43.62969	(12082305)
487320.59	3617600.48	46.13507	(12090605)	487370.59	3617600.48	72.80273	(12090605)

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       487420.59   3617600.48       69.30166  (10022102)                487470.59
3617600.48       63.72782  (11072602)
       487520.59   3617600.48       62.46802  (11072602)                487570.59
3617600.48       60.50298  (11032821)
       487620.59   3617600.48       56.22471  (10080701)                487670.59
3617600.48       56.16994  (12101122)
       487720.59   3617600.48       54.78204  (12101122)                487770.59
3617600.48       49.26209  (10101707)
       487820.59   3617600.48       46.05755  (10101707)                487870.59
3617600.48       38.70465  (10101707)
       487920.59   3617600.48       33.55514  (12121120)                487970.59
3617600.48       35.77269  (12121120)
       488020.59   3617600.48       36.88151  (12121120)                488070.59
3617600.48       35.50246  (12121120)
       488120.59   3617600.48       31.62775  (12121120)                488170.59
3617600.48       27.08086  (12121120)
       488220.59   3617600.48       23.27436  (10122220)                488270.59
3617600.48       20.56436  (10122220)
       488320.59   3617600.48       13.97824  (10122220)                488370.59
3617600.48        2.28664  (10020417)
       488420.59   3617600.48        2.37805  (11012111)                488470.59
3617600.48        2.45094  (11012111)
       488520.59   3617600.48        2.50184  (11012111)                488570.59
3617600.48        2.54070  (11012111)
       488620.59   3617600.48        2.56159  (11012111)                485870.59
3617650.48        4.41072  (10110318)
       485920.59   3617650.48        4.68033  (10110318)                485970.59
3617650.48        4.96848  (10110318)
       486570.59   3617650.48       62.83026  (12102721)                486620.59
3617650.48       71.82230  (10021721)
       486670.59   3617650.48       78.11408  (12071924)                486720.59
3617650.48      153.92722  (12100221)
       486770.59   3617650.48      136.37236  (12072003)                486820.59
3617650.48      107.43126  (12112419)
       486870.59   3617650.48       85.60434  (12112419)                486920.59
3617650.48       85.06743  (12110517)
       486970.59   3617650.48       83.51527  (12031201)                487020.59
3617650.48       92.28843  (12012018)
       487070.59   3617650.48      113.93422  (12081903)                487120.59
3617650.48       92.43947  (12081903)
       487170.59   3617650.48       80.02363  (12072905)                487370.59
3617650.48       65.56251  (12092521)
       487420.59   3617650.48       68.84244  (12092521)                487470.59
3617650.48       67.63920  (10022102)
       487520.59   3617650.48       63.06838  (10050822)                487570.59
3617650.48       60.46903  (11072602)
       487620.59   3617650.48       58.67411  (11032821)                487670.59
3617650.48       53.31915  (10080701)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487720.59	3617650.48	54.43749	(10022101)	487770.59	3617650.48	53.39934	(12101122)
487820.59	3617650.48	49.47799	(12101122)	487870.59	3617650.48	47.05496	(10101707)
487920.59	3617650.48	42.19078	(10101707)	487970.59	3617650.48	36.31162	(10101707)
488020.59	3617650.48	33.96080	(12121120)	488070.59	3617650.48	35.44127	(12121120)
488120.59	3617650.48	33.56260	(12121120)	488170.59	3617650.48	31.04415	(12121120)
488220.59	3617650.48	26.64661	(12121120)	488270.59	3617650.48	22.96499	(12121120)
488320.59	3617650.48	18.01057	(10122220)	488370.59	3617650.48	2.35870	(10070608)
488420.59	3617650.48	2.18778	(10070608)	488470.59	3617650.48	2.08822	(11012111)
488520.59	3617650.48	2.18209	(11012111)	488570.59	3617650.48	2.25954	(11012111)
488620.59	3617650.48	2.32382	(11012111)	485870.59	3617700.48	4.19542	(10110318)
485920.59	3617700.48	4.43621	(10110318)	485970.59	3617700.48	4.69124	(10110318)
486470.59	3617700.48	32.15741	(11112921)	486520.59	3617700.48	52.41685	(11112921)
486570.59	3617700.48	63.76131	(12102721)	486620.59	3617700.48	74.66080	(10021721)
486670.59	3617700.48	77.82057	(12071924)	486720.59	3617700.48	141.55357	(12100221)
486770.59	3617700.48	126.98735	(12072003)	486820.59			

3617700.48 92.78172 (12112419)
486870.59 3617700.48 86.41167 (12112419) 486920.59
3617700.48 81.51065 (12110517)
486970.59 3617700.48 83.79772 (10102817) 487020.59
3617700.48 91.29849 (12012018)
487070.59 3617700.48 86.27953 (11092724) 487120.59
3617700.48 106.28013 (12081903)
487270.59 3617700.48 69.04380 (11080423) 487320.59
3617700.48 77.15497 (11080423)
487370.59 3617700.48 66.59505 (11070322) 487420.59
3617700.48 67.96949 (12092521)
487470.59 3617700.48 67.16086 (12092521) 487520.59
3617700.48 65.34579 (10022102)
487570.59 3617700.48 60.12064 (10050822) 487620.59
3617700.48 56.68708 (11072602)
487670.59 3617700.48 55.04063 (11032821) 487720.59
3617700.48 53.03224 (11032821)
487770.59 3617700.48 50.66120 (10080701) 487820.59
3617700.48 50.68661 (12101122)
487870.59 3617700.48 49.83738 (12101122) 487920.59
3617700.48 46.47080 (10101707)
487970.59 3617700.48 46.53416 (10101707) 488020.59
3617700.48 41.21939 (10101707)
488070.59 3617700.48 31.99727 (10101707) 488120.59
3617700.48 28.78008 (12121120)
488170.59 3617700.48 26.87306 (12121120) 488220.59
3617700.48 23.24117 (12121120)
488270.59 3617700.48 20.99396 (12121120) 488320.59
3617700.48 18.08946 (12121120)
488370.59 3617700.48 3.81244 (11051724) 488420.59
3617700.48 2.32796 (10070608)
488470.59 3617700.48 2.21328 (10070608) 488520.59
3617700.48 2.07887 (10070608)
488570.59 3617700.48 1.92869 (10070608) 488620.59
3617700.48 2.00291 (11012111)
486420.59 3617750.48 30.25632 (12111719) 486470.59
3617750.48 42.64337 (12012623)
486520.59 3617750.48 56.17667 (11112921) 486570.59
3617750.48 66.45258 (12102721)
486620.59 3617750.48 75.07974 (10021721) 486670.59
3617750.48 75.99928 (12100223)
486720.59 3617750.48 130.05281 (12100221) 486770.59
3617750.48 114.02847 (12100221)
486820.59 3617750.48 81.27666 (12072003) 486870.59
3617750.48 83.82875 (12112419)
486920.59 3617750.48 84.89090 (11021522) 486970.59
3617750.48 88.27875 (12110517)
487020.59 3617750.48 80.20367 (12052922) 487070.59
3617750.48 82.60657 (12012018)
487220.59 3617750.48 70.91860 (12072905) 487270.59

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487320.59	3617750.48	73.67598	(11080423)	487370.59	3617750.48	71.30972	(11080423)
487420.59	3617750.48	63.47355	(11070322)	487470.59	3617750.48	65.67943	(12092521)
487520.59	3617750.48	66.03218	(12092521)	487570.59	3617750.48	64.27232	(10022102)
487620.59	3617750.48	58.57127	(10050822)	487670.59	3617750.48	54.69552	(10022021)
487720.59	3617750.48	51.10709	(11032821)	487770.59	3617750.48	51.35525	(11032821)
487820.59	3617750.48	48.44772	(10080701)	487870.59	3617750.48	48.57479	(10022101)
487920.59	3617750.48	48.76747	(12101122)	487970.59	3617750.48	46.45472	(12101122)
488020.59	3617750.48	43.55202	(10101707)	488070.59	3617750.48	33.82804	(10101707)
488120.59	3617750.48	26.85545	(11051703)	488170.59	3617750.48	20.94756	(11051703)
488220.59	3617750.48	12.36941	(10072605)	488270.59	3617750.48	14.34195	(12121120)
488320.59	3617750.48	8.96511	(12121120)	488370.59	3617750.48	2.26076	(10070608)
488420.59	3617750.48	2.26904	(10070608)	488470.59	3617750.48	2.24185	(10070608)
488520.59	3617750.48	2.18275	(10070608)	488570.59	3617750.48	2.09498	(10070608)

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       488620.59   3617750.48        1.98544  (10070608)               486420.59
3617800.48       34.54663  (12111719)
       486470.59   3617800.48       47.57261  (12012623)               486520.59
3617800.48       55.23882  (11112921)
       486570.59   3617800.48       66.71759  (12102721)               486620.59
3617800.48       72.56805  (10021721)
       486670.59   3617800.48       77.49277  (12100223)               486720.59
3617800.48      114.81568  (12100221)
       486770.59   3617800.48      106.39764  (12100221)               486820.59
3617800.48       78.50270  (12072003)
       486870.59   3617800.48       80.58323  (11070123)               486920.59
3617800.48       81.01799  (11021522)
       486970.59   3617800.48       85.20741  (12110517)               487170.59
3617800.48       83.11986  (12081903)
       487220.59   3617800.48       64.91130  (12081021)               487270.59
3617800.48       68.85497  (12072905)
       487320.59   3617800.48       65.16293  (10041721)               487370.59
3617800.48       71.92060  (11080423)
       487420.59   3617800.48       66.06118  (11080423)               487470.59
3617800.48       59.99965  (10073106)
       487520.59   3617800.48       63.78650  (12092521)               487570.59
3617800.48       62.32491  (12092521)
       487620.59   3617800.48       60.12825  (10022102)               487670.59
3617800.48       54.06031  (10050822)
       487720.59   3617800.48       53.63688  (10022021)               487770.59
3617800.48       48.38896  (11072602)
       487820.59   3617800.48       50.36300  (11032821)               487870.59
3617800.48       45.53351  (11032821)
       487920.59   3617800.48       44.40910  (10022101)               487970.59
3617800.48       44.05068  (12101122)
       488020.59   3617800.48       39.90529  (12101122)               488070.59
3617800.48       26.63981  (12101122)
       488120.59   3617800.48       22.45651  (10080620)               488170.59
3617800.48       19.48053  (10072605)
       488220.59   3617800.48       13.88957  (10072605)               488270.59
3617800.48        6.34351  (10080620)
       488320.59   3617800.48        2.75479  (10111019)               488370.59
3617800.48        2.26545  (10012121)
       488420.59   3617800.48        2.08423  (10012121)               488470.59
3617800.48        2.09468  (10070608)
       488520.59   3617800.48        2.11586  (10070608)               488570.59
3617800.48        2.10344  (10070608)
       488620.59   3617800.48        2.06037  (10070608)               486470.59
3617850.48       49.93672  (12012623)
       486520.59   3617850.48       52.89784  (12102721)               486570.59
3617850.48       63.20055  (12102721)
       486620.59   3617850.48       72.18452  (10021721)               486670.59
3617850.48       77.40499  (12100223)
       486720.59   3617850.48      100.90800  (12100221)               486770.59
3617850.48       98.76030  (12100221)
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
486820.59	3617850.48	74.19249	(12072003)	486870.59	3617850.48	75.04170	(11070123)
486920.59	3617850.48	74.62894	(11021522)	487120.59	3617850.48	77.23401	(12012018)
487170.59	3617850.48	76.92641	(12021307)	487220.59	3617850.48	68.25528	(12081903)
487270.59	3617850.48	63.07682	(10090719)	487320.59	3617850.48	67.15008	(10041721)
487370.59	3617850.48	61.76828	(10050823)	487420.59	3617850.48	69.09108	(11080423)
487470.59	3617850.48	61.72959	(11070322)	487520.59	3617850.48	57.91093	(10073106)
487570.59	3617850.48	60.14249	(12092521)	487620.59	3617850.48	58.65949	(12092521)
487670.59	3617850.48	56.20507	(10022102)	487720.59	3617850.48	51.63273	(10050822)
487770.59	3617850.48	51.30385	(10022021)	487820.59	3617850.48	46.23537	(11072602)
487870.59	3617850.48	46.09931	(11032821)	487920.59	3617850.48	42.95876	(11032821)
487970.59	3617850.48	37.45031	(10080701)	488020.59	3617850.48	32.50903	(10022101)
488070.59	3617850.48	23.39727	(10022101)	488120.59	3617850.48	19.82056	(11072605)
488170.59	3617850.48	10.74583	(10080620)	488220.59	3617850.48	7.95181	(12032604)
488270.59	3617850.48	9.07557	(10080620)	488320.59			

3617850.48 10.53032 (10072605)
488370.59 3617850.48 2.53333 (10111019) 488420.59
3617850.48 2.25003 (10111019)
488470.59 3617850.48 2.07055 (10012121) 488520.59
3617850.48 1.90997 (10012121)
488570.59 3617850.48 1.95855 (10070608) 488620.59
3617850.48 1.98648 (10070608)
486520.59 3617900.48 52.95973 (12102721) 486570.59
3617900.48 60.72896 (12102721)
486620.59 3617900.48 69.48659 (10021721) 486670.59
3617900.48 74.63739 (12100223)
486720.59 3617900.48 87.53875 (12100221) 486770.59
3617900.48 92.61859 (12100221)
486820.59 3617900.48 70.54209 (12072003) 486870.59
3617900.48 69.21001 (12090521)
486920.59 3617900.48 62.70926 (10092206) 487070.59
3617900.48 72.33228 (12060621)
487120.59 3617900.48 78.06221 (12012018) 487170.59
3617900.48 73.24132 (11092724)
487220.59 3617900.48 70.98878 (12021307) 487270.59
3617900.48 60.04830 (12081021)
487320.59 3617900.48 61.27107 (12072905) 487370.59
3617900.48 64.45339 (10041721)
487420.59 3617900.48 60.82534 (10050823) 487470.59
3617900.48 65.61022 (11080423)
487520.59 3617900.48 59.16004 (11070322) 487570.59
3617900.48 54.93227 (10073106)
487620.59 3617900.48 56.86305 (12092521) 487670.59
3617900.48 55.23801 (12092521)
487720.59 3617900.48 53.71509 (10022102) 487770.59
3617900.48 48.62920 (10050822)
487820.59 3617900.48 48.18607 (10022021) 487870.59
3617900.48 43.34563 (11072602)
487920.59 3617900.48 39.66817 (11032821) 487970.59
3617900.48 33.60410 (11032821)
488020.59 3617900.48 30.13450 (12033120) 488070.59
3617900.48 23.18128 (12033120)
488120.59 3617900.48 15.82530 (12033120) 488170.59
3617900.48 10.05701 (12033120)
488220.59 3617900.48 9.81765 (12033120) 488270.59
3617900.48 13.35113 (10080620)
488320.59 3617900.48 14.45025 (10080620) 488370.59
3617900.48 2.82450 (10111019)
488420.59 3617900.48 2.54654 (10111019) 488470.59
3617900.48 2.28048 (10111019)
488520.59 3617900.48 2.04726 (10012121) 488570.59
3617900.48 1.90097 (10012121)
488620.59 3617900.48 1.78310 (10070608) 487077.48
3618005.05 65.75522 (12110517)
487127.48 3618005.05 66.57213 (12052922) 487177.48

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
486720.59	3617950.48	77.31845	(12100221)	486770.59	3617950.48	85.81971	(12100221)
486820.59	3617950.48	67.55647	(12072003)	486970.59	3617950.48	68.91368	(11021522)
487020.59	3617950.48	77.38044	(12110517)	487070.59	3617950.48	68.98588	(12060621)
487120.59	3617950.48	71.26176	(12012018)	487170.59	3617950.48	68.94253	(12012018)
487220.59	3617950.48	69.72144	(12021307)	487270.59	3617950.48	59.86240	(11070124)
487320.59	3617950.48	55.30699	(12072122)	487370.59	3617950.48	60.09497	(10041721)
487420.59	3617950.48	59.88934	(10041721)	487470.59	3617950.48	58.95061	(11080423)
487520.59	3617950.48	61.55632	(11080423)	487570.59	3617950.48	55.51118	(11070322)
487620.59	3617950.48	52.03991	(10073106)	487670.59	3617950.48	53.87638	(12092521)
487720.59	3617950.48	52.80387	(12092521)	487770.59	3617950.48	50.83427	(10022102)

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       487820.59   3617950.48       45.55480  (10052322)               487870.59
3617950.48       42.05024  (10022021)
       487920.59   3617950.48       37.00026  (11072602)               487970.59
3617950.48       29.91246  (11072602)
       488020.59   3617950.48       26.61292  (10111618)               488070.59
3617950.48       21.41348  (10111618)
       488120.59   3617950.48       14.10702  (12033120)               488170.59
3617950.48       20.14563  (12033120)
       488220.59   3617950.48       19.92867  (12033120)               488270.59
3617950.48       15.75463  (11072605)
       488320.59   3617950.48        9.48967  (10080620)               488370.59
3617950.48        3.05100  (10111019)
       488420.59   3617950.48        2.79925  (10111019)               488470.59
3617950.48        2.54598  (10111019)
       488520.59   3617950.48        2.29886  (10111019)               488570.59
3617950.48        2.06330  (10111019)
       488620.59   3617950.48        1.88365  (10012121)               488590.14
3616298.03        5.49917  (10051220)
       488540.14   3616348.03        6.22197  (12042005)               488590.14
3616348.03        6.23857  (12042005)
       488440.14   3616398.03        7.08591  (12042005)               488490.14
3616398.03        7.04411  (12042005)
       488540.14   3616398.03        6.96432  (12042005)               488590.14
3616398.03        6.85152  (12042005)
       488390.14   3616448.03        7.93396  (12042005)               488440.14
3616448.03        7.76889  (12042005)
       488490.14   3616448.03        7.86665  (10051221)               488540.14
3616448.03        7.93516  (10051221)
       488590.14   3616448.03        7.96315  (10051221)               488340.14
3616498.03        9.28733  (10051221)
       488390.14   3616498.03        9.31452  (10051221)               488440.14
3616498.03        9.28978  (10051221)
       488490.14   3616498.03        9.21884  (10051221)               488540.14
3616498.03        9.10792  (10051221)
       488590.14   3616498.03        8.96366  (10051221)               484613.02
3614429.89        1.16550  (10021008)
       484663.02   3614429.89        1.14890  (10021008)               484713.02
3614429.89        1.11505  (10021008)
       484763.02   3614429.89        1.06468  (10021008)               484813.02
3614429.89        1.03200  (11010509)
       484863.02   3614429.89        1.06474  (10040807)               484913.02
3614429.89        1.10034  (10040807)
       484963.02   3614429.89        1.12166  (10040807)               484563.02
3614479.89        1.15328  (10021008)
       484613.02   3614479.89        1.17445  (10021008)               484663.02
3614479.89        1.17594  (10021008)
       484713.02   3614479.89        1.15885  (10021008)               484763.02
3614479.89        1.12259  (10021008)
       484813.02   3614479.89        1.06644  (10021008)               484863.02
3614479.89        1.04400  (10040807)
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
484913.02	3614479.89	1.08940	(10040807)	484963.02	3614479.89	1.12059	(10040807)
484513.02	3614529.89	1.08157	(10021008)	484563.02	3614529.89	1.13438	(10021008)
484613.02	3614529.89	1.17348	(10021008)	484663.02	3614529.89	1.19169	(10021008)
484713.02	3614529.89	1.19212	(10021008)	484763.02	3614529.89	1.17106	(10021008)
484813.02	3614529.89	1.12792	(10021008)	484863.02	3614529.89	1.06711	(11010509)
484913.02	3614529.89	1.07210	(10040807)	484963.02	3614529.89	1.11224	(10040807)
484463.02	3614579.89	0.99221	(11063006)	484513.02	3614579.89	1.03571	(10021008)
484563.02	3614579.89	1.10425	(10021008)	484613.02	3614579.89	1.15786	(10021008)
484663.02	3614579.89	1.19327	(10021008)	484713.02	3614579.89	1.21122	(10021008)
484763.02	3614579.89	1.20582	(10021008)	484813.02	3614579.89	1.17977	(10021008)
484863.02	3614579.89	1.13243	(10021008)	484913.02	3614579.89	1.07848	(11010509)
484963.02	3614579.89	1.09722	(10040807)	484413.02	3614629.89	0.92791	(11063006)
484463.02	3614629.89	0.96658	(11063006)	484513.02	3614629.89	0.99467	(11063006)
484563.02	3614629.89	1.05938	(10021008)	484613.02			

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3614629.89        1.12734  (10021008)
       484663.02   3614629.89        1.17928  (10021008)                484713.02
3614629.89        1.21380  (10021008)
       484763.02   3614629.89        1.22777  (10021008)                484813.02
3614629.89        1.21974  (10021008)
       484863.02   3614629.89        1.18910  (10021008)                484913.02
3614629.89        1.13703  (10021008)
       484963.02   3614629.89        1.08905  (11010509)                484413.02
3614679.89        0.92519  (10020808)
       484463.02   3614679.89        0.94099  (11063006)                484513.02
3614679.89        0.97844  (11063006)
       484563.02   3614679.89        1.00872  (11063006)                484613.02
3614679.89        1.08256  (10021008)
       484663.02   3614679.89        1.15018  (10021008)                484713.02
3614679.89        1.20202  (10021008)
       484763.02   3614679.89        1.23458  (10021008)                484813.02
3614679.89        1.24624  (10021008)
       484863.02   3614679.89        1.23369  (10021008)                484913.02
3614679.89        1.19871  (10021008)
       484963.02   3614679.89        1.14075  (10021008)                484363.02
3614729.89        1.05374  (10020808)
       484413.02   3614729.89        1.00204  (10020808)                484463.02
3614729.89        0.94192  (10020808)
       484513.02   3614729.89        0.95516  (11063006)                484563.02
3614729.89        0.99226  (11063006)
       484613.02   3614729.89        1.02579  (10021008)                484663.02
3614729.89        1.10701  (10021008)
       484713.02   3614729.89        1.17483  (10021008)                484763.02
3614729.89        1.22564  (10021008)
       484813.02   3614729.89        1.25698  (10021008)                484863.02
3614729.89        1.26474  (10021008)
       484913.02   3614729.89        1.24780  (10021008)                484963.02
3614729.89        1.20559  (10021008)
       484313.02   3614779.89        1.15771  (10020808)                484363.02
3614779.89        1.12130  (10020808)
       484413.02   3614779.89        1.07579  (10020808)                484463.02
3614779.89        1.02189  (10020808)
       484513.02   3614779.89        0.96064  (10020808)                484563.02
3614779.89        0.96862  (11063006)
       484613.02   3614779.89        1.00680  (11063006)                484663.02
3614779.89        1.05038  (10021008)
       484713.02   3614779.89        1.13249  (10021008)                484763.02
3614779.89        1.20043  (10021008)
       484813.02   3614779.89        1.25064  (10021008)                484863.02
3614779.89        1.27884  (10021008)
       484913.02   3614779.89        1.28221  (10021008)                484963.02
3614779.89        1.25834  (10021008)
       484263.02   3614829.89        1.22879  (10020808)                484313.02
3614829.89        1.20496  (10020808)
       484363.02   3614829.89        1.17915  (10020808)                484413.02
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*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
484263.02	3614879.89	1.24512	(10020808)	484313.02	3614879.89	1.24028	(10020808)
484363.02	3614879.89	1.22644	(10020808)	484413.02	3614879.89	1.20131	(10020808)
484463.02	3614879.89	1.16553	(10020808)	484513.02	3614879.89	1.12040	(10020808)
484563.02	3614879.89	1.06498	(10020808)	484613.02	3614879.89	1.00157	(10020808)
484663.02	3614879.89	1.00047	(11063006)	484713.02	3614879.89	1.03904	(11063006)
484763.02	3614879.89	1.10207	(10021008)	484813.02	3614879.89	1.18515	(10021008)
484863.02	3614879.89	1.25204	(10021008)	484913.02	3614879.89	1.29799	(10021008)

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       484963.02   3614879.89        1.31851  (10021008)               484163.02
3614929.89        1.20372  (10020808)
       484213.02   3614929.89        1.23106  (10020808)               484263.02
3614929.89        1.25124  (10020808)
       484313.02   3614929.89        1.26184  (10020808)               484363.02
3614929.89        1.26096  (10020808)
       484413.02   3614929.89        1.24819  (10020808)               484463.02
3614929.89        1.22560  (10020808)
       484513.02   3614929.89        1.19136  (10020808)               484563.02
3614929.89        1.14485  (10020808)
       484613.02   3614929.89        1.08916  (10020808)               484663.02
3614929.89        1.02323  (10020808)
       484713.02   3614929.89        1.01614  (11063006)               484763.02
3614929.89        1.05400  (11063006)
       484813.02   3614929.89        1.12888  (10021008)               484863.02
3614929.89        1.21331  (10021008)
       484913.02   3614929.89        1.27930  (10021008)               484963.02
3614929.89        1.32266  (10021008)
       485013.02   3614929.89        1.33691  (10021008)               484113.02
3614979.89        1.12446  (10020808)
       484163.02   3614979.89        1.17252  (10020808)               484213.02
3614979.89        1.21214  (10020808)
       484263.02   3614979.89        1.24472  (10020808)               484313.02
3614979.89        1.27063  (10020808)
       484363.02   3614979.89        1.28082  (10020808)               484413.02
3614979.89        1.28194  (10020808)
       484463.02   3614979.89        1.27311  (10020808)               484513.02
3614979.89        1.25027  (10020808)
       484563.02   3614979.89        1.21524  (10020808)               484613.02
3614979.89        1.16913  (10020808)
       484663.02   3614979.89        1.11092  (10020808)               484713.02
3614979.89        1.04545  (10020808)
       484763.02   3614979.89        1.02950  (11063006)               484813.02
3614979.89        1.07050  (11063006)
       484863.02   3614979.89        1.15764  (10021008)               484913.02
3614979.89        1.24173  (10021008)
       484963.02   3614979.89        1.30722  (10021008)               485013.02
3614979.89        1.34696  (10021008)
       484113.02   3615029.89        1.07228  (10020808)               484163.02
3615029.89        1.12895  (10020808)
       484213.02   3615029.89        1.17948  (10020808)               484263.02
3615029.89        1.22649  (10020808)
       484313.02   3615029.89        1.26045  (10020808)               484363.02
3615029.89        1.28523  (10020808)
       484413.02   3615029.89        1.29993  (10020808)               484463.02
3615029.89        1.30446  (10020808)
       484513.02   3615029.89        1.29657  (10020808)               484563.02
3615029.89        1.27406  (10020808)
       484613.02   3615029.89        1.24012  (10020808)               484663.02
3615029.89        1.19330  (10020808)
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
484513.02	3615079.89	1.32700	(10020808)	484563.02	3615079.89	1.31889	(10020808)
484613.02	3615079.89	1.29941	(10020808)	484663.02	3615079.89	1.26463	(10020808)
484713.02	3615079.89	1.22103	(10020808)	484763.02	3615079.89	1.16002	(10020808)
484813.02	3615079.89	1.09017	(10020808)	484863.02	3615079.89	1.06120	(11063006)
484913.02	3615079.89	1.11448	(10021008)	484963.02	3615079.89	1.21700	(10021008)
485013.02	3615079.89	1.30268	(10021008)	485063.02	3615079.89	1.37085	(10021008)
484113.02	3615079.89	1.05565	(10021408)	484163.02	3615079.89	1.07337	(10020808)
484213.02	3615079.89	1.13268	(10020808)	484263.02	3615079.89	1.18727	(10020808)
484313.02	3615079.89	1.23439	(10020808)	484363.02	3615079.89	1.27323	(10020808)
484413.02	3615079.89	1.30071	(10020808)	484463.02	3615079.89	1.32004	(10020808)
484713.02	3615029.89	1.13443	(10020808)	484763.02	3615029.89	1.06704	(10020808)
484813.02	3615029.89	1.04688	(11063006)	484863.02	3615029.89	1.08589	(10021008)
484913.02	3615029.89	1.18658	(10021008)	484963.02	3615029.89	1.27177	(10021008)
485013.02	3615029.89	1.33593	(10021008)	485063.02	3615029.89	1.37085	(10021008)
484113.02	3615079.89	1.05565	(10021408)	484163.02	3615079.89	1.07337	(10020808)
484213.02	3615079.89	1.13268	(10020808)	484263.02	3615079.89	1.18727	(10020808)
484313.02	3615079.89	1.23439	(10020808)	484363.02	3615079.89	1.27323	(10020808)
484413.02	3615079.89	1.30071	(10020808)	484463.02	3615079.89	1.32004	(10020808)
484513.02	3615079.89	1.32700	(10020808)	484563.02	3615079.89	1.31889	(10020808)
484613.02	3615079.89	1.29941	(10020808)	484663.02	3615079.89	1.26463	(10020808)
484713.02	3615079.89	1.22103	(10020808)	484763.02	3615079.89	1.16002	(10020808)
484813.02	3615079.89	1.09017	(10020808)	484863.02	3615079.89	1.06120	(11063006)
484913.02	3615079.89	1.11448	(10021008)	484963.02	3615079.89	1.21700	(10021008)
485013.02	3615079.89	1.30268	(10021008)	485063.02			

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3615079.89        1.36675  (10021008)
       485113.02   3615079.89        1.39825  (10021008)                484113.02
3615129.89        1.05381  (10021408)
       484163.02   3615129.89        1.06892  (10021408)                484213.02
3615129.89        1.07755  (10021408)
       484263.02   3615129.89        1.13489  (10020808)                484313.02
3615129.89        1.19409  (10020808)
       484363.02   3615129.89        1.24469  (10020808)                484413.02
3615129.89        1.28429  (10020808)
       484463.02   3615129.89        1.31788  (10020808)                484513.02
3615129.89        1.33989  (10020808)
       484563.02   3615129.89        1.34794  (10020808)                484613.02
3615129.89        1.34262  (10020808)
       484663.02   3615129.89        1.32551  (10020808)                484713.02
3615129.89        1.29238  (10020808)
       484763.02   3615129.89        1.24420  (10020808)                484813.02
3615129.89        1.18608  (10020808)
       484863.02   3615129.89        1.11458  (10020808)                484913.02
3615129.89        1.07573  (11063006)
       484963.02   3615129.89        1.14441  (10021008)                485013.02
3615129.89        1.24888  (10021008)
       485063.02   3615129.89        1.33442  (10021008)                485113.02
3615129.89        1.39620  (10021008)
       485163.02   3615129.89        1.42485  (10021008)                484113.02
3615179.89        1.06616  (10091607)
       484163.02   3615179.89        1.06326  (10091607)                484213.02
3615179.89        1.08065  (10021408)
       484263.02   3615179.89        1.09261  (10021408)                484313.02
3615179.89        1.13644  (10020808)
       484363.02   3615179.89        1.19974  (10020808)                484413.02
3615179.89        1.25263  (10020808)
       484463.02   3615179.89        1.29799  (10020808)                484513.02
3615179.89        1.33468  (10020808)
       484563.02   3615179.89        1.35764  (10020808)                484613.02
3615179.89        1.36898  (10020808)
       484663.02   3615179.89        1.36746  (10020808)                484713.02
3615179.89        1.35158  (10020808)
       484763.02   3615179.89        1.31905  (10020808)                484813.02
3615179.89        1.27379  (10020808)
       484863.02   3615179.89        1.21157  (10020808)                484913.02
3615179.89        1.13901  (10020808)
       484963.02   3615179.89        1.10504  (10110318)                485013.02
3615179.89        1.17552  (10021008)
       485063.02   3615179.89        1.28158  (10021008)                485113.02
3615179.89        1.36764  (10021008)
       485163.02   3615179.89        1.42988  (10021008)                485213.02
3615179.89        1.45258  (10021008)
       484113.02   3615229.89        1.07330  (10091607)                484163.02
3615229.89        1.08347  (10091607)
       484213.02   3615229.89        1.08493  (10091607)                484263.02
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3615229.89 1.09178 (10021408)
484313.02 3615229.89 1.10636 (10021408) 484363.02
3615229.89 1.13625 (10020808)
484413.02 3615229.89 1.20099 (10020808) 484463.02
3615229.89 1.25917 (10020808)
484513.02 3615229.89 1.30853 (10020808) 484563.02
3615229.89 1.34846 (10020808)
484613.02 3615229.89 1.37669 (10020808) 484663.02
3615229.89 1.39123 (10020808)
484713.02 3615229.89 1.39245 (10020808) 484763.02
3615229.89 1.37788 (10020808)
484813.02 3615229.89 1.34620 (10020808) 484863.02
3615229.89 1.29882 (10020808)
484913.02 3615229.89 1.23829 (10020808) 484963.02
3615229.89 1.16559 (10020808)
485013.02 3615229.89 1.15970 (10110318) 485063.02
3615229.89 1.20807 (10021008)
485113.02 3615229.89 1.31605 (10021008) 485163.02
3615229.89 1.40194 (10021008)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
485213.02	3615229.89	1.45956	(10021008)	485263.02	3615229.89	1.48064	(10021008)
484113.02	3615279.89	1.08292	(10100707)	484163.02	3615279.89	1.08393	(10091607)
484213.02	3615279.89	1.09860	(10091607)	484263.02	3615279.89	1.10264	(10091607)
484313.02	3615279.89	1.10965	(12110208)	484613.02	3615279.89	1.36378	(10020808)

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       484663.02   3615279.89        1.39615  (10020808)               484713.02
3615279.89        1.41469  (10020808)
       484763.02   3615279.89        1.41763  (10020808)               484813.02
3615279.89        1.40526  (10020808)
       484863.02   3615279.89        1.37517  (10020808)               484913.02
3615279.89        1.32809  (10020808)
       484963.02   3615279.89        1.26669  (10020808)               485013.02
3615279.89        1.19220  (10020808)
       485063.02   3615279.89        1.21882  (10110318)               485113.02
3615279.89        1.24962  (10110318)
       485163.02   3615279.89        1.35104  (10021008)               485213.02
3615279.89        1.43636  (10021008)
       485263.02   3615279.89        1.49124  (10021008)               485313.02
3615279.89        1.50989  (10021008)
       484113.02   3615329.89        1.13995  (10100707)               484163.02
3615329.89        1.11686  (10100707)
       484213.02   3615329.89        1.08908  (10091607)               484663.02
3615329.89        1.37812  (10020808)
       484713.02   3615329.89        1.41448  (10020808)               484763.02
3615329.89        1.43661  (10020808)
       484813.02   3615329.89        1.44399  (10020808)               484863.02
3615329.89        1.43481  (10020808)
       484913.02   3615329.89        1.40500  (10020808)               484963.02
3615329.89        1.35757  (10020808)
       485013.02   3615329.89        1.29683  (10020808)               485063.02
3615329.89        1.25032  (10110318)
       485113.02   3615329.89        1.28292  (10110318)               485163.02
3615329.89        1.31635  (10110318)
       485213.02   3615329.89        1.38780  (10021008)               485263.02
3615329.89        1.47234  (10021008)
       485313.02   3615329.89        1.52458  (10021008)               485363.02
3615329.89        1.53642  (10021008)
       484113.02   3615379.89        1.18012  (10100707)               484163.02
3615379.89        1.16821  (10100707)
       484713.02   3615379.89        1.39252  (10020808)               484763.02
3615379.89        1.43354  (10020808)
       484813.02   3615379.89        1.46090  (10020808)               484863.02
3615379.89        1.46907  (10020808)
       484913.02   3615379.89        1.46292  (10020808)               484963.02
3615379.89        1.43544  (10020808)
       485013.02   3615379.89        1.38944  (10020808)               485063.02
3615379.89        1.32642  (10020808)
       485113.02   3615379.89        1.31713  (10110318)               485163.02
3615379.89        1.35258  (10110318)
       485213.02   3615379.89        1.38896  (10110318)               485263.02
3615379.89        1.42626  (10021008)
       485313.02   3615379.89        1.51071  (10021008)               485363.02
3615379.89        1.55897  (10021008)
       485413.02   3615379.89        1.56648  (10021008)               484763.02
3615429.89        1.40531  (10020808)
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        484813.02   3615429.89        1.45197  (10020808)                484863.02
 3615429.89        1.48223  (10020808)
        484913.02   3615429.89        1.49546  (10020808)                484963.02
 3615429.89        1.49105  (10020808)
        485013.02   3615429.89        1.46596  (10020808)                485063.02
 3615429.89        1.42268  (10020808)
        485113.02   3615429.89        1.36087  (10020808)                485163.02
 3615429.89        1.38985  (10110318)
        485213.02   3615429.89        1.42850  (10110318)                485263.02
 3615429.89        1.46820  (10110318)
        485313.02   3615429.89        1.50892  (10110318)                485363.02
 3615429.89        1.55063  (10110318)
        485413.02   3615429.89        1.59326  (10110318)                485463.02
 3615429.89        1.63680  (10110318)
        485513.02   3615429.89        1.68113  (10110318)                484813.02
 3615479.89        1.41891  (10020808)
        484863.02   3615479.89        1.46973  (10020808)                484913.02
 3615479.89        1.50434  (10020808)
        484963.02   3615479.89        1.52172  (10020808)                485013.02
 3615479.89        1.52090  (10020808)
        485063.02   3615479.89        1.49817  (10020808)                485113.02
 3615479.89        1.45608  (10020808)
🡅 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                        ***        14:52:42

                                   PAGE  99
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA2    ***
                                  INCLUDING SOURCE(S):     LOCATION2_2 ,
LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF TAC      IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -
        485163.02   3615479.89        1.42812  (10110318)                485213.02
 3615479.89        1.46920  (10110318)
        485263.02   3615479.89        1.51148  (10110318)                485313.02
 3615479.89        1.55493  (10110318)
        485363.02   3615479.89        1.59953  (10110318)                485413.02
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3615479.89        1.64525  (10110318)
       485463.02   3615479.89        1.69202  (10110318)                485513.02
3615479.89        1.73976  (10110318)
       485563.02   3615479.89        1.78800  (10110318)                484863.02
3615529.89        1.43099  (10020808)
       484913.02   3615529.89        1.48717  (10020808)                484963.02
3615529.89        1.52624  (10020808)
       485013.02   3615529.89        1.54878  (10020808)                485063.02
3615529.89        1.54992  (10020808)
       485113.02   3615529.89        1.52958  (10020808)                485163.02
3615529.89        1.48918  (10020808)
       485213.02   3615529.89        1.51105  (10110318)                485263.02
3615529.89        1.55606  (10110318)
       485313.02   3615529.89        1.60243  (10110318)                485363.02
3615529.89        1.65014  (10110318)
       485413.02   3615529.89        1.69916  (10110318)                485463.02
3615529.89        1.74944  (10110318)
       485513.02   3615529.89        1.80091  (10110318)                484913.02
3615579.89        1.44138  (10020808)
       484963.02   3615579.89        1.50401  (10020808)                485013.02
3615579.89        1.54938  (10020808)
       485063.02   3615579.89        1.57675  (10020808)                485113.02
3615579.89        1.59862  (10020808)
       485163.02   3615579.89        1.57195  (10020808)                485213.02
3615579.89        1.55402  (10110318)
       485263.02   3615579.89        1.60195  (10110318)                485313.02
3615579.89        1.65144  (10110318)
       485363.02   3615579.89        1.70248  (10110318)                485413.02
3615579.89        1.75505  (10110318)
       485463.02   3615579.89        1.80910  (10110318)                484963.02
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       485013.02   3615629.89        1.51933  (10020808)                485063.02
3615629.89        1.57190  (10020808)
       485113.02   3615629.89        1.60294  (10020808)                485163.02
3615629.89        1.61717  (10020808)
       485213.02   3615629.89        1.59974  (10020808)                485263.02
3615629.89        1.64911  (10110318)
       485313.02   3615629.89        1.70193  (10110318)                485363.02
3615629.89        1.75653  (10110318)
       485413.02   3615629.89        1.81291  (10110318)                485013.02
3615679.89        1.45832  (10020808)
       485063.02   3615679.89        1.53493  (10020808)                485113.02
3615679.89        1.59330  (10020808)
       485163.02   3615679.89        1.63235  (10020808)                485213.02
3615679.89        1.64692  (10020808)
       485263.02   3615679.89        1.69752  (10110318)                485313.02
3615679.89        1.75386  (10110318)
       485363.02   3615679.89        1.81227  (10110318)                485413.02
3615679.89        1.87268  (10110318)
       485063.02   3615729.89        1.52890  (10110318)                485113.02
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 3615729.89        1.58047  (10110318)
       485163.02   3615729.89        1.63379  (10110318)               485213.02
 3615729.89        1.68931  (10110318)
       485263.02   3615729.89        1.74710  (10110318)               485313.02
 3615729.89        1.80721  (10110318)
       485363.02   3615729.89        1.86966  (10110318)               485113.02
 3615779.89        1.62094  (10110318)
       485163.02   3615779.89        1.67741  (10110318)               485213.02
 3615779.89        1.73633  (10110318)
       485263.02   3615779.89        1.79779  (10110318)               485313.02
 3615779.89        1.86188  (10110318)
       485163.02   3615829.89        1.72533  (12110208)               485213.02
 3615829.89        1.78417  (10110318)
       485263.02   3615829.89        1.84949  (10110318)               485213.02
 3615879.89        1.83634  (12110208)
       487082.35   3618053.22       67.95941  (12110517)               487132.24
 3618053.22       63.33176  (12052922)
       487182.13   3618053.22       67.63346  (12012018)               487232.02
 3618053.22       62.21902  (12112517)
       487281.91   3618053.22       64.04392  (12021307)               486242.77
 3618033.89       28.49703  (12111719)
       486286.79   3617997.48       33.68472  (12111719)               486574.47
 3617998.65       53.59137  (10021721)
       486624.36   3617998.65       63.96776  (10021721)               486674.25
 3617998.65       72.66946  (12100223)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                          ***        14:52:42

                                     PAGE 100
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA2    ***
                                    INCLUDING SOURCE(S):     LOCATION2_2 ,
LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF TAC      IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       486724.14   3617998.65       75.40786  (12100221)               486774.03
 3617998.65       80.45156  (12100221)
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       486923.70   3617998.65       71.64019  (11070123)               486973.59
3617998.65       69.91392  (11021522)
       487023.48   3617998.65       72.92766  (12110517)               487082.35
3618103.22       67.85725  (12110517)
       487132.24   3618103.22       60.77420  (12060621)               487182.13
3618103.22       60.59120  (12012018)
       486165.87   3618094.46       18.63168  (12111719)               486242.77
3618083.89       30.61435  (12111719)
       486292.66   3618083.89       37.21778  (12111719)               486499.32
3618054.73       49.68064  (12102721)
       486574.47   3618048.65       53.48676  (10021721)               486624.36
3618048.65       58.61586  (10021721)
       486674.25   3618048.65       63.46747  (12100223)               486724.14
3618048.65       71.22401  (12100221)
       486873.81   3618048.65       61.79691  (12042301)               486923.70
3618048.65       68.31784  (11070123)
       486973.59   3618048.65       65.43021  (11021522)               487023.48
3618048.65       66.12041  (12110517)
       487082.35   3618153.22       65.50051  (12110517)               487132.24
3618153.22       57.14231  (10102817)
       486325.02   3618098.65       34.23719  (12111719)               486242.77
3618133.89       35.02422  (12111719)
       486524.58   3618098.65       54.98738  (12102721)               486574.47
3618098.65       53.04693  (10021721)
       486624.36   3618098.65       54.99148  (10021721)               486674.25
3618098.65       62.46412  (12100223)
       486823.92   3618098.65       58.49509  (12022321)               486873.81
3618098.65       60.35855  (12090421)
       486923.70   3618098.65       64.02974  (11070123)               486973.59
3618098.65       61.25012  (12092402)
       487023.48   3618098.65       62.98918  (11021522)               487082.35
3618203.22       60.07033  (12110517)
       486275.13   3618148.65       36.44047  (12111719)               486325.02
3618148.65       35.68934  (12012623)
       486374.91   3618148.65       42.27880  (12012623)               486474.69
3618148.65       44.60442  (12010320)
       486524.58   3618148.65       49.81440  (12102721)               486574.47
3618148.65       52.37274  (10021721)
       486624.36   3618148.65       58.36018  (12111722)               486774.03
3618148.65       71.04519  (12100221)
       486823.92   3618148.65       55.99912  (12022321)               486873.81
3618148.65       57.54083  (12090421)
       486923.70   3618148.65       58.11438  (12090521)               486973.59
3618148.65       61.11035  (11070123)
       487023.48   3618148.65       62.03819  (11021522)               486275.13
3618198.65       33.48396  (12111719)
       486325.02   3618198.65       36.89578  (12012623)               486374.91
3618198.65       41.55489  (12012623)
       486424.80   3618198.65       41.99556  (11112921)               486474.69
3618198.65       44.58351  (12102721)
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       486524.58   3618198.65       47.00513  (12102721)                486674.25
 3618198.65       55.74140  (12100223)
       486724.14   3618198.65       57.97953  (12100221)                486774.03
 3618198.65       69.20845  (12100221)
       486823.92   3618198.65       52.60612  (12022321)                486873.81
 3618198.65       51.07599  (12090421)
       486923.70   3618198.65       55.41475  (12090521)                486973.59
 3618198.65       59.50338  (11070123)
       487023.48   3618198.65       58.64311  (11021522)                486275.13
 3618248.65       29.72753  (12111719)
       486325.02   3618248.65       38.94450  (12012623)                486374.91
 3618248.65       40.63221  (12012623)
       486424.80   3618248.65       38.79473  (11112921)                486474.69
 3618248.65       49.87301  (12010320)
       486624.36   3618248.65       48.29542  (12100223)                486674.25
 3618248.65       51.64606  (12100223)
       486724.14   3618248.65       53.74834  (12100221)                486774.03
 3618248.65       65.03820  (12100221)
       486823.92   3618248.65       50.61493  (12022321)                486873.81
 3618248.65       46.54190  (12012622)
       486923.70   3618248.65       49.48391  (12090521)                486973.59
 3618248.65       54.87830  (11070123)
       487023.48   3618248.65       53.49264  (11021522)                486125.46
 3618298.65       23.20561  (12111719)
       486275.13   3618298.65       30.29326  (12012623)                486325.02
 3618298.65       38.37820  (12012623)
       486374.91   3618298.65       37.77234  (12012623)                486424.80
 3618298.65       40.67185  (12010320)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                          ***        14:52:42

                                     PAGE 101
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA2    ***
                                    INCLUDING SOURCE(S):     LOCATION2_2 ,
LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF TAC      IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       486574.47   3618298.65       46.68091  (10021721)                 486624.36
 3618298.65       46.52143  (12100223)
       486674.25   3618298.65       49.48113  (12100223)                 486724.14
 3618298.65       49.75117  (12100221)
       486774.03   3618298.65       59.54940  (12100221)                 486823.92
 3618298.65       49.59596  (12022321)
       486873.81   3618298.65       45.47086  (12090421)                 486923.70
 3618298.65       47.17318  (12042301)
       486125.46   3618348.65       22.20124  (12111719)                 486175.35
 3618348.65       29.41219  (12111719)
       486225.24   3618348.65       28.78709  (12111719)                 486275.13
 3618348.65       31.41997  (12012623)
       486325.02   3618348.65       37.82368  (12012623)                 486524.58
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 3618348.65       45.28840  (12100223)
       486674.25   3618348.65       46.84121  (12100223)                 486724.14
 3618348.65       46.31892  (12071924)
       486774.03   3618348.65       55.52071  (12100221)                 486823.92
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       486873.81   3618348.65       43.10487  (12060704)                 486125.46
 3618398.65       20.39213  (12111719)
       486175.35   3618398.65       27.81850  (12111719)                 486225.24
 3618398.65       23.97575  (12111719)
       486424.80   3618398.65       39.09790  (12010320)                 486474.69
 3618398.65       41.13554  (12102721)
       486524.58   3618398.65       38.94115  (11011822)                 486574.47
 3618398.65       43.12393  (10021721)
       486624.36   3618398.65       43.04387  (12100223)                 486674.25
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       486724.14   3618398.65       44.99184  (12071924)                 486774.03
 3618398.65       55.30477  (12100221)
       486823.92   3618398.65       45.70366  (12022321)                 486125.46
 3618448.65       21.33123  (12111719)
       486175.35   3618448.65       22.37155  (12111719)                 486374.91
 3618448.65       34.59763  (11112921)
       486424.80   3618448.65       36.84455  (12010320)                 486474.69
 3618448.65       39.89402  (12102721)
       486524.58   3618448.65       36.55091  (11011822)                 486574.47
 3618448.65       40.99305  (10021721)
       486624.36   3618448.65       40.91203  (12100223)                 486674.25
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       486724.14   3618448.65       43.76838  (12071924)                 486774.03
 3618448.65       54.47511  (12100221)
       486125.46   3618498.65       10.99959  (12111719)                 486325.02
 3618498.65       30.48233  (12012623)
       486374.91   3618498.65       31.32729  (11112921)                 486424.80
 3618498.65       35.97112  (12010320)
       486474.69   3618498.65       36.35174  (12102721)                 486524.58
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3618498.65 36.05360 (10021721)
486574.47 3618498.65 38.33467 (10021721) 486624.36
3618498.65 38.96575 (12100223)
486674.25 3618498.65 39.46450 (12100223) 486105.96
3618586.04 6.78317 (12111719)
486325.02 3618548.65 29.12586 (11112921) 486374.91
3618548.65 25.34201 (11112921)
486424.80 3618548.65 28.41015 (12102721) 486474.69
3618548.65 33.55539 (12102721)
486524.58 3618548.65 33.11167 (10021721) 486574.47
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486624.36 3618548.65 36.85750 (12100223) 486101.02
3618078.36 7.79621 (12111719)
486155.07 3618149.26 20.73995 (12111719) 486018.49
3618262.09 5.05246 (12111719)
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3618082.61 3.21458 (12111719)
↑ *** AERMOD - VERSION 22112 *** *** NASSCO Revised HRA - Welding TACs
*** 11/29/22
*** AERMET - VERSION 19191 *** ***
*** 14:52:42

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 ,
LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,
LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF TAC IN MICROGRAMS/M**3
**

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M)
Y-COORD (M) CONC (YYMMDDHH)
- -
- -
488270.59 3616550.48 20.03739 (10051221) 488320.59
3616550.48 20.21077 (10051221)
488370.59 3616550.48 20.25733 (10051221) 488420.59
3616550.48 20.18986 (10051221)
488470.59 3616550.48 20.01545 (10051221) 488520.59

3616550.48 19.75134 (10051221)
488570.59 3616550.48 19.41337 (10051221) 488620.59
3616550.48 19.00617 (10051221)
488270.59 3616600.48 23.92995 (10051221) 488320.59
3616600.48 23.53689 (10051221)
488370.59 3616600.48 23.03953 (10051221) 488420.59
3616600.48 22.45270 (10051221)
488470.59 3616600.48 21.79620 (10051221) 488520.59
3616600.48 21.08664 (10051221)
488570.59 3616600.48 20.34186 (10051221) 488620.59
3616600.48 19.56989 (10051221)
488270.59 3616650.48 26.12024 (10051221) 488320.59
3616650.48 25.09970 (10051221)
488370.59 3616650.48 24.03864 (10051221) 488420.59
3616650.48 22.95617 (10051221)
488470.59 3616650.48 21.86912 (10051221) 488520.59
3616650.48 20.78929 (10051221)
488570.59 3616650.48 19.72655 (10051221) 488620.59
3616650.48 18.68962 (10051221)
488270.59 3616700.48 25.87303 (10051221) 488320.59
3616700.48 24.35810 (10051221)
488370.59 3616700.48 22.89345 (10051221) 488420.59
3616700.48 21.48556 (10051221)
488470.59 3616700.48 20.14275 (10051221) 488520.59
3616700.48 18.86828 (10051221)
488570.59 3616700.48 17.66075 (10051221) 488620.59
3616700.48 16.52381 (10051221)
488320.59 3616750.48 21.42831 (10051221) 488370.59
3616750.48 19.83794 (10051221)
488420.59 3616750.48 18.36522 (10051221) 488470.59
3616750.48 17.00419 (10051221)
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3616750.48 14.58910 (10051221)
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3616800.48 17.06782 (10051221)
488370.59 3616800.48 15.63613 (10051221) 488420.59
3616800.48 14.34109 (10051221)
488470.59 3616800.48 13.16907 (10051221) 488520.59
3616800.48 12.10688 (10051221)
488570.59 3616800.48 11.14401 (10051221) 488620.59
3616800.48 10.27149 (10051221)
488370.59 3616850.48 11.26719 (10051221) 488420.59
3616850.48 10.29159 (10051221)
488470.59 3616850.48 9.41830 (10051221) 488520.59
3616850.48 8.63632 (10051221)
488570.59 3616850.48 7.96169 (12012717) 488620.59
3616850.48 7.50398 (12012717)
488420.59 3616900.48 8.13582 (12012717) 488470.59
3616900.48 7.62449 (12012717)
488520.59 3616900.48 7.15574 (12012717) 488570.59

3616900.48 6.71604 (12012717)
488620.59 3616900.48 6.31323 (12012717) 488420.59
3616950.48 6.33655 (12040818)
488470.59 3616950.48 5.93523 (12040818) 488520.59
3616950.48 5.61625 (12040818)
488570.59 3616950.48 5.34735 (11091107) 488620.59
3616950.48 5.11324 (11091107)
488470.59 3617000.48 6.58009 (12040818) 488520.59
3617000.48 6.22954 (12040818)
488570.59 3617000.48 5.91890 (12040818) 488620.59
3617000.48 5.61877 (12040818)
488470.59 3617050.48 6.76389 (12040818) 488520.59
3617050.48 6.27989 (12040818)
488570.59 3617050.48 5.94450 (12040818) 488620.59
3617050.48 5.69982 (10110310)
488370.59 3617100.48 7.44788 (10110310) 488420.59
3617100.48 7.22081 (10110310)
488470.59 3617100.48 7.03792 (10110310) 488520.59
3617100.48 6.84087 (10110310)
488570.59 3617100.48 6.65008 (10110310) 488620.59
3617100.48 7.93682 (10032919)
488320.59 3617150.48 7.70055 (10110310) 488370.59
3617150.48 7.55554 (10110310)
488420.59 3617150.48 7.40251 (10110310) 488470.59
3617150.48 7.24090 (10110310)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
488520.59	3617150.48	7.10805	(10110310)	488570.59			

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3617150.48        6.96097  (10110310)
       488620.59   3617150.48       14.28039  (10032919)                488270.59
3617200.48       24.98842  (12032220)
       488320.59   3617200.48        8.03864  (10041718)                488370.59
3617200.48       29.73469  (12032220)
       488420.59   3617200.48        6.92733  (10110310)                488470.59
3617200.48        6.86282  (10110310)
       488520.59   3617200.48        6.79779  (10110310)                488570.59
3617200.48        6.72798  (10110310)
       488620.59   3617200.48       26.03654  (12032220)                487320.59
3617250.48       90.70245  (12033120)
       487370.59   3617250.48       70.17883  (10080620)                487420.59
3617250.48       57.91649  (10080620)
       487470.59   3617250.48       43.27944  (10072605)                487520.59
3617250.48       34.34060  (11051724)
       487570.59   3617250.48       44.66778  (10122220)                487620.59
3617250.48       52.41427  (10122219)
       487670.59   3617250.48       54.64030  (10122219)                487720.59
3617250.48       52.09441  (10122219)
       487770.59   3617250.48       47.71009  (10122219)                487820.59
3617250.48       43.14452  (10122219)
       487870.59   3617250.48       38.81216  (10122219)                487920.59
3617250.48       38.10228  (10022018)
       487970.59   3617250.48       38.26242  (12110121)                488020.59
3617250.48       38.20531  (12110121)
       488070.59   3617250.48       37.23115  (12110121)                488120.59
3617250.48       35.10567  (10022106)
       488170.59   3617250.48       33.84705  (12032220)                488220.59
3617250.48       31.13526  (12032220)
       488270.59   3617250.48       26.42988  (12032220)                488320.59
3617250.48       25.00161  (12032220)
       488370.59   3617250.48       25.52483  (12032220)                488420.59
3617250.48       10.85723  (12021718)
       488470.59   3617250.48        7.19018  (10041718)                488520.59
3617250.48        7.86292  (12021718)
       488570.59   3617250.48        6.56631  (12012911)                488620.59
3617250.48       16.20060  (12032220)
       487170.59   3617300.48      158.96174  (12081024)                487220.59
3617300.48      164.70619  (12090605)
       487270.59   3617300.48      127.36141  (12090605)                487320.59
3617300.48      120.51197  (11072602)
       487370.59   3617300.48      114.02359  (12033120)                487420.59
3617300.48      102.92687  (10080620)
       487470.59   3617300.48       78.63237  (10080620)                487520.59
3617300.48       68.32007  (10072605)
       487570.59   3617300.48       72.96099  (12121120)                487620.59
3617300.48       69.88593  (12121120)
       487670.59   3617300.48       62.99133  (10122220)                487720.59
3617300.48       62.91033  (10122219)
       487770.59   3617300.48       59.56240  (10122219)                487820.59
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3617300.48 54.07192 (10122219)
  487870.59 3617300.48 56.50678 (10122219) 487920.59
3617300.48 54.03542 (10122219)
  487970.59 3617300.48 53.13001 (12101121) 488020.59
3617300.48 48.70706 (12101121)
  488070.59 3617300.48 42.76840 (12101121) 488120.59
3617300.48 43.70005 (12101121)
  488170.59 3617300.48 35.99467 (12110121) 488220.59
3617300.48 27.14623 (10022018)
  488270.59 3617300.48 24.42546 (10022018) 488320.59
3617300.48 24.00697 (10022106)
  488370.59 3617300.48 30.75055 (10022106) 488420.59
3617300.48 14.99053 (12032220)
  488470.59 3617300.48 7.47101 (10041718) 488520.59
3617300.48 23.06702 (12032220)
  488570.59 3617300.48 6.91331 (12012911) 488620.59
3617300.48 6.74736 (12012911)
  487020.59 3617350.48 142.16296 (12112419) 487070.59
3617350.48 142.38204 (12031201)
  487120.59 3617350.48 285.01994 (12081903) 487170.59
3617350.48 147.92799 (12081024)
  487220.59 3617350.48 129.57698 (12081024) 487270.59
3617350.48 154.58021 (12090605)
  487320.59 3617350.48 135.85292 (12090605) 487370.59
3617350.48 123.81523 (11072602)
  487420.59 3617350.48 117.93970 (12033120) 487470.59
3617350.48 104.57179 (10080620)
  487520.59 3617350.48 93.17784 (10080620) 487570.59
3617350.48 81.95215 (10072605)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)

Y-COORD (M)   CONC   (YYMMDDHH)
 -
- -
        487620.59   3617350.48   81.94280 (12121120)   487670.59
 3617350.48   78.06213 (12121120)
        487720.59   3617350.48   70.56084 (12121120)   487770.59
 3617350.48   63.71578 (10122220)
        487820.59   3617350.48   55.69507 (10122220)   487870.59
 3617350.48   61.95810 (10030324)
        487920.59   3617350.48   61.53355 (10030324)   487970.59
 3617350.48   59.86287 (10122219)
        488020.59   3617350.48   52.84750 (10122219)   488070.59
 3617350.48   48.21936 (10122219)
        488120.59   3617350.48   43.32973 (10122219)   488170.59
 3617350.48   36.37421 (12101121)
        488220.59   3617350.48   29.63553 (10021118)   488270.59
 3617350.48   24.85194 (10022018)
        488320.59   3617350.48   20.22999 (10022018)   488370.59
 3617350.48   12.27670 (10022018)
        488420.59   3617350.48   12.82805 (10022018)   488470.59
 3617350.48   6.87382 (10041718)
        488520.59   3617350.48   6.77764 (12012911)   488570.59
 3617350.48   6.73775 (12012911)
        488620.59   3617350.48   6.67789 (12012911)   486770.59
 3617400.48   115.56761 (12111719)
        486820.59   3617400.48   133.16767 (11112921)   486870.59
 3617400.48   154.45269 (10021721)
        486920.59   3617400.48   260.99801 (12100221)   486970.59
 3617400.48   246.75717 (12072003)
        487020.59   3617400.48   171.01186 (12112419)   487070.59
 3617400.48   131.25999 (12031201)
        487120.59   3617400.48   217.57347 (12081903)   487170.59
 3617400.48   207.34066 (12081903)
        487220.59   3617400.48   145.64877 (12081024)   487270.59
 3617400.48   121.59322 (11080423)
        487320.59   3617400.48   135.52217 (12090605)   487370.59
 3617400.48   127.41225 (11072602)
        487420.59   3617400.48   123.00886 (11072602)   487470.59
 3617400.48   118.14754 (12033120)
        487520.59   3617400.48   92.60002 (12033120)   487570.59
 3617400.48   103.28607 (12101122)
        487620.59   3617400.48   69.78987 (10072605)   487670.59
 3617400.48   58.51038 (10072605)
        487720.59   3617400.48   48.05353 (12121120)   487770.59
 3617400.48   44.82105 (12121120)
        487820.59   3617400.48   39.12608 (12121120)   487870.59
 3617400.48   41.91471 (10122220)
        487920.59   3617400.48   40.07767 (10122220)   487970.59
 3617400.48   37.22914 (10122219)
        488020.59   3617400.48   34.30940 (10122219)   488070.59

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 3617400.48       29.92590  (10122219)
       488120.59   3617400.48       21.02331  (10122219)                488170.59
 3617400.48       11.66782  (10122219)
       488220.59   3617400.48        8.00992  (10122219)                488270.59
 3617400.48        8.10468  (10122219)
       488320.59   3617400.48        7.99465  (10122219)                488370.59
 3617400.48       14.90233  (10122219)
       488420.59   3617400.48        6.26046  (11041218)                488470.59
 3617400.48        5.91546  (12012911)
       488520.59   3617400.48        6.02127  (12012911)                488570.59
 3617400.48        6.09890  (12012911)
       488620.59   3617400.48        6.15202  (12012911)                486820.59
 3617450.48      127.91583  (12102721)
       486870.59   3617450.48      145.53833  (10021721)                486920.59
 3617450.48      237.37234  (12100221)
       486970.59   3617450.48      233.61018  (12072003)                487020.59
 3617450.48      175.97993  (12112419)
       487070.59   3617450.48      122.30484  (10102817)                487120.59
 3617450.48      130.53820  (12031201)
       487170.59   3617450.48      224.33424  (12081903)                487220.59
 3617450.48      120.47717  (12072905)
       487270.59   3617450.48      126.04219  (11080423)                487320.59
 3617450.48      113.90813  (10060724)
       487370.59   3617450.48      119.58875  (10022102)                487420.59
 3617450.48      120.66774  (11072602)
       487470.59   3617450.48      105.53624  (11072602)                487520.59
 3617450.48       65.36974  (11072602)
       487570.59   3617450.48       58.79987  (12033120)                487620.59
 3617450.48       64.03740  (10080620)
       487670.59   3617450.48       71.74902  (10080620)                487720.59
 3617450.48       65.93355  (10072605)
       487770.59   3617450.48       58.90670  (12121120)                487820.59
 3617450.48       61.12545  (12121120)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                          ***        14:52:42

                                     PAGE 105
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                    INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,
                 LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***
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** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487870.59	3617450.48	60.10316	(12121120)	487920.59	3617450.48	55.25801	(12121120)
487970.59	3617450.48	49.35957	(10122220)	488020.59	3617450.48	46.08370	(10122220)
488070.59	3617450.48	42.07610	(10122220)	488120.59	3617450.48	40.45894	(10122219)
488170.59	3617450.48	37.79416	(10122219)	488220.59	3617450.48	33.01411	(10122219)
488270.59	3617450.48	32.26926	(10122219)	488320.59	3617450.48	38.49540	(10122219)
488370.59	3617450.48	34.17521	(10122219)	488420.59	3617450.48	6.08764	(11012111)
488470.59	3617450.48	5.91919	(11012111)	488520.59	3617450.48	5.73363	(11012111)
488570.59	3617450.48	5.52585	(11012111)	488620.59	3617450.48	5.30804	(11012111)
486770.59	3617500.48	122.88243	(12072003)	486820.59	3617500.48	127.32128	(12102721)
486870.59	3617500.48	136.57214	(10021721)	486920.59	3617500.48	208.48009	(12100221)
486970.59	3617500.48	210.77973	(12072003)	487020.59	3617500.48	172.85633	(12081903)
487070.59	3617500.48	118.37436	(12110517)	487120.59	3617500.48	124.38454	(12031201)
487170.59	3617500.48	154.36104	(12081903)	487220.59	3617500.48	165.74788	(12081903)
487270.59	3617500.48	111.05158	(11020518)	487320.59	3617500.48	106.69567	(11080423)
487370.59	3617500.48	104.21292	(10060724)	487420.59	3617500.48	79.34168	(12090605)
487470.59	3617500.48	61.73815	(11072602)	487520.59	3617500.48	94.69759	(11072602)
487570.59	3617500.48	104.32269	(10111618)	487620.59	3617500.48	110.29949	(10022101)
487670.59	3617500.48	109.19237	(12101122)	487720.59	3617500.48	97.97597	(11051703)
487770.59	3617500.48	90.06058	(11051703)	487820.59	3617500.48	76.33098	(11041121)
487870.59	3617500.48	77.89264	(12121120)	487920.59	3617500.48	79.27253	(12121120)
487970.59	3617500.48	74.11721	(12121120)	488020.59	3617500.48	66.07207	(12121120)
488070.59	3617500.48	58.79375	(10122220)	488120.59			

3617500.48 59.09682 (10022105)
  488170.59 3617500.48 56.78466 (10030324) 488220.59
3617500.48 53.44187 (10030324)
  488270.59 3617500.48 45.03066 (10030324) 488320.59
3617500.48 42.89645 (10030324)
  488370.59 3617500.48 35.42864 (10122219) 488420.59
3617500.48 5.91825 (11012111)
  488470.59 3617500.48 5.88243 (11012111) 488520.59
3617500.48 5.81379 (11012111)
  488570.59 3617500.48 5.70873 (11012111) 488620.59
3617500.48 5.58409 (11012111)
  486670.59 3617550.48 87.45519 (12111719) 486720.59
3617550.48 156.30736 (12100221)
  486770.59 3617550.48 136.41056 (12072003) 486820.59
3617550.48 122.67672 (12102721)
  486870.59 3617550.48 127.38585 (10021721) 486920.59
3617550.48 182.99834 (12100221)
  486970.59 3617550.48 186.39338 (12072003) 487020.59
3617550.48 166.09513 (12081903)
  487070.59 3617550.48 117.33460 (12081903) 487120.59
3617550.48 116.06385 (10102817)
  487170.59 3617550.48 123.89518 (12012018) 487220.59
3617550.48 158.78480 (12081903)
  487270.59 3617550.48 113.64370 (12081903) 487320.59
3617550.48 79.97383 (12081024)
  487370.59 3617550.48 68.21322 (12081024) 487420.59
3617550.48 81.16062 (10060724)
  487470.59 3617550.48 106.05947 (10022102) 487520.59
3617550.48 103.16939 (11072602)
  487570.59 3617550.48 108.55628 (11072602) 487620.59
3617550.48 107.68658 (11032821)
  487670.59 3617550.48 105.75966 (10022101) 487720.59
3617550.48 106.05222 (12101122)
  487770.59 3617550.48 100.12387 (12101122) 487820.59
3617550.48 93.53408 (10101707)
  487870.59 3617550.48 83.72194 (10101707) 487920.59
3617550.48 71.87371 (12121120)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487970.59	3617550.48	76.53710	(12121120)	488020.59	3617550.48	75.87827	(12121120)
488070.59	3617550.48	73.86591	(12121120)	488120.59	3617550.48	67.60517	(12121120)
488170.59	3617550.48	56.04589	(12121120)	488220.59	3617550.48	51.14333	(10122220)
488270.59	3617550.48	44.53514	(10122220)	488320.59	3617550.48	44.55404	(10030324)
488370.59	3617550.48	6.33839	(10050820)	488420.59	3617550.48	5.37887	(11012111)
488470.59	3617550.48	5.47572	(11012111)	488520.59	3617550.48	5.52766	(11012111)
488570.59	3617550.48	5.54236	(11012111)	488620.59	3617550.48	5.52691	(11012111)
485870.59	3617600.48	8.40451	(12110808)	485920.59	3617600.48	8.81964	(10110318)
486620.59	3617600.48	75.63079	(12102721)	486670.59	3617600.48	90.31185	(12111719)
486720.59	3617600.48	162.66726	(12100221)	486770.59	3617600.48	146.52462	(12072003)
486820.59	3617600.48	120.88129	(12112419)	486870.59	3617600.48	118.86955	(10021721)
486920.59	3617600.48	157.46557	(12100221)	486970.59	3617600.48	164.19511	(12100221)
487020.59	3617600.48	123.98210	(12112419)	487070.59	3617600.48	138.39811	(12081903)
487120.59	3617600.48	118.79376	(12110517)	487170.59	3617600.48	114.43628	(12012018)
487220.59	3617600.48	116.83987	(12081903)	487270.59	3617600.48	150.40512	(12081903)
487320.59	3617600.48	73.82158	(11020518)	487370.59	3617600.48	92.78946	(11080423)
487420.59	3617600.48	106.45627	(11080423)	487470.59	3617600.48	105.33951	(12092521)
487520.59	3617600.48	107.46496	(10022102)	487570.59	3617600.48	103.50011	(10050822)
487620.59	3617600.48	102.71426	(11072602)	487670.59	3617600.48	103.08596	(11032821)
487720.59	3617600.48	99.28607	(10080701)	487770.59			

3617600.48 101.65231 (12101122)
  487820.59 3617600.48 100.87561 (12101122) 487870.59
3617600.48 92.34734 (10101707)
  487920.59 3617600.48 88.27136 (10101707) 487970.59
3617600.48 77.77435 (10101707)
  488020.59 3617600.48 71.81733 (12121120) 488070.59
3617600.48 75.37567 (12121120)
  488120.59 3617600.48 73.06215 (12121120) 488170.59
3617600.48 67.25616 (12121120)
  488220.59 3617600.48 57.87933 (12121120) 488270.59
3617600.48 47.54540 (12121120)
  488320.59 3617600.48 33.39553 (10122220) 488370.59
3617600.48 6.05825 (10050820)
  488420.59 3617600.48 4.66382 (10020417) 488470.59
3617600.48 4.78322 (11012111)
  488520.59 3617600.48 4.94274 (11012111) 488570.59
3617600.48 5.06817 (11012111)
  488620.59 3617600.48 5.15486 (11012111) 485870.59
3617650.48 7.93989 (10110318)
  485920.59 3617650.48 8.41865 (10110318) 485970.59
3617650.48 8.93282 (10110318)
  486570.59 3617650.48 64.83332 (12102721) 486620.59
3617650.48 73.63744 (10021721)
  486670.59 3617650.48 90.64697 (12111719) 486720.59
3617650.48 158.21528 (12100221)
  486770.59 3617650.48 141.53192 (12072003) 486820.59
3617650.48 112.95886 (12112419)
  486870.59 3617650.48 116.03724 (12111722) 486920.59
3617650.48 132.93122 (12071924)
  486970.59 3617650.48 148.15789 (12100221) 487020.59
3617650.48 104.79784 (12042301)
  487070.59 3617650.48 118.78456 (12081903) 487120.59
3617650.48 117.01180 (12110517)
  487170.59 3617650.48 104.13499 (12060621) 487370.59
3617650.48 92.34232 (11020518)
  487420.59 3617650.48 103.76462 (11080423) 487470.59
3617650.48 98.25958 (11070322)
  487520.59 3617650.48 102.87512 (12092521) 487570.59
3617650.48 103.50702 (10022102)
  487620.59 3617650.48 99.30648 (10050822) 487670.59
3617650.48 97.07251 (11072602)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION

VALUES FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   LOCATION1_2 ,
LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,
                LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF TAC   IN MICROGRAMS/M**3
                  **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
 -
- -
        487720.59   3617650.48   98.69448 (11032821)   487770.59
 3617650.48   94.86179 (11032821)
        487820.59   3617650.48   96.11810 (10022101)   487870.59
 3617650.48   97.35618 (12101122)
        487920.59   3617650.48   91.71758 (12101122)   487970.59
 3617650.48   90.81170 (10101707)
        488020.59   3617650.48   86.47991 (10101707)   488070.59
 3617650.48   72.22144 (10101707)
        488120.59   3617650.48   65.68964 (12121120)   488170.59
 3617650.48   66.14037 (12121120)
        488220.59   3617650.48   61.34692 (12121120)   488270.59
 3617650.48   56.20713 (12121120)
        488320.59   3617650.48   45.62833 (12121120)   488370.59
 3617650.48   6.97989 (10030804)
        488420.59   3617650.48   4.95559 (10070608)   488470.59
 3617650.48   4.63646 (10070608)
        488520.59   3617650.48   4.28046 (10070608)   488570.59
 3617650.48   4.37636 (11012111)
        488620.59   3617650.48   4.54701 (11012111)   485870.59
 3617700.48   7.59715 (10110318)
        485920.59   3617700.48   8.03024 (10110318)   485970.59
 3617700.48   8.49195 (10110318)
        486470.59   3617700.48   38.25197 (12111719)   486520.59
 3617700.48   55.00519 (11112921)
        486570.59   3617700.48   65.68627 (12102721)   486620.59
 3617700.48   80.04185 (12111719)
        486670.59   3617700.48   81.94123 (12071924)   486720.59
 3617700.48   145.36580 (12100221)
        486770.59   3617700.48   131.58350 (12072003)   486820.59
 3617700.48   106.54722 (10021622)
        486870.59   3617700.48   109.90336 (12111722)   486920.59
 3617700.48   116.47834 (12071924)
        486970.59   3617700.48   133.92346 (12100221)   487020.59
 3617700.48   98.14266 (12042301)
        487070.59   3617700.48   107.65447 (11070123)   487120.59

3617700.48   110.60077 (12081903)
       487270.59   3617700.48   96.60638 (12111717)   487320.59
3617700.48   104.28677 (12081903)
       487370.59   3617700.48   90.93640 (12072905)   487420.59
3617700.48   91.33347 (11080423)
       487470.59   3617700.48   99.96561 (11080423)   487520.59
3617700.48   93.29910 (11070322)
       487570.59   3617700.48   98.58453 (12092521)   487620.59
3617700.48   98.20071 (10022102)
       487670.59   3617700.48   94.50278 (10050822)   487720.59
3617700.48   92.97479 (10022021)
       487770.59   3617700.48   92.94182 (11032821)   487820.59
3617700.48   92.45010 (11032821)
       487870.59   3617700.48   90.14775 (10022101)   487920.59
3617700.48   92.73264 (12101122)
       487970.59   3617700.48   93.43049 (12101122)   488020.59
3617700.48   89.36709 (10101707)
       488070.59   3617700.48   83.63316 (10101707)   488120.59
3617700.48   71.16598 (10101707)
       488170.59   3617700.48   55.41865 (11041121)   488220.59
3617700.48   48.03455 (12121120)
       488270.59   3617700.48   46.46222 (12121120)   488320.59
3617700.48   42.59166 (12121120)
       488370.59   3617700.48   12.91557 (10072605)   488420.59
3617700.48   4.95031 (10070608)
       488470.59   3617700.48   4.81628 (10070608)   488520.59
3617700.48   4.61863 (10070608)
       488570.59   3617700.48   4.36402 (10070608)   488620.59
3617700.48   4.07352 (10070608)
       486420.59   3617750.48   36.09823 (12111719)   486470.59
3617750.48   45.16341 (12012623)
       486520.59   3617750.48   58.98400 (11112921)   486570.59
3617750.48   68.31482 (12102721)
       486620.59   3617750.48   81.08467 (12111719)   486670.59
3617750.48   79.14444 (12071924)
       486720.59   3617750.48   133.49044 (12100221)   486770.59
3617750.48   117.63082 (12100221)
       486820.59   3617750.48   105.54871 (11011822)   486870.59
3617750.48   103.43848 (12100223)
       486920.59   3617750.48   99.22078 (12071924)   486970.59
3617750.48   120.52555 (12100221)
       487020.59   3617750.48   91.27044 (12090421)   487070.59
3617750.48   98.19043 (11070123)
       487220.59   3617750.48   93.19740 (12052922)   487270.59
3617750.48   96.26900 (12012018)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487320.59	3617750.48	95.60842	(12021307)	487370.59	3617750.48	82.62300	(10090719)
487420.59	3617750.48	87.66243	(10041721)	487470.59	3617750.48	90.59539	(11080423)
487520.59	3617750.48	95.27424	(11080423)	487570.59	3617750.48	90.68542	(12092521)
487620.59	3617750.48	95.57420	(12092521)	487670.59	3617750.48	93.79123	(10022102)
487720.59	3617750.48	90.15111	(10050822)	487770.59	3617750.48	89.16845	(10022021)
487820.59	3617750.48	87.44428	(11032821)	487870.59	3617750.48	89.24492	(11032821)
487920.59	3617750.48	86.04832	(10080701)	487970.59	3617750.48	88.20930	(10022101)
488020.59	3617750.48	87.87004	(12101122)	488070.59	3617750.48	75.69374	(12101122)
488120.59	3617750.48	62.36219	(11051703)	488170.59	3617750.48	54.59162	(11051703)
488220.59	3617750.48	34.25519	(10072605)	488270.59	3617750.48	36.13815	(10072605)
488320.59	3617750.48	26.45843	(10072605)	488370.59	3617750.48	6.07120	(10111019)
488420.59	3617750.48	4.55867	(10012121)	488470.59	3617750.48	4.58638	(10070608)
488520.59	3617750.48	4.57489	(10070608)	488570.59	3617750.48	4.48823	(10070608)
488620.59	3617750.48	4.33907	(10070608)	486420.59	3617800.48	42.65614	(12111719)
486470.59	3617800.48	50.34021	(12012623)	486520.59	3617800.48	58.72844	(11112921)
486570.59	3617800.48	68.80350	(12111719)	486620.59			

3617800.48 75.47577 (12111719)
  486670.59 3617800.48 79.94311 (12012623) 486720.59
3617800.48 118.01263 (12100221)
  486770.59 3617800.48 109.74282 (12100221) 486820.59
3617800.48 101.03730 (11011822)
  486870.59 3617800.48 99.62454 (12100223) 486920.59
3617800.48 90.08248 (12071924)
  486970.59 3617800.48 111.95869 (12100221) 487170.59
3617800.48 98.96459 (12110517)
  487220.59 3617800.48 88.85528 (12060621) 487270.59
3617800.48 95.19076 (12012018)
  487320.59 3617800.48 90.93243 (11092724) 487370.59
3617800.48 84.82359 (12081903)
  487420.59 3617800.48 81.02252 (12072905) 487470.59
3617800.48 86.39234 (10041721)
  487520.59 3617800.48 88.94821 (11080423) 487570.59
3617800.48 88.88979 (11080423)
  487620.59 3617800.48 87.33208 (12092521) 487670.59
3617800.48 90.65691 (12092521)
  487720.59 3617800.48 90.05659 (10022102) 487770.59
3617800.48 86.25593 (10050822)
  487820.59 3617800.48 87.57280 (10022021) 487870.59
3617800.48 81.66090 (11111906)
  487920.59 3617800.48 84.04462 (11032821) 487970.59
3617800.48 80.12406 (11032821)
  488020.59 3617800.48 75.44388 (10022101) 488070.59
3617800.48 59.20319 (10022101)
  488120.59 3617800.48 53.52618 (12101122) 488170.59
3617800.48 47.06467 (12101122)
  488220.59 3617800.48 36.12759 (10080620) 488270.59
3617800.48 19.88155 (10080620)
  488320.59 3617800.48 8.95248 (10111019) 488370.59
3617800.48 6.36711 (10111019)
  488420.59 3617800.48 4.98539 (10111019) 488470.59
3617800.48 4.52208 (10012121)
  488520.59 3617800.48 4.17573 (10070608) 488570.59
3617800.48 4.25596 (10070608)
  488620.59 3617800.48 4.26452 (10070608) 486470.59
3617850.48 53.28272 (12012623)
  486520.59 3617850.48 56.26978 (12111719) 486570.59
3617850.48 69.16060 (12111719)
  486620.59 3617850.48 73.50744 (10021721) 486670.59
3617850.48 81.93168 (12012623)
  486720.59 3617850.48 103.88335 (12100221) 486770.59
3617850.48 101.87368 (12100221)
  486820.59 3617850.48 96.17172 (11011822) 486870.59
3617850.48 94.70546 (12100223)
  486920.59 3617850.48 82.01726 (12071924) 487120.59
3617850.48 87.18060 (11070123)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487170.59	3617850.48	91.49698	(12110517)	487220.59	3617850.48	88.14136	(12110517)
487270.59	3617850.48	85.33224	(12012018)	487320.59	3617850.48	84.35913	(12012018)
487370.59	3617850.48	86.23400	(12021307)	487420.59	3617850.48	75.93629	(11111822)
487470.59	3617850.48	79.30252	(10041721)	487520.59	3617850.48	82.07850	(10041721)
487570.59	3617850.48	86.46370	(11080423)	487620.59	3617850.48	82.87329	(11070322)
487670.59	3617850.48	83.91351	(12092521)	487720.59	3617850.48	87.46702	(12092521)
487770.59	3617850.48	86.22491	(10022102)	487820.59	3617850.48	82.46371	(10022102)
487870.59	3617850.48	81.52682	(10022021)	487920.59	3617850.48	77.43926	(11072602)
487970.59	3617850.48	73.49945	(11032821)	488020.59	3617850.48	64.51286	(11032821)
488070.59	3617850.48	53.27972	(12033120)	488120.59	3617850.48	47.84848	(12033120)
488170.59	3617850.48	29.82798	(12033120)	488220.59	3617850.48	23.08308	(12033120)
488270.59	3617850.48	24.57119	(10080620)	488320.59	3617850.48	28.65645	(10080620)
488370.59	3617850.48	6.26598	(10111019)	488420.59	3617850.48	5.63968	(10111019)
488470.59	3617850.48	5.03648	(10111019)	488520.59			

3617850.48 4.47095 (10111019)
488570.59 3617850.48 4.12790 (10012121) 488620.59
3617850.48 3.89047 (10070608)
486520.59 3617900.48 58.52720 (12111719) 486570.59
3617900.48 67.47609 (12111719)
486620.59 3617900.48 70.91842 (10021721) 486670.59
3617900.48 79.56587 (12012623)
486720.59 3617900.48 90.33036 (12100221) 486770.59
3617900.48 95.51606 (12100221)
486820.59 3617900.48 89.59233 (11011822) 486870.59
3617900.48 89.75775 (12100223)
486920.59 3617900.48 82.59392 (12071924) 487070.59
3617900.48 81.92120 (12090521)
487120.59 3617900.48 87.46397 (11070123) 487170.59
3617900.48 83.07529 (11021522)
487220.59 3617900.48 89.61413 (12110517) 487270.59
3617900.48 80.10399 (12052922)
487320.59 3617900.48 85.37992 (12012018) 487370.59
3617900.48 82.21357 (11092724)
487420.59 3617900.48 77.18302 (12021307) 487470.59
3617900.48 72.76396 (12072905)
487520.59 3617900.48 79.42105 (10041721) 487570.59
3617900.48 79.54638 (11080423)
487620.59 3617900.48 83.24214 (11080423) 487670.59
3617900.48 79.27243 (11070322)
487720.59 3617900.48 81.39132 (12092521) 487770.59
3617900.48 83.96852 (12092521)
487820.59 3617900.48 82.37658 (10022102) 487870.59
3617900.48 78.22431 (10022102)
487920.59 3617900.48 73.64341 (10050822) 487970.59
3617900.48 67.71773 (11072602)
488020.59 3617900.48 62.74353 (11072602) 488070.59
3617900.48 50.05426 (10111618)
488120.59 3617900.48 37.69336 (10111618) 488170.59
3617900.48 27.17170 (10111618)
488220.59 3617900.48 28.02853 (12033120) 488270.59
3617900.48 32.31532 (12033120)
488320.59 3617900.48 34.59103 (10080620) 488370.59
3617900.48 6.73491 (10111019)
488420.59 3617900.48 6.17906 (10111019) 488470.59
3617900.48 5.61424 (10111019)
488520.59 3617900.48 5.05966 (10111019) 488570.59
3617900.48 4.52901 (10111019)
488620.59 3617900.48 4.08463 (10012121) 487077.48
3618005.05 74.69795 (11102206)
487127.48 3618005.05 80.24542 (11070123) 487177.48
3618005.05 75.81014 (11021522)
487227.48 3618005.05 81.50579 (12110517) 487277.48
3618005.05 73.25889 (12110517)
487327.48 3618005.05 72.71403 (12052922) 486570.59

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
486720.59	3617950.48	80.30005	(12010320)	486770.59	3617950.48	88.54071	(12100221)
486820.59	3617950.48	84.70149	(12111722)	486970.59	3617950.48	90.80498	(12100221)
487020.59	3617950.48	79.33938	(12110517)	487070.59	3617950.48	77.90070	(11102206)
487120.59	3617950.48	84.66374	(11070123)	487170.59	3617950.48	80.48247	(11021522)
487220.59	3617950.48	86.68463	(12110517)	487270.59	3617950.48	75.99239	(12060621)
487320.59	3617950.48	79.34897	(12012018)	487370.59	3617950.48	76.18652	(12112517)
487420.59	3617950.48	78.37006	(12021307)	487470.59	3617950.48	71.41382	(11111822)
487520.59	3617950.48	72.08131	(10041721)	487570.59	3617950.48	76.33020	(10041721)
487620.59	3617950.48	78.24376	(11080423)	487670.59	3617950.48	79.46247	(11080423)
487720.59	3617950.48	75.87880	(11070322)	487770.59	3617950.48	78.54236	(12092521)
487820.59	3617950.48	80.41329	(12092521)	487870.59	3617950.48	76.75812	(10022102)
487920.59	3617950.48	68.24363	(10022102)	487970.59			

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3617950.48       56.25988  (11072602)
       488020.59   3617950.48       56.71548  (11072602)                488070.59
3617950.48       48.84964  (11072602)
       488120.59   3617950.48       35.68799  (11072602)                488170.59
3617950.48       44.15554  (10111618)
       488220.59   3617950.48       46.01956  (12033120)                488270.59
3617950.48       38.67359  (12033120)
       488320.59   3617950.48       25.99009  (12033120)                488370.59
3617950.48        6.99252  (10111019)
       488420.59   3617950.48        6.55021  (10111019)                488470.59
3617950.48        6.06607  (10111019)
       488520.59   3617950.48        5.56237  (10111019)                488570.59
3617950.48        5.05661  (10111019)
       488620.59   3617950.48        4.56410  (10111019)                488590.14
3616298.03       10.01961  (10051220)
       488540.14   3616348.03       11.48788  (10051220)                488590.14
3616348.03       11.53528  (10051220)
       488440.14   3616398.03       13.00758  (10051220)                488490.14
3616398.03       12.97645  (10051220)
       488540.14   3616398.03       13.07822  (12042005)                488590.14
3616398.03       13.12508  (12042005)
       488390.14   3616448.03       14.93784  (12042005)                488440.14
3616448.03       14.95871  (12042005)
       488490.14   3616448.03       14.88517  (12042005)                488540.14
3616448.03       14.72777  (12042005)
       488590.14   3616448.03       14.49736  (12042005)                488340.14
3616498.03       17.10385  (12042005)
       488390.14   3616498.03       16.85647  (12042005)                488440.14
3616498.03       16.71747  (10051221)
       488490.14   3616498.03       16.92894  (10051221)                488540.14
3616498.03       17.04710  (10051221)
       488590.14   3616498.03       17.08078  (10051221)                484613.02
3614429.89        2.21334  (10021008)
       484663.02   3614429.89        2.24564  (10021008)                484713.02
3614429.89        2.24672  (10021008)
       484763.02   3614429.89        2.21675  (10021008)                484813.02
3614429.89        2.15180  (10021008)
       484863.02   3614429.89        2.05049  (10021008)                484913.02
3614429.89        2.00241  (10040807)
       484963.02   3614429.89        2.08328  (10040807)                484563.02
3614479.89        2.08396  (10021008)
       484613.02   3614479.89        2.17792  (10021008)                484663.02
3614479.89        2.24149  (10021008)
       484713.02   3614479.89        2.27503  (10021008)                484763.02
3614479.89        2.27506  (10021008)
       484813.02   3614479.89        2.23537  (10021008)                484863.02
3614479.89        2.15799  (10021008)
       484913.02   3614479.89        2.05055  (10021008)                484963.02
3614479.89        2.04886  (10040807)
       484513.02   3614529.89        1.91587  (11063006)                484563.02
```

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
484913.02	3614529.89	2.16851	(10021008)	484963.02	3614529.89	2.05712	(11010509)
484463.02	3614579.89	1.84013	(11063006)	484513.02	3614579.89	1.88477	(11063006)
484563.02	3614579.89	1.94257	(11063006)	484613.02	3614579.89	2.04749	(10021008)
484663.02	3614579.89	2.16570	(10021008)	484713.02	3614579.89	2.25902	(10021008)
484763.02	3614579.89	2.31658	(10021008)	484813.02	3614579.89	2.33918	(10021008)
484863.02	3614579.89	2.32229	(10021008)	484913.02	3614579.89	2.26864	(10021008)
484963.02	3614579.89	2.17065	(10021008)	484413.02	3614629.89	1.87737	(10020808)
484463.02	3614629.89	1.76833	(11063006)	484513.02	3614629.89	1.84644	(11063006)
484563.02	3614629.89	1.91568	(11063006)	484613.02	3614629.89	1.96785	(11063006)
484663.02	3614629.89	2.08954	(10021008)	484713.02			

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3614629.89        2.20817  (10021008)
       484763.02   3614629.89        2.29773  (10021008)                484813.02
3614629.89        2.35323  (10021008)
       484863.02   3614629.89        2.37037  (10021008)                484913.02
3614629.89        2.34751  (10021008)
       484963.02   3614629.89        2.28433  (10021008)                484413.02
3614679.89        2.02292  (10020808)
       484463.02   3614679.89        1.91294  (10020808)                484513.02
3614679.89        1.79883  (10020808)
       484563.02   3614679.89        1.87270  (11063006)                484613.02
3614679.89        1.93783  (11063006)
       484663.02   3614679.89        1.99071  (10021008)                484713.02
3614679.89        2.13352  (10021008)
       484763.02   3614679.89        2.25164  (10021008)                484813.02
3614679.89        2.34011  (10021008)
       484863.02   3614679.89        2.39083  (10021008)                484913.02
3614679.89        2.40333  (10021008)
       484963.02   3614679.89        2.37202  (10021008)                484363.02
3614729.89        2.21705  (10020808)
       484413.02   3614729.89        2.14819  (10020808)                484463.02
3614729.89        2.05657  (10020808)
       484513.02   3614729.89        1.95186  (10020808)                484563.02
3614729.89        1.83332  (10020808)
       484613.02   3614729.89        1.89568  (11063006)                484663.02
3614729.89        1.96455  (11063006)
       484713.02   3614729.89        2.03521  (10021008)                484763.02
3614729.89        2.17912  (10021008)
       484813.02   3614729.89        2.29799  (10021008)                484863.02
3614729.89        2.38345  (10021008)
       484913.02   3614729.89        2.42981  (10021008)                484963.02
3614729.89        2.43148  (10021008)
       484313.02   3614779.89        2.35720  (10020808)                484363.02
3614779.89        2.31924  (10020808)
       484413.02   3614779.89        2.26296  (10020808)                484463.02
3614779.89        2.18822  (10020808)
       484513.02   3614779.89        2.09597  (10020808)                484563.02
3614779.89        1.98960  (10020808)
       484613.02   3614779.89        1.86947  (10020808)                484663.02
3614779.89        1.92422  (11063006)
       484713.02   3614779.89        1.99366  (11063006)                484763.02
3614779.89        2.08136  (10021008)
       484813.02   3614779.89        2.22705  (10021008)                484863.02
3614779.89        2.34449  (10021008)
       484913.02   3614779.89        2.42588  (10021008)                484963.02
3614779.89        2.46233  (10021008)
       484263.02   3614829.89        2.42404  (10020808)                484313.02
3614829.89        2.41054  (10020808)
       484363.02   3614829.89        2.39516  (10020808)                484413.02
3614829.89        2.36029  (10020808)
       484463.02   3614829.89        2.30404  (10020808)                484513.02
```

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
484263.02	3614879.89	2.41573	(10020808)	484313.02	3614879.89	2.43880	(10020808)
484363.02	3614879.89	2.44736	(10020808)	484413.02	3614879.89	2.43448	(10020808)
484463.02	3614879.89	2.40151	(10020808)	484513.02	3614879.89	2.35010	(10020808)
484563.02	3614879.89	2.27612	(10020808)	484613.02	3614879.89	2.18394	(10020808)
484663.02	3614879.89	2.07458	(10020808)	484713.02	3614879.89	1.94784	(10020808)
484763.02	3614879.89	1.98261	(11063006)	484813.02	3614879.89	2.04682	(11063006)
484863.02	3614879.89	2.17708	(10021008)	484913.02	3614879.89	2.32252	(10021008)
484963.02	3614879.89	2.43321	(10021008)	484163.02			

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3614929.89        2.24311  (10020808)
       484213.02   3614929.89        2.31922  (10020808)                484263.02
3614929.89        2.38635  (10020808)
       484313.02   3614929.89        2.43954  (10020808)                484363.02
3614929.89        2.47224  (10020808)
       484413.02   3614929.89        2.48366  (10020808)                484463.02
3614929.89        2.47851  (10020808)
       484513.02   3614929.89        2.45125  (10020808)                484563.02
3614929.89        2.39844  (10020808)
       484613.02   3614929.89        2.32664  (10020808)                484663.02
3614929.89        2.23053  (10020808)
       484713.02   3614929.89        2.11803  (10020808)                484763.02
3614929.89        1.98734  (10020808)
       484813.02   3614929.89        2.00758  (11063006)                484863.02
3614929.89        2.07762  (11063006)
       484913.02   3614929.89        2.22759  (10021008)                484963.02
3614929.89        2.37238  (10021008)
       485013.02   3614929.89        2.47582  (10021008)                484113.02
3614979.89        2.04312  (10020808)
       484163.02   3614979.89        2.15261  (10020808)                484213.02
3614979.89        2.24865  (10020808)
       484263.02   3614979.89        2.33630  (10020808)                484313.02
3614979.89        2.41647  (10020808)
       484363.02   3614979.89        2.46796  (10020808)                484413.02
3614979.89        2.50540  (10020808)
       484463.02   3614979.89        2.52709  (10020808)                484513.02
3614979.89        2.52252  (10020808)
       484563.02   3614979.89        2.49475  (10020808)                484613.02
3614979.89        2.44534  (10020808)
       484663.02   3614979.89        2.36881  (10020808)                484713.02
3614979.89        2.27751  (10020808)
       484763.02   3614979.89        2.15951  (10020808)                484813.02
3614979.89        2.02962  (10020808)
       484863.02   3614979.89        2.04280  (11063006)                484913.02
3614979.89        2.10537  (10021008)
       484963.02   3614979.89        2.27973  (10021008)                485013.02
3614979.89        2.42227  (10021008)
       484113.02   3615029.89        2.04940  (10021408)                484163.02
3615029.89        2.06544  (10021408)
       484213.02   3615029.89        2.15629  (10020808)                484263.02
3615029.89        2.26759  (10020808)
       484313.02   3615029.89        2.35789  (10020808)                484363.02
3615029.89        2.43471  (10020808)
       484413.02   3615029.89        2.49587  (10020808)                484463.02
3615029.89        2.54150  (10020808)
       484513.02   3615029.89        2.56611  (10020808)                484563.02
3615029.89        2.56332  (10020808)
       484613.02   3615029.89        2.53999  (10020808)                484663.02
3615029.89        2.49072  (10020808)
       484713.02   3615029.89        2.41523  (10020808)                484763.02
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3615029.89 2.32164 (10020808)
484813.02 3615029.89 2.20751 (10020808) 484863.02
3615029.89 2.07081 (10020808)
484913.02 3615029.89 2.06817 (11063006) 484963.02
3615029.89 2.15743 (10021008)
485013.02 3615029.89 2.33366 (10021008) 485063.02
3615029.89 2.47202 (10021008)
484113.02 3615079.89 2.04232 (10021408) 484163.02
3615079.89 2.07702 (10021408)
484213.02 3615079.89 2.09543 (10021408) 484263.02
3615079.89 2.16127 (10020808)
484313.02 3615079.89 2.27229 (10020808) 484363.02
3615079.89 2.37204 (10020808)
484413.02 3615079.89 2.45414 (10020808) 484463.02
3615079.89 2.52544 (10020808)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,
LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
484513.02	3615079.89	2.57681	(10020808)	484563.02	3615079.89	2.60143	(10020808)
484613.02	3615079.89	2.60720	(10020808)	484663.02	3615079.89	2.58316	(10020808)
484713.02	3615079.89	2.54413	(10020808)	484763.02	3615079.89	2.46692	(10020808)
484813.02	3615079.89	2.36954	(10020808)	484863.02	3615079.89	2.25282	(10020808)
484913.02	3615079.89	2.11415	(10020808)	484963.02	3615079.89	2.09807	(11063006)
485013.02	3615079.89	2.21143	(10021008)	485063.02			

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3615079.89        2.39074  (10021008)
       485113.02   3615079.89        2.52867  (10021008)                484113.02
3615129.89        2.06235  (10091607)
       484163.02   3615129.89        2.05995  (10021408)                484213.02
3615129.89        2.09640  (10021408)
       484263.02   3615129.89        2.12181  (10021408)                484313.02
3615129.89        2.16388  (10020808)
       484363.02   3615129.89        2.28126  (10020808)                484413.02
3615129.89        2.38171  (10020808)
       484463.02   3615129.89        2.47671  (10020808)                484513.02
3615129.89        2.55364  (10020808)
       484563.02   3615129.89        2.60767  (10020808)                484613.02
3615129.89        2.63933  (10020808)
       484663.02   3615129.89        2.65198  (10020808)                484713.02
3615129.89        2.63404  (10020808)
       484763.02   3615129.89        2.58552  (10020808)                484813.02
3615129.89        2.51875  (10020808)
       484863.02   3615129.89        2.42050  (10020808)                484913.02
3615129.89        2.29943  (10020808)
       484963.02   3615129.89        2.16061  (10020808)                485013.02
3615129.89        2.13074  (11063006)
       485063.02   3615129.89        2.26735  (10021008)                485113.02
3615129.89        2.44758  (10021008)
       485163.02   3615129.89        2.58472  (10021008)                484113.02
3615179.89        2.07281  (10091607)
       484163.02   3615179.89        2.09367  (10091607)                484213.02
3615179.89        2.09776  (10091607)
       484263.02   3615179.89        2.11649  (10021408)                484313.02
3615179.89        2.14779  (10021408)
       484363.02   3615179.89        2.17283  (10021408)                484413.02
3615179.89        2.28530  (10020808)
       484463.02   3615179.89        2.39722  (10020808)                484513.02
3615179.89        2.49772  (10020808)
       484563.02   3615179.89        2.57672  (10020808)                484613.02
3615179.89        2.63805  (10020808)
       484663.02   3615179.89        2.67893  (10020808)                484713.02
3615179.89        2.69557  (10020808)
       484763.02   3615179.89        2.68075  (10020808)                484813.02
3615179.89        2.64251  (10020808)
       484863.02   3615179.89        2.56751  (10020808)                484913.02
3615179.89        2.47016  (10020808)
       484963.02   3615179.89        2.35009  (10020808)                485013.02
3615179.89        2.20742  (10020808)
       485063.02   3615179.89        2.18837  (10110318)                485113.02
3615179.89        2.32570  (10021008)
       485163.02   3615179.89        2.51023  (10021008)                485213.02
3615179.89        2.64382  (10021008)
       484113.02   3615229.89        2.10350  (10100707)                484163.02
3615229.89        2.09220  (10091607)
       484213.02   3615229.89        2.12187  (10091607)                484263.02
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3615229.89 2.13455 (10091607)
484313.02 3615229.89 2.13271 (10021408) 484363.02
3615229.89 2.16884 (10021408)
484413.02 3615229.89 2.19205 (10021408) 484463.02
3615229.89 2.28629 (10020808)
484513.02 3615229.89 2.40479 (10020808) 484563.02
3615229.89 2.51212 (10020808)
484613.02 3615229.89 2.60173 (10020808) 484663.02
3615229.89 2.67029 (10020808)
484713.02 3615229.89 2.71791 (10020808) 484763.02
3615229.89 2.73864 (10020808)
484813.02 3615229.89 2.72759 (10020808) 484863.02
3615229.89 2.68614 (10020808)
484913.02 3615229.89 2.61876 (10020808) 484963.02
3615229.89 2.52562 (10020808)
485013.02 3615229.89 2.40131 (10020808) 485063.02
3615229.89 2.25677 (10020808)
485113.02 3615229.89 2.29609 (10110318) 485163.02
3615229.89 2.38630 (10021008)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
485213.02	3615229.89	2.56954	(10021008)	485263.02	3615229.89	2.70450	(10021008)
484113.02	3615279.89	2.21287	(10100707)	484163.02	3615279.89	2.17054	(10100707)
484213.02	3615279.89	2.11527	(10100707)	484263.02	3615279.89	2.14032	(10091607)
484313.02	3615279.89	2.16105	(10091607)	484613.02			

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3615279.89        2.52882  (10020808)
       484663.02   3615279.89        2.62703  (10020808)                484713.02
3615279.89        2.70426  (10020808)
       484763.02   3615279.89        2.75637  (10020808)                484813.02
3615279.89        2.78333  (10020808)
       484863.02   3615279.89        2.77802  (10020808)                484913.02
3615279.89        2.73998  (10020808)
       484963.02   3615279.89        2.67371  (10020808)                485013.02
3615279.89        2.57970  (10020808)
       485063.02   3615279.89        2.45630  (10020808)                485113.02
3615279.89        2.35374  (10110318)
       485163.02   3615279.89        2.41258  (10110318)                485213.02
3615279.89        2.47283  (10110318)
       485263.02   3615279.89        2.63232  (10021008)                485313.02
3615279.89        2.76892  (10021008)
       484113.02   3615329.89        2.29406  (10100707)                484163.02
3615329.89        2.26511  (10100707)
       484213.02   3615329.89        2.22718  (10100707)                484663.02
3615329.89        2.54198  (10020808)
       484713.02   3615329.89        2.64905  (10020808)                484763.02
3615329.89        2.73408  (10020808)
       484813.02   3615329.89        2.79654  (10020808)                484863.02
3615329.89        2.83224  (10020808)
       484913.02   3615329.89        2.82940  (10020808)                484963.02
3615329.89        2.79309  (10020808)
       485013.02   3615329.89        2.73238  (10020808)                485063.02
3615329.89        2.63647  (10020808)
       485113.02   3615329.89        2.50946  (10020808)                485163.02
3615329.89        2.47504  (10110318)
       485213.02   3615329.89        2.53882  (10110318)                485263.02
3615329.89        2.60418  (10110318)
       485313.02   3615329.89        2.69835  (10021008)                485363.02
3615329.89        2.82909  (10021008)
       484113.02   3615379.89        2.33845  (10100707)                484163.02
3615379.89        2.33427  (10100707)
       484713.02   3615379.89        2.55560  (10020808)                484763.02
3615379.89        2.67189  (10020808)
       484813.02   3615379.89        2.76797  (10020808)                484863.02
3615379.89        2.83276  (10020808)
       484913.02   3615379.89        2.87629  (10020808)                484963.02
3615379.89        2.88104  (10020808)
       485013.02   3615379.89        2.85124  (10020808)                485063.02
3615379.89        2.78803  (10020808)
       485113.02   3615379.89        2.69489  (10020808)                485163.02
3615379.89        2.56761  (10020808)
       485213.02   3615379.89        2.60666  (10110318)                485263.02
3615379.89        2.67599  (10110318)
       485313.02   3615379.89        2.74706  (10110318)                485363.02
3615379.89        2.81984  (10110318)
       485413.02   3615379.89        2.89931  (10021008)                484763.02
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 3615429.89        2.56402  (10020808)
       484813.02   3615429.89        2.69265  (10020808)                484863.02
 3615429.89        2.79476  (10020808)
       484913.02   3615429.89        2.87089  (10020808)                484963.02
 3615429.89        2.91925  (10020808)
       485013.02   3615429.89        2.93150  (10020808)                485063.02
 3615429.89        2.91167  (10020808)
       485113.02   3615429.89        2.85585  (10020808)                485163.02
 3615429.89        2.75429  (10020808)
       485213.02   3615429.89        2.67634  (10110318)                485263.02
 3615429.89        2.74988  (10110318)
       485313.02   3615429.89        2.82542  (10110318)                485363.02
 3615429.89        2.90292  (10110318)
       485413.02   3615429.89        2.98234  (10110318)                485463.02
 3615429.89        3.06360  (10110318)
       485513.02   3615429.89        3.14659  (10110318)                484813.02
 3615479.89        2.57558  (10020808)
       484863.02   3615479.89        2.71131  (10020808)                484913.02
 3615479.89        2.82227  (10020808)
       484963.02   3615479.89        2.90769  (10020808)                485013.02
 3615479.89        2.96509  (10020808)
       485063.02   3615479.89        2.98481  (10020808)                485113.02
 3615479.89        2.97081  (10020808)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                          ***        14:52:42

                                    PAGE 115
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                   INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,
                 LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                              ** CONC OF TAC      IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
        485163.02   3615479.89        2.91534  (10020808)                485213.02
 3615479.89        2.81646  (10020808)
        485263.02   3615479.89        2.82585  (10110318)                485313.02
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3615479.89        2.90612  (10110318)
       485363.02   3615479.89        2.98865  (10110318)                485413.02
3615479.89        3.07344  (10110318)
       485463.02   3615479.89        3.16036  (10110318)                485513.02
3615479.89        3.24933  (10110318)
       485563.02   3615479.89        3.33971  (10110318)                484863.02
3615529.89        2.58265  (10020808)
       484913.02   3615529.89        2.72848  (10020808)                484963.02
3615529.89        2.84826  (10020808)
       485013.02   3615529.89        2.94499  (10020808)                485063.02
3615529.89        3.00766  (10020808)
       485113.02   3615529.89        3.03463  (10020808)                485163.02
3615529.89        3.02746  (10020808)
       485213.02   3615529.89        2.97644  (10020808)                485263.02
3615529.89        2.90385  (10110318)
       485313.02   3615529.89        2.98917  (10110318)                485363.02
3615529.89        3.07707  (10110318)
       485413.02   3615529.89        3.16756  (10110318)                485463.02
3615529.89        3.26057  (10110318)
       485513.02   3615529.89        3.35601  (10110318)                484913.02
3615579.89        2.58508  (10020808)
       484963.02   3615579.89        2.74359  (10020808)                485013.02
3615579.89        2.87589  (10020808)
       485063.02   3615579.89        2.98294  (10020808)                485113.02
3615579.89        3.08504  (10020808)
       485163.02   3615579.89        3.10639  (10020808)                485213.02
3615579.89        3.08905  (10020808)
       485263.02   3615579.89        3.04351  (10020808)                485313.02
3615579.89        3.07454  (10110318)
       485363.02   3615579.89        3.16818  (10110318)                485413.02
3615579.89        3.26478  (10110318)
       485463.02   3615579.89        3.36431  (10110318)                484963.02
3615629.89        2.69207  (12110208)
       485013.02   3615629.89        2.75493  (10020808)                485063.02
3615629.89        2.90095  (10020808)
       485113.02   3615629.89        3.01585  (10020808)                485163.02
3615629.89        3.10910  (10020808)
       485213.02   3615629.89        3.14706  (10020808)                485263.02
3615629.89        3.15130  (10020808)
       485313.02   3615629.89        3.16217  (10110318)                485363.02
3615629.89        3.26193  (10110318)
       485413.02   3615629.89        3.36506  (10110318)                485013.02
3615679.89        2.81506  (12110208)
       485063.02   3615679.89        2.78197  (12110208)                485113.02
3615679.89        2.92265  (10020808)
       485163.02   3615679.89        3.05403  (10020808)                485213.02
3615679.89        3.14882  (10020808)
       485263.02   3615679.89        3.19497  (10020808)                485313.02
3615679.89        3.25200  (10110318)
       485363.02   3615679.89        3.35820  (10110318)                485413.02
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 3615679.89         3.46828  (10110318)
       485063.02   3615729.89         2.94286  (12110208)                485113.02
 3615729.89         2.93494  (12110208)
       485163.02   3615729.89         3.03030  (10110318)                485213.02
 3615729.89         3.13069  (10110318)
       485263.02   3615729.89         3.23520  (10110318)                485313.02
 3615729.89         3.34394  (10110318)
       485363.02   3615729.89         3.45701  (10110318)                485113.02
 3615779.89         3.07478  (12110208)
       485163.02   3615779.89         3.10560  (10110318)                485213.02
 3615779.89         3.21168  (10110318)
       485263.02   3615779.89         3.32236  (10110318)                485313.02
 3615779.89         3.43781  (10110318)
       485163.02   3615829.89         3.20959  (12110208)                485213.02
 3615829.89         3.29381  (10110318)
       485263.02   3615829.89         3.41097  (10110318)                485213.02
 3615879.89         3.37657  (10110318)
       487082.35   3618053.22        73.11091  (11102206)                487132.24
 3618053.22        76.07579  (11070123)
       487182.13   3618053.22        71.30157  (11021522)                487232.02
 3618053.22        76.43588  (12110517)
       487281.91   3618053.22        74.97481  (12110517)                486242.77
 3618033.89        30.93605  (12111719)
       486286.79   3617997.48        37.26408  (12111719)                486574.47
 3617998.65        56.63615  (12102721)
       486624.36   3617998.65        68.54176  (12012623)                486674.25
 3617998.65        78.08928  (11010720)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                         ***        14:52:42

                                    PAGE 116
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                   INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,
                LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF TAC      IN MICROGRAMS/M**3
                  **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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- -
486724.14 3617998.65 78.74897 (12010320) 486774.03
3617998.65 83.02519 (12100221)
486923.70 3617998.65 73.61205 (11070123) 486973.59
3617998.65 79.80838 (12100221)
487023.48 3617998.65 74.51728 (12110517) 487082.35
3618103.22 70.61218 (12110517)
487132.24 3618103.22 70.70874 (11070123) 487182.13
3618103.22 68.47548 (12092402)
486165.87 3618094.46 20.07368 (12111719) 486242.77
3618083.89 33.88794 (12111719)
486292.66 3618083.89 43.89734 (12111719) 486499.32
3618054.73 56.97098 (12111719)
486574.47 3618048.65 55.37749 (12012623) 486624.36
3618048.65 65.37895 (12012623)
486674.25 3618048.65 66.52676 (11010720) 486724.14
3618048.65 74.08956 (12010320)
486873.81 3618048.65 78.36979 (12100223) 486923.70
3618048.65 70.05872 (11070123)
486973.59 3618048.65 74.89611 (11110320) 487023.48
3618048.65 70.21328 (12080805)
487082.35 3618153.22 67.43525 (12110517) 487132.24
3618153.22 64.85146 (11070123)
486325.02 3618098.65 46.33879 (12111719) 486242.77
3618133.89 39.26875 (12111719)
486524.58 3618098.65 57.27207 (12102721) 486574.47
3618098.65 56.81054 (12012623)
486624.36 3618098.65 61.86284 (12012623) 486674.25
3618098.65 65.43408 (11010720)
486823.92 3618098.65 74.90189 (12072002) 486873.81
3618098.65 74.81613 (12100223)
486923.70 3618098.65 66.14078 (12101507) 486973.59
3618098.65 71.59303 (11110320)
487023.48 3618098.65 66.66410 (12080805) 487082.35
3618203.22 64.38517 (11011120)
486275.13 3618148.65 44.10438 (12111719) 486325.02
3618148.65 45.72130 (12111719)
486374.91 3618148.65 46.82676 (12111719) 486474.69
3618148.65 52.53249 (12111719)
486524.58 3618148.65 53.16013 (12102721) 486574.47
3618148.65 57.39061 (12012623)
486624.36 3618148.65 65.13933 (11010720) 486774.03
3618148.65 73.20671 (12100221)
486823.92 3618148.65 69.61857 (12111722) 486873.81
3618148.65 71.26949 (12100223)
486923.70 3618148.65 62.51044 (11111420) 486973.59
3618148.65 68.38687 (11110320)
487023.48 3618148.65 63.55034 (11021522) 486275.13
3618198.65 43.95652 (12111719)
486325.02 3618198.65 45.07228 (12111719) 486374.91

3618198.65 47.35817 (12111719)
486424.80 3618198.65 51.50776 (12111719) 486474.69
3618198.65 48.75756 (12111719)
486524.58 3618198.65 51.26976 (12102721) 486674.25
3618198.65 60.93176 (12010320)
486724.14 3618198.65 61.66664 (10021622) 486774.03
3618198.65 71.25057 (12100221)
486823.92 3618198.65 64.23975 (12111722) 486873.81
3618198.65 67.11911 (12100223)
486923.70 3618198.65 59.31712 (11111420) 486973.59
3618198.65 65.11756 (11110320)
487023.48 3618198.65 60.58354 (12083004) 486275.13
3618248.65 43.51979 (12111719)
486325.02 3618248.65 45.45721 (12111719) 486374.91
3618248.65 47.99421 (12111719)
486424.80 3618248.65 48.95064 (12111719) 486474.69
3618248.65 52.33751 (12010320)
486624.36 3618248.65 53.27630 (11010720) 486674.25
3618248.65 58.54115 (12010320)
486724.14 3618248.65 60.02701 (10021622) 486774.03
3618248.65 67.00583 (12100221)
486823.92 3618248.65 60.47735 (12111722) 486873.81
3618248.65 63.20825 (12100223)
486923.70 3618248.65 54.56097 (11111420) 486973.59
3618248.65 61.10353 (11110320)
487023.48 3618248.65 58.23728 (12022321) 486125.46
3618298.65 25.58189 (12111719)
486275.13 3618298.65 43.04522 (12111719) 486325.02
3618298.65 45.17015 (12111719)
486374.91 3618298.65 47.39243 (12111719) 486424.80
3618298.65 48.31449 (12111719)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
486574.47	3618298.65	50.81776	(12012623)	486624.36	3618298.65	50.27340	(12010320)
486674.25	3618298.65	56.93123	(12010320)	486724.14	3618298.65	58.28082	(10021622)
486774.03	3618298.65	61.47265	(12100221)	486823.92	3618298.65	57.71798	(12111722)
486873.81	3618298.65	61.09801	(12100223)	486923.70	3618298.65	52.22034	(11111420)
486125.46	3618348.65	25.56120	(12111719)	486175.35	3618348.65	35.61410	(12111719)
486225.24	3618348.65	40.74280	(12111719)	486275.13	3618348.65	42.59591	(12111719)
486325.02	3618348.65	45.08966	(12111719)	486524.58	3618348.65	49.49300	(12012623)
486574.47	3618348.65	47.59832	(11112921)	486624.36	3618348.65	50.43601	(12010320)
486674.25	3618348.65	54.27072	(12010320)	486724.14	3618348.65	56.25660	(10021622)
486774.03	3618348.65	57.96992	(12111722)	486823.92	3618348.65	54.65360	(12111722)
486873.81	3618348.65	58.31179	(12100223)	486125.46	3618398.65	24.93269	(12111719)
486175.35	3618398.65	36.01678	(12111719)	486225.24	3618398.65	38.75182	(12111719)
486424.80	3618398.65	43.86838	(12012623)	486474.69	3618398.65	46.15369	(12012623)
486524.58	3618398.65	47.90329	(12012623)	486574.47	3618398.65	46.02270	(10021721)
486624.36	3618398.65	49.58455	(12010320)	486674.25	3618398.65	51.14978	(12010320)
486724.14	3618398.65	53.06890	(11011822)	486774.03	3618398.65	57.08112	(12100221)
486823.92	3618398.65	53.14954	(12100223)	486125.46	3618448.65	27.14550	(12111719)
486175.35	3618448.65	32.66041	(12111719)	486374.91	3618448.65	42.82558	(12012623)
486424.80	3618448.65	43.19715	(12012623)	486474.69	3618448.65	46.05514	(12012623)
486524.58	3618448.65	45.31411	(12012623)	486574.47	3618448.65	44.46682	(10021721)
486624.36	3618448.65	48.27397	(12010320)	486674.25	3618448.65	49.20591	(10021622)
486724.14	3618448.65	50.22180	(11011822)	486774.03	3618448.65	56.17092	(12100221)
486125.46	3618498.65	17.60483	(12111719)	486325.02			

3618498.65 40.11722 (12111719)
  486374.91 3618498.65 41.33309 (12012623) 486424.80
3618498.65 42.93951 (12012623)
  486474.69 3618498.65 44.16919 (12012623) 486524.58
3618498.65 43.08656 (11112921)
  486574.47 3618498.65 43.58642 (12010320) 486624.36
3618498.65 46.65170 (12010320)
  486674.25 3618498.65 47.57689 (10021622) 486105.96
3618586.04 12.36638 (12111719)
  486325.02 3618548.65 38.22106 (12012623) 486374.91
3618548.65 37.42631 (12012623)
  486424.80 3618548.65 37.90491 (12012623) 486474.69
3618548.65 42.09109 (12012623)
  486524.58 3618548.65 41.17861 (12102721) 486574.47
3618548.65 43.45863 (12010320)
  486624.36 3618548.65 44.56650 (12102721) 486101.02
3618078.36 8.90956 (12111719)
  486155.07 3618149.26 22.29183 (12111719) 486018.49
3618262.09 6.26423 (12111719)
  485957.41 3618189.14 5.18923 (10110318) 485842.03
3618300.27 4.38852 (10110318)
  485893.78 3618363.05 4.28893 (10110318) 485902.87
3618241.99 4.78320 (10110318)
  485966.01 3618313.09 5.21381 (12111719) 486011.91
3618082.61 5.96071 (10110318)

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
488270.59	3616550.48	4.28383	(10051224)	488320.59	3616550.48	4.12337	(10051224)

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       488370.59   3616550.48        3.95874  (10051224)              488420.59
3616550.48        3.79300  (10051224)
       488470.59   3616550.48        3.62756  (10051224)              488520.59
3616550.48        3.46452  (10051224)
       488570.59   3616550.48        3.30611  (10051224)              488620.59
3616550.48        3.15119  (10051224)
       488270.59   3616600.48        4.50338  (10051224)              488320.59
3616600.48        4.27613  (10051224)
       488370.59   3616600.48        4.05484  (10051224)              488420.59
3616600.48        3.83965  (10051224)
       488470.59   3616600.48        3.63203  (10051224)              488520.59
3616600.48        3.43285  (10051224)
       488570.59   3616600.48        3.24379  (10051224)              488620.59
3616600.48        3.06318  (10051224)
       488270.59   3616650.48        4.51286  (10051224)              488320.59
3616650.48        4.23043  (10051224)
       488370.59   3616650.48        3.96263  (10051224)              488420.59
3616650.48        3.70997  (10051224)
       488470.59   3616650.48        3.47311  (10051224)              488520.59
3616650.48        3.25095  (10051224)
       488570.59   3616650.48        3.04288  (10051224)              488620.59
3616650.48        2.84871  (10051224)
       488270.59   3616700.48        4.27225  (10051224)              488320.59
3616700.48        3.95596  (10051224)
       488370.59   3616700.48        3.66563  (10051224)              488420.59
3616700.48        3.39758  (10051224)
       488470.59   3616700.48        3.15165  (10051224)              488520.59
3616700.48        2.92596  (10051224)
       488570.59   3616700.48        2.71766  (10051224)              488620.59
3616700.48        2.52680  (10051224)
       488320.59   3616750.48        3.47988  (10051224)              488370.59
3616750.48        3.19704  (10051224)
       488420.59   3616750.48        2.94169  (10051224)              488470.59
3616750.48        2.71087  (10051224)
       488520.59   3616750.48        2.50126  (10051224)              488570.59
3616750.48        2.31203  (10051224)
       488620.59   3616750.48        2.14028  (10051224)              488320.59
3616800.48        2.88171  (10051224)
       488370.59   3616800.48        2.63523  (10051224)              488420.59
3616800.48        2.41564  (10051224)
       488470.59   3616800.48        2.21944  (10051224)              488520.59
3616800.48        2.04340  (10051224)
       488570.59   3616800.48        1.94531  (12012724)              488620.59
3616800.48        1.85165  (12012724)
       488370.59   3616850.48        2.41658  (12012724)              488420.59
3616850.48        2.27800  (12012724)
       488470.59   3616850.48        2.15596  (12012724)              488520.59
3616850.48        2.04185  (12012724)
       488570.59   3616850.48        1.93723  (12012724)              488620.59
3616850.48        1.83791  (12012724)
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       488420.59   3616900.48        2.21248  (12012724)               488470.59
 3616900.48        2.08805  (12012724)
       488520.59   3616900.48        1.97407  (12012724)               488570.59
 3616900.48        1.86842  (12012724)
       488620.59   3616900.48        1.77111  (12012724)               488420.59
 3616950.48        2.15108  (10110424)
       488470.59   3616950.48        2.03701  (10110424)               488520.59
 3616950.48        1.93213  (10110424)
       488570.59   3616950.48        1.83563  (10110424)               488620.59
 3616950.48        1.74660  (10110424)
       488470.59   3617000.48        2.03781  (10110424)               488520.59
 3617000.48        1.93283  (10110424)
       488570.59   3617000.48        1.83621  (10110424)               488620.59
 3617000.48        1.74712  (10110424)
       488470.59   3617050.48        2.03460  (10110424)               488520.59
 3617050.48        1.93038  (10110424)
       488570.59   3617050.48        1.83409  (10110424)               488620.59
 3617050.48        1.74521  (10110424)
       488370.59   3617100.48        2.26522  (10110424)               488420.59
 3617100.48        2.14214  (10110424)
       488470.59   3617100.48        2.02806  (10110424)               488520.59
 3617100.48        1.92455  (10110424)
       488570.59   3617100.48        1.82907  (10110424)               488620.59
 3617100.48        2.16759  (12041624)
       488320.59   3617150.48        2.38626  (10110424)               488370.59
 3617150.48        2.25234  (10110424)
       488420.59   3617150.48        2.13092  (10110424)               488470.59
 3617150.48        2.01922  (10110424)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                          ***        14:52:42

                                    PAGE 119
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA1    ***
                                   INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF TAC      IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
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       488520.59   3617150.48        1.91575  (10110424)               488570.59
 3617150.48        1.82091  (10110424)
       488620.59   3617150.48        3.67743  (12051624)               488270.59
 3617200.48        6.14040  (12051624)
       488320.59   3617200.48        2.36754  (10110424)               488370.59
 3617200.48        6.62126  (12051624)
       488420.59   3617200.48        2.11539  (10110424)               488470.59
 3617200.48        2.00616  (10110424)
       488520.59   3617200.48        1.90444  (10110424)               488570.59
 3617200.48        1.81012  (10110424)
       488620.59   3617200.48        5.89276  (12051624)               487320.59
 3617250.48       42.71334m (11072608)
       487370.59   3617250.48       31.65117m (11072608)               487420.59
 3617250.48       23.23674m (11072608)
       487470.59   3617250.48       15.73330m (12041124)               487520.59
 3617250.48       15.12378m (12041124)
       487570.59   3617250.48       14.79135m (12041124)               487620.59
 3617250.48       14.96112  (10122224)
       487670.59   3617250.48       14.97055  (10122224)               487720.59
 3617250.48       14.21257  (10122224)
       487770.59   3617250.48       13.10684  (10122224)               487820.59
 3617250.48       12.02978  (10122224)
       487870.59   3617250.48       11.06456  (10122224)               487920.59
 3617250.48       10.19805  (10122224)
       487970.59   3617250.48        9.47916  (10122224)               488020.59
 3617250.48        8.71106  (10122224)
       488070.59   3617250.48        7.91699  (10122224)               488120.59
 3617250.48        7.00640  (10122224)
       488170.59   3617250.48        6.21498  (12051624)               488220.59
 3617250.48        5.99128  (12051624)
       488270.59   3617250.48        5.53043  (12051624)               488320.59
 3617250.48        5.35602  (12051624)
       488370.59   3617250.48        5.37987  (12051624)               488420.59
 3617250.48        3.39693  (12051624)
       488470.59   3617250.48        1.98997  (10110424)               488520.59
 3617250.48        2.67540  (12051624)
       488570.59   3617250.48        1.79779  (10110424)               488620.59
 3617250.48        4.09588  (12051624)
       487170.59   3617300.48       52.59422  (10073024)               487220.59
 3617300.48       47.23793  (11081108)
       487270.59   3617300.48       42.54790m (11072608)               487320.59
 3617300.48       52.33335m (11072608)
       487370.59   3617300.48       53.33662m (11072608)               487420.59
 3617300.48       45.61178m (11072608)
       487470.59   3617300.48       31.10355m (11072608)               487520.59
 3617300.48       29.27109m (12041124)
       487570.59   3617300.48       26.56308m (12041124)               487620.59
 3617300.48       22.21311m (12041124)
       487670.59   3617300.48       17.20098m (12041124)               487720.59
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 3617300.48       16.42718  (10122224)
       487770.59   3617300.48       15.39931  (10122224)                487820.59
 3617300.48       13.87201  (10122224)
       487870.59   3617300.48       14.90390  (10122224)                487920.59
 3617300.48       14.55162  (10122224)
       487970.59   3617300.48       14.20956  (10122224)                488020.59
 3617300.48       12.33132  (10122224)
       488070.59   3617300.48       10.49008  (10122224)                488120.59
 3617300.48        9.87290  (10122224)
       488170.59   3617300.48        8.08663  (10122224)                488220.59
 3617300.48        6.23083  (10122224)
       488270.59   3617300.48        5.44955  (10122224)                488320.59
 3617300.48        5.04061  (10122224)
       488370.59   3617300.48        5.43212  (10122224)                488420.59
 3617300.48        3.63560  (12051624)
       488470.59   3617300.48        1.97046  (10110424)                488520.59
 3617300.48        4.37407  (12051624)
       488570.59   3617300.48        2.01692  (12051624)                488620.59
 3617300.48        1.69829  (10110424)
       487020.59   3617350.48       52.34419  (11102024)                487070.59
 3617350.48       53.99867  (10090624)
       487120.59   3617350.48       48.07156  (12051824)                487170.59
 3617350.48       49.56058  (12081024)
       487220.59   3617350.48       46.41732  (10073024)                487270.59
 3617350.48       45.29060  (12082308)
       487320.59   3617350.48       46.32251  (12082308)                487370.59
 3617350.48       50.13292m (11072608)
       487420.59   3617350.48       52.39070m (11072608)                487470.59
 3617350.48       46.67366m (11072608)
       487520.59   3617350.48       36.99614m (11072608)                487570.59
 3617350.48       33.49050m (12041124)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                           ***        14:52:42

                                     PAGE 120
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA1    ***
                                    INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF TAC      IN MICROGRAMS/M**3
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X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487620.59	3617350.48	29.68462m	(12041124)	487670.59	3617350.48	24.81255m	(12041124)
487720.59	3617350.48	20.25795m	(12041124)	487770.59	3617350.48	16.10990m	(12041124)
487820.59	3617350.48	14.23118	(10122224)	487870.59	3617350.48	15.60438	(10122224)
487920.59	3617350.48	15.73248	(10122224)	487970.59	3617350.48	15.47348	(10122224)
488020.59	3617350.48	13.68118	(10122224)	488070.59	3617350.48	12.62112	(10122224)
488120.59	3617350.48	11.52259	(10122224)	488170.59	3617350.48	9.53495	(10122224)
488220.59	3617350.48	7.60630	(10122224)	488270.59	3617350.48	6.29518	(10122224)
488320.59	3617350.48	5.02985	(10122224)	488370.59	3617350.48	3.54273	(10122224)
488420.59	3617350.48	3.44960	(10122224)	488470.59	3617350.48	1.94816	(10110424)
488520.59	3617350.48	1.85215	(10110424)	488570.59	3617350.48	1.76439	(10110424)
488620.59	3617350.48	1.68253	(10110424)	486770.59	3617400.48	25.69954	(12111724)
486820.59	3617400.48	29.14180	(11112924)	486870.59	3617400.48	33.28080	(12111724)
486920.59	3617400.48	60.98350	(12100224)	486970.59	3617400.48	56.39962	(11102024)
487020.59	3617400.48	49.09237	(11102024)	487070.59	3617400.48	51.01385	(10090624)
487120.59	3617400.48	48.16375	(10090624)	487170.59	3617400.48	53.18062	(12072924)
487220.59	3617400.48	50.79065	(12081024)	487270.59	3617400.48	46.59504	(11092408)
487320.59	3617400.48	45.48882	(12082308)	487370.59	3617400.48	47.11277	(12082308)
487420.59	3617400.48	44.82552m	(11072608)	487470.59	3617400.48	49.24310m	(11072608)
487520.59	3617400.48	40.44684m	(11072608)	487570.59	3617400.48	40.45270m	(11072608)
487620.59	3617400.48	25.73684m	(11072608)	487670.59	3617400.48	22.09945m	(12041124)
487720.59	3617400.48	19.45782m	(12041124)	487770.59	3617400.48	16.22751m	(12041124)
487820.59	3617400.48	13.10180m	(12041124)	487870.59	3617400.48	11.62142m	(12041124)
487920.59	3617400.48	9.67733m	(12041124)	487970.59	3617400.48	9.31388	(10122224)

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       488020.59   3617400.48        8.54174  (10122224)               488070.59
 3617400.48        7.51691  (10122224)
       488120.59   3617400.48        5.94278  (10122224)               488170.59
 3617400.48        4.23313  (10122224)
       488220.59   3617400.48        3.42935  (10122224)               488270.59
 3617400.48        3.33147  (10122224)
       488320.59   3617400.48        3.20510  (10122224)               488370.59
 3617400.48        4.32940  (10122224)
       488420.59   3617400.48        2.02410  (10110424)               488470.59
 3617400.48        1.92444  (10110424)
       488520.59   3617400.48        1.83146  (10110424)               488570.59
 3617400.48        1.74532  (10110424)
       488620.59   3617400.48        1.66485  (10110424)               486820.59
 3617450.48       26.02705  (11112924)
       486870.59   3617450.48       30.96036m (12072008)               486920.59
 3617450.48       55.00276  (12100224)
       486970.59   3617450.48       51.49982m (12072008)               487020.59
 3617450.48       44.81221  (11102024)
       487070.59   3617450.48       44.93908  (10090624)               487120.59
 3617450.48       47.48763  (10090624)
       487170.59   3617450.48       56.19283  (12072924)               487220.59
 3617450.48       53.80075  (12072924)
       487270.59   3617450.48       44.15372  (12082224)               487320.59
 3617450.48       45.21055  (10073108)
       487370.59   3617450.48       46.71987  (10073108)               487420.59
 3617450.48       44.86755  (12082308)
       487470.59   3617450.48       34.01353m (11072608)               487520.59
 3617450.48       24.17716m (11072608)
       487570.59   3617450.48       23.68776m (11072608)               487620.59
 3617450.48       27.10411m (11072608)
       487670.59   3617450.48       26.93210m (11072608)               487720.59
 3617450.48       23.75657m (12041124)
       487770.59   3617450.48       22.78020m (12041124)               487820.59
 3617450.48       20.40539m (12041124)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                         ***        14:52:42

                                    PAGE 121
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA1    ***
                                   INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***
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** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487870.59	3617450.48	17.66310m	(12041124)	487920.59	3617450.48	14.80394m	(12041124)
487970.59	3617450.48	12.19061m	(12041124)	488020.59	3617450.48	10.15572	(10122224)
488070.59	3617450.48	10.14694	(10122224)	488120.59	3617450.48	9.81895	(10122224)
488170.59	3617450.48	9.02965	(10122224)	488220.59	3617450.48	7.79062	(10122224)
488270.59	3617450.48	7.58275	(10122224)	488320.59	3617450.48	9.40564	(10122224)
488370.59	3617450.48	8.37379	(10122224)	488420.59	3617450.48	1.99480	(10110424)
488470.59	3617450.48	1.89761	(10110424)	488520.59	3617450.48	1.80735	(10110424)
488570.59	3617450.48	1.72365	(10110424)	488620.59	3617450.48	1.64539	(10110424)
486770.59	3617500.48	21.27571	(11112924)	486820.59	3617500.48	24.09212	(12102724)
486870.59	3617500.48	29.00466m	(12072008)	486920.59	3617500.48	48.50108	(12100224)
486970.59	3617500.48	46.01807m	(12072008)	487020.59	3617500.48	42.60063	(11102024)
487070.59	3617500.48	40.12674	(12081924)	487120.59	3617500.48	45.24180	(10090624)
487170.59	3617500.48	48.96166	(12072924)	487220.59	3617500.48	59.15088	(12072924)
487270.59	3617500.48	45.45404	(12081024)	487320.59	3617500.48	35.84009	(11091524)
487370.59	3617500.48	39.40101	(10073108)	487420.59	3617500.48	20.92182	(11081108)
487470.59	3617500.48	16.76492	(11081108)	487520.59	3617500.48	27.63945	(12082308)
487570.59	3617500.48	37.63089m	(11072608)	487620.59	3617500.48	41.22350m	(11072608)
487670.59	3617500.48	39.37583m	(11072608)	487720.59	3617500.48	33.98773m	(11072608)
487770.59	3617500.48	29.05355m	(12041124)	487820.59	3617500.48	27.56891m	(12041124)
487870.59	3617500.48	24.83267m	(12041124)	487920.59	3617500.48	21.78466m	(12041124)
487970.59	3617500.48	18.25839m	(12041124)	488020.59	3617500.48	15.07093m	(12041124)
488070.59	3617500.48	12.51177m	(12041124)	488120.59			

3617500.48 12.52117 (12101024)
488170.59 3617500.48 11.89581 (10122224) 488220.59
3617500.48 11.57955 (10122224)
488270.59 3617500.48 10.29754 (10122224) 488320.59
3617500.48 10.02958 (10122224)
488370.59 3617500.48 8.36412 (10122224) 488420.59
3617500.48 1.96260 (10110424)
488470.59 3617500.48 1.86865 (10110424) 488520.59
3617500.48 1.78131 (10110424)
488570.59 3617500.48 1.70018 (10110424) 488620.59
3617500.48 1.62412 (10110424)
486670.59 3617550.48 16.00581 (12111724) 486720.59
3617550.48 18.12763 (12111724)
486770.59 3617550.48 20.12208 (11112924) 486820.59
3617550.48 22.35963 (12102724)
486870.59 3617550.48 27.06206m (12072008) 486920.59
3617550.48 43.36276 (12100224)
486970.59 3617550.48 42.32425 (12042824) 487020.59
3617550.48 41.55268 (12042824)
487070.59 3617550.48 38.82982 (11070124) 487120.59
3617550.48 42.58774 (12081924)
487170.59 3617550.48 43.18964 (12052924) 487220.59
3617550.48 53.88238 (12072924)
487270.59 3617550.48 44.04935 (12072924) 487320.59
3617550.48 22.99550 (12081024)
487370.59 3617550.48 21.55804 (10073024) 487420.59
3617550.48 24.44782 (11092408)
487470.59 3617550.48 38.51527 (10073108) 487520.59
3617550.48 36.42416 (12082308)
487570.59 3617550.48 34.96935 (12082308) 487620.59
3617550.48 33.38985m (11072608)
487670.59 3617550.48 37.07524m (11072608) 487720.59
3617550.48 37.04307m (11072608)
487770.59 3617550.48 33.71807m (11072608) 487820.59
3617550.48 28.28825m (11072608)
487870.59 3617550.48 26.76436m (12041124) 487920.59
3617550.48 24.90907m (12041124)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487970.59	3617550.48	22.55853m	(12041124)	488020.59	3617550.48	19.50600m	(12041124)
488070.59	3617550.48	16.67283m	(12041124)	488120.59	3617550.48	13.93371m	(12041124)
488170.59	3617550.48	11.78288	(12101024)	488220.59	3617550.48	10.50600	(12101024)
488270.59	3617550.48	9.37033	(10122224)	488320.59	3617550.48	9.58722	(10122224)
488370.59	3617550.48	2.38991	(10122224)	488420.59	3617550.48	1.92829	(10110424)
488470.59	3617550.48	1.83776	(10110424)	488520.59	3617550.48	1.75358	(10110424)
488570.59	3617550.48	1.67508	(10110424)	488620.59	3617550.48	1.60130	(10110424)
485870.59	3617600.48	3.09046	(10110424)	485920.59	3617600.48	3.28216	(10110424)
486620.59	3617600.48	12.11850	(12110524)	486670.59	3617600.48	15.73929	(12111724)
486720.59	3617600.48	15.93922	(12012624)	486770.59	3617600.48	18.99098	(11112924)
486820.59	3617600.48	20.52302	(12102724)	486870.59	3617600.48	25.32672m	(12072008)
486920.59	3617600.48	39.77043	(12100224)	486970.59	3617600.48	41.97615	(12042824)
487020.59	3617600.48	41.83695	(12042824)	487070.59	3617600.48	40.77458	(11070124)
487120.59	3617600.48	39.74661	(12081924)	487170.59	3617600.48	38.85611	(12052924)
487220.59	3617600.48	40.48222	(12072924)	487270.59	3617600.48	27.41431	(12072924)
487320.59	3617600.48	22.36408	(12081024)	487370.59	3617600.48	31.43342	(12081024)
487420.59	3617600.48	34.77536	(11092408)	487470.59	3617600.48	40.05145	(10073108)
487520.59	3617600.48	38.79427	(10073108)	487570.59	3617600.48	35.53689	(12082308)
487620.59	3617600.48	32.51176	(12082308)	487670.59	3617600.48	29.59258	(11092824)
487720.59	3617600.48	32.75000m	(11072608)	487770.59	3617600.48	34.33124m	(11072608)

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       487820.59   3617600.48       32.84600m (11072608)                487870.59
 3617600.48       28.79435m (11072608)
       487920.59   3617600.48       24.90042m (12041124)                487970.59
 3617600.48       24.47598m (12041124)
       488020.59   3617600.48       22.97238m (12041124)                488070.59
 3617600.48       20.50573m (12041124)
       488120.59   3617600.48       17.57143m (12041124)                488170.59
 3617600.48       14.76065m (12041124)
       488220.59   3617600.48       12.15066m (12041124)                488270.59
 3617600.48        9.89350m (12041124)
       488320.59   3617600.48        7.18320m (12041124)                488370.59
 3617600.48        2.26398  (10030808)
       488420.59   3617600.48        1.89195  (10110424)                488470.59
 3617600.48        1.80526  (10110424)
       488520.59   3617600.48        1.72430  (10110424)                488570.59
 3617600.48        1.64856  (10110424)
       488620.59   3617600.48        1.57764  (10110424)                485870.59
 3617650.48        2.98230  (10110424)
       485920.59   3617650.48        3.15905  (10110424)                485970.59
 3617650.48        3.35005  (10110424)
       486570.59   3617650.48        8.82678  (12110524)                486620.59
 3617650.48       12.59691  (12111724)
       486670.59   3617650.48       15.16784  (12111724)                486720.59
 3617650.48       15.93677  (12012624)
       486770.59   3617650.48       17.49872  (11112924)                486820.59
 3617650.48       19.99167m (12072008)
       486870.59   3617650.48       24.84489m (12072008)                486920.59
 3617650.48       36.89660  (12100224)
       486970.59   3617650.48       40.01509  (12042824)                487020.59
 3617650.48       40.71160  (12042824)
       487070.59   3617650.48       42.34418  (11070124)                487120.59
 3617650.48       38.77208  (11092808)
       487170.59   3617650.48       37.02580  (12081924)                487370.59
 3617650.48       37.26993  (12072924)
       487420.59   3617650.48       33.14386  (11091524)                487470.59
 3617650.48       33.62582  (12073008)
       487520.59   3617650.48       37.71034  (10073108)                487570.59
 3617650.48       36.23258  (10073108)
       487620.59   3617650.48       32.56463  (12082308)                487670.59
 3617650.48       30.18336  (12082308)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                       ***        14:52:42

                                  PAGE 123
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                               *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA1    ***
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INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487720.59	3617650.48	27.37951	(11092824)	487770.59	3617650.48	28.59170m	(11072608)
487820.59	3617650.48	31.00717m	(11072608)	487870.59	3617650.48	30.98448m	(11072608)
487920.59	3617650.48	28.45075m	(11072608)	487970.59	3617650.48	24.49789m	(11072608)
488020.59	3617650.48	23.45242m	(12041124)	488070.59	3617650.48	22.49009m	(12041124)
488120.59	3617650.48	20.27128m	(12041124)	488170.59	3617650.48	17.79271m	(12041124)
488220.59	3617650.48	15.00532m	(12041124)	488270.59	3617650.48	12.64624m	(12041124)
488320.59	3617650.48	10.10954m	(12041124)	488370.59	3617650.48	1.96580	(10030808)
488420.59	3617650.48	1.85483	(10110424)	488470.59	3617650.48	1.77155	(10110424)
488520.59	3617650.48	1.69370	(10110424)	488570.59	3617650.48	1.62088	(10110424)
488620.59	3617650.48	1.55219	(10110424)	485870.59	3617700.48	2.87461	(10110424)
485920.59	3617700.48	3.03713	(10110424)	485970.59	3617700.48	3.21178	(10110424)
486470.59	3617700.48	5.68428	(10110424)	486520.59	3617700.48	6.67287	(12110524)
486570.59	3617700.48	9.46589	(12110524)	486620.59	3617700.48	13.10516	(12110524)
486670.59	3617700.48	13.65631	(12110524)	486720.59	3617700.48	15.17809	(12012624)
486770.59	3617700.48	16.71860	(12010324)	486820.59	3617700.48	20.22091	(11011824)
486870.59	3617700.48	23.33487m	(12072008)	486920.59	3617700.48	34.13275	(12100224)
486970.59	3617700.48	38.86547	(12060708)	487020.59	3617700.48	39.33527	(12042824)
487070.59	3617700.48	40.80081	(11070124)	487120.59	3617700.48	33.24318	(11092808)
487270.59	3617700.48	34.61388	(12072924)	487320.59			

3617700.48 47.70743 (12072924)
487370.59 3617700.48 44.01237 (12072924) 487420.59
3617700.48 32.51276 (12083024)
487470.59 3617700.48 30.93030 (11091524) 487520.59
3617700.48 32.67146 (12073008)
487570.59 3617700.48 34.74617 (10073108) 487620.59
3617700.48 33.04245 (10073108)
487670.59 3617700.48 29.74516 (12082308) 487720.59
3617700.48 28.06366 (12082308)
487770.59 3617700.48 24.82216 (11092824) 487820.59
3617700.48 26.00107 (11092824)
487870.59 3617700.48 27.76440m (11072608) 487920.59
3617700.48 28.82619m (11072608)
487970.59 3617700.48 27.88624m (11072608) 488020.59
3617700.48 24.91450m (11072608)
488070.59 3617700.48 21.09369m (12041124) 488120.59
3617700.48 20.47925m (12041124)
488170.59 3617700.48 18.40190m (12041124) 488220.59
3617700.48 15.66348m (12041124)
488270.59 3617700.48 13.57111m (12041124) 488320.59
3617700.48 11.44123m (12041124)
488370.59 3617700.48 4.41412m (12041124) 488420.59
3617700.48 1.81611 (10110424)
488470.59 3617700.48 1.73661 (10110424) 488520.59
3617700.48 1.66200 (10110424)
488570.59 3617700.48 1.59208 (10110424) 488620.59
3617700.48 1.52624 (10110424)
486420.59 3617750.48 4.98189 (10110424) 486470.59
3617750.48 5.22820 (10110424)
486520.59 3617750.48 7.23242 (12110524) 486570.59
3617750.48 10.27308 (12110524)
486620.59 3617750.48 13.01196 (12110524) 486670.59
3617750.48 12.46150 (11121924)
486720.59 3617750.48 14.46720 (11112924) 486770.59
3617750.48 16.57786 (12102724)
486820.59 3617750.48 20.56234 (11011824) 486870.59
3617750.48 21.44116m (12072008)
486920.59 3617750.48 33.66042 (12060708) 486970.59
3617750.48 38.02911 (12060708)
487020.59 3617750.48 37.21894 (12042824) 487070.59
3617750.48 36.90886 (11070124)
487220.59 3617750.48 31.84793 (12033024) 487270.59
3617750.48 32.72948 (12052924)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487320.59	3617750.48	40.65344	(12072924)	487370.59	3617750.48	45.21557	(12072924)
487420.59	3617750.48	37.84828	(12072924)	487470.59	3617750.48	32.21968	(12083024)
487520.59	3617750.48	28.65998	(11091524)	487570.59	3617750.48	32.18698	(12073008)
487620.59	3617750.48	32.51676	(10073108)	487670.59	3617750.48	30.46147	(10073108)
487720.59	3617750.48	27.29379	(12082308)	487770.59	3617750.48	26.02149	(12082308)
487820.59	3617750.48	23.17399	(12032424)	487870.59	3617750.48	24.26829	(11092824)
487920.59	3617750.48	24.67146m	(11072608)	487970.59	3617750.48	26.38030m	(11072608)
488020.59	3617750.48	26.14946m	(11072608)	488070.59	3617750.48	22.94005m	(11072608)
488120.59	3617750.48	18.97252m	(11072608)	488170.59	3617750.48	15.76120m	(12041124)
488220.59	3617750.48	10.44526m	(12041124)	488270.59	3617750.48	12.18388m	(12041124)
488320.59	3617750.48	9.00391m	(12041124)	488370.59	3617750.48	1.91705	(10111024)
488420.59	3617750.48	1.77674	(10110424)	488470.59	3617750.48	1.70080	(10110424)
488520.59	3617750.48	1.62942	(10110424)	488570.59	3617750.48	1.56237	(10110424)
488620.59	3617750.48	1.49927	(10110424)	486420.59	3617800.48	4.61519	(10110424)
486470.59	3617800.48	5.48877	(12110524)	486520.59	3617800.48	7.87868	(12110524)
486570.59	3617800.48	10.84512	(12110524)	486620.59	3617800.48	12.11030	(12110524)
486670.59	3617800.48	12.75237	(11121924)	486720.59	3617800.48	13.99072	(11112924)

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       486770.59   3617800.48       16.51653  (12102724)                486820.59
 3617800.48       20.22381  (11011824)
       486870.59   3617800.48       21.57742  (12100224)                486920.59
 3617800.48       31.42984  (12060708)
       486970.59   3617800.48       35.83461  (12060708)                487170.59
 3617800.48       32.16255  (11092808)
       487220.59   3617800.48       30.26957  (12081924)                487270.59
 3617800.48       30.31247  (12052924)
       487320.59   3617800.48       31.31013  (12072924)                487370.59
 3617800.48       41.93735  (12072924)
       487420.59   3617800.48       41.16930  (12072924)                487470.59
 3617800.48       31.46811  (12072924)
       487520.59   3617800.48       31.24169  (12083024)                487570.59
 3617800.48       26.08613  (11091524)
       487620.59   3617800.48       29.95080  (12073008)                487670.59
 3617800.48       29.74445  (10073108)
       487720.59   3617800.48       28.31766  (10073108)                487770.59
 3617800.48       25.15431  (12082308)
       487820.59   3617800.48       24.33318  (12082308)                487870.59
 3617800.48       21.76573  (12082308)
       487920.59   3617800.48       22.01415  (11092824)                487970.59
 3617800.48       21.85459  (11092824)
       488020.59   3617800.48       23.02125m (11072608)                488070.59
 3617800.48       19.88597m (11072608)
       488120.59   3617800.48       18.00517m (11072608)                488170.59
 3617800.48       15.70450m (11072608)
       488220.59   3617800.48       11.63897m (11072608)                488270.59
 3617800.48        6.48034m (11072608)
       488320.59   3617800.48        2.35475  (10111024)                488370.59
 3617800.48        1.92755  (10111024)
       488420.59   3617800.48        1.73663  (10110424)                488470.59
 3617800.48        1.66425  (10110424)
       488520.59   3617800.48        1.59616  (10110424)                488570.59
 3617800.48        1.53204  (10110424)
       488620.59   3617800.48        1.47162  (10110424)                486470.59
 3617850.48        5.93060  (12110524)
       486520.59   3617850.48        8.38777  (12110524)                486570.59
 3617850.48       10.77934  (12110524)
       486620.59   3617850.48       11.01843  (12110524)                486670.59
 3617850.48       12.63631  (12012624)
       486720.59   3617850.48       13.57663  (11010724)                486770.59
 3617850.48       16.15630  (12102724)
       486820.59   3617850.48       20.08901  (11011824)                486870.59
 3617850.48       21.02625  (12100224)
       486920.59   3617850.48       29.51338  (12060708)                487120.59
 3617850.48       32.70666  (11070124)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                         ***        14:52:42
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487170.59	3617850.48	29.91543	(11092808)	487220.59	3617850.48	29.31286	(11092808)
487270.59	3617850.48	28.51362	(12033024)	487320.59	3617850.48	28.34806	(12052924)
487370.59	3617850.48	34.97947	(12072924)	487420.59	3617850.48	40.59184	(12072924)
487470.59	3617850.48	35.83374	(12072924)	487520.59	3617850.48	29.86675	(12083024)
487570.59	3617850.48	28.24870	(12083024)	487620.59	3617850.48	24.93218	(12073008)
487670.59	3617850.48	27.79550	(12073008)	487720.59	3617850.48	27.78352	(10073108)
487770.59	3617850.48	26.25019	(10073108)	487820.59	3617850.48	23.18028	(12082308)
487870.59	3617850.48	22.50962	(12082308)	487920.59	3617850.48	20.30958	(12082308)
487970.59	3617850.48	18.33766	(11092824)	488020.59	3617850.48	17.96253m	(11072608)
488070.59	3617850.48	16.82511m	(11072608)	488120.59	3617850.48	15.85644m	(11072608)
488170.59	3617850.48	10.27744m	(11072608)	488220.59	3617850.48	8.14034m	(11072608)
488270.59	3617850.48	8.52384m	(11072608)	488320.59	3617850.48	9.00367m	(11072608)
488370.59	3617850.48	1.85850	(10111024)	488420.59	3617850.48	1.72995	(10111024)
488470.59	3617850.48	1.62729	(10110424)	488520.59	3617850.48	1.56240	(10110424)
488570.59	3617850.48	1.50115	(10110424)	488620.59	3617850.48	1.44333	(10110424)
486520.59	3617900.48	8.74438	(12110524)	486570.59			

3617900.48 10.48945 (12110524)
  486620.59 3617900.48 10.86251 (11121924) 486670.59
3617900.48 12.27358 (12012624)
  486720.59 3617900.48 13.05310 (11010724) 486770.59
3617900.48 15.73738 (11011824)
  486820.59 3617900.48 19.27179 (11011824) 486870.59
3617900.48 19.96453 (12100224)
  486920.59 3617900.48 24.45031 (12060708) 487070.59
3617900.48 28.45012 (11070124)
  487120.59 3617900.48 31.92519 (11070124) 487170.59
3617900.48 26.57439 (11092808)
  487220.59 3617900.48 28.77049 (11092808) 487270.59
3617900.48 26.61711 (12033024)
  487320.59 3617900.48 26.55841 (12052924) 487370.59
3617900.48 26.87907 (12072924)
  487420.59 3617900.48 36.51719 (12072924) 487470.59
3617900.48 37.44772 (12072924)
  487520.59 3617900.48 30.44339 (12072924) 487570.59
3617900.48 28.69862 (12083024)
  487620.59 3617900.48 25.23277 (12083024) 487670.59
3617900.48 24.01588 (12073008)
  487720.59 3617900.48 26.37079 (12073008) 487770.59
3617900.48 25.86286 (10073108)
  487820.59 3617900.48 24.31073 (10073108) 487870.59
3617900.48 21.31089 (12082308)
  487920.59 3617900.48 20.36054 (12082308) 487970.59
3617900.48 17.28784 (12082308)
  488020.59 3617900.48 14.73305 (12082308) 488070.59
3617900.48 13.69816m (11072608)
  488120.59 3617900.48 11.63270m (11072608) 488170.59
3617900.48 8.98128m (11072608)
  488220.59 3617900.48 9.40465m (11072608) 488270.59
3617900.48 11.30849m (11072608)
  488320.59 3617900.48 11.66408m (11072608) 488370.59
3617900.48 1.89099 (10111024)
  488420.59 3617900.48 1.77639 (10111024) 488470.59
3617900.48 1.66167 (10111024)
  488520.59 3617900.48 1.54970 (10111024) 488570.59
3617900.48 1.46987 (10110424)
  488620.59 3617900.48 1.41462 (10110424) 487077.48
3618005.05 24.91819 (12042824)
  487127.48 3618005.05 28.55108 (11070124) 487177.48
3618005.05 23.96432 (11070124)
  487227.48 3618005.05 25.38885 (11092808) 487277.48
3618005.05 24.11555 (11092808)
  487327.48 3618005.05 23.82121 (12033024) 486570.59
3617950.48 9.65410 (12110524)
  486620.59 3617950.48 10.55664 (11121924) 486670.59
3617950.48 11.91976 (12012624)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
486720.59	3617950.48	14.05648	(12060608)	486770.59	3617950.48	16.54505	(11011824)
486820.59	3617950.48	17.94857	(11011824)	486970.59	3617950.48	29.88850	(12060708)
487020.59	3617950.48	29.18528	(12042824)	487070.59	3617950.48	26.49740	(12042824)
487120.59	3617950.48	30.43483	(11070124)	487170.59	3617950.48	24.49176	(11070124)
487220.59	3617950.48	27.33481	(11092808)	487270.59	3617950.48	25.25231	(12081924)
487320.59	3617950.48	24.88236	(12033024)	487370.59	3617950.48	24.67149	(12052924)
487420.59	3617950.48	30.26817	(12072924)	487470.59	3617950.48	35.99041	(12072924)
487520.59	3617950.48	33.28814	(12072924)	487570.59	3617950.48	25.37004	(12072924)
487620.59	3617950.48	26.94067	(12083024)	487670.59	3617950.48	22.31820	(12083024)
487720.59	3617950.48	23.29612	(12073008)	487770.59	3617950.48	24.73787	(12073008)
487820.59	3617950.48	24.06643	(10073108)	487870.59	3617950.48	21.94720	(10073108)
487920.59	3617950.48	18.41837	(12082308)	487970.59	3617950.48	15.55343	(12082308)
488020.59	3617950.48	14.01876	(12082308)	488070.59	3617950.48	10.82118	(12082308)
488120.59	3617950.48	9.32841m	(11072608)	488170.59	3617950.48	12.88879m	(11072608)

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       488220.59   3617950.48       14.23110m (11072608)                488270.59
3617950.48       12.54185m (11072608)
       488320.59   3617950.48        8.73885m (11072608)                488370.59
3617950.48        1.89243  (10111024)
       488420.59   3617950.48        1.79748  (10111024)                488470.59
3617950.48        1.69748  (10111024)
       488520.59   3617950.48        1.59573  (10111024)                488570.59
3617950.48        1.49473  (10111024)
       488620.59   3617950.48        1.39676  (10111024)                488590.14
3616298.03        2.27390  (10051224)
       488540.14   3616348.03        2.57625  (10051224)                488590.14
3616348.03        2.55621  (10051224)
       488440.14   3616398.03        2.94522  (10051224)                488490.14
3616398.03        2.91206  (10051224)
       488540.14   3616398.03        2.86883  (10051224)                488590.14
3616398.03        2.81781  (10051224)
       488390.14   3616448.03        3.34090  (10051224)                488440.14
3616448.03        3.27615  (10051224)
       488490.14   3616448.03        3.20271  (10051224)                488540.14
3616448.03        3.12239  (10051224)
       488590.14   3616448.03        3.03714  (10051224)                488340.14
3616498.03        3.76649  (10051224)
       488390.14   3616498.03        3.66062  (10051224)                488440.14
3616498.03        3.54802  (10051224)
       488490.14   3616498.03        3.43048  (10051224)                488540.14
3616498.03        3.31015  (10051224)
       488590.14   3616498.03        3.18921  (10051224)                484613.02
3614429.89        0.56500  (10021008)
       484663.02   3614429.89        0.57822  (10021008)                484713.02
3614429.89        0.58977  (10021008)
       484763.02   3614429.89        0.59960  (10021008)                484813.02
3614429.89        0.60720  (10021008)
       484863.02   3614429.89        0.61217  (10021008)                484913.02
3614429.89        0.61496  (10021008)
       484963.02   3614429.89        0.61554  (10021008)                484563.02
3614479.89        0.55099  (10021008)
       484613.02   3614479.89        0.56736  (10021008)                484663.02
3614479.89        0.58250  (10021008)
       484713.02   3614479.89        0.59632  (10021008)                484763.02
3614479.89        0.60845  (10021008)
       484813.02   3614479.89        0.61820  (10021008)                484863.02
3614479.89        0.62545  (10021008)
       484913.02   3614479.89        0.63054  (10021008)                484963.02
3614479.89        0.63307  (10021008)
       484513.02   3614529.89        0.54226  (10110424)                484563.02
3614529.89        0.55155  (10110424)
       484613.02   3614529.89        0.56889  (10021008)                484663.02
3614529.89        0.58574  (10021008)
       484713.02   3614529.89        0.60159  (10021008)                484763.02
3614529.89        0.61580  (10021008)
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*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
484913.02	3614529.89	0.64514	(10021008)	484963.02	3614529.89	0.64972	(10021008)
484463.02	3614579.89	0.54225	(10110424)	484513.02	3614579.89	0.55176	(10110424)
484563.02	3614579.89	0.56141	(10110424)	484613.02	3614579.89	0.57122	(10110424)
484663.02	3614579.89	0.58776	(10021008)	484713.02	3614579.89	0.60530	(10021008)
484763.02	3614579.89	0.62143	(10021008)	484813.02	3614579.89	0.63589	(10021008)
484863.02	3614579.89	0.64819	(10021008)	484913.02	3614579.89	0.65830	(10021008)
484963.02	3614579.89	0.66534	(10021008)	484413.02	3614629.89	0.54191	(10110424)
484463.02	3614629.89	0.55157	(10110424)	484513.02	3614629.89	0.56143	(10110424)
484563.02	3614629.89	0.57145	(10110424)	484613.02	3614629.89	0.58166	(10110424)
484663.02	3614629.89	0.59205	(10110424)	484713.02	3614629.89	0.60767	(10021008)
484763.02	3614629.89	0.62573	(10021008)	484813.02	3614629.89	0.64241	(10021008)
484863.02	3614629.89	0.65726	(10021008)	484913.02	3614629.89	0.66992	(10021008)
484963.02	3614629.89	0.68007	(10021008)	484413.02			

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3614679.89        0.55099  (10110424)
       484463.02   3614679.89        0.56103  (10110424)                484513.02
3614679.89        0.57126  (10110424)
       484563.02   3614679.89        0.58168  (10110424)                484613.02
3614679.89        0.59230  (10110424)
       484663.02   3614679.89        0.60311  (10110424)                484713.02
3614679.89        0.61412  (10110424)
       484763.02   3614679.89        0.62872  (10021008)                484813.02
3614679.89        0.64744  (10021008)
       484863.02   3614679.89        0.66462  (10021008)                484913.02
3614679.89        0.67997  (10021008)
       484963.02   3614679.89        0.69286  (10021008)                484363.02
3614729.89        0.55002  (10110424)
       484413.02   3614729.89        0.56022  (10110424)                484463.02
3614729.89        0.57063  (10110424)
       484513.02   3614729.89        0.58125  (10110424)                484563.02
3614729.89        0.59208  (10110424)
       484613.02   3614729.89        0.60313  (10110424)                484663.02
3614729.89        0.61439  (10110424)
       484713.02   3614729.89        0.62585  (10110424)                484763.02
3614729.89        0.63753  (10110424)
       484813.02   3614729.89        0.65103  (10021008)                484863.02
3614729.89        0.67044  (10021008)
       484913.02   3614729.89        0.68820  (10021008)                484963.02
3614729.89        0.70369  (10021008)
       484313.02   3614779.89        0.55128  (10021408)                484363.02
3614779.89        0.55900  (10110424)
       484413.02   3614779.89        0.56958  (10110424)                484463.02
3614779.89        0.58038  (10110424)
       484513.02   3614779.89        0.59141  (10110424)                484563.02
3614779.89        0.60266  (10110424)
       484613.02   3614779.89        0.61415  (10110424)                484663.02
3614779.89        0.62587  (10110424)
       484713.02   3614779.89        0.63782  (10110424)                484763.02
3614779.89        0.65000  (10110424)
       484813.02   3614779.89        0.66239  (10110424)                484863.02
3614779.89        0.67502  (10110424)
       484913.02   3614779.89        0.69472  (10021008)                484963.02
3614779.89        0.71274  (10021008)
       484263.02   3614829.89        0.56174  (10021408)                484313.02
3614829.89        0.56547  (10021408)
       484363.02   3614829.89        0.56983  (10021408)                484413.02
3614829.89        0.57906  (10110424)
       484463.02   3614829.89        0.59027  (10110424)                484513.02
3614829.89        0.60172  (10110424)
       484563.02   3614829.89        0.61342  (10110424)                484613.02
3614829.89        0.62536  (10110424)
       484663.02   3614829.89        0.63756  (10110424)                484713.02
3614829.89        0.65001  (10110424)
       484763.02   3614829.89        0.66272  (10110424)                484813.02
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
484263.02	3614879.89	0.57366	(10021408)	484313.02	3614879.89	0.57916	(10021408)
484363.02	3614879.89	0.58455	(10021408)	484413.02	3614879.89	0.58942	(10021408)
484463.02	3614879.89	0.60029	(10110424)	484513.02	3614879.89	0.61218	(10110424)
484563.02	3614879.89	0.62434	(10110424)	484613.02	3614879.89	0.63676	(10110424)
484663.02	3614879.89	0.64946	(10110424)	484713.02	3614879.89	0.66244	(10110424)
484763.02	3614879.89	0.67569	(10110424)	484813.02	3614879.89	0.68921	(10110424)
484863.02	3614879.89	0.70300	(10110424)	484913.02	3614879.89	0.71706	(10110424)
484963.02	3614879.89	0.73138	(10110424)	484163.02	3614929.89	0.56959	(10021408)
484213.02	3614929.89	0.57711	(10021408)	484263.02	3614929.89	0.58475	(10021408)
484313.02	3614929.89	0.59209	(10021408)	484363.02	3614929.89	0.59863	(10021408)
484413.02	3614929.89	0.60456	(10021408)	484463.02	3614929.89	0.61045	(10110424)

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       484513.02   3614929.89        0.62279  (10110424)              484563.02
3614929.89        0.63542  (10110424)
       484613.02   3614929.89        0.64834  (10110424)              484663.02
3614929.89        0.66156  (10110424)
       484713.02   3614929.89        0.67508  (10110424)              484763.02
3614929.89        0.68890  (10110424)
       484813.02   3614929.89        0.70302  (10110424)              484863.02
3614929.89        0.71744  (10110424)
       484913.02   3614929.89        0.73215  (10110424)              484963.02
3614929.89        0.74715  (10110424)
       485013.02   3614929.89        0.76236  (10110424)              484113.02
3614979.89        0.56714  (10021408)
       484163.02   3614979.89        0.57730  (10021408)              484213.02
3614979.89        0.58633  (10021408)
       484263.02   3614979.89        0.59536  (10021408)              484313.02
3614979.89        0.60448  (10021408)
       484363.02   3614979.89        0.61186  (10021408)              484413.02
3614979.89        0.61910  (10021408)
       484463.02   3614979.89        0.62611  (10021408)              484513.02
3614979.89        0.63354  (10110424)
       484563.02   3614979.89        0.64667  (10110424)              484613.02
3614979.89        0.66010  (10110424)
       484663.02   3614979.89        0.67387  (10110424)              484713.02
3614979.89        0.68795  (10110424)
       484763.02   3614979.89        0.70236  (10110424)              484813.02
3614979.89        0.71710  (10110424)
       484863.02   3614979.89        0.73216  (10110424)              484913.02
3614979.89        0.74756  (10110424)
       484963.02   3614979.89        0.76327  (10110424)              485013.02
3614979.89        0.77929  (10110424)
       484113.02   3615029.89        0.57259  (10021408)              484163.02
3615029.89        0.58402  (10021408)
       484213.02   3615029.89        0.59469  (10021408)              484263.02
3615029.89        0.60576  (10021408)
       484313.02   3615029.89        0.61514  (10021408)              484363.02
3615029.89        0.62411  (10021408)
       484413.02   3615029.89        0.63264  (10021408)              484463.02
3615029.89        0.64088  (10021408)
       484513.02   3615029.89        0.64854  (10021408)              484563.02
3615029.89        0.65807  (10110424)
       484613.02   3615029.89        0.67204  (10110424)              484663.02
3615029.89        0.68636  (10110424)
       484713.02   3615029.89        0.70104  (10110424)              484763.02
3615029.89        0.71606  (10110424)
       484813.02   3615029.89        0.73144  (10110424)              484863.02
3615029.89        0.74719  (10110424)
       484913.02   3615029.89        0.76329  (10110424)              484963.02
3615029.89        0.77975  (10110424)
       485013.02   3615029.89        0.79656  (10110424)              485063.02
3615029.89        0.81365  (10110424)
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
484113.02	3615079.89	0.57669	(10021408)	484163.02	3615079.89	0.58947	(10021408)
484213.02	3615079.89	0.60154	(10021408)	484263.02	3615079.89	0.61333	(10021408)
484313.02	3615079.89	0.62450	(10021408)	484363.02	3615079.89	0.63516	(10021408)
484413.02	3615079.89	0.64493	(10021408)	484463.02	3615079.89	0.65471	(10021408)
484513.02	3615079.89	0.66381	(10021408)	484563.02	3615079.89	0.67194	(10021408)
484613.02	3615079.89	0.68414	(10110424)	484663.02	3615079.89	0.69905	(10110424)
484713.02	3615079.89	0.71432	(10110424)	484763.02	3615079.89	0.73000	(10110424)
484813.02	3615079.89	0.74606	(10110424)	484863.02	3615079.89	0.76251	(10110424)
484913.02	3615079.89	0.77935	(10110424)	484963.02	3615079.89	0.79658	(10110424)
485013.02	3615079.89	0.81421	(10110424)	485063.02	3615079.89	0.83221	(10110424)
485113.02	3615079.89	0.85058	(10110424)	484113.02	3615129.89	0.57952	(10021408)
484163.02	3615129.89	0.59317	(10021408)	484213.02	3615129.89	0.60656	(10021408)
484263.02	3615129.89	0.61969	(10021408)	484313.02	3615129.89	0.63275	(10021408)
484363.02	3615129.89	0.64486	(10021408)	484413.02			

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3615129.89        0.65578  (10021408)
       484463.02   3615129.89        0.66725  (10021408)                484513.02
3615129.89        0.67791  (10021408)
       484563.02   3615129.89        0.68769  (10021408)                484613.02
3615129.89        0.69688  (10021408)
       484663.02   3615129.89        0.71190  (10110424)                484713.02
3615129.89        0.72782  (10110424)
       484763.02   3615129.89        0.74416  (10110424)                484813.02
3615129.89        0.76091  (10110424)
       484863.02   3615129.89        0.77810  (10110424)                484913.02
3615129.89        0.79572  (10110424)
       484963.02   3615129.89        0.81377  (10110424)                485013.02
3615129.89        0.83224  (10110424)
       485063.02   3615129.89        0.85116  (10110424)                485113.02
3615129.89        0.87050  (10110424)
       485163.02   3615129.89        0.89023  (10110424)                484113.02
3615179.89        0.58405  (10100708)
       484163.02   3615179.89        0.59567  (10021408)                484213.02
3615179.89        0.61020  (10021408)
       484263.02   3615179.89        0.62464  (10021408)                484313.02
3615179.89        0.63878  (10021408)
       484363.02   3615179.89        0.65305  (10021408)                484413.02
3615179.89        0.66585  (10021408)
       484463.02   3615179.89        0.67843  (10021408)                484513.02
3615179.89        0.69072  (10021408)
       484563.02   3615179.89        0.70201  (10021408)                484613.02
3615179.89        0.71292  (10021408)
       484663.02   3615179.89        0.72494  (10110424)                484713.02
3615179.89        0.74150  (10110424)
       484763.02   3615179.89        0.75853  (10110424)                484813.02
3615179.89        0.77601  (10110424)
       484863.02   3615179.89        0.79398  (10110424)                484913.02
3615179.89        0.81240  (10110424)
       484963.02   3615179.89        0.83130  (10110424)                485013.02
3615179.89        0.85067  (10110424)
       485063.02   3615179.89        0.87053  (10110424)                485113.02
3615179.89        0.89087  (10110424)
       485163.02   3615179.89        0.91167  (10110424)                485213.02
3615179.89        0.93295  (10110424)
       484113.02   3615229.89        0.60178  (10100708)                484163.02
3615229.89        0.60534  (10100708)
       484213.02   3615229.89        0.61252  (10021408)                484263.02
3615229.89        0.62805  (10021408)
       484313.02   3615229.89        0.64342  (10021408)                484363.02
3615229.89        0.65854  (10021408)
       484413.02   3615229.89        0.67336  (10021408)                484463.02
3615229.89        0.68775  (10021408)
       484513.02   3615229.89        0.70138  (10021408)                484563.02
3615229.89        0.71494  (10021408)
       484613.02   3615229.89        0.72772  (10021408)                484663.02
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*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
485213.02	3615229.89	0.95610	(10110424)	485263.02	3615229.89	0.97906	(10110424)
484113.02	3615279.89	0.61775	(10100708)	484163.02	3615279.89	0.62282	(10100708)
484213.02	3615279.89	0.62705	(10100708)	484263.02	3615279.89	0.63049	(10100708)
484313.02	3615279.89	0.64597	(10021408)	484613.02	3615279.89	0.74089	(10021408)
484663.02	3615279.89	0.75506	(10021408)	484713.02	3615279.89	0.76941	(10110424)
484763.02	3615279.89	0.78789	(10110424)	484813.02	3615279.89	0.80692	(10110424)
484863.02	3615279.89	0.82650	(10110424)	484913.02	3615279.89	0.84665	(10110424)
484963.02	3615279.89	0.86737	(10110424)	485013.02	3615279.89	0.88867	(10110424)

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       485063.02   3615279.89        0.91057  (10110424)              485113.02
3615279.89        0.93306  (10110424)
       485163.02   3615279.89        0.95614  (10110424)              485213.02
3615279.89        0.97982  (10110424)
       485263.02   3615279.89        1.00408  (10110424)              485313.02
3615279.89        1.02892  (10110424)
       484113.02   3615329.89        0.63133  (10100708)              484163.02
3615329.89        0.63742  (10100708)
       484213.02   3615329.89        0.64347  (10100708)              484663.02
3615329.89        0.76802  (10021408)
       484713.02   3615329.89        0.78381  (10021408)              484763.02
3615329.89        0.80285  (10110424)
       484813.02   3615329.89        0.82269  (10110424)              484863.02
3615329.89        0.84312  (10110424)
       484913.02   3615329.89        0.86419  (10110424)              484963.02
3615329.89        0.88589  (10110424)
       485013.02   3615329.89        0.90822  (10110424)              485063.02
3615329.89        0.93121  (10110424)
       485113.02   3615329.89        0.95486  (10110424)              485163.02
3615329.89        0.97916  (10110424)
       485213.02   3615329.89        1.00413  (10110424)              485263.02
3615329.89        1.02976  (10110424)
       485313.02   3615329.89        1.05604  (10110424)              485363.02
3615329.89        1.08295  (10110424)
       484113.02   3615379.89        0.64167  (10100708)              484163.02
3615379.89        0.65040  (10100708)
       484713.02   3615379.89        0.79793  (10110424)              484763.02
3615379.89        0.81797  (10110424)
       484813.02   3615379.89        0.83864  (10110424)              484863.02
3615379.89        0.85999  (10110424)
       484913.02   3615379.89        0.88200  (10110424)              484963.02
3615379.89        0.90471  (10110424)
       485013.02   3615379.89        0.92812  (10110424)              485063.02
3615379.89        0.95225  (10110424)
       485113.02   3615379.89        0.97710  (10110424)              485163.02
3615379.89        1.00269  (10110424)
       485213.02   3615379.89        1.02902  (10110424)              485263.02
3615379.89        1.05609  (10110424)
       485313.02   3615379.89        1.08389  (10110424)              485363.02
3615379.89        1.11243  (10110424)
       485413.02   3615379.89        1.14169  (10110424)              484763.02
3615429.89        0.83323  (10110424)
       484813.02   3615429.89        0.85478  (10110424)              484863.02
3615429.89        0.87705  (10110424)
       484913.02   3615429.89        0.90006  (10110424)              484963.02
3615429.89        0.92382  (10110424)
       485013.02   3615429.89        0.94835  (10110424)              485063.02
3615429.89        0.97366  (10110424)
       485113.02   3615429.89        0.99978  (10110424)              485163.02
3615429.89        1.02673  (10110424)
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       485213.02   3615429.89        1.05448  (10110424)                485263.02
 3615429.89        1.08307  (10110424)
       485313.02   3615429.89        1.11249  (10110424)                485363.02
 3615429.89        1.14274  (10110424)
       485413.02   3615429.89        1.17382  (10110424)                485463.02
 3615429.89        1.20570  (10110424)
       485513.02   3615429.89        1.23836  (10110424)                484813.02
 3615479.89        0.87108  (10110424)
       484863.02   3615479.89        0.89431  (10110424)                484913.02
 3615479.89        0.91834  (10110424)
       484963.02   3615479.89        0.94319  (10110424)                485013.02
 3615479.89        0.96889  (10110424)
       485063.02   3615479.89        0.99545  (10110424)                485113.02
 3615479.89        1.02289  (10110424)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                        ***        14:52:42

                                    PAGE 131
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                              *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA1    ***
                                   INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                                  *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                                ** CONC OF TAC      IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       485163.02   3615479.89        1.05124  (10110424)                485213.02
 3615479.89        1.08051  (10110424)
       485263.02   3615479.89        1.11070  (10110424)                485313.02
 3615479.89        1.14181  (10110424)
       485363.02   3615479.89        1.17387  (10110424)                485413.02
 3615479.89        1.20687  (10110424)
       485463.02   3615479.89        1.24080  (10110424)                485513.02
 3615479.89        1.27564  (10110424)
       485563.02   3615479.89        1.31127  (10110424)                484863.02
 3615529.89        0.91173  (10110424)
       484913.02   3615529.89        0.93682  (10110424)                484963.02
 3615529.89        0.96281  (10110424)
       485013.02   3615529.89        0.98972  (10110424)                485063.02
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3615529.89        1.01757  (10110424)
       485113.02   3615529.89        1.04640  (10110424)                485163.02
3615529.89        1.07622  (10110424)
       485213.02   3615529.89        1.10706  (10110424)                485263.02
3615529.89        1.13893  (10110424)
       485313.02   3615529.89        1.17185  (10110424)                485363.02
3615529.89        1.20582  (10110424)
       485413.02   3615529.89        1.24086  (10110424)                485463.02
3615529.89        1.27696  (10110424)
       485513.02   3615529.89        1.31412  (10110424)                484913.02
3615579.89        0.95547  (10110424)
       484963.02   3615579.89        0.98264  (10110424)                485013.02
3615579.89        1.01080  (10110424)
       485063.02   3615579.89        1.04000  (10110424)                485113.02
3615579.89        1.07021  (10110424)
       485163.02   3615579.89        1.10161  (10110424)                485213.02
3615579.89        1.13412  (10110424)
       485263.02   3615579.89        1.16776  (10110424)                485313.02
3615579.89        1.20258  (10110424)
       485363.02   3615579.89        1.23858  (10110424)                485413.02
3615579.89        1.27578  (10110424)
       485463.02   3615579.89        1.31421  (10110424)                484963.02
3615629.89        1.00264  (10110424)
       485013.02   3615629.89        1.03211  (10110424)                485063.02
3615629.89        1.06270  (10110424)
       485113.02   3615629.89        1.09447  (10110424)                485163.02
3615629.89        1.12743  (10110424)
       485213.02   3615629.89        1.16167  (10110424)                485263.02
3615629.89        1.19716  (10110424)
       485313.02   3615629.89        1.23397  (10110424)                485363.02
3615629.89        1.27212  (10110424)
       485413.02   3615629.89        1.31162  (10110424)                485013.02
3615679.89        1.05355  (10110424)
       485063.02   3615679.89        1.08565  (10110424)                485113.02
3615679.89        1.11897  (10110424)
       485163.02   3615679.89        1.15362  (10110424)                485213.02
3615679.89        1.18964  (10110424)
       485263.02   3615679.89        1.22710  (10110424)                485313.02
3615679.89        1.26598  (10110424)
       485363.02   3615679.89        1.30637  (10110424)                485413.02
3615679.89        1.34833  (10110424)
       485063.02   3615729.89        1.10871  (10110424)                485113.02
3615729.89        1.14372  (10110424)
       485163.02   3615729.89        1.18011  (10110424)                485213.02
3615729.89        1.21802  (10110424)
       485263.02   3615729.89        1.25750  (10110424)                485313.02
3615729.89        1.29859  (10110424)
       485363.02   3615729.89        1.34137  (10110424)                485113.02
3615779.89        1.16867  (10110424)
       485163.02   3615779.89        1.20687  (10110424)                485213.02
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*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
486724.14	3617998.65	12.75453	(12060608)	486774.03	3617998.65	16.12330	(11011824)
486923.70	3617998.65	25.66202	(12060708)	486973.59	3617998.65	29.41816	(12060708)
487023.48	3617998.65	27.44110	(12042824)	487082.35	3618103.22	23.16965	(12042824)
487132.24	3618103.22	24.83346	(11070124)	487182.13	3618103.22	23.79839	(11070124)
486165.87	3618094.46	2.61675	(10110424)	486242.77	3618083.89	2.78959	(10110424)

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       486292.66   3618083.89        2.88162  (10110424)              486499.32
3618054.73        8.44045  (12110524)
       486574.47   3618048.65        8.67082  (11121924)              486624.36
3618048.65        9.78568  (12012624)
       486674.25   3618048.65       10.32035  (11010724)              486724.14
3618048.65       11.78916  (12102724)
       486873.81   3618048.65       19.16179  (12100224)              486923.70
3618048.65       24.28140  (12060708)
       486973.59   3618048.65       28.02812  (12060708)              487023.48
3618048.65       25.57475  (12042824)
       487082.35   3618153.22       22.46424  (12042824)              487132.24
3618153.22       22.64415  (11070124)
       486325.02   3618098.65        3.33445  (12110524)              486242.77
3618133.89        2.63945  (10110424)
       486524.58   3618098.65        8.26874  (12110524)              486574.47
3618098.65        8.61617  (11121924)
       486624.36   3618098.65        9.30531  (12012624)              486674.25
3618098.65       10.00591  (11010724)
       486823.92   3618098.65       15.51839  (11121724)              486873.81
3618098.65       18.99674  (12100224)
       486923.70   3618098.65       23.06387  (12060708)              486973.59
3618098.65       26.60049  (12060708)
       487023.48   3618098.65       23.80409  (12042824)              487082.35
3618203.22       21.79159  (12042824)
       486275.13   3618148.65        2.67274  (12110524)              486325.02
3618148.65        3.66483  (12110524)
       486374.91   3618148.65        5.19088  (12110524)              486474.69
3618148.65        7.71740  (12110524)
       486524.58   3618148.65        7.35474  (11121924)              486574.47
3618148.65        8.32915  (11121924)
       486624.36   3618148.65        9.83052  (12012624)              486774.03
3618148.65       13.55638  (11011824)
       486823.92   3618148.65       13.71164  (11121724)              486873.81
3618148.65       17.76240  (12100224)
       486923.70   3618148.65       21.75293  (12060708)              486973.59
3618148.65       25.24557  (12060708)
       487023.48   3618148.65       22.19436  (12060708)              486275.13
3618198.65        2.88092  (12110524)
       486325.02   3618198.65        4.05922  (12110524)              486374.91
3618198.65        5.61687  (12110524)
       486424.80   3618198.65        7.12399  (12110524)              486474.69
3618198.65        7.27547  (12110524)
       486524.58   3618198.65        7.35170  (11121924)              486674.25
3618198.65        8.95812  (12010324)
       486724.14   3618198.65       10.45811  (12102724)              486774.03
3618198.65       12.24198  (11011824)
       486823.92   3618198.65       12.45654m (12072008)              486873.81
3618198.65       15.47605  (12100224)
       486923.70   3618198.65       20.41284  (12060708)              486973.59
3618198.65       23.89131  (12060708)
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*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA1 ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487023.48	3618198.65	21.53929	(12060708)	486275.13	3618248.65	3.16771	(12110524)
486325.02	3618248.65	4.49414	(12110524)	486374.91	3618248.65	6.01014	(12110524)
486424.80	3618248.65	6.89931	(12110524)	486474.69	3618248.65	7.11467	(12110524)
486624.36	3618248.65	8.03819	(11010724)	486674.25	3618248.65	8.61500	(12010324)
486724.14	3618248.65	10.13240	(10021624)	486774.03	3618248.65	11.97714	(11011824)
486823.92	3618248.65	11.70696m	(12072008)	486873.81	3618248.65	13.80281	(12100224)
486923.70	3618248.65	18.50248	(12060708)	486973.59	3618248.65	22.20910	(12060708)
487023.48	3618248.65	20.81447	(12060708)	486125.46	3618298.65	2.08635	(10110424)
486275.13	3618298.65	3.50333	(12110524)	486325.02	3618298.65	4.87776	(12110524)
486374.91	3618298.65	6.17356	(12110524)	486424.80	3618298.65	6.97253	(12110524)
486574.47	3618298.65	7.43436	(12012624)	486624.36	3618298.65	7.60015	(11010724)
486674.25	3618298.65	8.48021	(12102724)	486724.14	3618298.65	10.01044	(11011824)
486774.03	3618298.65	12.24852	(11011824)	486823.92	3618298.65	11.36651	(11121724)
486873.81	3618298.65	13.87298	(12100224)	486923.70			

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3618298.65       17.46433  (12060708)
       486125.46   3618348.65        1.99225  (10110424)                 486175.35
3618348.65        2.11215  (12110524)
       486225.24   3618348.65        2.77077  (12110524)                 486275.13
3618348.65        3.85042  (12110524)
       486325.02   3618348.65        5.21356  (12110524)                 486524.58
3618348.65        6.72066  (12012624)
       486574.47   3618348.65        7.03310  (12012624)                 486624.36
3618348.65        7.17911  (11010724)
       486674.25   3618348.65        8.31783  (12102724)                 486724.14
3618348.65       10.01597  (11011824)
       486774.03   3618348.65       11.97315  (11011824)                 486823.92
3618348.65       11.28197  (11121724)
       486873.81   3618348.65       13.07238  (12100224)                 486125.46
3618398.65        1.90399  (10110424)
       486175.35   3618398.65        2.27069  (12110524)                 486225.24
3618398.65        3.04333  (12110524)
       486424.80   3618398.65        5.78840  (12110524)                 486474.69
3618398.65        6.29939  (11121924)
       486524.58   3618398.65        6.60850  (12012624)                 486574.47
3618398.65        6.60129  (11010724)
       486624.36   3618398.65        6.75851  (12010324)                 486674.25
3618398.65        8.07942  (12102724)
       486724.14   3618398.65        9.24202  (11011824)                 486774.03
3618398.65       10.45203  (11011824)
       486823.92   3618398.65       10.48660  (11121724)                 486125.46
3618448.65        1.94765  (12110524)
       486175.35   3618448.65        2.45678  (12110524)                 486374.91
3618448.65        5.88963  (12110524)
       486424.80   3618448.65        5.41205  (11121924)                 486474.69
3618448.65        6.17856  (11121924)
       486524.58   3618448.65        6.32993  (12012624)                 486574.47
3618448.65        6.32881  (11010724)
       486624.36   3618448.65        6.63056  (12010324)                 486674.25
3618448.65        7.79789  (12102724)
       486724.14   3618448.65        8.58001  (11011824)                 486774.03
3618448.65        9.41831m (12072008)
       486125.46   3618498.65        1.93414  (12111724)                 486325.02
3618498.65        5.23221  (12110524)
       486374.91   3618498.65        5.29752  (12110524)                 486424.80
3618498.65        5.44885  (11121924)
       486474.69   3618498.65        5.59179  (12012624)                 486524.58
3618498.65        6.10690  (12012624)
       486574.47   3618498.65        5.98249  (11112924)                 486624.36
3618498.65        6.45366  (12010324)
       486674.25   3618498.65        7.45534  (12102724)                 486105.96
3618586.04        1.78886  (12111724)
       486325.02   3618548.65        5.00533  (12110524)                 486374.91
3618548.65        4.36422  (12110524)
       486424.80   3618548.65        4.17394  (12012624)                 486474.69
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*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
488270.59	3616550.48	3.58782	(10051224)	488320.59	3616550.48	3.40177	(10051224)
488370.59	3616550.48	3.22284	(10051224)	488420.59	3616550.48	3.05196	(10051224)
488470.59	3616550.48	2.88775	(10051224)	488520.59	3616550.48	2.73184	(10051224)
488570.59	3616550.48	2.58487	(10051224)	488620.59	3616550.48	2.44466	(10051224)
488270.59	3616600.48	3.47200	(10051224)	488320.59	3616600.48	3.25963	(10051224)
488370.59	3616600.48	3.06040	(10051224)	488420.59	3616600.48	2.87270	(10051224)
488470.59	3616600.48	2.69653	(10051224)	488520.59	3616600.48	2.53140	(10051224)

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       488570.59   3616600.48        2.37776  (10051224)              488620.59
3616600.48        2.23367  (10051224)
       488270.59   3616650.48        3.19621  (10051224)              488320.59
3616650.48        2.97485  (10051224)
       488370.59   3616650.48        2.77018  (10051224)              488420.59
3616650.48        2.58107  (10051224)
       488470.59   3616650.48        2.40663  (10051224)              488520.59
3616650.48        2.24553  (10051224)
       488570.59   3616650.48        2.09659  (10051224)              488620.59
3616650.48        1.95915  (10051224)
       488270.59   3616700.48        2.78938  (10051224)              488320.59
3616700.48        2.57892  (10051224)
       488370.59   3616700.48        2.38749  (10051224)              488420.59
3616700.48        2.21285  (10051224)
       488470.59   3616700.48        2.05372  (10051224)              488520.59
3616700.48        1.90867  (10051224)
       488570.59   3616700.48        1.77578  (10051224)              488620.59
3616700.48        1.65450  (10051224)
       488320.59   3616750.48        2.13219  (10051224)              488370.59
3616750.48        1.96845  (10051224)
       488420.59   3616750.48        1.82067  (10051224)              488470.59
3616750.48        1.73254  (12012724)
       488520.59   3616750.48        1.65842  (12012724)              488570.59
3616750.48        1.58697  (12012724)
       488620.59   3616750.48        1.51971  (12012724)              488320.59
3616800.48        2.00893  (12012724)
       488370.59   3616800.48        1.90986  (12012724)              488420.59
3616800.48        1.81736  (12012724)
       488470.59   3616800.48        1.73065  (12012724)              488520.59
3616800.48        1.65030  (12012724)
       488570.59   3616800.48        1.57508  (12012724)              488620.59
3616800.48        1.50338  (12012724)
       488370.59   3616850.48        1.85979  (12012724)              488420.59
3616850.48        1.76551  (12012724)
       488470.59   3616850.48        1.67876  (12012724)              488520.59
3616850.48        1.59722  (12012724)
       488570.59   3616850.48        1.52202  (12012724)              488620.59
3616850.48        1.45117  (12012724)
       488420.59   3616900.48        1.71836  (10110424)              488470.59
3616900.48        1.63814  (10110424)
       488520.59   3616900.48        1.56374  (10110424)              488570.59
3616900.48        1.49462  (10110424)
       488620.59   3616900.48        1.43026  (10110424)              488420.59
3616950.48        1.71954  (10110424)
       488470.59   3616950.48        1.63929  (10110424)              488520.59
3616950.48        1.56480  (10110424)
       488570.59   3616950.48        1.49557  (10110424)              488620.59
3616950.48        1.43112  (10110424)
       488470.59   3617000.48        1.63828  (10110424)              488520.59
3617000.48        1.56388  (10110424)
```

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
488570.59	3617000.48	1.49473	(10110424)	488620.59	3617000.48	1.43035	(10110424)
488470.59	3617050.48	1.63491	(10110424)	488520.59	3617050.48	1.56099	(10110424)
488570.59	3617050.48	1.49211	(10110424)	488620.59	3617050.48	1.42797	(10110424)
488370.59	3617100.48	1.79444	(10110424)	488420.59	3617100.48	1.70886	(10110424)
488470.59	3617100.48	1.62944	(10110424)	488520.59	3617100.48	1.55607	(10110424)
488570.59	3617100.48	1.48775	(10110424)	488620.59	3617100.48	1.42351	(10110424)
488320.59	3617150.48	1.87665	(10110424)	488370.59	3617150.48	1.78500	(10110424)
488420.59	3617150.48	1.70068	(10110424)	488470.59	3617150.48	1.62223	(10110424)
488520.59	3617150.48	1.54927	(10110424)	488570.59	3617150.48	1.48148	(10110424)
488620.59	3617150.48	2.07693	(12041624)	488270.59	3617200.48	4.06629	(12051624)
488320.59	3617200.48	1.86361	(10110424)	488370.59	3617200.48	4.68222	(12051624)
488420.59	3617200.48	1.68976	(10110424)	488470.59	3617200.48	1.61282	(10110424)
488520.59	3617200.48	1.54081	(10110424)	488570.59	3617200.48	1.47351	(10110424)
488620.59	3617200.48	4.31411	(12051624)	487320.59			

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3617250.48        9.62224m (11072608)
       487370.59   3617250.48        7.16869m (11072608)                487420.59
3617250.48        6.44597  (10110424)
       487470.59   3617250.48        5.85125  (10110424)                487520.59
3617250.48        5.77614  (10122224)
       487570.59   3617250.48        7.48397  (10122224)                487620.59
3617250.48        8.45625  (10122224)
       487670.59   3617250.48        8.55068  (10122224)                487720.59
3617250.48        8.09361  (10122224)
       487770.59   3617250.48        7.49071  (10122224)                487820.59
3617250.48        6.93775  (10122224)
       487870.59   3617250.48        6.46533  (10122224)                487920.59
3617250.48        6.05670  (10122224)
       487970.59   3617250.48        5.74257  (10122224)                488020.59
3617250.48        5.39761  (10122224)
       488070.59   3617250.48        5.01838  (10122224)                488120.59
3617250.48        4.83411  (12051624)
       488170.59   3617250.48        4.78192  (12051624)                488220.59
3617250.48        4.50877  (12051624)
       488270.59   3617250.48        4.00639  (12051624)                488320.59
3617250.48        3.83281  (12051624)
       488370.59   3617250.48        3.87841  (12051624)                488420.59
3617250.48        1.89493  (12051624)
       488470.59   3617250.48        1.60138  (10110424)                488520.59
3617250.48        1.52967  (10110424)
       488570.59   3617250.48        1.46438  (10110424)                488620.59
3617250.48        2.71178  (12051624)
       487170.59   3617300.48       33.97344m (11072608)                487220.59
3617300.48       30.24889m (11072608)
       487270.59   3617300.48       20.07173m (11072608)                487320.59
3617300.48       18.98209m (11072608)
       487370.59   3617300.48       15.29440m (11072608)                487420.59
3617300.48       14.65922m (12041124)
       487470.59   3617300.48        9.88453m (12041124)                487520.59
3617300.48       10.65241m (12041124)
       487570.59   3617300.48       10.42988  (10122224)                487620.59
3617300.48       10.91511  (10122224)
       487670.59   3617300.48       10.28845  (10122224)                487720.59
3617300.48       10.41636  (10122224)
       487770.59   3617300.48        9.46218  (10122224)                487820.59
3617300.48        8.36918  (10122224)
       487870.59   3617300.48        9.04586  (10122224)                487920.59
3617300.48        9.00501  (10122224)
       487970.59   3617300.48        9.01299  (10122224)                488020.59
3617300.48        7.80569  (10122224)
       488070.59   3617300.48        6.61822  (10122224)                488120.59
3617300.48        6.41022  (10122224)
       488170.59   3617300.48        5.19086  (10122224)                488220.59
3617300.48        4.01158  (10122224)
       488270.59   3617300.48        3.55572  (10122224)                488320.59
```

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487620.59	3617350.48	12.66214m	(12041124)	487670.59	3617350.48	10.59910	(10122224)
487720.59	3617350.48	10.98608	(10122224)	487770.59	3617350.48	10.77618	(10122224)
487820.59	3617350.48	9.67959	(10122224)	487870.59	3617350.48	10.76511	(10122224)
487920.59	3617350.48	10.72431	(10122224)	487970.59	3617350.48	10.45546	(10122224)

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       488020.59   3617350.48        8.98350  (10122224)               488070.59
3617350.48        8.24701  (10122224)
       488120.59   3617350.48        7.52900  (10122224)               488170.59
3617350.48        6.08951  (10122224)
       488220.59   3617350.48        4.82616  (10122224)               488270.59
3617350.48        4.03286  (10122224)
       488320.59   3617350.48        3.23034  (10122224)               488370.59
3617350.48        2.02972  (12051624)
       488420.59   3617350.48        2.10978  (12051624)               488470.59
3617350.48        1.57273  (10110424)
       488520.59   3617350.48        1.50423  (10110424)               488570.59
3617350.48        1.44084  (10110424)
       488620.59   3617350.48        1.38132  (10110424)               486770.59
3617400.48       29.48284  (11102024)
       486820.59   3617400.48       29.53295  (11102024)               486870.59
3617400.48       31.15231  (12061424)
       486920.59   3617400.48       31.40558  (10090624)               486970.59
3617400.48       31.53732  (12051824)
       487020.59   3617400.48       30.32281  (12081024)               487070.59
3617400.48       30.35362  (10073024)
       487120.59   3617400.48       28.40399  (11102008)               487170.59
3617400.48       31.41281  (12082308)
       487220.59   3617400.48       31.51897m (11072608)               487270.59
3617400.48       36.59791m (11072608)
       487320.59   3617400.48       36.45395m (11072608)               487370.59
3617400.48       34.53352m (11072608)
       487420.59   3617400.48       29.44260m (11072608)               487470.59
3617400.48       24.23708m (12041124)
       487520.59   3617400.48       16.10227m (12041124)               487570.59
3617400.48       20.69561m (12041124)
       487620.59   3617400.48       11.26482m (12041124)               487670.59
3617400.48        9.46344m (12041124)
       487720.59   3617400.48        8.13585m (12041124)               487770.59
3617400.48        6.76514m (12041124)
       487820.59   3617400.48        6.17262  (10122224)               487870.59
3617400.48        6.67471  (10122224)
       487920.59   3617400.48        6.58653  (10122224)               487970.59
3617400.48        6.24364  (10122224)
       488020.59   3617400.48        5.59467  (10122224)               488070.59
3617400.48        4.82132  (10122224)
       488120.59   3617400.48        3.43325  (10122224)               488170.59
3617400.48        2.15676  (10122224)
       488220.59   3617400.48        1.97002  (10110424)               488270.59
3617400.48        1.87421  (10110424)
       488320.59   3617400.48        1.78546  (10110424)               488370.59
3617400.48        2.57601  (10122224)
       488420.59   3617400.48        1.62748  (10110424)               488470.59
3617400.48        1.55636  (10110424)
       488520.59   3617400.48        1.48968  (10110424)               488570.59
3617400.48        1.42736  (10110424)
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        488620.59   3617400.48        1.36881  (10110424)                486820.59
 3617450.48       30.58534  (11102024)
        486870.59   3617450.48       27.54160  (12061424)                486920.59
 3617450.48       32.64848  (10090624)
        486970.59   3617450.48       30.80977  (12051824)                487020.59
 3617450.48       27.05409  (12081024)
        487070.59   3617450.48       31.67312  (12081024)                487120.59
 3617450.48       30.10098  (10073024)
        487170.59   3617450.48       32.57826  (10073108)                487220.59
 3617450.48       34.52498  (12082308)
        487270.59   3617450.48       32.64251  (12082308)                487320.59
 3617450.48       33.63488m (11072608)
        487370.59   3617450.48       36.92354m (11072608)                487420.59
 3617450.48       35.52287m (11072608)
        487470.59   3617450.48       24.88693m (11072608)                487520.59
 3617450.48       10.27725m (11072608)
        487570.59   3617450.48        8.73876m (11072608)                487620.59
 3617450.48        9.68942m (11072608)
        487670.59   3617450.48       12.56345m (12041124)                487720.59
 3617450.48       12.05429m (12041124)
        487770.59   3617450.48       11.05935m (12041124)                487820.59
 3617450.48        9.69528m (12041124)
🡅 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                        ***        14:52:42

                                   PAGE 137
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                              *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA2    ***
                                  INCLUDING SOURCE(S):     LOCATION2_2 ,
LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF TAC      IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -
        487870.59   3617450.48        8.42310m (12041124)                487920.59
 3617450.48        7.94717  (10122224)
        487970.59   3617450.48        7.92316  (10122224)                488020.59
 3617450.48        7.67149  (10122224)
        488070.59   3617450.48        7.34971  (10122224)                488120.59
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3617450.48        6.83315  (10122224)
       488170.59   3617450.48        6.09842  (10122224)                488220.59
3617450.48        5.15409  (10122224)
       488270.59   3617450.48        4.98055  (10122224)                488320.59
3617450.48        6.46726  (10122224)
       488370.59   3617450.48        5.64611  (10122224)                488420.59
3617450.48        1.60770  (10110424)
       488470.59   3617450.48        1.53814  (10110424)                488520.59
3617450.48        1.47314  (10110424)
       488570.59   3617450.48        1.41230  (10110424)                488620.59
3617450.48        1.35512  (10110424)
       486770.59   3617500.48       30.44040  (11102024)                486820.59
3617500.48       30.70022  (11102024)
       486870.59   3617500.48       25.32932  (10090608)                486920.59
3617500.48       31.09620  (10090624)
       486970.59   3617500.48       29.71126  (10090624)                487020.59
3617500.48       32.60102  (12072924)
       487070.59   3617500.48       35.28683  (12081024)                487120.59
3617500.48       32.45518  (11091524)
       487170.59   3617500.48       34.09385  (10073108)                487220.59
3617500.48       35.40304  (10073108)
       487270.59   3617500.48       32.64538  (12082308)                487320.59
3617500.48       26.24242  (12082308)
       487370.59   3617500.48       28.21530m (11072608)                487420.59
3617500.48       14.79340m (11072608)
       487470.59   3617500.48        9.98027m (11072608)                487520.59
3617500.48       22.44896m (11072608)
       487570.59   3617500.48       26.30251m (11072608)                487620.59
3617500.48       24.34448m (12041124)
       487670.59   3617500.48       23.10291m (12041124)                487720.59
3617500.48       20.95869m (12041124)
       487770.59   3617500.48       18.20461m (12041124)                487820.59
3617500.48       15.56873m (12041124)
       487870.59   3617500.48       13.16461m (12041124)                487920.59
3617500.48       11.21906m (12041124)
       487970.59   3617500.48        9.52089  (12101024)                488020.59
3617500.48        9.68927  (10122224)
       488070.59   3617500.48       10.15475  (10122224)                488120.59
3617500.48       10.72201  (10122224)
       488170.59   3617500.48       10.39161  (10122224)                488220.59
3617500.48        9.51340  (10122224)
       488270.59   3617500.48        7.87438  (10122224)                488320.59
3617500.48        7.48397  (10122224)
       488370.59   3617500.48        5.83630  (10122224)                488420.59
3617500.48        1.58615  (10110424)
       488470.59   3617500.48        1.51854  (10110424)                488520.59
3617500.48        1.45531  (10110424)
       488570.59   3617500.48        1.39605  (10110424)                488620.59
3617500.48        1.34024  (10110424)
       486670.59   3617550.48       20.93391  (12100224)                486720.59
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3617550.48 33.44786 (12100224)
  486770.59 3617550.48 30.26137m (12072008) 486820.59
3617550.48 30.05899 (11102024)
  486870.59 3617550.48 25.38021 (10090608) 486920.59
3617550.48 29.34754 (10090624)
  486970.59 3617550.48 30.99088 (10090624) 487020.59
3617550.48 36.52537 (12072924)
  487070.59 3617550.48 40.81592 (12072924) 487120.59
3617550.48 35.31001 (12081024)
  487170.59 3617550.48 31.94848 (11091524) 487220.59
3617550.48 33.83727 (10073108)
  487270.59 3617550.48 26.66896 (10073108) 487320.59
3617550.48 14.67166 (11081108)
  487370.59 3617550.48 12.82601m (11072608) 487420.59
3617550.48 18.86993m (11072608)
  487470.59 3617550.48 29.43697m (11072608) 487520.59
3617550.48 30.54700m (11072608)
  487570.59 3617550.48 32.05271m (11072608) 487620.59
3617550.48 28.67983m (11072608)
  487670.59 3617550.48 23.69181m (11072608) 487720.59
3617550.48 22.82396m (12041124)
  487770.59 3617550.48 21.31699m (12041124) 487820.59
3617550.48 19.43237m (12041124)
  487870.59 3617550.48 16.96447m (12041124) 487920.59
3617550.48 14.42914m (12041124)

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487970.59	3617550.48	12.38920m	(12041124)	488020.59	3617550.48	10.43352m	(12041124)

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       488070.59   3617550.48       10.02554  (12101024)              488120.59
3617550.48        9.80283  (12101024)
       488170.59   3617550.48        9.32491  (10122224)              488220.59
3617550.48        8.97323  (10122224)
       488270.59   3617550.48        8.10845  (10122224)              488320.59
3617550.48        7.99403  (10122224)
       488370.59   3617550.48        1.63218  (10110424)              488420.59
3617550.48        1.56323  (10110424)
       488470.59   3617550.48        1.49772  (10110424)              488520.59
3617550.48        1.43631  (10110424)
       488570.59   3617550.48        1.37870  (10110424)              488620.59
3617550.48        1.32432  (10110424)
       485870.59   3617600.48        3.91601  (10110424)              485920.59
3617600.48        4.17090  (10110424)
       486620.59   3617600.48       15.70334  (10021724)              486670.59
3617600.48       20.29649  (12100224)
       486720.59   3617600.48       33.64110  (12100224)              486770.59
3617600.48       31.20148m (12072008)
       486820.59   3617600.48       29.03469  (11102024)              486870.59
3617600.48       24.92920  (10090608)
       486920.59   3617600.48       29.50469  (10090624)              486970.59
3617600.48       31.41053  (10090624)
       487020.59   3617600.48       33.92697  (12072924)              487070.59
3617600.48       42.64914  (12072924)
       487120.59   3617600.48       39.39626  (12072924)              487170.59
3617600.48       31.86929  (12081024)
       487220.59   3617600.48       28.75808  (11091524)              487270.59
3617600.48       17.23743  (10073024)
       487320.59   3617600.48       14.97941  (11102008)              487370.59
3617600.48       23.96121  (12082308)
       487420.59   3617600.48       30.00646  (12082308)              487470.59
3617600.48       26.51373  (12082308)
       487520.59   3617600.48       27.75624m (11072608)              487570.59
3617600.48       30.30131m (11072608)
       487620.59   3617600.48       30.47029m (11072608)              487670.59
3617600.48       28.38166m (11072608)
       487720.59   3617600.48       24.68436m (11072608)              487770.59
3617600.48       22.13418m (12041124)
       487820.59   3617600.48       21.42247m (12041124)              487870.59
3617600.48       19.77205m (12041124)
       487920.59   3617600.48       17.76140m (12041124)              487970.59
3617600.48       15.66057m (12041124)
       488020.59   3617600.48       13.63521m (12041124)              488070.59
3617600.48       11.59825m (12041124)
       488120.59   3617600.48        9.74036  (12101024)              488170.59
3617600.48        9.00736  (12101024)
       488220.59   3617600.48        7.86323  (12101024)              488270.59
3617600.48        7.33394  (10122224)
       488320.59   3617600.48        5.07698  (10122224)              488370.59
3617600.48        1.60573  (10110424)
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       488420.59   3617600.48        1.53900  (10110424)                488470.59
 3617600.48        1.47574  (10110424)
       488520.59   3617600.48        1.41621  (10110424)                488570.59
 3617600.48        1.36037  (10110424)
       488620.59   3617600.48        1.30770  (10110424)                485870.59
 3617650.48        3.72727  (10110424)
       485920.59   3617650.48        3.95511  (10110424)                485970.59
 3617650.48        4.19861  (10110424)
       486570.59   3617650.48       13.05381  (12102724)                486620.59
 3617650.48       14.73951  (10021724)
       486670.59   3617650.48       20.40930  (12100224)                486720.59
 3617650.48       32.41560  (12100224)
       486770.59   3617650.48       29.68048m (12072008)                486820.59
 3617650.48       28.56831  (11102024)
       486870.59   3617650.48       25.51230  (10090608)                486920.59
 3617650.48       28.85972  (12081924)
       486970.59   3617650.48       30.68128  (10090624)                487020.59
 3617650.48       32.55223  (12052924)
       487070.59   3617650.48       40.30696  (12072924)                487120.59
 3617650.48       44.61622  (12072924)
       487170.59   3617650.48       35.69769  (12072924)                487370.59
 3617650.48       29.88912  (10073108)
       487420.59   3617650.48       28.97537  (12082308)                487470.59
 3617650.48       28.39482  (12082308)
       487520.59   3617650.48       25.59054  (12082308)                487570.59
 3617650.48       24.80637  (11092824)
       487620.59   3617650.48       27.36527m (11072608)                487670.59
 3617650.48       28.38741m (11072608)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                          ***        14:52:42

                                     PAGE 139
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA2    ***
                                    INCLUDING SOURCE(S):     LOCATION2_2 ,
LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF TAC      IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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- -
487720.59 3617650.48 27.66065m (11072608) 487770.59
3617650.48 24.84519m (11072608)
487820.59 3617650.48 21.08252m (11072608) 487870.59
3617650.48 20.56397m (12041124)
487920.59 3617650.48 19.54208m (12041124) 487970.59
3617650.48 18.39663m (12041124)
488020.59 3617650.48 16.77325m (12041124) 488070.59
3617650.48 14.55305m (12041124)
488120.59 3617650.48 12.22786m (12041124) 488170.59
3617650.48 10.30071m (12041124)
488220.59 3617650.48 8.51366m (12041124) 488270.59
3617650.48 7.15263m (12041124)
488320.59 3617650.48 5.78919 (10122224) 488370.59
3617650.48 1.57841 (10110424)
488420.59 3617650.48 1.51399 (10110424) 488470.59
3617650.48 1.45282 (10110424)
488520.59 3617650.48 1.39530 (10110424) 488570.59
3617650.48 1.34113 (10110424)
488620.59 3617650.48 1.28997 (10110424) 485870.59
3617700.48 3.54535 (10110424)
485920.59 3617700.48 3.74879 (10110424) 485970.59
3617700.48 3.96431 (10110424)
486470.59 3617700.48 8.76823 (11112924) 486520.59
3617700.48 11.43202 (11112924)
486570.59 3617700.48 12.59868 (12102724) 486620.59
3617700.48 14.86743m (12072008)
486670.59 3617700.48 19.40714 (12100224) 486720.59
3617700.48 29.86014 (12100224)
486770.59 3617700.48 27.34190m (12072008) 486820.59
3617700.48 28.79325 (12042824)
486870.59 3617700.48 29.62949 (11070124) 486920.59
3617700.48 27.72462 (11092808)
486970.59 3617700.48 30.52043 (12081924) 487020.59
3617700.48 31.12200 (12052924)
487070.59 3617700.48 32.33802 (12072924) 487120.59
3617700.48 39.37803 (12072924)
487270.59 3617700.48 26.14033 (11091524) 487320.59
3617700.48 26.60800 (12073008)
487370.59 3617700.48 29.97107 (10073108) 487420.59
3617700.48 30.30800 (10073108)
487470.59 3617700.48 27.19349 (12082308) 487520.59
3617700.48 26.65447 (12082308)
487570.59 3617700.48 24.10025 (12082308) 487620.59
3617700.48 22.78629 (11092824)
487670.59 3617700.48 24.32373m (11072608) 487720.59
3617700.48 26.11803m (11072608)
487770.59 3617700.48 26.17173m (11072608) 487820.59
3617700.48 24.57000m (11072608)
487870.59 3617700.48 21.68024m (11072608) 487920.59

3617700.48 19.46237m (12041124)
487970.59 3617700.48 19.52970m (12041124) 488020.59
3617700.48 18.55457m (12041124)
488070.59 3617700.48 16.58282m (12041124) 488120.59
3617700.48 14.30204m (12041124)
488170.59 3617700.48 11.78733m (12041124) 488220.59
3617700.48 9.44824m (12041124)
488270.59 3617700.48 7.91205m (12041124) 488320.59
3617700.48 6.53118m (12041124)
488370.59 3617700.48 2.01906 (10030808) 488420.59
3617700.48 1.48792 (10110424)
488470.59 3617700.48 1.42903 (10110424) 488520.59
3617700.48 1.37352 (10110424)
488570.59 3617700.48 1.32117 (10110424) 488620.59
3617700.48 1.27172 (10110424)
486420.59 3617750.48 7.76972 (12111724) 486470.59
3617750.48 9.34946 (11112924)
486520.59 3617750.48 11.40734 (11112924) 486570.59
3617750.48 12.44727 (12102724)
486620.59 3617750.48 15.00419m (12072008) 486670.59
3617750.48 18.40536 (12100224)
486720.59 3617750.48 27.99976 (12100224) 486770.59
3617750.48 27.89773 (12042824)
486820.59 3617750.48 30.36414 (12042824) 486870.59
3617750.48 30.07147 (11070124)
486920.59 3617750.48 27.77422 (11092808) 486970.59
3617750.48 29.52806 (12081924)
487020.59 3617750.48 28.06797 (12033024) 487070.59
3617750.48 28.90502 (12052924)
487220.59 3617750.48 34.83343 (12072924) 487270.59
3617750.48 26.50198 (12082224)

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487320.59	3617750.48	26.34577	(11091524)	487370.59	3617750.48	26.22334	(12073008)
487420.59	3617750.48	28.83579	(10073108)	487470.59	3617750.48	28.71934	(10073108)
487520.59	3617750.48	25.91046	(10073108)	487570.59	3617750.48	25.24482	(12082308)
487620.59	3617750.48	22.98998	(12082308)	487670.59	3617750.48	21.13553	(11092824)
487720.59	3617750.48	21.55895m	(11072608)	487770.59	3617750.48	23.64069m	(11072608)
487820.59	3617750.48	24.50825m	(11072608)	487870.59	3617750.48	23.80513m	(11072608)
487920.59	3617750.48	21.85804m	(11072608)	487970.59	3617750.48	18.98039m	(11072608)
488020.59	3617750.48	18.03028m	(12041124)	488070.59	3617750.48	15.79243m	(12041124)
488120.59	3617750.48	13.46903m	(12041124)	488170.59	3617750.48	11.33692m	(12041124)
488220.59	3617750.48	6.07715m	(12041124)	488270.59	3617750.48	7.35860m	(12041124)
488320.59	3617750.48	4.83310m	(12041124)	488370.59	3617750.48	1.52104	(10110424)
488420.59	3617750.48	1.46120	(10110424)	488470.59	3617750.48	1.40453	(10110424)
488520.59	3617750.48	1.35103	(10110424)	488570.59	3617750.48	1.30051	(10110424)
488620.59	3617750.48	1.25275	(10110424)	486420.59	3617800.48	7.92039	(12111724)
486470.59	3617800.48	9.54222	(11112924)	486520.59	3617800.48	10.85524	(11112924)
486570.59	3617800.48	12.07148	(12102724)	486620.59	3617800.48	14.49171m	(12072008)
486670.59	3617800.48	17.80748	(12100224)	486720.59	3617800.48	26.52993	(12100224)
486770.59	3617800.48	27.50796	(12042824)	486820.59	3617800.48	29.85648	(12042824)
486870.59	3617800.48	30.84713	(11070124)	486920.59	3617800.48	27.30966	(11070124)
486970.59	3617800.48	28.22258	(11092808)	487170.59	3617800.48	37.37715	(12072924)
487220.59	3617800.48	37.83145	(12072924)	487270.59	3617800.48	30.14055	(12072924)
487320.59	3617800.48	26.40303	(12083024)	487370.59	3617800.48	24.63438	(11091524)
487420.59	3617800.48	26.10310	(12073008)	487470.59	3617800.48	27.40065	(10073108)

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       487520.59   3617800.48       27.29015  (10073108)                487570.59
 3617800.48       24.13857  (10073108)
       487620.59   3617800.48       23.29930  (12082308)                487670.59
 3617800.48       21.37483  (12082308)
       487720.59   3617800.48       19.73219  (11092824)                487770.59
 3617800.48       20.45188  (11092824)
       487820.59   3617800.48       21.44983m (11072608)                487870.59
 3617800.48       22.54946m (11072608)
       487920.59   3617800.48       22.32639m (11072608)                487970.59
 3617800.48       21.00892m (11072608)
       488020.59   3617800.48       17.82297m (11072608)                488070.59
 3617800.48       12.52921m (11072608)
       488120.59   3617800.48       10.61892m (12041124)                488170.59
 3617800.48        9.46730m (12041124)
       488220.59   3617800.48        6.23087m (12041124)                488270.59
 3617800.48        2.65886m (11072608)
       488320.59   3617800.48        1.55212  (10110424)                488370.59
 3617800.48        1.49134  (10110424)
       488420.59   3617800.48        1.43386  (10110424)                488470.59
 3617800.48        1.37942  (10110424)
       488520.59   3617800.48        1.32797  (10110424)                488570.59
 3617800.48        1.27929  (10110424)
       488620.59   3617800.48        1.23320  (10110424)                486470.59
 3617850.48        9.58770  (11112924)
       486520.59   3617850.48        9.96862  (12102724)                486570.59
 3617850.48       11.29162  (12102724)
       486620.59   3617850.48       14.49384m (12072008)                486670.59
 3617850.48       17.19399  (12100224)
       486720.59   3617850.48       24.72766  (12100224)                486770.59
 3617850.48       26.55617  (12060708)
       486820.59   3617850.48       29.24364  (12042824)                486870.59
 3617850.48       28.85732  (11070124)
       486920.59   3617850.48       27.61295  (11070124)                487120.59
 3617850.48       26.60547  (12052924)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                         ***        14:52:42

                                    PAGE 141
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA2    ***
                                   INCLUDING SOURCE(S):     LOCATION2_2 ,
LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***
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** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487170.59	3617850.48	32.28876	(12072924)	487220.59	3617850.48	37.44953	(12072924)
487270.59	3617850.48	33.85156	(12072924)	487320.59	3617850.48	25.17539	(12072924)
487370.59	3617850.48	25.17135	(12083024)	487420.59	3617850.48	22.82630	(11091524)
487470.59	3617850.48	25.33123	(12073008)	487520.59	3617850.48	25.97490	(10073108)
487570.59	3617850.48	25.35945	(10073108)	487620.59	3617850.48	22.47304	(10073108)
487670.59	3617850.48	21.54094	(12082308)	487720.59	3617850.48	20.25710	(12082308)
487770.59	3617850.48	18.12645	(11092824)	487820.59	3617850.48	19.01454	(11092824)
487870.59	3617850.48	19.08325m	(11072608)	487920.59	3617850.48	20.23555m	(11072608)
487970.59	3617850.48	19.52910m	(11072608)	488020.59	3617850.48	16.95155m	(11072608)
488070.59	3617850.48	12.73327m	(11072608)	488120.59	3617850.48	10.38668m	(11072608)
488170.59	3617850.48	5.21642m	(11072608)	488220.59	3617850.48	3.63712m	(11072608)
488270.59	3617850.48	3.88544m	(11072608)	488320.59	3617850.48	4.18858m	(12041124)
488370.59	3617850.48	1.46115	(10110424)	488420.59	3617850.48	1.40605	(10110424)
488470.59	3617850.48	1.35386	(10110424)	488520.59	3617850.48	1.30443	(10110424)
488570.59	3617850.48	1.25759	(10110424)	488620.59	3617850.48	1.21317	(10110424)
486520.59	3617900.48	9.69046	(12102724)	486570.59	3617900.48	11.15105m	(12072008)
486620.59	3617900.48	13.95777m	(12072008)	486670.59	3617900.48	16.31287	(12100224)
486720.59	3617900.48	24.37844	(12060708)	486770.59	3617900.48	26.02193	(12060708)
486820.59	3617900.48	28.04567	(12042824)	486870.59	3617900.48	26.03391	(11070124)
486920.59	3617900.48	22.83521	(11070124)	487070.59	3617900.48	25.01557	(12033024)
487120.59	3617900.48	25.21621	(12052924)	487170.59	3617900.48	25.22283	(12072924)
487220.59	3617900.48	33.84669	(12072924)	487270.59			

3617900.48 34.94621 (12072924)
  487320.59 3617900.48 29.20885 (12072924) 487370.59
3617900.48 25.24323 (12083024)
  487420.59 3617900.48 23.74830 (12083024) 487470.59
3617900.48 21.54726 (12073008)
  487520.59 3617900.48 24.54790 (12073008) 487570.59
3617900.48 24.33701 (10073108)
  487620.59 3617900.48 23.64488 (10073108) 487670.59
3617900.48 20.95800 (10073108)
  487720.59 3617900.48 20.17672 (12082308) 487770.59
3617900.48 19.09456 (12082308)
  487820.59 3617900.48 17.07442 (12082308) 487870.59
3617900.48 17.19360 (11092824)
  487920.59 3617900.48 16.66038m (11072608) 487970.59
3617900.48 16.40200m (11072608)
  488020.59 3617900.48 16.04921m (11072608) 488070.59
3617900.48 12.24309m (11072608)
  488120.59 3617900.48 8.10725m (11072608) 488170.59
3617900.48 4.80708m (11072608)
  488220.59 3617900.48 4.93028m (11072608) 488270.59
3617900.48 6.24159m (11072608)
  488320.59 3617900.48 6.28052m (12041124) 488370.59
3617900.48 1.44665 (10111024)
  488420.59 3617900.48 1.37788 (10110424) 488470.59
3617900.48 1.32793 (10110424)
  488520.59 3617900.48 1.28052 (10110424) 488570.59
3617900.48 1.23551 (10110424)
  488620.59 3617900.48 1.19276 (10110424) 487077.48
3618005.05 22.86205 (12081924)
  487127.48 3618005.05 22.64068 (12033024) 487177.48
3618005.05 22.31481 (12052924)
  487227.48 3618005.05 22.79596 (12072924) 487277.48
3618005.05 30.26733 (12072924)
  487327.48 3618005.05 31.71395 (12072924) 486570.59
3617950.48 10.88011m (12072008)
  486620.59 3617950.48 13.26961m (12072008) 486670.59
3617950.48 16.12046 (12100224)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
486720.59	3617950.48	24.40723	(12060708)	486770.59	3617950.48	25.80771	(12060708)
486820.59	3617950.48	26.50260	(12042824)	486970.59	3617950.48	21.09281	(11092808)
487020.59	3617950.48	25.31301	(11092808)	487070.59	3617950.48	23.80016	(12081924)
487120.59	3617950.48	23.49725	(12033024)	487170.59	3617950.48	23.51492	(12052924)
487220.59	3617950.48	28.31711	(12072924)	487270.59	3617950.48	33.45462	(12072924)
487320.59	3617950.48	31.44795	(12072924)	487370.59	3617950.48	24.94886	(12072924)
487420.59	3617950.48	24.76721	(12083024)	487470.59	3617950.48	21.91855	(12083024)
487520.59	3617950.48	21.12741	(12073008)	487570.59	3617950.48	23.11919	(12073008)
487620.59	3617950.48	22.81513	(10073108)	487670.59	3617950.48	22.10806	(10073108)
487720.59	3617950.48	19.76345	(10073108)	487770.59	3617950.48	18.84181	(12082308)
487820.59	3617950.48	17.96233	(12082308)	487870.59	3617950.48	15.81346	(12082308)
487920.59	3617950.48	13.20721	(11092824)	487970.59	3617950.48	12.56074m	(11072608)
488020.59	3617950.48	12.81666m	(11072608)	488070.59	3617950.48	10.96147m	(11072608)
488120.59	3617950.48	7.06866m	(11072608)	488170.59	3617950.48	10.59053m	(11072608)
488220.59	3617950.48	10.79657m	(11072608)	488270.59	3617950.48	8.24284m	(11072608)
488320.59	3617950.48	4.61329m	(11072608)	488370.59	3617950.48	1.49137	(10111024)
488420.59	3617950.48	1.39856	(10111024)	488470.59	3617950.48	1.30850	(10111024)
488520.59	3617950.48	1.25634	(10110424)	488570.59	3617950.48	1.21313	(10110424)
488620.59	3617950.48	1.17204	(10110424)	488590.14	3616298.03	2.33603	(10051224)
488540.14	3616348.03	2.56009	(10051224)	488590.14	3616348.03	2.49919	(10051224)

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       488440.14   3616398.03        2.86832  (10051224)                488490.14
 3616398.03        2.78694  (10051224)
       488540.14   3616398.03        2.70321  (10051224)                488590.14
 3616398.03        2.61838  (10051224)
       488390.14   3616448.03        3.11450  (10051224)                488440.14
 3616448.03        3.00402  (10051224)
       488490.14   3616448.03        2.89333  (10051224)                488540.14
 3616448.03        2.78341  (10051224)
       488590.14   3616448.03        2.67514  (10051224)                488340.14
 3616498.03        3.33888  (10051224)
       488390.14   3616498.03        3.19460  (10051224)                488440.14
 3616498.03        3.05295  (10051224)
       488490.14   3616498.03        2.91467  (10051224)                488540.14
 3616498.03        2.78066  (10051224)
       488590.14   3616498.03        2.65191  (10051224)                484613.02
 3614429.89        0.61737  (10021008)
       484663.02   3614429.89        0.62300  (10021008)                484713.02
 3614429.89        0.62656  (10021008)
       484763.02   3614429.89        0.62815  (10021008)                484813.02
 3614429.89        0.62775  (10021008)
       484863.02   3614429.89        0.63707  (10110424)                484913.02
 3614429.89        0.64712  (10110424)
       484963.02   3614429.89        0.65716  (10110424)                484563.02
 3614479.89        0.61727  (10021008)
       484613.02   3614479.89        0.62786  (10021008)                484663.02
 3614479.89        0.63609  (10021008)
       484713.02   3614479.89        0.64211  (10021008)                484763.02
 3614479.89        0.64583  (10021008)
       484813.02   3614479.89        0.64713  (10021008)                484863.02
 3614479.89        0.65103  (10110424)
       484913.02   3614479.89        0.66159  (10110424)                484963.02
 3614479.89        0.67214  (10110424)
       484513.02   3614529.89        0.60936  (10021008)                484563.02
 3614529.89        0.62414  (10021008)
       484613.02   3614529.89        0.63734  (10021008)                484663.02
 3614529.89        0.64802  (10021008)
       484713.02   3614529.89        0.65661  (10021008)                484763.02
 3614529.89        0.66260  (10021008)
       484813.02   3614529.89        0.66593  (10021008)                484863.02
 3614529.89        0.66710  (10021008)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  LOCA2    ***
```

INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
484913.02	3614529.89	0.67649	(10110424)	484963.02	3614529.89	0.68755	(10110424)
484463.02	3614579.89	0.59467	(10021008)	484513.02	3614579.89	0.61273	(10021008)
484563.02	3614579.89	0.62984	(10021008)	484613.02	3614579.89	0.64521	(10021008)
484663.02	3614579.89	0.65842	(10021008)	484713.02	3614579.89	0.66958	(10021008)
484763.02	3614579.89	0.67794	(10021008)	484813.02	3614579.89	0.68382	(10021008)
484863.02	3614579.89	0.68714	(10021008)	484913.02	3614579.89	0.69182	(10110424)
484963.02	3614579.89	0.70347	(10110424)	484413.02	3614629.89	0.59239	(10110424)
484463.02	3614629.89	0.60313	(10110424)	484513.02	3614629.89	0.61504	(10021008)
484563.02	3614629.89	0.63388	(10021008)	484613.02	3614629.89	0.65143	(10021008)
484663.02	3614629.89	0.66711	(10021008)	484713.02	3614629.89	0.68075	(10021008)
484763.02	3614629.89	0.69196	(10021008)	484813.02	3614629.89	0.70053	(10021008)
484863.02	3614629.89	0.70640	(10021008)	484913.02	3614629.89	0.70970	(10021008)
484963.02	3614629.89	0.71993	(10110424)	484413.02	3614679.89	0.60330	(10110424)
484463.02	3614679.89	0.61448	(10110424)	484513.02	3614679.89	0.62587	(10110424)
484563.02	3614679.89	0.63746	(10110424)	484613.02	3614679.89	0.65610	(10021008)
484663.02	3614679.89	0.67416	(10021008)	484713.02	3614679.89	0.69039	(10021008)
484763.02	3614679.89	0.70437	(10021008)	484813.02	3614679.89	0.71587	(10021008)
484863.02	3614679.89	0.72448	(10021008)	484913.02	3614679.89	0.73041	(10021008)
484963.02	3614679.89	0.73677	(10110424)	484363.02			

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3614729.89        0.60297  (10110424)
       484413.02   3614729.89        0.61441  (10110424)                484463.02
3614729.89        0.62606  (10110424)
       484513.02   3614729.89        0.63793  (10110424)                484563.02
3614729.89        0.65001  (10110424)
       484613.02   3614729.89        0.66232  (10110424)                484663.02
3614729.89        0.67969  (10021008)
       484713.02   3614729.89        0.69838  (10021008)                484763.02
3614729.89        0.71510  (10021008)
       484813.02   3614729.89        0.72955  (10021008)                484863.02
3614729.89        0.74120  (10021008)
       484913.02   3614729.89        0.74991  (10021008)                484963.02
3614729.89        0.75559  (10021008)
       484313.02   3614779.89        0.60220  (10110424)                484363.02
3614779.89        0.61384  (10110424)
       484413.02   3614779.89        0.62572  (10110424)                484463.02
3614779.89        0.63785  (10110424)
       484513.02   3614779.89        0.65022  (10110424)                484563.02
3614779.89        0.66283  (10110424)
       484613.02   3614779.89        0.67568  (10110424)                484663.02
3614779.89        0.68877  (10110424)
       484713.02   3614779.89        0.70473  (10021008)                484763.02
3614779.89        0.72409  (10021008)
       484813.02   3614779.89        0.74142  (10021008)                484863.02
3614779.89        0.75615  (10021008)
       484913.02   3614779.89        0.76795  (10021008)                484963.02
3614779.89        0.77649  (10021008)
       484263.02   3614829.89        0.60092  (10110424)                484313.02
3614829.89        0.61276  (10110424)
       484363.02   3614829.89        0.62486  (10110424)                484413.02
3614829.89        0.63722  (10110424)
       484463.02   3614829.89        0.64985  (10110424)                484513.02
3614829.89        0.66275  (10110424)
       484563.02   3614829.89        0.67590  (10110424)                484613.02
3614829.89        0.68933  (10110424)
       484663.02   3614829.89        0.70301  (10110424)                484713.02
3614829.89        0.71695  (10110424)
       484763.02   3614829.89        0.73131  (10021008)                484813.02
3614829.89        0.75135  (10021008)
       484863.02   3614829.89        0.76914  (10021008)                484913.02
3614829.89        0.78430  (10021008)
       484963.02   3614829.89        0.79572  (10021008)                484213.02
3614879.89        0.60117  (10021408)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                         ***       14:52:42

                                   PAGE 144
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data
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*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***

INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
484263.02	3614879.89	0.61119	(10110424)	484313.02	3614879.89	0.62348	(10110424)
484363.02	3614879.89	0.63605	(10110424)	484413.02	3614879.89	0.64891	(10110424)
484463.02	3614879.89	0.66206	(10110424)	484513.02	3614879.89	0.67551	(10110424)
484563.02	3614879.89	0.68924	(10110424)	484613.02	3614879.89	0.70326	(10110424)
484663.02	3614879.89	0.71756	(10110424)	484713.02	3614879.89	0.73215	(10110424)
484763.02	3614879.89	0.74703	(10110424)	484813.02	3614879.89	0.76217	(10110424)
484863.02	3614879.89	0.78024	(10021008)	484913.02	3614879.89	0.79855	(10021008)
484963.02	3614879.89	0.81388	(10021008)	484163.02	3614929.89	0.60950	(10021408)
484213.02	3614929.89	0.61593	(10021408)	484263.02	3614929.89	0.62212	(10021408)
484313.02	3614929.89	0.63435	(10110424)	484363.02	3614929.89	0.64742	(10110424)
484413.02	3614929.89	0.66079	(10110424)	484463.02	3614929.89	0.67449	(10110424)
484513.02	3614929.89	0.68849	(10110424)	484563.02	3614929.89	0.70282	(10110424)
484613.02	3614929.89	0.71746	(10110424)	484663.02	3614929.89	0.73242	(10110424)
484713.02	3614929.89	0.74769	(10110424)	484763.02	3614929.89	0.76328	(10110424)
484813.02	3614929.89	0.77916	(10110424)	484863.02	3614929.89	0.79535	(10110424)
484913.02	3614929.89	0.81182	(10110424)	484963.02	3614929.89	0.82998	(10021008)
485013.02	3614929.89	0.84542	(10110424)	484113.02	3614979.89	0.61365	(10021408)

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       484163.02   3614979.89        0.62224  (10021408)                484213.02
3614979.89        0.63011  (10021408)
       484263.02   3614979.89        0.63757  (10021408)                484313.02
3614979.89        0.64536  (10110424)
       484363.02   3614979.89        0.65894  (10110424)                484413.02
3614979.89        0.67285  (10110424)
       484463.02   3614979.89        0.68711  (10110424)                484513.02
3614979.89        0.70171  (10110424)
       484563.02   3614979.89        0.71665  (10110424)                484613.02
3614979.89        0.73194  (10110424)
       484663.02   3614979.89        0.74758  (10110424)                484713.02
3614979.89        0.76356  (10110424)
       484763.02   3614979.89        0.77989  (10110424)                484813.02
3614979.89        0.79656  (10110424)
       484863.02   3614979.89        0.81356  (10110424)                484913.02
3614979.89        0.83088  (10110424)
       484963.02   3614979.89        0.84852  (10110424)                485013.02
3614979.89        0.86642  (10110424)
       484113.02   3615029.89        0.62397  (10021408)                484163.02
3615029.89        0.63401  (10021408)
       484213.02   3615029.89        0.64339  (10021408)                484263.02
3615029.89        0.65266  (10021408)
       484313.02   3615029.89        0.66068  (10021408)                484363.02
3615029.89        0.67062  (10110424)
       484413.02   3615029.89        0.68509  (10110424)                484463.02
3615029.89        0.69993  (10110424)
       484513.02   3615029.89        0.71514  (10110424)                484563.02
3615029.89        0.73073  (10110424)
       484613.02   3615029.89        0.74670  (10110424)                484663.02
3615029.89        0.76304  (10110424)
       484713.02   3615029.89        0.77977  (10110424)                484763.02
3615029.89        0.79688  (10110424)
       484813.02   3615029.89        0.81436  (10110424)                484863.02
3615029.89        0.83221  (10110424)
       484913.02   3615029.89        0.85044  (10110424)                484963.02
3615029.89        0.86902  (10110424)
       485013.02   3615029.89        0.88795  (10110424)                485063.02
3615029.89        0.90706  (10110424)
       484113.02   3615079.89        0.63290  (10021408)                484163.02
3615079.89        0.64456  (10021408)
       484213.02   3615079.89        0.65546  (10021408)                484263.02
3615079.89        0.66589  (10021408)
       484313.02   3615079.89        0.67562  (10021408)                484363.02
3615079.89        0.68478  (10021408)
       484413.02   3615079.89        0.69749  (10110424)                484463.02
3615079.89        0.71293  (10110424)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
*** AERMET - VERSION  19191 ***   ***
                         ***       14:52:42
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
484513.02	3615079.89	0.72878	(10110424)	484563.02	3615079.89	0.74504	(10110424)
484613.02	3615079.89	0.76171	(10110424)	484663.02	3615079.89	0.77880	(10110424)
484713.02	3615079.89	0.79630	(10110424)	484763.02	3615079.89	0.81423	(10110424)
484813.02	3615079.89	0.83256	(10110424)	484863.02	3615079.89	0.85132	(10110424)
484913.02	3615079.89	0.87049	(10110424)	484963.02	3615079.89	0.89007	(10110424)
485013.02	3615079.89	0.91005	(10110424)	485063.02	3615079.89	0.93041	(10110424)
485113.02	3615079.89	0.95101	(10110424)	484113.02	3615129.89	0.64037	(10021408)
484163.02	3615129.89	0.65339	(10021408)	484213.02	3615129.89	0.66591	(10021408)
484263.02	3615129.89	0.67792	(10021408)	484313.02	3615129.89	0.68959	(10021408)
484363.02	3615129.89	0.70031	(10021408)	484413.02	3615129.89	0.71010	(10021408)
484463.02	3615129.89	0.72612	(10110424)	484513.02	3615129.89	0.74263	(10110424)
484563.02	3615129.89	0.75958	(10110424)	484613.02	3615129.89	0.77698	(10110424)
484663.02	3615129.89	0.79484	(10110424)	484713.02	3615129.89	0.81316	(10110424)
484763.02	3615129.89	0.83193	(10110424)	484813.02	3615129.89	0.85117	(10110424)
484863.02	3615129.89	0.87088	(10110424)	484913.02	3615129.89	0.89105	(10110424)
484963.02	3615129.89	0.91167	(10110424)	485013.02			

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3615129.89        0.93275  (10110424)
       485063.02   3615129.89        0.95426  (10110424)                485113.02
3615129.89        0.97620  (10110424)
       485163.02   3615129.89        0.99840  (10110424)                484113.02
3615179.89        0.64623  (10021408)
       484163.02   3615179.89        0.66075  (10021408)                484213.02
3615179.89        0.67483  (10021408)
       484263.02   3615179.89        0.68851  (10021408)                484313.02
3615179.89        0.70165  (10021408)
       484363.02   3615179.89        0.71456  (10021408)                484413.02
3615179.89        0.72616  (10021408)
       484463.02   3615179.89        0.73947  (10110424)                484513.02
3615179.89        0.75667  (10110424)
       484563.02   3615179.89        0.77434  (10110424)                484613.02
3615179.89        0.79250  (10110424)
       484663.02   3615179.89        0.81116  (10110424)                484713.02
3615179.89        0.83032  (10110424)
       484763.02   3615179.89        0.84999  (10110424)                484813.02
3615179.89        0.87018  (10110424)
       484863.02   3615179.89        0.89088  (10110424)                484913.02
3615179.89        0.91210  (10110424)
       484963.02   3615179.89        0.93383  (10110424)                485013.02
3615179.89        0.95607  (10110424)
       485063.02   3615179.89        0.97881  (10110424)                485113.02
3615179.89        1.00203  (10110424)
       485163.02   3615179.89        1.02571  (10110424)                485213.02
3615179.89        1.04972  (10110424)
       484113.02   3615229.89        0.65061  (10021408)                484163.02
3615229.89        0.66649  (10021408)
       484213.02   3615229.89        0.68215  (10021408)                484263.02
3615229.89        0.69743  (10021408)
       484313.02   3615229.89        0.71226  (10021408)                484363.02
3615229.89        0.72657  (10021408)
       484413.02   3615229.89        0.74031  (10021408)                484463.02
3615229.89        0.75343  (10021408)
       484513.02   3615229.89        0.77087  (10110424)                484563.02
3615229.89        0.78930  (10110424)
       484613.02   3615229.89        0.80826  (10110424)                484663.02
3615229.89        0.82775  (10110424)
       484713.02   3615229.89        0.84780  (10110424)                484763.02
3615229.89        0.86841  (10110424)
       484813.02   3615229.89        0.88958  (10110424)                484863.02
3615229.89        0.91133  (10110424)
       484913.02   3615229.89        0.93365  (10110424)                484963.02
3615229.89        0.95655  (10110424)
       485013.02   3615229.89        0.98001  (10110424)                485063.02
3615229.89        1.00404  (10110424)
       485113.02   3615229.89        1.02862  (10110424)                485163.02
3615229.89        1.05373  (10110424)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
485213.02	3615229.89	1.07937	(10110424)	485263.02	3615229.89	1.10539	(10110424)
484113.02	3615279.89	0.65345	(10021408)	484163.02	3615279.89	0.67067	(10021408)
484213.02	3615279.89	0.68771	(10021408)	484263.02	3615279.89	0.70430	(10021408)
484313.02	3615279.89	0.72078	(10021408)	484613.02	3615279.89	0.82423	(10110424)
484663.02	3615279.89	0.84459	(10110424)	484713.02	3615279.89	0.86556	(10110424)
484763.02	3615279.89	0.88715	(10110424)	484813.02	3615279.89	0.90936	(10110424)
484863.02	3615279.89	0.93221	(10110424)	484913.02	3615279.89	0.95569	(10110424)
484963.02	3615279.89	0.97981	(10110424)	485013.02	3615279.89	1.00457	(10110424)
485063.02	3615279.89	1.02996	(10110424)	485113.02	3615279.89	1.05598	(10110424)
485163.02	3615279.89	1.08261	(10110424)	485213.02	3615279.89	1.10984	(10110424)
485263.02	3615279.89	1.13764	(10110424)	485313.02	3615279.89	1.16596	(10110424)
484113.02	3615329.89	0.66988	(10100708)	484163.02	3615329.89	0.67603	(10110424)
484213.02	3615329.89	0.69198	(10110424)	484663.02	3615329.89	0.86167	(10110424)
484713.02	3615329.89	0.88361	(10110424)	484763.02	3615329.89	0.90622	(10110424)

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       484813.02   3615329.89        0.92952  (10110424)              484863.02
3615329.89        0.95351  (10110424)
       484913.02   3615329.89        0.97821  (10110424)              484963.02
3615329.89        1.00362  (10110424)
       485013.02   3615329.89        1.02974  (10110424)              485063.02
3615329.89        1.05657  (10110424)
       485113.02   3615329.89        1.08412  (10110424)              485163.02
3615329.89        1.11236  (10110424)
       485213.02   3615329.89        1.14129  (10110424)              485263.02
3615329.89        1.17088  (10110424)
       485313.02   3615329.89        1.20111  (10110424)              485363.02
3615329.89        1.23186  (10110424)
       484113.02   3615379.89        0.68746  (10100708)              484163.02
3615379.89        0.69451  (10100708)
       484713.02   3615379.89        0.90191  (10110424)              484763.02
3615379.89        0.92559  (10110424)
       484813.02   3615379.89        0.95002  (10110424)              484863.02
3615379.89        0.97521  (10110424)
       484913.02   3615379.89        1.00118  (10110424)              484963.02
3615379.89        1.02795  (10110424)
       485013.02   3615379.89        1.05551  (10110424)              485063.02
3615379.89        1.08387  (10110424)
       485113.02   3615379.89        1.11303  (10110424)              485163.02
3615379.89        1.14298  (10110424)
       485213.02   3615379.89        1.17372  (10110424)              485263.02
3615379.89        1.20523  (10110424)
       485313.02   3615379.89        1.23748  (10110424)              485363.02
3615379.89        1.27044  (10110424)
       485413.02   3615379.89        1.30407  (10110424)              484763.02
3615429.89        0.94520  (10110424)
       484813.02   3615429.89        0.97085  (10110424)              484863.02
3615429.89        0.99730  (10110424)
       484913.02   3615429.89        1.02461  (10110424)              484963.02
3615429.89        1.05279  (10110424)
       485013.02   3615429.89        1.08186  (10110424)              485063.02
3615429.89        1.11183  (10110424)
       485113.02   3615429.89        1.14269  (10110424)              485163.02
3615429.89        1.17447  (10110424)
       485213.02   3615429.89        1.20713  (10110424)              485263.02
3615429.89        1.24068  (10110424)
       485313.02   3615429.89        1.27509  (10110424)              485363.02
3615429.89        1.31033  (10110424)
       485413.02   3615429.89        1.34636  (10110424)              485463.02
3615429.89        1.38315  (10110424)
       485513.02   3615429.89        1.42062  (10110424)              484813.02
3615479.89        0.99196  (10110424)
       484863.02   3615479.89        1.01975  (10110424)              484913.02
3615479.89        1.04845  (10110424)
       484963.02   3615479.89        1.07813  (10110424)              485013.02
3615479.89        1.10879  (10110424)
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*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
485163.02	3615479.89	1.20681	(10110424)	485213.02	3615479.89	1.24152	(10110424)
485263.02	3615479.89	1.27725	(10110424)	485313.02	3615479.89	1.31396	(10110424)
485363.02	3615479.89	1.35165	(10110424)	485413.02	3615479.89	1.39029	(10110424)
485463.02	3615479.89	1.42981	(10110424)	485513.02	3615479.89	1.47016	(10110424)
485563.02	3615479.89	1.51099	(10110424)	484863.02	3615529.89	1.04250	(10110424)
484913.02	3615529.89	1.07270	(10110424)	484963.02	3615529.89	1.10393	(10110424)
485013.02	3615529.89	1.13625	(10110424)	485063.02	3615529.89	1.16970	(10110424)
485113.02	3615529.89	1.20428	(10110424)	485163.02	3615529.89	1.24000	(10110424)
485213.02	3615529.89	1.27688	(10110424)	485263.02	3615529.89	1.31492	(10110424)
485313.02	3615529.89	1.35411	(10110424)	485363.02	3615529.89	1.39442	(10110424)
485413.02	3615529.89	1.43585	(10110424)	485463.02	3615529.89	1.47834	(10110424)
485513.02	3615529.89	1.52183	(10110424)	484913.02	3615579.89	1.09722	(10110424)
484963.02	3615579.89	1.13016	(10110424)	485013.02			

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3615579.89        1.16423  (10110424)
       485063.02   3615579.89        1.19955  (10110424)                485113.02
3615579.89        1.23610  (10110424)
       485163.02   3615579.89        1.27400  (10110424)                485213.02
3615579.89        1.31320  (10110424)
       485263.02   3615579.89        1.35370  (10110424)                485313.02
3615579.89        1.39552  (10110424)
       485363.02   3615579.89        1.43865  (10110424)                485413.02
3615579.89        1.48307  (10110424)
       485463.02   3615579.89        1.52875  (10110424)                484963.02
3615629.89        1.15674  (10110424)
       485013.02   3615629.89        1.19268  (10110424)                485063.02
3615629.89        1.22997  (10110424)
       485113.02   3615629.89        1.26867  (10110424)                485163.02
3615629.89        1.30881  (10110424)
       485213.02   3615629.89        1.35043  (10110424)                485263.02
3615629.89        1.39355  (10110424)
       485313.02   3615629.89        1.43818  (10110424)                485363.02
3615629.89        1.48433  (10110424)
       485413.02   3615629.89        1.53197  (10110424)                485013.02
3615679.89        1.22136  (10110424)
       485063.02   3615679.89        1.26091  (10110424)                485113.02
3615679.89        1.30182  (10110424)
       485163.02   3615679.89        1.34436  (10110424)                485213.02
3615679.89        1.38856  (10110424)
       485263.02   3615679.89        1.43446  (10110424)                485313.02
3615679.89        1.48207  (10110424)
       485363.02   3615679.89        1.53143  (10110424)                485413.02
3615679.89        1.58249  (10110424)
       485063.02   3615729.89        1.29204  (10110424)                485113.02
3615729.89        1.33555  (10110424)
       485163.02   3615729.89        1.38060  (10110424)                485213.02
3615729.89        1.42752  (10110424)
       485263.02   3615729.89        1.47636  (10110424)                485313.02
3615729.89        1.52715  (10110424)
       485363.02   3615729.89        1.57992  (10110424)                485113.02
3615779.89        1.36976  (10110424)
       485163.02   3615779.89        1.41747  (10110424)                485213.02
3615779.89        1.46725  (10110424)
       485263.02   3615779.89        1.51919  (10110424)                485313.02
3615779.89        1.57335  (10110424)
       485163.02   3615829.89        1.45463  (10110424)                485213.02
3615829.89        1.50768  (10110424)
       485263.02   3615829.89        1.56288  (10110424)                485213.02
3615879.89        1.54852  (10110424)
       487082.35   3618053.22       22.22438  (11092808)                487132.24
3618053.22       21.54351  (12033024)
       487182.13   3618053.22       20.86914  (12052924)                487232.02
3618053.22       20.33434  (12052924)
       487281.91   3618053.22       26.39379  (12072924)                486242.77
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*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
486724.14	3617998.65	22.44052	(12060708)	486774.03	3617998.65	24.27965	(12060708)
486923.70	3617998.65	26.26490	(11070124)	486973.59	3617998.65	21.66057	(11070124)
487023.48	3617998.65	24.01802	(11092808)	487082.35	3618103.22	21.59466	(11092808)
487132.24	3618103.22	20.04690	(12081924)	487182.13	3618103.22	20.13633	(12033024)
486165.87	3618094.46	4.19045	(12111724)	486242.77	3618083.89	5.70115	(12111724)
486292.66	3618083.89	6.45323	(12111724)	486499.32	3618054.73	8.58585	(12102724)
486574.47	3618048.65	10.70075m	(12072008)	486624.36	3618048.65	11.83254m	(12072008)
486674.25	3618048.65	14.21829	(12100224)	486724.14	3618048.65	20.11462	(12060708)
486873.81	3618048.65	22.61414	(12042824)	486923.70	3618048.65	24.92632	(11070124)
486973.59	3618048.65	22.32849	(11070124)	487023.48	3618048.65	22.34458	(11092808)
487082.35	3618153.22	20.72282	(11092808)	487132.24	3618153.22	19.72267	(12081924)

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       486325.02   3618098.65        6.03348  (12111724)              486242.77
3618133.89        6.02907  (12111724)
       486524.58   3618098.65        9.42403  (12102724)              486574.47
3618098.65       10.56669m (12072008)
       486624.36   3618098.65       11.10865m (12072008)              486674.25
3618098.65       14.26490  (12100224)
       486823.92   3618098.65       23.28673  (12042824)              486873.81
3618098.65       22.25632  (12042824)
       486923.70   3618098.65       23.42254  (11070124)              486973.59
3618098.65       22.46776  (11070124)
       487023.48   3618098.65       20.26206  (11092808)              487082.35
3618203.22       19.38924  (11092808)
       486275.13   3618148.65        6.13842  (12111724)              486325.02
3618148.65        6.07704  (12012624)
       486374.91   3618148.65        6.92466  (12012624)              486474.69
3618148.65        7.81507  (12010324)
       486524.58   3618148.65        8.42876  (12102724)              486574.47
3618148.65       10.40237m (12072008)
       486624.36   3618148.65       11.73479m (12072008)              486774.03
3618148.65       20.23919  (12060708)
       486823.92   3618148.65       21.50257  (12042824)              486873.81
3618148.65       21.56927  (12042824)
       486923.70   3618148.65       21.38453  (11070124)              486973.59
3618148.65       22.16148  (11070124)
       487023.48   3618148.65       18.00332  (11092808)              486275.13
3618198.65        5.65246  (12111724)
       486325.02   3618198.65        6.12243  (12012624)              486374.91
3618198.65        6.71612  (12012624)
       486424.80   3618198.65        7.24214  (11112924)              486474.69
3618198.65        7.60510  (12010324)
       486524.58   3618198.65        8.13235  (10021624)              486674.25
3618198.65       12.65348  (12100224)
       486724.14   3618198.65       16.13160  (12060708)              486774.03
3618198.65       18.49427  (12060708)
       486823.92   3618198.65       19.51943  (12042824)              486873.81
3618198.65       20.26159  (12042824)
       486923.70   3618198.65       19.16625  (11070124)              486973.59
3618198.65       21.29927  (11070124)
       487023.48   3618198.65       17.29866  (11070124)              486275.13
3618248.65        5.08408  (12110524)
       486325.02   3618248.65        6.26237  (12012624)              486374.91
3618248.65        6.60858  (11112924)
       486424.80   3618248.65        6.72431  (11112924)              486474.69
3618248.65        8.39663  (12102724)
       486624.36   3618248.65        9.40300m (12072008)              486674.25
3618248.65       11.57050  (12100224)
       486724.14   3618248.65       15.47224  (12060708)              486774.03
3618248.65       18.04140  (12060708)
       486823.92   3618248.65       18.33274  (12042824)              486873.81
3618248.65       18.97843  (12042824)
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LOCA2 ***
INCLUDING SOURCE(S): LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
486574.47	3618298.65	9.14647m	(12072008)	486624.36	3618298.65	8.82709m	(12072008)
486674.25	3618298.65	11.10548	(12100224)	486724.14	3618298.65	14.99280	(12060708)
486774.03	3618298.65	18.34881	(12060708)	486823.92	3618298.65	17.62804	(12042824)
486873.81	3618298.65	18.64496	(12042824)	486923.70	3618298.65	16.42005	(12042824)
486973.59	3618248.65	19.60346	(11070124)	487023.48	3618248.65	17.48339	(11070124)
486125.46	3618298.65	4.25411	(12111724)	486275.13	3618298.65	5.10341	(12012624)
486325.02	3618298.65	6.10931	(12012624)	486374.91	3618298.65	6.42163	(11112924)
486424.80	3618298.65	6.82784	(12010324)				
486574.47	3618298.65	9.14647m	(12072008)	486624.36	3618298.65	8.82709m	(12072008)
486674.25	3618298.65	11.10548	(12100224)	486724.14	3618298.65	14.99280	(12060708)
486774.03	3618298.65	18.34881	(12060708)	486823.92	3618298.65	17.62804	(12042824)
486873.81	3618298.65	18.64496	(12042824)	486923.70	3618298.65	16.22064	(12042824)
486125.46	3618348.65	4.08861	(12111724)	486175.35	3618348.65	4.90307	(12111724)
486225.24	3618348.65	4.79032	(12111724)	486275.13	3618348.65	5.16905	(12012624)
486325.02	3618348.65	5.95686	(12012624)	486524.58	3618348.65	7.61207m	(12072008)
486574.47	3618348.65	8.81700m	(12072008)	486624.36	3618348.65	8.36487m	(12072008)
486674.25	3618348.65	10.46603	(12100224)	486724.14	3618348.65	14.53301	(12060708)
486774.03	3618348.65	18.06143	(12060708)	486823.92			

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3618348.65       16.74360  (12042824)
       486873.81   3618348.65       17.77327  (12042824)                 486125.46
3618398.65        3.82598  (12111724)
       486175.35   3618398.65        4.63604  (12111724)                 486225.24
3618398.65        4.17946  (12111724)
       486424.80   3618398.65        6.44566  (12010324)                 486474.69
3618398.65        6.95082  (12102724)
       486524.58   3618398.65        7.45230m (12072008)                 486574.47
3618398.65        8.41164m (12072008)
       486624.36   3618398.65        7.78051m (12072008)                 486674.25
3618398.65        9.82547  (12100224)
       486724.14   3618398.65       13.27255  (12060708)                 486774.03
3618398.65       16.09276  (12060708)
       486823.92   3618398.65       15.84457  (12060708)                 486125.46
3618448.65        3.85617  (12111724)
       486175.35   3618448.65        3.97066  (12111724)                 486374.91
3618448.65        5.76909  (11112924)
       486424.80   3618448.65        6.10520  (12010324)                 486474.69
3618448.65        6.81667  (12102724)
       486524.58   3618448.65        7.18759m (12072008)                 486574.47
3618448.65        7.97290m (12072008)
       486624.36   3618448.65        7.24648m (12072008)                 486674.25
3618448.65        9.23868  (12100224)
       486724.14   3618448.65       12.09608  (12060708)                 486774.03
3618448.65       14.45531  (12060708)
       486125.46   3618498.65        2.64689  (12111724)                 486325.02
3618498.65        5.16406  (11112924)
       486374.91   3618498.65        5.30263  (11112924)                 486424.80
3618498.65        5.93466  (12102724)
       486474.69   3618498.65        6.12487  (10021624)                 486524.58
3618498.65        7.10279m (12072008)
       486574.47   3618498.65        7.41830m (12072008)                 486624.36
3618498.65        6.76885m (12072008)
       486674.25   3618498.65        8.63918  (12100224)                 486105.96
3618586.04        2.05141  (12111724)
       486325.02   3618548.65        4.96167  (11112924)                 486374.91
3618548.65        4.52054  (11112924)
       486424.80   3618548.65        4.84149  (12102724)                 486474.69
3618548.65        5.65870  (10021624)
       486524.58   3618548.65        6.40867m (12072008)                 486574.47
3618548.65        7.19178m (12072008)
       486624.36   3618548.65        6.29838m (12072008)                 486101.02
3618078.36        2.93015  (12111724)
       486155.07   3618149.26        4.27846  (12111724)                 486018.49
3618262.09        2.22183  (10110424)
       485957.41   3618189.14        2.31002  (10110424)                 485842.03
3618300.27        1.94750  (10110424)
       485893.78   3618363.05        1.89361  (10110424)                 485902.87
3618241.99        2.12602  (10110424)
       485966.01   3618313.09        2.05742  (10110424)                 486011.91
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*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
488270.59	3616550.48	7.87164	(10051224)	488320.59	3616550.48	7.52514	(10051224)
488370.59	3616550.48	7.18158	(10051224)	488420.59	3616550.48	6.84496	(10051224)
488470.59	3616550.48	6.51531	(10051224)	488520.59	3616550.48	6.19636	(10051224)
488570.59	3616550.48	5.89099	(10051224)	488620.59	3616550.48	5.59585	(10051224)
488270.59	3616600.48	7.97538	(10051224)	488320.59	3616600.48	7.53576	(10051224)
488370.59	3616600.48	7.11524	(10051224)	488420.59	3616600.48	6.71234	(10051224)
488470.59	3616600.48	6.32856	(10051224)	488520.59	3616600.48	5.96424	(10051224)
488570.59	3616600.48	5.62155	(10051224)	488620.59	3616600.48	5.29685	(10051224)
488270.59	3616650.48	7.70907	(10051224)	488320.59	3616650.48	7.20528	(10051224)
488370.59	3616650.48	6.73281	(10051224)	488420.59	3616650.48	6.29105	(10051224)
488470.59	3616650.48	5.87975	(10051224)	488520.59	3616650.48	5.49648	(10051224)
488570.59	3616650.48	5.13947	(10051224)	488620.59	3616650.48	4.80786	(10051224)
488270.59	3616700.48	7.06164	(10051224)	488320.59			

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3616700.48        6.53488  (10051224)
       488370.59   3616700.48        6.05312  (10051224)                488420.59
3616700.48        5.61043  (10051224)
       488470.59   3616700.48        5.20537  (10051224)                488520.59
3616700.48        4.83464  (10051224)
       488570.59   3616700.48        4.49344  (10051224)                488620.59
3616700.48        4.18130  (10051224)
       488320.59   3616750.48        5.61207  (10051224)                488370.59
3616750.48        5.16549  (10051224)
       488420.59   3616750.48        4.76236  (10051224)                488470.59
3616750.48        4.39797  (10051224)
       488520.59   3616750.48        4.06715  (10051224)                488570.59
3616750.48        3.76824  (10051224)
       488620.59   3616750.48        3.49676  (10051224)                488320.59
3616800.48        4.58319  (10051224)
       488370.59   3616800.48        4.29754  (12012724)                488420.59
3616800.48        4.07897  (12012724)
       488470.59   3616800.48        3.87886  (12012724)                488520.59
3616800.48        3.69356  (12012724)
       488570.59   3616800.48        3.52039  (12012724)                488620.59
3616800.48        3.35503  (12012724)
       488370.59   3616850.48        4.27637  (12012724)                488420.59
3616850.48        4.04351  (12012724)
       488470.59   3616850.48        3.83472  (12012724)                488520.59
3616850.48        3.63907  (12012724)
       488570.59   3616850.48        3.45925  (12012724)                488620.59
3616850.48        3.28908  (12012724)
       488420.59   3616900.48        3.88723  (12012724)                488470.59
3616900.48        3.67922  (12012724)
       488520.59   3616900.48        3.49203  (10110424)                488570.59
3616900.48        3.32684  (10110424)
       488620.59   3616900.48        3.17382  (10110424)                488420.59
3616950.48        3.87062  (10110424)
       488470.59   3616950.48        3.67630  (10110424)                488520.59
3616950.48        3.49692  (10110424)
       488570.59   3616950.48        3.33120  (10110424)                488620.59
3616950.48        3.17772  (10110424)
       488470.59   3617000.48        3.67609  (10110424)                488520.59
3617000.48        3.49670  (10110424)
       488570.59   3617000.48        3.33094  (10110424)                488620.59
3617000.48        3.17747  (10110424)
       488470.59   3617050.48        3.66951  (10110424)                488520.59
3617050.48        3.49137  (10110424)
       488570.59   3617050.48        3.32620  (10110424)                488620.59
3617050.48        3.17318  (10110424)
       488370.59   3617100.48        4.05966  (10110424)                488420.59
3617100.48        3.85100  (10110424)
       488470.59   3617100.48        3.65751  (10110424)                488520.59
3617100.48        3.48062  (10110424)
       488570.59   3617100.48        3.31682  (10110424)                488620.59
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*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
488520.59	3617150.48	3.46502	(10110424)	488570.59	3617150.48	3.30238	(10110424)
488620.59	3617150.48	5.74227	(12051624)	488270.59	3617200.48	10.20669	(12051624)
488320.59	3617200.48	4.23116	(10110424)	488370.59	3617200.48	11.30349	(12051624)
488420.59	3617200.48	3.80515	(10110424)	488470.59	3617200.48	3.61899	(10110424)
488520.59	3617200.48	3.44525	(10110424)	488570.59	3617200.48	3.28363	(10110424)
488620.59	3617200.48	10.20687	(12051624)	487320.59	3617250.48	52.33558m	(11072608)
487370.59	3617250.48	38.81986m	(11072608)	487420.59	3617250.48	28.95356m	(11072608)
487470.59	3617250.48	20.24581m	(11072608)	487520.59	3617250.48	19.63400m	(12041124)
487570.59	3617250.48	21.51033	(10122224)	487620.59	3617250.48	23.41736	(10122224)
487670.59	3617250.48	23.52123	(10122224)	487720.59	3617250.48	22.30617	(10122224)
487770.59	3617250.48	20.59756	(10122224)	487820.59			

3617250.48 18.96753 (10122224)
487870.59 3617250.48 17.52988 (10122224) 487920.59
3617250.48 16.25475 (10122224)
487970.59 3617250.48 15.22173 (10122224) 488020.59
3617250.48 14.10868 (10122224)
488070.59 3617250.48 12.93537 (10122224) 488120.59
3617250.48 11.53631 (10122224)
488170.59 3617250.48 10.99690 (12051624) 488220.59
3617250.48 10.50004 (12051624)
488270.59 3617250.48 9.53682 (12051624) 488320.59
3617250.48 9.18882 (12051624)
488370.59 3617250.48 9.25828 (12051624) 488420.59
3617250.48 5.29186 (12051624)
488470.59 3617250.48 3.59134 (10110424) 488520.59
3617250.48 4.08171 (12051624)
488570.59 3617250.48 3.26217 (10110424) 488620.59
3617250.48 6.80766 (12051624)
487170.59 3617300.48 65.58714 (11080824) 487220.59
3617300.48 66.12475m (11072608)
487270.59 3617300.48 62.61963m (11072608) 487320.59
3617300.48 71.31544m (11072608)
487370.59 3617300.48 68.63103m (11072608) 487420.59
3617300.48 56.68738m (11072608)
487470.59 3617300.48 38.66542m (12041124) 487520.59
3617300.48 39.92350m (12041124)
487570.59 3617300.48 36.67643m (12041124) 487620.59
3617300.48 31.15166m (12041124)
487670.59 3617300.48 25.98600 (10122224) 487720.59
3617300.48 26.84354 (10122224)
487770.59 3617300.48 24.86149 (10122224) 487820.59
3617300.48 22.24119 (10122224)
487870.59 3617300.48 23.94976 (10122224) 487920.59
3617300.48 23.55663 (10122224)
487970.59 3617300.48 23.22256 (10122224) 488020.59
3617300.48 20.13701 (10122224)
488070.59 3617300.48 17.10830 (10122224) 488120.59
3617300.48 16.28312 (10122224)
488170.59 3617300.48 13.27749 (10122224) 488220.59
3617300.48 10.24242 (10122224)
488270.59 3617300.48 9.00527 (10122224) 488320.59
3617300.48 8.38298 (10122224)
488370.59 3617300.48 9.18535 (10122224) 488420.59
3617300.48 6.14726 (12051624)
488470.59 3617300.48 3.55840 (10110424) 488520.59
3617300.48 7.73017 (12051624)
488570.59 3617300.48 3.23429 (10110424) 488620.59
3617300.48 3.09086 (10110424)
487020.59 3617350.48 60.89835 (10090624) 487070.59
3617350.48 62.25691 (10090624)
487120.59 3617350.48 60.99687m (12050208) 487170.59

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487620.59	3617350.48	42.34676m	(12041124)	487670.59	3617350.48	35.39332m	(12041124)
487720.59	3617350.48	29.18025m	(12041124)	487770.59	3617350.48	25.52596	(10122224)
487820.59	3617350.48	23.91077	(10122224)	487870.59	3617350.48	26.36949	(10122224)
487920.59	3617350.48	26.45679	(10122224)	487970.59	3617350.48	25.92894	(10122224)
488020.59	3617350.48	22.66467	(10122224)	488070.59	3617350.48	20.86813	(10122224)
488120.59	3617350.48	19.05159	(10122224)	488170.59	3617350.48	15.62446	(10122224)
488220.59	3617350.48	12.43246	(10122224)	488270.59	3617350.48	10.32804	(10122224)
488320.59	3617350.48	8.26019	(10122224)	488370.59	3617350.48	5.55754	(10122224)
488420.59	3617350.48	5.46772	(10122224)	488470.59			

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3617350.48        3.52089  (10110424)
       488520.59   3617350.48        3.35638  (10110424)                488570.59
3617350.48        3.20524  (10110424)
       488620.59   3617350.48        3.06386  (10110424)                486770.59
3617400.48       39.94220  (12111724)
       486820.59   3617400.48       41.62191  (12111724)                486870.59
3617400.48       49.08672  (12111724)
       486920.59   3617400.48       70.32326  (12100224)                486970.59
3617400.48       66.25239m (12072008)
       487020.59   3617400.48       56.14846  (10090624)                487070.59
3617400.48       60.70909  (10090624)
       487120.59   3617400.48       57.85733m (12050208)                487170.59
3617400.48       59.15971m (12050208)
       487220.59   3617400.48       60.95151  (10073024)                487270.59
3617400.48       63.87324  (12032424)
       487320.59   3617400.48       64.58759  (12082308)                487370.59
3617400.48       69.93327m (11072608)
       487420.59   3617400.48       74.26812m (11072608)                487470.59
3617400.48       72.28686m (11072608)
       487520.59   3617400.48       55.02522m (11072608)                487570.59
3617400.48       54.67129m (12041124)
       487620.59   3617400.48       35.67937m (12041124)                487670.59
3617400.48       31.56288m (12041124)
       487720.59   3617400.48       27.59366m (12041124)                487770.59
3617400.48       22.99265m (12041124)
       487820.59   3617400.48       18.63720m (12041124)                487870.59
3617400.48       16.91364m (12041124)
       487920.59   3617400.48       16.12984  (10122224)                487970.59
3617400.48       15.55752  (10122224)
       488020.59   3617400.48       14.13642  (10122224)                488070.59
3617400.48       12.33823  (10122224)
       488120.59   3617400.48        9.37603  (10122224)                488170.59
3617400.48        6.38989  (10122224)
       488220.59   3617400.48        5.23256  (10122224)                488270.59
3617400.48        5.09100  (10122224)
       488320.59   3617400.48        4.91031  (10122224)                488370.59
3617400.48        6.90541  (10122224)
       488420.59   3617400.48        3.65158  (10110424)                488470.59
3617400.48        3.48080  (10110424)
       488520.59   3617400.48        3.32114  (10110424)                488570.59
3617400.48        3.17268  (10110424)
       488620.59   3617400.48        3.03367  (10110424)                486820.59
3617450.48       41.53494  (12012624)
       486870.59   3617450.48       44.18148  (12111724)                486920.59
3617450.48       62.92511  (12100224)
       486970.59   3617450.48       61.91702  (11102024)                487020.59
3617450.48       50.77940  (11102024)
       487070.59   3617450.48       56.95451  (10090624)                487120.59
3617450.48       54.37465  (10090624)
       487170.59   3617450.48       64.31745  (12072924)                487220.59
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*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487870.59	3617450.48	26.08621m	(12041124)	487920.59	3617450.48	22.01234m	(12041124)
487970.59	3617450.48	18.32446m	(12041124)	488020.59	3617450.48	17.82721	(10122224)
488070.59	3617450.48	17.49665	(10122224)	488120.59	3617450.48	16.65209	(10122224)
488170.59	3617450.48	15.12808	(10122224)	488220.59	3617450.48	12.94471	(10122224)
488270.59	3617450.48	12.56330	(10122224)	488320.59	3617450.48	15.87291	(10122224)
488370.59	3617450.48	14.01991	(10122224)	488420.59	3617450.48	3.60250	(10110424)
488470.59	3617450.48	3.43575	(10110424)	488520.59			

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3617450.48        3.28049  (10110424)
       488570.59   3617450.48        3.13596  (10110424)                488620.59
3617450.48        3.00051  (10110424)
       486770.59   3617500.48       42.02182m (12072008)                486820.59
3617500.48       39.97347  (12012624)
       486870.59   3617500.48       40.46989  (12111724)                486920.59
3617500.48       55.40758  (12100224)
       486970.59   3617500.48       57.42821  (11102024)                487020.59
3617500.48       49.77384  (11070124)
       487070.59   3617500.48       54.99489  (12080224)                487120.59
3617500.48       53.62842  (10090624)
       487170.59   3617500.48       62.14898  (12072924)                487220.59
3617500.48       65.67720  (12072924)
       487270.59   3617500.48       55.28017  (11050524)                487320.59
3617500.48       48.82506  (10073024)
       487370.59   3617500.48       56.65512  (12032424)                487420.59
3617500.48       30.05440  (11081108)
       487470.59   3617500.48       25.40136m (11072608)                487520.59
3617500.48       49.98227m (11072608)
       487570.59   3617500.48       63.93341m (11072608)                487620.59
3617500.48       63.16740m (11072608)
       487670.59   3617500.48       55.69787m (11072608)                487720.59
3617500.48       49.62170m (12041124)
       487770.59   3617500.48       47.25816m (12041124)                487820.59
3617500.48       43.13764m (12041124)
       487870.59   3617500.48       37.99728m (12041124)                487920.59
3617500.48       33.00372m (12041124)
       487970.59   3617500.48       27.62388m (12041124)                488020.59
3617500.48       22.92967m (12041124)
       488070.59   3617500.48       21.27904  (12101024)                488120.59
3617500.48       22.27824  (10122224)
       488170.59   3617500.48       22.28742  (10122224)                488220.59
3617500.48       21.09295  (10122224)
       488270.59   3617500.48       18.17191  (10122224)                488320.59
3617500.48       17.51355  (10122224)
       488370.59   3617500.48       14.20042  (10122224)                488420.59
3617500.48        3.54875  (10110424)
       488470.59   3617500.48        3.38719  (10110424)                488520.59
3617500.48        3.23662  (10110424)
       488570.59   3617500.48        3.09623  (10110424)                488620.59
3617500.48        2.96437  (10110424)
       486670.59   3617550.48       33.02282  (12111724)                486720.59
3617550.48       39.76493  (12100224)
       486770.59   3617550.48       42.76994m (12072008)                486820.59
3617550.48       38.07867m (12072008)
       486870.59   3617550.48       38.33023  (11102024)                486920.59
3617550.48       49.40947  (12100224)
       486970.59   3617550.48       56.04503  (11102024)                487020.59
3617550.48       55.76328  (11070124)
       487070.59   3617550.48       53.42440  (12080224)                487120.59
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*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487970.59	3617550.48	34.94773m	(12041124)	488020.59	3617550.48	29.93951m	(12041124)
488070.59	3617550.48	25.56629m	(12041124)	488120.59	3617550.48	22.76813	(12101024)
488170.59	3617550.48	20.37157	(12101024)	488220.59	3617550.48	18.53828	(10122224)
488270.59	3617550.48	17.47878	(10122224)	488320.59	3617550.48	17.58124	(10122224)
488370.59	3617550.48	3.73668	(10122224)	488420.59			

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3617550.48        3.49152  (10110424)
       488470.59   3617550.48        3.33548  (10110424)                488520.59
3617550.48        3.18989  (10110424)
       488570.59   3617550.48        3.05378  (10110424)                488620.59
3617550.48        2.92562  (10110424)
       485870.59   3617600.48        7.00646  (10110424)                485920.59
3617600.48        7.45306  (10110424)
       486620.59   3617600.48       26.73544  (12111724)                486670.59
3617600.48       32.29243  (12111724)
       486720.59   3617600.48       39.05591  (12100224)                486770.59
3617600.48       43.34660m (12072008)
       486820.59   3617600.48       38.38612m (12072008)                486870.59
3617600.48       36.77879  (11102024)
       486920.59   3617600.48       45.81274  (11102024)                486970.59
3617600.48       54.23436  (11102024)
       487020.59   3617600.48       56.98835  (11070124)                487070.59
3617600.48       55.67310  (11070124)
       487120.59   3617600.48       56.00682  (12081924)                487170.59
3617600.48       50.07424  (12072924)
       487220.59   3617600.48       56.03916  (12072924)                487270.59
3617600.48       35.26230m (12050208)
       487320.59   3617600.48       31.49478m (12050208)                487370.59
3617600.48       42.62958  (11092408)
       487420.59   3617600.48       57.36353  (10073108)                487470.59
3617600.48       59.20757  (12032424)
       487520.59   3617600.48       56.84686  (12032424)                487570.59
3617600.48       52.04757  (12082308)
       487620.59   3617600.48       53.07005m (11072608)                487670.59
3617600.48       56.83712m (11072608)
       487720.59   3617600.48       57.43436m (11072608)                487770.59
3617600.48       54.38342m (11072608)
       487820.59   3617600.48       48.12126m (11072608)                487870.59
3617600.48       43.65113m (12041124)
       487920.59   3617600.48       42.66182m (12041124)                487970.59
3617600.48       40.13656m (12041124)
       488020.59   3617600.48       36.60758m (12041124)                488070.59
3617600.48       32.10398m (12041124)
       488120.59   3617600.48       27.27772m (12041124)                488170.59
3617600.48       22.88945m (12041124)
       488220.59   3617600.48       18.91970m (12041124)                488270.59
3617600.48       15.60904  (12101024)
       488320.59   3617600.48       11.33299  (10122224)                488370.59
3617600.48        3.58936  (10110424)
       488420.59   3617600.48        3.43096  (10110424)                488470.59
3617600.48        3.28100  (10110424)
       488520.59   3617600.48        3.14051  (10110424)                488570.59
3617600.48        3.00893  (10110424)
       488620.59   3617600.48        2.88534  (10110424)                485870.59
3617650.48        6.70957  (10110424)
       485920.59   3617650.48        7.11415  (10110424)                485970.59
```

3617650.48 7.54865 (10110424)
  486570.59 3617650.48 19.57198 (12111724) 486620.59
3617650.48 26.47696 (12111724)
  486670.59 3617650.48 31.99225 (12111724) 486720.59
3617650.48 37.09638 (12100224)
  486770.59 3617650.48 41.61930m (12072008) 486820.59
3617650.48 38.82233m (12072008)
  486870.59 3617650.48 36.06889 (11102024) 486920.59
3617650.48 43.05566 (11102024)
  486970.59 3617650.48 51.07102 (11102024) 487020.59
3617650.48 52.72582 (11070124)
  487070.59 3617650.48 58.10410 (11070124) 487120.59
3617650.48 54.09510 (12081924)
  487170.59 3617650.48 51.61627 (12081924) 487370.59
3617650.48 49.11670 (11050524)
  487420.59 3617650.48 51.28379 (10073108) 487470.59
3617650.48 55.41840 (10073108)
  487520.59 3617650.48 55.97982 (12032424) 487570.59
3617650.48 53.55484 (12032424)
  487620.59 3617650.48 49.03448 (12082308) 487670.59
3617650.48 47.38724m (11072608)

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487720.59	3617650.48	51.89442m	(11072608)	487770.59	3617650.48	53.43689m	(11072608)
487820.59	3617650.48	52.08969m	(11072608)	487870.59	3617650.48	47.80201m	(11072608)
487920.59	3617650.48	41.07403m	(11072608)	487970.59			

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3617650.48       41.12867m (12041124)
       488020.59   3617650.48       40.22567m (12041124)                488070.59
3617650.48       37.04313m (12041124)
       488120.59   3617650.48       32.49914m (12041124)                488170.59
3617650.48       28.09342m (12041124)
       488220.59   3617650.48       23.51898m (12041124)                488270.59
3617650.48       19.79887m (12041124)
       488320.59   3617650.48       15.84445m (12041124)                488370.59
3617650.48        3.52100  (10110424)
       488420.59   3617650.48        3.36882  (10110424)                488470.59
3617650.48        3.22437  (10110424)
       488520.59   3617650.48        3.08900  (10110424)                488570.59
3617650.48        2.96202  (10110424)
       488620.59   3617650.48        2.84215  (10110424)                485870.59
3617700.48        6.41995  (10110424)
       485920.59   3617700.48        6.78592  (10110424)                485970.59
3617700.48        7.17609  (10110424)
       486470.59   3617700.48       13.22137  (11112924)                486520.59
3617700.48       16.14167  (11112924)
       486570.59   3617700.48       19.70902  (12111724)                486620.59
3617700.48       26.87214  (12111724)
       486670.59   3617700.48       29.47976  (12111724)                486720.59
3617700.48       34.05709  (12100224)
       486770.59   3617700.48       39.20141m (12072008)                486820.59
3617700.48       38.59568m (12072008)
       486870.59   3617700.48       34.88944  (11070124)                486920.59
3617700.48       39.87878  (11102024)
       486970.59   3617700.48       47.82316  (12042824)                487020.59
3617700.48       47.64204  (11070124)
       487070.59   3617700.48       55.82109  (11070124)                487120.59
3617700.48       46.44379  (12081924)
       487270.59   3617700.48       52.23471  (12072924)                487320.59
3617700.48       57.84137  (12072924)
       487370.59   3617700.48       49.05980  (12072924)                487420.59
3617700.48       48.64924  (11050524)
       487470.59   3617700.48       50.06169  (10073108)                487520.59
3617700.48       52.95705  (10073108)
       487570.59   3617700.48       51.64705  (12032424)                487620.59
3617700.48       49.44908  (12082308)
       487670.59   3617700.48       45.94314  (12082308)                487720.59
3617700.48       42.30899  (11092824)
       487770.59   3617700.48       46.84571m (11072608)                487820.59
3617700.48       49.45609m (11072608)
       487870.59   3617700.48       49.44464m (11072608)                487920.59
3617700.48       46.92464m (11072608)
       487970.59   3617700.48       42.07933m (11072608)                488020.59
3617700.48       38.69520m (12041124)
       488070.59   3617700.48       37.67651m (12041124)                488120.59
3617700.48       34.78130m (12041124)
       488170.59   3617700.48       30.18923m (12041124)                488220.59
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3617700.48 25.11171m (12041124)
  488270.59 3617700.48 21.48316m (12041124) 488320.59
3617700.48 17.97241m (12041124)
  488370.59 3617700.48 6.15526m (12041124) 488420.59
3617700.48 3.30403 (10110424)
  488470.59 3617700.48 3.16565 (10110424) 488520.59
3617700.48 3.03552 (10110424)
  488570.59 3617700.48 2.91325 (10110424) 488620.59
3617700.48 2.79796 (10110424)
  486420.59 3617750.48 11.63494 (12111724) 486470.59
3617750.48 13.42080 (11112924)
  486520.59 3617750.48 15.73191 (11112924) 486570.59
3617750.48 20.21797 (12111724)
  486620.59 3617750.48 26.29714 (12111724) 486670.59
3617750.48 26.57447 (12111724)
  486720.59 3617750.48 31.68854 (12100224) 486770.59
3617750.48 35.72239m (12072008)
  486820.59 3617750.48 37.34036m (12072008) 486870.59
3617750.48 34.82919 (11070124)
  486920.59 3617750.48 37.49917 (12060708) 486970.59
3617750.48 44.76026 (12042824)
  487020.59 3617750.48 45.30780 (12042824) 487070.59
3617750.48 50.45101 (11070124)
  487220.59 3617750.48 46.42705 (12072924) 487270.59
3617750.48 50.31201 (12072924)

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
487320.59	3617750.48	55.56848	(12072924)	487370.59			

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3617750.48       53.19851  (12072924)
       487420.59   3617750.48       44.61499  (11050524)                487470.59
3617750.48       45.67029  (11050524)
       487520.59   3617750.48       48.72887  (10073108)                487570.59
3617750.48       50.93202  (10073108)
       487620.59   3617750.48       48.68094  (10073108)                487670.59
3617750.48       46.15154  (12082308)
       487720.59   3617750.48       43.15338  (12082308)                487770.59
3617750.48       39.18234  (11092824)
       487820.59   3617750.48       42.19013m (11072608)                487870.59
3617750.48       45.41064m (11072608)
       487920.59   3617750.48       46.52950m (11072608)                487970.59
3617750.48       45.36069m (11072608)
       488020.59   3617750.48       41.45153m (11072608)                488070.59
3617750.48       34.34488m (11072608)
       488120.59   3617750.48       30.03514m (12041124)                488170.59
3617750.48       27.09812m (12041124)
       488220.59   3617750.48       16.52241m (12041124)                488270.59
3617750.48       19.54248m (12041124)
       488320.59   3617750.48       13.83701m (12041124)                488370.59
3617750.48        3.37813  (10110424)
       488420.59   3617750.48        3.23794  (10110424)                488470.59
3617750.48        3.10534  (10110424)
       488520.59   3617750.48        2.98045  (10110424)                488570.59
3617750.48        2.86289  (10110424)
       488620.59   3617750.48        2.75202  (10110424)                486420.59
3617800.48       11.72719  (12111724)
       486470.59   3617800.48       13.29102  (11112924)                486520.59
3617800.48       15.30713  (12111724)
       486570.59   3617800.48       20.48285  (12111724)                486620.59
3617800.48       24.66393  (12111724)
       486670.59   3617800.48       23.80105  (12111724)                486720.59
3617800.48       29.88854  (12100224)
       486770.59   3617800.48       32.38306m (12072008)                486820.59
3617800.48       35.84729m (12072008)
       486870.59   3617800.48       35.10351  (11070124)                486920.59
3617800.48       35.82249  (11070124)
       486970.59   3617800.48       41.48939  (12042824)                487170.59
3617800.48       43.69648  (12081924)
       487220.59   3617800.48       45.41576  (12081924)                487270.59
3617800.48       46.79634  (12072924)
       487320.59   3617800.48       51.50845  (12072924)                487370.59
3617800.48       53.82252  (12072924)
       487420.59   3617800.48       47.43739  (12072924)                487470.59
3617800.48       42.17920  (11050524)
       487520.59   3617800.48       43.34511  (11092408)                487570.59
3617800.48       46.67692  (12073008)
       487620.59   3617800.48       47.65414  (10073108)                487670.59
3617800.48       44.97917  (10073108)
       487720.59   3617800.48       43.27603  (12082308)                487770.59
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3617800.48 40.64178 (12082308)
487820.59 3617800.48 36.99592 (11092824) 487870.59
3617800.48 38.09322 (11092824)
487920.59 3617800.48 41.16880m (11072608) 487970.59
3617800.48 42.78753m (11072608)
488020.59 3617800.48 40.84422m (11072608) 488070.59
3617800.48 32.41518m (11072608)
488120.59 3617800.48 27.98863m (11072608) 488170.59
3617800.48 23.57054m (11072608)
488220.59 3617800.48 17.05126m (11072608) 488270.59
3617800.48 9.13919m (11072608)
488320.59 3617800.48 3.82822 (10111024) 488370.59
3617800.48 3.30457 (10110424)
488420.59 3617800.48 3.17048 (10110424) 488470.59
3617800.48 3.04368 (10110424)
488520.59 3617800.48 2.92413 (10110424) 488570.59
3617800.48 2.81134 (10110424)
488620.59 3617800.48 2.70482 (10110424) 486470.59
3617850.48 13.05459 (11112924)
486520.59 3617850.48 15.36336 (12111724) 486570.59
3617850.48 20.05261 (12111724)
486620.59 3617850.48 23.09534 (12111724) 486670.59
3617850.48 20.88655 (12111724)
486720.59 3617850.48 28.01017 (12100224) 486770.59
3617850.48 30.33632 (12060708)
486820.59 3617850.48 34.09098m (12072008) 486870.59
3617850.48 33.21302 (12042824)
486920.59 3617850.48 35.38267 (11070124) 487120.59
3617850.48 44.11757 (11070124)

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)

Y-COORD (M)   CONC   (YYMMDDHH)
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        487170.59   3617850.48   39.81391 (10090624)   487220.59
 3617850.48   43.64462 (12081924)
        487270.59   3617850.48   43.98616 (12072924)   487320.59
 3617850.48   47.29285 (12072924)
        487370.59   3617850.48   51.34049 (12072924)   487420.59
 3617850.48   50.06388 (12072924)
        487470.59   3617850.48   40.79611 (12072924)   487520.59
 3617850.48   39.57915 (11050524)
        487570.59   3617850.48   41.64670 (12073008)   487620.59
 3617850.48   44.50189 (12073008)
        487670.59   3617850.48   44.57524 (10073108)   487720.59
 3617850.48   42.46656 (10073108)
        487770.59   3617850.48   40.51080 (12082308)   487820.59
 3617850.48   38.18634 (12082308)
        487870.59   3617850.48   34.64574 (12082308)   487920.59
 3617850.48   34.31157 (11092824)
        487970.59   3617850.48   35.94781m (11072608)   488020.59
 3617850.48   34.91408m (11072608)
        488070.59   3617850.48   29.55838m (11072608)   488120.59
 3617850.48   26.24312m (11072608)
        488170.59   3617850.48   15.49386m (11072608)   488220.59
 3617850.48   11.77746m (11072608)
        488270.59   3617850.48   12.40928m (11072608)   488320.59
 3617850.48   13.18145m (11072608)
        488370.59   3617850.48   3.24849 (10111024)   488420.59
 3617850.48   3.10214 (10110424)
        488470.59   3617850.48   2.98115 (10110424)   488520.59
 3617850.48   2.86683 (10110424)
        488570.59   3617850.48   2.75874 (10110424)   488620.59
 3617850.48   2.65650 (10110424)
        486520.59   3617900.48   15.36224 (12111724)   486570.59
 3617900.48   19.48342 (12111724)
        486620.59   3617900.48   20.91317 (12111724)   486670.59
 3617900.48   18.76588 (12100224)
        486720.59   3617900.48   26.93471 (12100224)   486770.59
 3617900.48   29.78573 (12060708)
        486820.59   3617900.48   32.33450m (12072008)   486870.59
 3617900.48   32.43446 (12042824)
        486920.59   3617900.48   32.11795 (12042824)   487070.59
 3617900.48   39.02767 (11070124)
        487120.59   3617900.48   42.10009 (11070124)   487170.59
 3617900.48   38.01273 (12041924)
        487220.59   3617900.48   39.72142 (12081924)   487270.59
 3617900.48   40.95817 (12072924)
        487320.59   3617900.48   43.79096 (12072924)   487370.59
 3617900.48   47.77724 (12072924)
        487420.59   3617900.48   49.77308 (12072924)   487470.59

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 3617900.48       45.02286  (12072924)
       487520.59   3617900.48       35.83983  (10071724)                487570.59
 3617900.48       36.81374  (11050524)
       487620.59   3617900.48       40.32972  (12073008)                487670.59
 3617900.48       42.28328  (12073008)
       487720.59   3617900.48       42.20867  (10073108)                487770.59
 3617900.48       39.89791  (10073108)
       487820.59   3617900.48       37.91592  (12082308)                487870.59
 3617900.48       35.69414  (12082308)
       487920.59   3617900.48       31.94893  (12082308)                487970.59
 3617900.48       28.19838m (11072608)
       488020.59   3617900.48       29.93754m (11072608)                488070.59
 3617900.48       25.94126m (11072608)
       488120.59   3617900.48       19.73996m (11072608)                488170.59
 3617900.48       13.78836m (11072608)
       488220.59   3617900.48       14.33493m (11072608)                488270.59
 3617900.48       17.55009m (11072608)
       488320.59   3617900.48       17.84144m (11072608)                488370.59
 3617900.48        3.33765  (10111024)
       488420.59   3617900.48        3.12514  (10111024)                488470.59
 3617900.48        2.91819  (10111024)
       488520.59   3617900.48        2.80881  (10110424)                488570.59
 3617900.48        2.70538  (10110424)
       488620.59   3617900.48        2.60738  (10110424)                487077.48
 3618005.05       32.77384  (11070124)
       487127.48   3618005.05       37.12568  (11070124)                487177.48
 3618005.05       33.70362  (12041924)
       487227.48   3618005.05       34.57930m (11072624)                487277.48
 3618005.05       35.37636  (12081924)
       487327.48   3618005.05       37.65271  (12072924)                486570.59
 3617950.48       18.32303  (12111724)
       486620.59   3617950.48       18.66326  (12111724)                486670.59
 3617950.48       18.46602  (12100224)
↟ *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                          ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                         ***        14:52:42

                                    PAGE 158
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                               *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                   INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,
                 LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
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** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
486720.59	3617950.48	26.35346	(12060708)	486770.59	3617950.48	29.54900	(12060708)
486820.59	3617950.48	30.65966m	(12072008)	486970.59	3617950.48	34.07566	(12042824)
487020.59	3617950.48	36.61752	(12042824)	487070.59	3617950.48	35.30677	(11070124)
487120.59	3617950.48	39.70919	(11070124)	487170.59	3617950.48	36.08864	(12041924)
487220.59	3617950.48	36.32089m	(11072624)	487270.59	3617950.48	38.05227	(12081924)
487320.59	3617950.48	40.62814	(12072924)	487370.59	3617950.48	44.09865	(12072924)
487420.59	3617950.48	47.50703	(12072924)	487470.59	3617950.48	46.73521	(12072924)
487520.59	3617950.48	39.39297	(12072924)	487570.59	3617950.48	34.00126	(12083024)
487620.59	3617950.48	35.05761	(11092408)	487670.59	3617950.48	38.97624	(12073008)
487720.59	3617950.48	40.63307	(12073008)	487770.59	3617950.48	39.79363	(10073108)
487820.59	3617950.48	37.43373	(10073108)	487870.59	3617950.48	34.88518	(12082308)
487920.59	3617950.48	31.11131	(12082308)	487970.59	3617950.48	24.71296	(12082308)
488020.59	3617950.48	22.77190m	(11072608)	488070.59	3617950.48	21.60628m	(11072608)
488120.59	3617950.48	16.39707m	(11072608)	488170.59	3617950.48	23.47932m	(11072608)
488220.59	3617950.48	25.02767m	(11072608)	488270.59	3617950.48	20.78469m	(11072608)
488320.59	3617950.48	13.35214m	(11072608)	488370.59	3617950.48	3.38380	(10111024)
488420.59	3617950.48	3.19605	(10111024)	488470.59	3617950.48	3.00598	(10111024)
488520.59	3617950.48	2.81835	(10111024)	488570.59	3617950.48	2.65148	(10110424)
488620.59	3617950.48	2.55766	(10110424)	488590.14	3616298.03	4.60993	(10051224)
488540.14	3616348.03	5.13634	(10051224)	488590.14	3616348.03	5.05539	(10051224)
488440.14	3616398.03	5.81355	(10051224)	488490.14	3616398.03	5.69900	(10051224)
488540.14	3616398.03	5.57204	(10051224)	488590.14			

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 3616398.03         5.43619  (10051224)
       488390.14   3616448.03         6.45539  (10051224)                488440.14
 3616448.03         6.28017  (10051224)
       488490.14   3616448.03         6.09604  (10051224)                488540.14
 3616448.03         5.90580  (10051224)
       488590.14   3616448.03         5.71228  (10051224)                488340.14
 3616498.03         7.10538  (10051224)
       488390.14   3616498.03         6.85522  (10051224)                488440.14
 3616498.03         6.60097  (10051224)
       488490.14   3616498.03         6.34516  (10051224)                488540.14
 3616498.03         6.09081  (10051224)
       488590.14   3616498.03         5.84112  (10051224)                484613.02
 3614429.89         1.18237  (10021008)
       484663.02   3614429.89         1.20122  (10021008)                484713.02
 3614429.89         1.21633  (10021008)
       484763.02   3614429.89         1.22775  (10021008)                484813.02
 3614429.89         1.23495  (10021008)
       484863.02   3614429.89         1.23775  (10021008)                484913.02
 3614429.89         1.24297  (10110424)
       484963.02   3614429.89         1.26246  (10110424)                484563.02
 3614479.89         1.16825  (10021008)
       484613.02   3614479.89         1.19522  (10021008)                484663.02
 3614479.89         1.21859  (10021008)
       484713.02   3614479.89         1.23843  (10021008)                484763.02
 3614479.89         1.25428  (10021008)
       484813.02   3614479.89         1.26534  (10021008)                484863.02
 3614479.89         1.27184  (10021008)
       484913.02   3614479.89         1.27475  (10021008)                484963.02
 3614479.89         1.29008  (10110424)
       484513.02   3614529.89         1.14238  (10021008)                484563.02
 3614529.89         1.17530  (10021008)
       484613.02   3614529.89         1.20623  (10021008)                484663.02
 3614529.89         1.23377  (10021008)
       484713.02   3614529.89         1.25820  (10021008)                484763.02
 3614529.89         1.27841  (10021008)
       484813.02   3614529.89         1.29374  (10021008)                484863.02
 3614529.89         1.30476  (10021008)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                          ***       14:52:42

                                    PAGE 159
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                               *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                   INCLUDING SOURCE(S):     LOCATION1_2 ,
LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,
                 LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,
```

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
484913.02	3614529.89	1.31149	(10021008)	484963.02	3614529.89	1.31846	(10110424)
484463.02	3614579.89	1.13424	(10110424)	484513.02	3614579.89	1.15423	(10110424)
484563.02	3614579.89	1.18043	(10021008)	484613.02	3614579.89	1.21461	(10021008)
484663.02	3614579.89	1.24618	(10021008)	484713.02	3614579.89	1.27489	(10021008)
484763.02	3614579.89	1.29937	(10021008)	484813.02	3614579.89	1.31971	(10021008)
484863.02	3614579.89	1.33534	(10021008)	484913.02	3614579.89	1.34658	(10021008)
484963.02	3614579.89	1.35238	(10021008)	484413.02	3614629.89	1.13430	(10110424)
484463.02	3614629.89	1.15471	(10110424)	484513.02	3614629.89	1.17548	(10110424)
484563.02	3614629.89	1.19661	(10110424)	484613.02	3614629.89	1.22060	(10021008)
484663.02	3614629.89	1.25580	(10021008)	484713.02	3614629.89	1.28843	(10021008)
484763.02	3614629.89	1.31769	(10021008)	484813.02	3614629.89	1.34295	(10021008)
484863.02	3614629.89	1.36366	(10021008)	484913.02	3614629.89	1.37962	(10021008)
484963.02	3614629.89	1.39075	(10021008)	484413.02	3614679.89	1.15429	(10110424)
484463.02	3614679.89	1.17551	(10110424)	484513.02	3614679.89	1.19713	(10110424)
484563.02	3614679.89	1.21914	(10110424)	484613.02	3614679.89	1.24154	(10110424)
484663.02	3614679.89	1.26433	(10110424)	484713.02	3614679.89	1.29944	(10021008)
484763.02	3614679.89	1.33308	(10021008)	484813.02	3614679.89	1.36331	(10021008)
484863.02	3614679.89	1.38910	(10021008)	484913.02	3614679.89	1.41038	(10021008)
484963.02	3614679.89	1.42644	(10021008)	484363.02	3614729.89	1.15299	(10110424)
484413.02	3614729.89	1.17463	(10110424)	484463.02			

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3614729.89        1.19669  (10110424)
       484513.02   3614729.89        1.21918  (10110424)                484563.02
3614729.89        1.24210  (10110424)
       484613.02   3614729.89        1.26545  (10110424)                484663.02
3614729.89        1.28923  (10110424)
       484713.02   3614729.89        1.31342  (10110424)                484763.02
3614729.89        1.34567  (10021008)
       484813.02   3614729.89        1.38059  (10021008)                484863.02
3614729.89        1.41164  (10021008)
       484913.02   3614729.89        1.43811  (10021008)                484963.02
3614729.89        1.45928  (10021008)
       484313.02   3614779.89        1.15085  (10110424)                484363.02
3614779.89        1.17284  (10110424)
       484413.02   3614779.89        1.19529  (10110424)                484463.02
3614779.89        1.21822  (10110424)
       484513.02   3614779.89        1.24162  (10110424)                484563.02
3614779.89        1.26549  (10110424)
       484613.02   3614779.89        1.28983  (10110424)                484663.02
3614779.89        1.31464  (10110424)
       484713.02   3614779.89        1.33991  (10110424)                484763.02
3614779.89        1.36564  (10110424)
       484813.02   3614779.89        1.39480  (10021008)                484863.02
3614779.89        1.43082  (10021008)
       484913.02   3614779.89        1.46267  (10021008)                484963.02
3614779.89        1.48923  (10021008)
       484263.02   3614829.89        1.15209  (10021408)                484313.02
3614829.89        1.17014  (10110424)
       484363.02   3614829.89        1.19296  (10110424)                484413.02
3614829.89        1.21628  (10110424)
       484463.02   3614829.89        1.24011  (10110424)                484513.02
3614829.89        1.26446  (10110424)
       484563.02   3614829.89        1.28932  (10110424)                484613.02
3614829.89        1.31469  (10110424)
       484663.02   3614829.89        1.34057  (10110424)                484713.02
3614829.89        1.36697  (10110424)
       484763.02   3614829.89        1.39387  (10110424)                484813.02
3614829.89        1.42126  (10110424)
       484863.02   3614829.89        1.44913  (10110424)                484913.02
3614829.89        1.48397  (10021008)
       484963.02   3614829.89        1.51564  (10021008)                484213.02
3614879.89        1.16840  (10021408)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                           ***       14:52:42

                                     PAGE 160
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
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VALUES FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   LOCATION1_2 ,
LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 ,
                LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF TAC   IN MICROGRAMS/M**3
                  **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
 -
- -
        484263.02   3614879.89   1.17996 (10021408)   484313.02
 3614879.89   1.19005 (10021408)
        484363.02   3614879.89   1.21336 (10110424)   484413.02
 3614879.89   1.23758 (10110424)
        484463.02   3614879.89   1.26236 (10110424)   484513.02
 3614879.89   1.28768 (10110424)
        484563.02   3614879.89   1.31357 (10110424)   484613.02
 3614879.89   1.34002 (10110424)
        484663.02   3614879.89   1.36702 (10110424)   484713.02
 3614879.89   1.39459 (10110424)
        484763.02   3614879.89   1.42271 (10110424)   484813.02
 3614879.89   1.45138 (10110424)
        484863.02   3614879.89   1.48059 (10110424)   484913.02
 3614879.89   1.51031 (10110424)
        484963.02   3614879.89   1.54052 (10110424)   484163.02
 3614929.89   1.17909 (10021408)
        484213.02   3614929.89   1.19304 (10021408)   484263.02
 3614929.89   1.20687 (10021408)
        484313.02   3614929.89   1.22003 (10021408)   484363.02
 3614929.89   1.23404 (10110424)
        484413.02   3614929.89   1.25919 (10110424)   484463.02
 3614929.89   1.28494 (10110424)
        484513.02   3614929.89   1.31128 (10110424)   484563.02
 3614929.89   1.33824 (10110424)
        484613.02   3614929.89   1.36580 (10110424)   484663.02
 3614929.89   1.39398 (10110424)
        484713.02   3614929.89   1.42277 (10110424)   484763.02
 3614929.89   1.45218 (10110424)
        484813.02   3614929.89   1.48219 (10110424)   484863.02
 3614929.89   1.51279 (10110424)
        484913.02   3614929.89   1.54397 (10110424)   484963.02
 3614929.89   1.57571 (10110424)
        485013.02   3614929.89   1.60777 (10110424)   484113.02
 3614979.89   1.18078 (10021408)
        484163.02   3614979.89   1.19955 (10021408)   484213.02

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 3614979.89        1.21644  (10021408)
       484263.02   3614979.89        1.23293  (10021408)                484313.02
 3614979.89        1.24928  (10021408)
       484363.02   3614979.89        1.26288  (10021408)                484413.02
 3614979.89        1.28109  (10110424)
       484463.02   3614979.89        1.30785  (10110424)                484513.02
 3614979.89        1.33525  (10110424)
       484563.02   3614979.89        1.36332  (10110424)                484613.02
 3614979.89        1.39205  (10110424)
       484663.02   3614979.89        1.42145  (10110424)                484713.02
 3614979.89        1.45151  (10110424)
       484763.02   3614979.89        1.48226  (10110424)                484813.02
 3614979.89        1.51365  (10110424)
       484863.02   3614979.89        1.54572  (10110424)                484913.02
 3614979.89        1.57844  (10110424)
       484963.02   3614979.89        1.61180  (10110424)                485013.02
 3614979.89        1.64571  (10110424)
       484113.02   3615029.89        1.19656  (10021408)                484163.02
 3615029.89        1.21803  (10021408)
       484213.02   3615029.89        1.23808  (10021408)                484263.02
 3615029.89        1.25843  (10021408)
       484313.02   3615029.89        1.27581  (10021408)                484363.02
 3615029.89        1.29237  (10021408)
       484413.02   3615029.89        1.30809  (10021408)                484463.02
 3615029.89        1.33108  (10110424)
       484513.02   3615029.89        1.35958  (10110424)                484563.02
 3615029.89        1.38880  (10110424)
       484613.02   3615029.89        1.41874  (10110424)                484663.02
 3615029.89        1.44941  (10110424)
       484713.02   3615029.89        1.48081  (10110424)                484763.02
 3615029.89        1.51294  (10110424)
       484813.02   3615029.89        1.54580  (10110424)                484863.02
 3615029.89        1.57941  (10110424)
       484913.02   3615029.89        1.61373  (10110424)                484963.02
 3615029.89        1.64877  (10110424)
       485013.02   3615029.89        1.68452  (10110424)                485063.02
 3615029.89        1.72071  (10110424)
       484113.02   3615079.89        1.20959  (10021408)                484163.02
 3615079.89        1.23404  (10021408)
       484213.02   3615079.89        1.25700  (10021408)                484263.02
 3615079.89        1.27922  (10021408)
       484313.02   3615079.89        1.30012  (10021408)                484363.02
 3615079.89        1.31994  (10021408)
       484413.02   3615079.89        1.33812  (10021408)                484463.02
 3615079.89        1.35615  (10021408)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                          ***       14:52:42
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
484513.02	3615079.89	1.38424	(10110424)	484563.02	3615079.89	1.41466	(10110424)
484613.02	3615079.89	1.44586	(10110424)	484663.02	3615079.89	1.47785	(10110424)
484713.02	3615079.89	1.51062	(10110424)	484763.02	3615079.89	1.54422	(10110424)
484813.02	3615079.89	1.57862	(10110424)	484863.02	3615079.89	1.61382	(10110424)
484913.02	3615079.89	1.64984	(10110424)	484963.02	3615079.89	1.68665	(10110424)
485013.02	3615079.89	1.72426	(10110424)	485063.02	3615079.89	1.76262	(10110424)
485113.02	3615079.89	1.80159	(10110424)	484113.02	3615129.89	1.21990	(10021408)
484163.02	3615129.89	1.24656	(10021408)	484213.02	3615129.89	1.27247	(10021408)
484263.02	3615129.89	1.29761	(10021408)	484313.02	3615129.89	1.32234	(10021408)
484363.02	3615129.89	1.34518	(10021408)	484413.02	3615129.89	1.36589	(10021408)
484463.02	3615129.89	1.38709	(10021408)	484513.02	3615129.89	1.40924	(10110424)
484563.02	3615129.89	1.44089	(10110424)	484613.02	3615129.89	1.47339	(10110424)
484663.02	3615129.89	1.50674	(10110424)	484713.02	3615129.89	1.54098	(10110424)
484763.02	3615129.89	1.57610	(10110424)	484813.02	3615129.89	1.61208	(10110424)
484863.02	3615129.89	1.64898	(10110424)	484913.02	3615129.89	1.68677	(10110424)
484963.02	3615129.89	1.72544	(10110424)	485013.02			

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3615129.89        1.76499  (10110424)
       485063.02   3615129.89        1.80542  (10110424)                485113.02
3615129.89        1.84671  (10110424)
       485163.02   3615129.89        1.88862  (10110424)                484113.02
3615179.89        1.22718  (10021408)
       484163.02   3615179.89        1.25641  (10021408)                484213.02
3615179.89        1.28503  (10021408)
       484263.02   3615179.89        1.31315  (10021408)                484313.02
3615179.89        1.34044  (10021408)
       484363.02   3615179.89        1.36761  (10021408)                484413.02
3615179.89        1.39201  (10021408)
       484463.02   3615179.89        1.41576  (10021408)                484513.02
3615179.89        1.43881  (10021408)
       484563.02   3615179.89        1.46746  (10110424)                484613.02
3615179.89        1.50132  (10110424)
       484663.02   3615179.89        1.53610  (10110424)                484713.02
3615179.89        1.57183  (10110424)
       484763.02   3615179.89        1.60853  (10110424)                484813.02
3615179.89        1.64619  (10110424)
       484863.02   3615179.89        1.68486  (10110424)                484913.02
3615179.89        1.72451  (10110424)
       484963.02   3615179.89        1.76513  (10110424)                485013.02
3615179.89        1.80674  (10110424)
       485063.02   3615179.89        1.84934  (10110424)                485113.02
3615179.89        1.89290  (10110424)
       485163.02   3615179.89        1.93739  (10110424)                485213.02
3615179.89        1.98267  (10110424)
       484113.02   3615229.89        1.23190  (10021408)                484163.02
3615229.89        1.26335  (10021408)
       484213.02   3615229.89        1.29467  (10021408)                484263.02
3615229.89        1.32549  (10021408)
       484313.02   3615229.89        1.35568  (10021408)                484363.02
3615229.89        1.38511  (10021408)
       484413.02   3615229.89        1.41367  (10021408)                484463.02
3615229.89        1.44118  (10021408)
       484513.02   3615229.89        1.46725  (10021408)                484563.02
3615229.89        1.49436  (10110424)
       484613.02   3615229.89        1.52961  (10110424)                484663.02
3615229.89        1.56588  (10110424)
       484713.02   3615229.89        1.60317  (10110424)                484763.02
3615229.89        1.64152  (10110424)
       484813.02   3615229.89        1.68094  (10110424)                484863.02
3615229.89        1.72145  (10110424)
       484913.02   3615229.89        1.76304  (10110424)                484963.02
3615229.89        1.80571  (10110424)
       485013.02   3615229.89        1.84950  (10110424)                485063.02
3615229.89        1.89438  (10110424)
       485113.02   3615229.89        1.94034  (10110424)                485163.02
3615229.89        1.98738  (10110424)
 *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
485213.02	3615229.89	2.03546	(10110424)	485263.02	3615229.89	2.08444	(10110424)
484113.02	3615279.89	1.26764	(10100708)	484163.02	3615279.89	1.27642	(10100708)
484213.02	3615279.89	1.30100	(10021408)	484263.02	3615279.89	1.33379	(10021408)
484313.02	3615279.89	1.36675	(10021408)	484613.02	3615279.89	1.55826	(10110424)
484663.02	3615279.89	1.59605	(10110424)	484713.02	3615279.89	1.63497	(10110424)
484763.02	3615279.89	1.67505	(10110424)	484813.02	3615279.89	1.71628	(10110424)
484863.02	3615279.89	1.75871	(10110424)	484913.02	3615279.89	1.80234	(10110424)
484963.02	3615279.89	1.84718	(10110424)	485013.02	3615279.89	1.89324	(10110424)
485063.02	3615279.89	1.94053	(10110424)	485113.02	3615279.89	1.98904	(10110424)
485163.02	3615279.89	2.03875	(10110424)	485213.02	3615279.89	2.08966	(10110424)
485263.02	3615279.89	2.14172	(10110424)	485313.02	3615279.89	2.19488	(10110424)
484113.02	3615329.89	1.30121	(10100708)	484163.02	3615329.89	1.31230	(10100708)
484213.02	3615329.89	1.32275	(10100708)	484663.02	3615329.89	1.62659	(10110424)
484713.02	3615329.89	1.66721	(10110424)	484763.02			

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3615329.89        1.70907  (10110424)
       484813.02   3615329.89        1.75220  (10110424)                484863.02
3615329.89        1.79663  (10110424)
       484913.02   3615329.89        1.84240  (10110424)                484963.02
3615329.89        1.88951  (10110424)
       485013.02   3615329.89        1.93796  (10110424)                485063.02
3615329.89        1.98778  (10110424)
       485113.02   3615329.89        2.03897  (10110424)                485163.02
3615329.89        2.09153  (10110424)
       485213.02   3615329.89        2.14542  (10110424)                485263.02
3615329.89        2.20064  (10110424)
       485313.02   3615329.89        2.25715  (10110424)                485363.02
3615329.89        2.31481  (10110424)
       484113.02   3615379.89        1.32913  (10100708)                484163.02
3615379.89        1.34491  (10100708)
       484713.02   3615379.89        1.69984  (10110424)                484763.02
3615379.89        1.74356  (10110424)
       484813.02   3615379.89        1.78866  (10110424)                484863.02
3615379.89        1.83520  (10110424)
       484913.02   3615379.89        1.88318  (10110424)                484963.02
3615379.89        1.93265  (10110424)
       485013.02   3615379.89        1.98363  (10110424)                485063.02
3615379.89        2.03612  (10110424)
       485113.02   3615379.89        2.09013  (10110424)                485163.02
3615379.89        2.14567  (10110424)
       485213.02   3615379.89        2.20273  (10110424)                485263.02
3615379.89        2.26131  (10110424)
       485313.02   3615379.89        2.32137  (10110424)                485363.02
3615379.89        2.38287  (10110424)
       485413.02   3615379.89        2.44576  (10110424)                484763.02
3615429.89        1.77844  (10110424)
       484813.02   3615429.89        1.82564  (10110424)                484863.02
3615429.89        1.87435  (10110424)
       484913.02   3615429.89        1.92467  (10110424)                484963.02
3615429.89        1.97661  (10110424)
       485013.02   3615429.89        2.03021  (10110424)                485063.02
3615429.89        2.08549  (10110424)
       485113.02   3615429.89        2.14247  (10110424)                485163.02
3615429.89        2.20120  (10110424)
       485213.02   3615429.89        2.26161  (10110424)                485263.02
3615429.89        2.32375  (10110424)
       485313.02   3615429.89        2.38758  (10110424)                485363.02
3615429.89        2.45307  (10110424)
       485413.02   3615429.89        2.52018  (10110424)                485463.02
3615429.89        2.58885  (10110424)
       485513.02   3615429.89        2.65898  (10110424)                484813.02
3615479.89        1.86305  (10110424)
       484863.02   3615479.89        1.91406  (10110424)                484913.02
3615479.89        1.96680  (10110424)
       484963.02   3615479.89        2.02132  (10110424)                485013.02
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*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
485163.02	3615479.89	2.25805	(10110424)	485213.02	3615479.89	2.32203	(10110424)
485263.02	3615479.89	2.38795	(10110424)	485313.02	3615479.89	2.45578	(10110424)
485363.02	3615479.89	2.52552	(10110424)	485413.02	3615479.89	2.59716	(10110424)
485463.02	3615479.89	2.67061	(10110424)	485513.02	3615479.89	2.74580	(10110424)
485563.02	3615479.89	2.82226	(10110424)	484863.02	3615529.89	1.95423	(10110424)
484913.02	3615529.89	2.00952	(10110424)	484963.02	3615529.89	2.06674	(10110424)
485013.02	3615529.89	2.12597	(10110424)	485063.02	3615529.89	2.18727	(10110424)
485113.02	3615529.89	2.25068	(10110424)	485163.02	3615529.89	2.31622	(10110424)
485213.02	3615529.89	2.38394	(10110424)	485263.02	3615529.89	2.45386	(10110424)
485313.02	3615529.89	2.52596	(10110424)	485363.02	3615529.89	2.60024	(10110424)
485413.02	3615529.89	2.67670	(10110424)	485463.02	3615529.89	2.75530	(10110424)
485513.02	3615529.89	2.83594	(10110424)	484913.02			

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3615579.89        2.05269  (10110424)
       484963.02   3615579.89        2.11280  (10110424)                485013.02
3615579.89        2.17503  (10110424)
       485063.02   3615579.89        2.23955  (10110424)                485113.02
3615579.89        2.30632  (10110424)
       485163.02   3615579.89        2.37561  (10110424)                485213.02
3615579.89        2.44732  (10110424)
       485263.02   3615579.89        2.52146  (10110424)                485313.02
3615579.89        2.59810  (10110424)
       485363.02   3615579.89        2.67723  (10110424)                485413.02
3615579.89        2.75885  (10110424)
       485463.02   3615579.89        2.84296  (10110424)                484963.02
3615629.89        2.15938  (10110424)
       485013.02   3615629.89        2.22480  (10110424)                485063.02
3615629.89        2.29267  (10110424)
       485113.02   3615629.89        2.36314  (10110424)                485163.02
3615629.89        2.43624  (10110424)
       485213.02   3615629.89        2.51210  (10110424)                485263.02
3615629.89        2.59072  (10110424)
       485313.02   3615629.89        2.67215  (10110424)                485363.02
3615629.89        2.75645  (10110424)
       485413.02   3615629.89        2.84359  (10110424)                485013.02
3615679.89        2.27491  (10110424)
       485063.02   3615679.89        2.34655  (10110424)                485113.02
3615679.89        2.42079  (10110424)
       485163.02   3615679.89        2.49797  (10110424)                485213.02
3615679.89        2.57820  (10110424)
       485263.02   3615679.89        2.66156  (10110424)                485313.02
3615679.89        2.74805  (10110424)
       485363.02   3615679.89        2.83780  (10110424)                485413.02
3615679.89        2.93082  (10110424)
       485063.02   3615729.89        2.40075  (10110424)                485113.02
3615729.89        2.47927  (10110424)
       485163.02   3615729.89        2.56071  (10110424)                485213.02
3615729.89        2.64554  (10110424)
       485263.02   3615729.89        2.73386  (10110424)                485313.02
3615729.89        2.82574  (10110424)
       485363.02   3615729.89        2.92130  (10110424)                485113.02
3615779.89        2.53843  (10110424)
       485163.02   3615779.89        2.62434  (10110424)                485213.02
3615779.89        2.71398  (10110424)
       485263.02   3615779.89        2.80751  (10110424)                485313.02
3615779.89        2.90506  (10110424)
       485163.02   3615829.89        2.68838  (10110424)                485213.02
3615829.89        2.78338  (10110424)
       485263.02   3615829.89        2.88238  (10110424)                485213.02
3615879.89        2.85337  (10110424)
       487082.35   3618053.22       30.73970  (12081924)                487132.24
3618053.22       35.03219  (11070124)
       487182.13   3618053.22       31.61856  (12041924)                487232.02
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*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
486724.14	3617998.65	24.49888	(12060708)	486774.03	3617998.65	28.22562	(12060708)
486923.70	3617998.65	32.58248	(11070124)	486973.59	3617998.65	31.99424	(12042824)
487023.48	3617998.65	34.55736	(12042824)	487082.35	3618103.22	28.97561	(11060324)
487132.24	3618103.22	32.82702	(11070124)	487182.13	3618103.22	30.99180	(11070124)
486165.87	3618094.46	5.94951	(12111724)	486242.77	3618083.89	7.70932	(12111724)
486292.66	3618083.89	8.92913	(12110524)	486499.32	3618054.73	13.57040	(12111724)
486574.47	3618048.65	15.71957	(12111724)	486624.36	3618048.65	14.89718m	(12072008)
486674.25	3618048.65	16.43028	(12100224)	486724.14	3618048.65	22.43459	(12100224)
486873.81	3618048.65	30.01360	(12042824)	486923.70	3618048.65	30.77287	(11070124)
486973.59	3618048.65	31.49992	(11070124)	487023.48			

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3618048.65       32.40726  (12042824)
       487082.35   3618153.22       28.18478  (11060324)                 487132.24
3618153.22       30.58885  (11070124)
       486325.02   3618098.65        9.28995  (12110524)                 486242.77
3618133.89        8.03861  (12110524)
       486524.58   3618098.65       14.29069  (12111724)                 486574.47
3618098.65       14.36084  (12111724)
       486624.36   3618098.65       14.09216m (12072008)                 486674.25
3618098.65       16.52970m (10050124)
       486823.92   3618098.65       27.98989  (12060708)                 486873.81
3618098.65       29.07153  (12042824)
       486923.70   3618098.65       29.32195  (12060708)                 486973.59
3618098.65       30.92929  (11070124)
       487023.48   3618098.65       30.43455  (12042824)                 487082.35
3618203.22       27.20592  (11060324)
       486275.13   3618148.65        8.66040  (12110524)                 486325.02
3618148.65        9.00859  (12110524)
       486374.91   3618148.65        9.27575  (12110524)                 486474.69
3618148.65       11.85113  (12111724)
       486524.58   3618148.65       13.00486  (12111724)                 486574.47
3618148.65       13.07496  (12111724)
       486624.36   3618148.65       16.01991  (12060608)                 486774.03
3618148.65       24.16030  (12060708)
       486823.92   3618148.65       26.81591  (12060708)                 486873.81
3618148.65       28.13952  (12042824)
       486923.70   3618148.65       28.51256  (12060708)                 486973.59
3618148.65       29.99695  (11070124)
       487023.48   3618148.65       28.76536  (12042824)                 486275.13
3618198.65        8.46545  (12110524)
       486325.02   3618198.65        8.73374  (12110524)                 486374.91
3618198.65        9.09561  (12110524)
       486424.80   3618198.65       10.16952  (12111724)                 486474.69
3618198.65       11.31176  (12111724)
       486524.58   3618198.65       11.96161  (12111724)                 486674.25
3618198.65       14.92944m (10050124)
       486724.14   3618198.65       18.78004  (12100224)                 486774.03
3618198.65       22.36279  (12060708)
       486823.92   3618198.65       25.14306  (12060708)                 486873.81
3618198.65       26.79581  (12042824)
       486923.70   3618198.65       27.70676  (12060708)                 486973.59
3618198.65       28.55630  (11070124)
       487023.48   3618198.65       27.61790  (12042824)                 486275.13
3618248.65        8.25179  (12110524)
       486325.02   3618248.65        8.56911  (12110524)                 486374.91
3618248.65        8.94074  (12110524)
       486424.80   3618248.65        9.84623  (12111724)                 486474.69
3618248.65       10.91071  (12111724)
       486624.36   3618248.65       12.28097m (12072008)                 486674.25
3618248.65       13.80944m (10050124)
       486724.14   3618248.65       17.96226  (12100224)                 486774.03
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*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): LOCATION1_2 , LOCATION2_2 , LOCATION2_4 , LOCATION2_3 , LOCATION2_1 , LOCATION1_4 , LOCATION1_1 , LOCATION1_3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
486574.47	3618298.65	11.34321m	(12072008)	486624.36	3618298.65	11.74177m	(12072008)
486674.25	3618298.65	13.33689m	(10050124)	486724.14	3618298.65	17.27439	(12100224)
486774.03	3618298.65	22.23760	(12060708)	486823.92	3618298.65	24.17878	(12060708)
486873.81	3618298.65	25.25746	(12060708)	486923.70	3618298.65	25.99635	(12042824)
486125.46	3618348.65	5.65469	(12111724)	486175.35	3618348.65	6.80990	(12110524)
486225.24	3618348.65	7.52660	(12110524)	486275.13	3618348.65	7.83952	(12110524)
486325.02	3618348.65	8.18832	(12110524)	486524.58	3618348.65	9.52645	(11011824)
486574.47	3618348.65	10.96613m	(12072008)	486624.36			

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3618348.65       11.31136m (12072008)
       486674.25   3618348.65       12.66961m (10050124)                 486724.14
3618348.65       16.64396  (12100224)
       486774.03   3618348.65       21.93925  (12060708)                 486823.92
3618348.65       23.69018  (12060708)
       486873.81   3618348.65       24.53377  (12060708)                 486125.46
3618398.65        5.51221  (12111724)
       486175.35   3618398.65        6.73550  (12110524)                 486225.24
3618398.65        7.15169  (12110524)
       486424.80   3618398.65        8.39420  (12111724)                 486474.69
3618398.65        8.85583  (12102724)
       486524.58   3618398.65        9.24416m (12072008)                 486574.47
3618398.65       10.54645m (12072008)
       486624.36   3618398.65       10.82295m (12072008)                 486674.25
3618398.65       11.99466m (10050124)
       486724.14   3618398.65       15.71688  (12100224)                 486774.03
3618398.65       19.89785  (12060708)
       486823.92   3618398.65       22.74284  (12060708)                 486125.46
3618448.65        5.62890  (12111724)
       486175.35   3618448.65        6.28685  (12111724)                 486374.91
3618448.65        7.87884  (11112924)
       486424.80   3618448.65        8.04832  (11112924)                 486474.69
3618448.65        8.73904  (12102724)
       486524.58   3618448.65        8.93752m (12072008)                 486574.47
3618448.65       10.11936m (12072008)
       486624.36   3618448.65       10.38766m (12072008)                 486674.25
3618448.65       11.49293  (11011824)
       486724.14   3618448.65       14.83032  (12100224)                 486774.03
3618448.65       18.14455  (12060708)
       486125.46   3618498.65        4.58103  (12111724)                 486325.02
3618498.65        7.24008  (12111724)
       486374.91   3618498.65        7.58287  (11112924)                 486424.80
3618498.65        7.81046  (11112924)
       486474.69   3618498.65        8.13437  (12102724)                 486524.58
3618498.65        8.79693m (12072008)
       486574.47   3618498.65        9.61395m (12072008)                 486624.36
3618498.65       10.00446m (12072008)
       486674.25   3618498.65       10.96861  (11011824)                 486105.96
3618586.04        3.84026  (12111724)
       486325.02   3618548.65        6.86796  (12111724)                 486374.91
3618548.65        7.02944  (11112924)
       486424.80   3618548.65        7.24740  (11112924)                 486474.69
3618548.65        7.71668  (12102724)
       486524.58   3618548.65        8.15056m (12072008)                 486574.47
3618548.65        9.39310m (12072008)
       486624.36   3618548.65        9.63050m (12072008)                 486101.02
3618078.36        5.37695  (10110424)
       486155.07   3618149.26        5.91337  (12111724)                 486018.49
3618262.09        4.24851  (10110424)
       485957.41   3618189.14        4.38525  (10110424)                 485842.03
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*** THE SUMMARY OF MAXIMUM PERIOD (26304 HRS) RESULTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

GROUP ID	NETWORK AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
LOCA1	1ST HIGHEST VALUE IS	10.49317 AT (487020.59, 3617350.48, 11.66, 11.66, 0.00)	DC	
	2ND HIGHEST VALUE IS	10.20835 AT (487070.59, 3617350.48, 11.40, 11.40, 0.00)	DC	
	3RD HIGHEST VALUE IS	9.93374 AT (487170.59, 3617300.48, 11.82, 11.82, 0.00)	DC	
	4TH HIGHEST VALUE IS	9.57025 AT (487120.59, 3617350.48, 11.88, 11.88, 0.00)	DC	
	5TH HIGHEST VALUE IS	8.62981 AT (487170.59, 3617350.48, 12.35, 12.35, 0.00)	DC	
	6TH HIGHEST VALUE IS	8.46119 AT (487220.59, 3617300.48, 11.89, 11.89, 0.00)	DC	
	7TH HIGHEST VALUE IS	8.44522 AT (487020.59, 3617400.48, 12.73, 12.73, 0.00)	DC	
	8TH HIGHEST VALUE IS	8.37245 AT (487070.59, 3617400.48, 12.77, 12.77, 0.00)	DC	
	9TH HIGHEST VALUE IS	8.32307 AT (486970.59, 3617400.48, 12.06, 12.06, 0.00)	DC	
	10TH HIGHEST VALUE IS	8.07088 AT (487120.59, 3617400.48, 13.07, 13.07, 0.00)	DC	
LOCA2	1ST HIGHEST VALUE IS	7.18660 AT (486770.59, 3617400.48, 9.16, 9.16, 0.00)	DC	

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          2ND HIGHEST VALUE IS       7.17801 AT (  486820.59,  3617400.48,
9.87,     9.87,    0.00)  DC
          3RD HIGHEST VALUE IS       7.04977 AT (  486870.59,  3617400.48,
10.57,    10.57,    0.00)  DC
          4TH HIGHEST VALUE IS       6.78808 AT (  486920.59,  3617400.48,
11.28,    11.28,    0.00)  DC
          5TH HIGHEST VALUE IS       6.45290 AT (  487020.59,  3617350.48,
11.66,    11.66,    0.00)  DC
          6TH HIGHEST VALUE IS       6.38288 AT (  486970.59,  3617400.48,
12.06,    12.06,    0.00)  DC
          7TH HIGHEST VALUE IS       6.02138 AT (  486820.59,  3617450.48,
10.93,    10.93,    0.00)  DC
          8TH HIGHEST VALUE IS       5.97051 AT (  486870.59,  3617450.48,
11.43,    11.43,    0.00)  DC
          9TH HIGHEST VALUE IS       5.86996 AT (  486920.59,  3617450.48,
12.31,    12.31,    0.00)  DC
         10TH HIGHEST VALUE IS       5.86699 AT (  487020.59,  3617400.48,
12.73,    12.73,    0.00)  DC

ALL       1ST HIGHEST VALUE IS      16.94607 AT (  487020.59,  3617350.48,
11.66,    11.66,    0.00)  DC
          2ND HIGHEST VALUE IS      15.84788 AT (  487070.59,  3617350.48,
11.40,    11.40,    0.00)  DC
          3RD HIGHEST VALUE IS      14.81507 AT (  486920.59,  3617400.48,
11.28,    11.28,    0.00)  DC
          4TH HIGHEST VALUE IS      14.70595 AT (  486970.59,  3617400.48,
12.06,    12.06,    0.00)  DC
          5TH HIGHEST VALUE IS      14.70355 AT (  486870.59,  3617400.48,
10.57,    10.57,    0.00)  DC
          6TH HIGHEST VALUE IS      14.61571 AT (  487170.59,  3617300.48,
11.82,    11.82,    0.00)  DC
          7TH HIGHEST VALUE IS      14.58021 AT (  487120.59,  3617350.48,
11.88,    11.88,    0.00)  DC
          8TH HIGHEST VALUE IS      14.44850 AT (  486820.59,  3617400.48,
9.87,     9.87,    0.00)  DC
          9TH HIGHEST VALUE IS      14.31221 AT (  487020.59,  3617400.48,
12.73,    12.73,    0.00)  DC
         10TH HIGHEST VALUE IS      14.03470 AT (  486770.59,  3617400.48,
9.16,     9.16,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↟ *** AERMOD - VERSION 22112  ***   *** NASSCO Revised HRA - Welding TACs
                           ***        11/29/22
 *** AERMET - VERSION  19191 ***   ***
                            ***       14:52:42
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE	CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
LOCA1	HIGH	1ST HIGH VALUE IS	277.89277	ON 12081903: AT (487120.59, 3617350.48, 11.88, 11.88, 0.00)	DC	
LOCA2	HIGH	1ST HIGH VALUE IS	189.52295	ON 12081903: AT (486970.59, 3617450.48, 12.98, 12.98, 0.00)	DC	
ALL	HIGH	1ST HIGH VALUE IS	285.01994	ON 12081903: AT (487120.59, 3617350.48, 11.88, 11.88, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF TAC IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE	CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID

- -

LOCA1   HIGH   1ST HIGH VALUE IS   60.98350 ON 12100224: AT (486920.59, 3617400.48,   11.28,   11.28,   0.00) DC

LOCA2   HIGH   1ST HIGH VALUE IS   44.61622 ON 12072924: AT (487120.59, 3617650.48,   20.43,   20.43,   0.00) DC

ALL   HIGH   1ST HIGH VALUE IS   75.25179m ON 11072608: AT (487370.59, 3617350.48,   13.86,   13.86,   0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of   0 Fatal Error Message(s)
A Total of   38 Warning Message(s)
A Total of   341 Informational Message(s)

A Total of   26304 Hours Were Processed

A Total of   6 Calm Hours Identified

A Total of   335 Missing Hours Identified (1.27 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
ME W186   79   MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
MX W403   79   PFLCNV: Turbulence data is being used w/o ADJ_U* option SigA Data
MX W441   14167   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=

```
 11081407
MX W441   14168        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081408
MX W441   14169        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081409
MX W441   14170        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081410
MX W441   14171        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081411
MX W441   14172        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081412
MX W441   14173        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081413
MX W441   14174        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081414
MX W441   14175        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081415
MX W441   14176        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081416
MX W441   14177        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081417
MX W441   14178        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081418
MX W441   14191        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081507
MX W441   14192        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081508
MX W441   14193        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081509
MX W441   14194        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081510
MX W441   14195        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081511
MX W441   14196        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081512
MX W441   14197        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081513
MX W441   14198        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081514
MX W441   14199        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081515
MX W441   14200        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081516
MX W441   14201        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081517
MX W441   14202        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081518
MX W441   14215        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081607
MX W441   14216        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
```

```
 11081608
MX W441   14217        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081609
MX W441   14218        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081610
MX W441   14219        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081611
MX W441   14220        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081612
MX W441   14221        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081613
MX W441   14222        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081614
MX W441   14223        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081615
MX W441   14224        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081616
MX W441   14225        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081617
MX W441   14226        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
 11081618

   ************************************
   *** AERMOD Finishes Successfully ***
   ************************************
```

HARP Outputs

HARP2 - HRACalc (dated 22118) 3/20/2023 10:31:53 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 0

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 0
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_3RD\hra\3rdCancerRisk.csv
Cancer risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_3RD\hra\3rdCancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_3RD\hra\3rdNCChronicRisk.csv
Chronic risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_3RD\hra\3rdNCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_3RD\hra\3rdNCAcuteRisk.csv
Acute risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_3RD\hra\3rdNCAcuteRiskSumByRec.csv
HRA ran successfully

HARP2 - HRACalc (dated 22118) 3/20/2023 11:19:09 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 0
Total Exposure Duration: 2

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_0_2\hra\NASSCO_0_2CancerRisk.csv
Cancer risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_0_2\hra\NASSCO_0_2CancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_0_2\hra\NASSCO_0_2NCChronicRisk.csv
Chronic risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_0_2\hra\NASSCO_0_2NCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_0_2\hra\NASSCO_0_2NCAcuteRisk.csv
Acute risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_0_2\hra\NASSCO_0_2NCAcuteRiskSumByRec.csv
HRA ran successfully

HARP2 - HRACalc (dated 22118) 3/22/2023 10:51:59 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 2
Total Exposure Duration: 8

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 0
2<9 Years Bin: 0
2<16 Years Bin: 8
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Warm

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_2_16\hra\NASSCO_2_16CancerRisk.csv
Cancer risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_2_16\hra\NASSCO_2_16CancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_2_16\hra\NASSCO_2_16NCChronicRisk.csv
Chronic risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_2_16\hra\NASSCO_2_16NCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_2_16\hra\NASSCO_2_16NCAcuteRisk.csv
Acute risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_2_16\hra\NASSCO_2_16NCAcuteRiskSumByRec.csv
HRA ran successfully

HARP Project Summary Report 3/20/2023 11:40:26 PM

PROJECT INFORMATION
HARP Version: 22118
Project Name: NASSCO_0_2
Project Output Directory: C:\HARP2\NASSCO\NASSCO_0_2
HARP Database: NA

FACILITY INFORMATION
Origin
X (m):0
Y (m):0
Zone:1
No. of Sources:0
No. of Buildings:0

EMISSION INVENTORY
No. of Pollutants:4
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	
Multi	Annual Ems	MaxHr Ems	MWAF		
	(lbs/yr)	(lbs/hr)			
Trucks_Surface	0	0	9901	DieselExhPM	1
	0.08985141	0	1		
Trucks_Frwy	0	0	9901	DieselExhPM	1
	0.052297609	0	1		
Marine	0	0	9901	DieselExhPM	1
	131.119731367	0	1		
Equipment	0	0	9901	DieselExhPM	1
	196.523289833	0	1		

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22343
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1		5			

AIR DISPERSION MODELING INFORMATION
Versions used in HARP. All executables were obtained from USEPA's Support Center for Regulatory Atmospheric Modeling website (http://www.epa.gov/scram001/)
AERMOD: 18081
AERMAP: 18081
BPIPPRM: 04274
AERPLOT: 13329

METEOROLOGICAL INFORMATION
Version:
Surface File:
Profile File:
Surface Station:
Upper Station:
On-Site Station:

LIST OF AIR DISPERSION FILES
AERMOD Input File:
AERMOD Output File:
AERMOD Error File:
Plotfile list

EQUIPMEN.PLT
MARINE.PLT
TRUKFWY.PLT
TRUKSURF.PLT

LIST OF RISK ASSESSMENT FILES
Health risk analysis files (\hra\)

NASSCO_0_2CancerRisk.csv
NASSCO_0_2CancerRiskSumByRec.csv
NASSCO_0_2GLCList.csv
NASSCO_0_2HRAInput.hra
NASSCO_0_2NCAcuteRisk.csv
NASSCO_0_2NCAcuteRiskSumByRec.csv
NASSCO_0_2NCChronicRisk.csv
NASSCO_0_2NCChronicRiskSumByRec.csv
NASSCO_0_2Output.txt
NASSCO_0_2PathwayRec.csv
NASSCO_0_2PolDB.csv

Spatial averaging files (\sa\)

HARP Project Summary Report 3/20/2023 11:48:22 PM

PROJECT INFORMATION
HARP Version: 22118
Project Name: NASSCO_2_16
Project Output Directory: C:\HARP2\NASSCO\NASSCO_2_16
HARP Database: NA

FACILITY INFORMATION
Origin
X (m):0
Y (m):0
Zone:1
No. of Sources:0
No. of Buildings:0

EMISSION INVENTORY
No. of Pollutants:4
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	
Multi	Annual Ems	MaxHr Ems	MWAF		
	(lbs/yr)	(lbs/hr)			
Equipment	0	0	9901	DieselExhPM	1
	18.789800399	0	1		
Marine	0	0	9901	DieselExhPM	1
	38.467094963	0	1		
Trucks_Frwy	0	0	9901	DieselExhPM	1
	0.009111831	0	1		
Trucks_Surface	0	0	9901	DieselExhPM	1
	0.015654844	0	1		

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22343
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1		5			

AIR DISPERSION MODELING INFORMATION
Versions used in HARP. All executables were obtained from USEPA's Support Center for Regulatory Atmospheric Modeling website (http://www.epa.gov/scram001/)
AERMOD: 18081
AERMAP: 18081
BPIPPRM: 04274
AERPLOT: 13329

METEOROLOGICAL INFORMATION
Version:
Surface File:
Profile File:
Surface Station:
Upper Station:
On-Site Station:

LIST OF AIR DISPERSION FILES
AERMOD Input File:
AERMOD Output File:
AERMOD Error File:
Plotfile list

EQUIPMEN.PLT
MARINE.PLT
TRUKFWY.PLT
TRUKSURF.PLT

LIST OF RISK ASSESSMENT FILES
Health risk analysis files (\hra\)

NASSCO_2_16CancerRisk.csv
NASSCO_2_16CancerRiskSumByRec.csv
NASSCO_2_16GLCList.csv
NASSCO_2_16HRAInput.hra
NASSCO_2_16NCAcuteRisk.csv
NASSCO_2_16NCAcuteRiskSumByRec.csv
NASSCO_2_16NCChronicRisk.csv
NASSCO_2_16NCChronicRiskSumByRec.csv
NASSCO_2_16Output.txt
NASSCO_2_16PathwayRec.csv
NASSCO_2_16PolDB.csv

Spatial averaging files (\sa\)

HARP Project Summary Report 3/20/2023 10:26:15 PM

PROJECT INFORMATION
HARP Version: 22118
Project Name: NASSCO_3RD
Project Output Directory: C:\HARP2\NASSCO\NASSCO_3RD
HARP Database: NA

FACILITY INFORMATION
Origin
X (m):0
Y (m):0
Zone:1
No. of Sources:0
No. of Buildings:0

EMISSION INVENTORY
No. of Pollutants:4
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	
Multi	Annual Ems	MaxHr Ems	MWAF		
	(lbs/yr)	(lbs/hr)			
Equipment	0	0	9901	DieselExhPM	1
	204.602174492	0	1		
Marine	0	0	9901	DieselExhPM	1
	92.955801438	0	1		
Truck_Fwy	0	0	9901	DieselExhPM	1
	0.065302799	0	1		
Truck_Surf	0	0	9901	DieselExhPM	1
	0.038009201	0	1		

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22343
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL
InhChronicREL	OralChronicREL	InhChronic8HRREL		

AIR DISPERSION MODELING INFORMATION
Versions used in HARP. All executables were obtained from USEPA's Support Center for Regulatory Atmospheric Modeling website (http://www.epa.gov/scram001/)
AERMOD: 18081
AERMAP: 18081
BPIPPRM: 04274
AERPLOT: 13329

METEOROLOGICAL INFORMATION
Version:
Surface File:
Profile File:
Surface Station:
Upper Station:
On-Site Station:

LIST OF AIR DISPERSION FILES
AERMOD Input File:
AERMOD Output File:
AERMOD Error File:
Plotfile list

EQUIPMEN.PLT
MARINE.PLT
TRUKFWY.PLT
TRUKSURF.PLT

LIST OF RISK ASSESSMENT FILES
Health risk analysis files (\hra\)

Spatial averaging files (\sa\)

HARP Project Summary Report 3/21/2023 1:20:15 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: NASSCO_PARK_0_2
Project Output Directory: C:\HARP2\NASSCO\NASSCO_PARK_0_2
HARP Database: NA

FACILITY INFORMATION
Origin
X (m):0
Y (m):0
Zone:1
No. of Sources:0
No. of Buildings:0

EMISSION INVENTORY
No. of Pollutants:4
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	
Multi	Annual Ems	MaxHr Ems	MWAF		
	(lbs/yr)	(lbs/hr)			
Marine	0	0	9901	DieselExhPM	1
	142.739952	0	1		
Trucks_Surface	0	0	9901	DieselExhPM	1
	0.098015	0	1		
Trucks_Hwy	0	0	9901	DieselExhPM	1
	0.057049	0	1		
Equipment	0	0	9901	DieselExhPM	1
	222.099722	0	1		

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22343
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1		5			

AIR DISPERSION MODELING INFORMATION
Versions used in HARP. All executables were obtained from USEPA's Support Center for Regulatory Atmospheric Modeling website (http://www.epa.gov/scram001/)
AERMOD: 18081
AERMAP: 18081
BPIPPRM: 04274
AERPLOT: 13329

METEOROLOGICAL INFORMATION
Version:
Surface File:
Profile File:
Surface Station:
Upper Station:
On-Site Station:

LIST OF AIR DISPERSION FILES
AERMOD Input File:
AERMOD Output File:
AERMOD Error File:
Plotfile list

EQUIPMEN.PLT
MARINE.PLT
TRUKFWY.PLT
TRUKSURF.PLT

LIST OF RISK ASSESSMENT FILES
Health risk analysis files (\hra\)

PARK_0_2CancerRisk.csv
PARK_0_2CancerRiskSumByRec.csv
PARK_0_2GLCList.csv
PARK_0_2HRAInput.hra
PARK_0_2NCAcuteRisk.csv
PARK_0_2NCAcuteRiskSumByRec.csv
PARK_0_2NCChronicRisk.csv
PARK_0_2NCChronicRiskSumByRec.csv
PARK_0_2Output.txt
PARK_0_2PathwayRec.csv
PARK_0_2PolDB.csv

Spatial averaging files (\sa\)

HARP2 - HRACalc (dated 22118) 3/22/2023 10:01:49 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 0
Total Exposure Duration: 2

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.
Worker adjustments factors enabled: YES
GLC adjustment factor: 1
Exposure frequency: 9

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Warm

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|DBRs changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_PARK_0_2\hra\PARK_0_2CancerRisk.csv
Cancer risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_PARK_0_2\hra\PARK_0_2CancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_PARK_0_2\hra\PARK_0_2NCChronicRisk.csv
Chronic risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_PARK_0_2\hra\PARK_0_2NCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_PARK_0_2\hra\PARK_0_2NCAcuteRisk.csv
Acute risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_PARK_0_2\hra\PARK_0_2NCAcuteRiskSumByRec.csv
HRA ran successfully

HARP Project Summary Report 4/6/2023 4:44:01 PM

PROJECT INFORMATION
HARP Version: 22118
Project Name: NASSCO_PARK_2_16
Project Output Directory: C:\Users\matthew.mcfalls\Ascent Environmental\Projects - 17010134.03 - San Diego Port - NASSCO\4_Deliverables in progress\XX_IS-MND\2_ISMND\01_ Prepared by authors_AQ_GHG_Energy\EIR\HRA\DPM\HARP\NASSCO_PARK_2_16
HARP Database: NA

FACILITY INFORMATION
Origin
X (m):0
Y (m):0
Zone:1
No. of Sources:0
No. of Buildings:0

EMISSION INVENTORY
No. of Pollutants:4
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	
Multi	Annual Ems	MaxHr Ems	MWAF		
	(lbs/yr)	(lbs/hr)			
Equipment	0	0	9901	DieselExhPM	1
	19.6726123	0	1		
Marine	0	0	9901	DieselExhPM	1
	37.7534248	0	1		
Trucks_Surface	0	0	9901	DieselExhPM	1
	0.01646999	0	1		
Trucks_Hwy	0	0	9901	DieselExhPM	1
	0.00958628	0	1		

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb

Health Table Version: HEALTH22343
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1		5			

AIR DISPERSION MODELING INFORMATION
Versions used in HARP. All executables were obtained from USEPA's Support Center for Regulatory Atmospheric Modeling website (http://www.epa.gov/scram001/)
AERMOD: 18081
AERMAP: 18081
BPIPPRM: 04274
AERPLOT: 13329

METEOROLOGICAL INFORMATION
Version:
Surface File:
Profile File:
Surface Station:
Upper Station:
On-Site Station:

LIST OF AIR DISPERSION FILES
AERMOD Input File:
AERMOD Output File:
AERMOD Error File:
Plotfile list

EQUIPMEN.PLT
MARINE.PLT
TRUKFWY.PLT
TRUKSURF.PLT

LIST OF RISK ASSESSMENT FILES
Health risk analysis files (\hra\)

PARK_2_16CancerRisk.csv
PARK_2_16CancerRiskSumByRec.csv
PARK_2_16GLCList.csv
PARK_2_16HRAInput.hra
PARK_2_16NCAcuteRisk.csv
PARK_2_16NCAcuteRiskSumByRec.csv
PARK_2_16NCChronicRisk.csv
PARK_2_16NCChronicRiskSumByRec.csv
PARK_2_16Output.txt
PARK_2_16PathwayRec.csv

PARK_2_16PolDB.csv

Spatial averaging files (\sa\)

_____

HARP2 - HRACalc (dated 22118) 3/22/2023 10:05:40 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 2
Total Exposure Duration: 8

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 0
2<9 Years Bin: 0
2<16 Years Bin: 8
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.
Worker adjustments factors enabled: YES
GLC adjustment factor: 1
Exposure frequency: 9

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Warm

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_PARK_2_16\hra\PARK_2_16CancerRisk.csv
Cancer risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_PARK_2_16\hra\PARK_2_16CancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_PARK_2_16\hra\PARK_2_16NCChronicRisk.csv
Chronic risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_PARK_2_16\hra\PARK_2_16NCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_PARK_2_16\hra\PARK_2_16NCAcuteRisk.csv
Acute risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_PARK_2_16\hra\PARK_2_16NCAcuteRiskSumByRec.csv
HRA ran successfully

HARP Project Summary Report 3/21/2023 12:35:59 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: NASSCO_SCHOOL
Project Output Directory: C:\HARP2\NASSCO\NASSCO_SCHOOL
HARP Database: NA

FACILITY INFORMATION
Origin
X (m):0
Y (m):0
Zone:1
No. of Sources:0
No. of Buildings:0

EMISSION INVENTORY
No. of Pollutants:4
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	
Multi	Annual Ems	MaxHr Ems	MWAF		
	(lbs/yr)	(lbs/hr)			
Equipment	0	0	9901	DieselExhPM	1
	60.8607877	0	1		
Marine	0	0	9901	DieselExhPM	1
	62.2065494	0	1		
Trucks_Surface	0	0	9901	DieselExhPM	1
	0.0333008	0	1		
Trucks_Fwy	0	0	9901	DieselExhPM	1
	0.0193826	0	1		

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22343
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1		5			

AIR DISPERSION MODELING INFORMATION
Versions used in HARP. All executables were obtained from USEPA's Support Center for Regulatory Atmospheric Modeling website (http://www.epa.gov/scram001/)
AERMOD: 18081
AERMAP: 18081
BPIPPRM: 04274
AERPLOT: 13329

METEOROLOGICAL INFORMATION
Version:
Surface File:
Profile File:
Surface Station:
Upper Station:
On-Site Station:

LIST OF AIR DISPERSION FILES
AERMOD Input File:
AERMOD Output File:
AERMOD Error File:
Plotfile list

EQUIPMEN.PLT
MARINE.PLT
TRUKFWY.PLT
TRUKSURF.PLT

LIST OF RISK ASSESSMENT FILES
Health risk analysis files (\hra\)

School_2_16CancerRisk.csv
School_2_16CancerRiskSumByRec.csv
School_2_16GLCList.csv
School_2_16HRAInput.hra
School_2_16NCAcuteRisk.csv
School_2_16NCAcuteRiskSumByRec.csv
School_2_16NCChronicRisk.csv
School_2_16NCChronicRiskSumByRec.csv
School_2_16Output.txt
School_2_16PathwayRec.csv
School_2_16PolDB.csv

Spatial averaging files (\sa\)

HARP2 - HRACalc (dated 22118) 3/21/2023 12:49:53 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 2
Total Exposure Duration: 10

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 0
2<9 Years Bin: 0
2<16 Years Bin: 10
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.
Worker adjustments factors enabled: YES
GLC adjustment factor: 4.2
Exposure frequency: 180

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

Refined daily 8-hour average files were used for the 8-hour noncancer chronic assessment.
****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|DBRs changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_SCHOOL\hra\School_2_16CancerRisk.csv
Cancer risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_SCHOOL\hra\School_2_16CancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_SCHOOL\hra\School_2_16NCChronicRisk.csv
Chronic risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_SCHOOL\hra\School_2_16NCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_SCHOOL\hra\School_2_16NCAcuteRisk.csv
Acute risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_SCHOOL\hra\School_2_16NCAcuteRiskSumByRec.csv
HRA ran successfully

HARP2 - HRACalc (dated 22118) 3/21/2023 4:26:57 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 0
Total Exposure Duration: 1

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 1
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_WELDING\hra\WeldingCancerRisk.csv
Cancer risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_WELDING\hra\WeldingCancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_WELDING\hra\WeldingNCChronicRisk.csv
Chronic risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_WELDING\hra\WeldingNCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to:
C:\HARP2\NASSCO\NASSCO_WELDING\hra\WeldingNCAcuteRisk.csv
Acute risk total by receptor saved to:
C:\HARP2\NASSCO\NASSCO_WELDING\hra\WeldingNCAcuteRiskSumByRec.csv
HRA ran successfully

HARP Project Summary Report 3/21/2023 4:27:11 PM

PROJECT INFORMATION
HARP Version: 22118
Project Name: NASSCO_WELDING
Project Output Directory: C:\HARP2\NASSCO\NASSCO_WELDING
HARP Database: NA

FACILITY INFORMATION
Origin
X (m):0
Y (m):0
Zone:1
No. of Sources:0
No. of Buildings:0

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	
Multi	Annual Ems	MaxHr Ems	MWAF		
	(lbs/yr)	(lbs/hr)			
Location1	0	0	7440484	Cobalt	1
	5.7E-05	1.5E-07	1		
Location1	0	0	7440473	Chromium	1
	0.0006669	1.755E-06	1		
Location1	0	0	18540299	Cr(VI)	1
	0.00036651	9.65E-07	1		
Location1	0	0	7439965	Manganese	1
	0.05871	0.0001545	1		
Location1	0	0	7440020	Nickel	1
	0.000114	3E-07	1		
Location2	0	0	7440484	Cobalt	1
	1.8E-05	5E-08	1		
Location2	0	0	7440473	Chromium	1
	0.0002106	5.85E-07	1		
Location2	0	0	18540299	Cr(VI)	1
	0.00011574	3.22E-07	1		
Location2	0	0	7439965	Manganese	1
	0.01854	5.15E-05	1		
Location2	0	0	7440020	Nickel	1
	3.6E-05	1E-07	1		

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

18540299MAXHR.txt
18540299PER.txt
7439965MAXHR.txt
7439965PER.txt
7440020MAXHR.txt
7440020PER.txt
7440473MAXHR.txt
7440473PER.txt
7440484MAXHR.txt
7440484PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22343
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
7440484	Cobalt	27					
7440473	Chromium						
18540299	Cr(VI)	510	0.5		0.2	0.02	
7439965	Manganese				0.09		0.17
7440020	Nickel	0.91		0.2	0.014	0.011	0.06

AIR DISPERSION MODELING INFORMATION
Versions used in HARP. All executables were obtained from USEPA's Support Center for Regulatory Atmospheric Modeling website (http://www.epa.gov/scram001/)
AERMOD: 18081
AERMAP: 18081
BPIPPRM: 04274
AERPLOT: 13329

METEOROLOGICAL INFORMATION
Version:
Surface File:
Profile File:
Surface Station:
Upper Station:
On-Site Station:

LIST OF AIR DISPERSION FILES
AERMOD Input File:
AERMOD Output File:
AERMOD Error File:
Plotfile list

_____
01H1G001.PLT
01H1G002.PLT
08H1G001.PLT
08H1G002.PLT
PE00G001.PLT
PE00G002.PLT

LIST OF RISK ASSESSMENT FILES
Health risk analysis files (\hra\)

_____
WeldingCancerRisk.csv
WeldingCancerRiskSumByRec.csv
WeldingGLCList.csv
WeldingHRAInput.hra
WeldingNCAcuteRisk.csv
WeldingNCAcuteRiskSumByRec.csv
WeldingNCChronicRisk.csv
WeldingNCChronicRiskSumByRec.csv
WeldingOutput.txt
WeldingPathwayRec.csv
WeldingPolDB.csv

Spatial averaging files (\sa\)
_____

Appendix E

Marine Habitat Assessment

MARINE TAXONOMIC SERVICES, LTD.

Marine Habitat Assessment for the General Dynamics-NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project

June 28, 2021 (Revised March 23, 2023)

Prepared for:

Ascent Environmental, Inc.
1230 Columbia St.
San Diego, CA 92101

Prepared By:

Marine Taxonomic Services, Ltd.

SOUTHERN CALIFORNIA OFFICE

920 RANCHEROS DRIVE, STE F-1
SAN MARCOS, CA 92069

OREGON OFFICE

2834 NW PINEVIEW DRIVE
ALBANY, OR 97321

LAKE TAHOE OFFICE

1155 GOLDEN BEAR TRAIL
SOUTH LAKE TAKOE, CA 96150

Marine Taxonomic Services Ltd. 2022. Marine Habitat Assessment for the General Dynamics-NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project. Prepared for Ascent Environmental, Inc. June 28, 2021 (Revised March 23, 2023).

Robert Mooney

_____

Robert Mooney, PhD
Principal Scientist

Participating Marine Taxonomic Services Ltd. Team Members;

Biologist and Field Technician – Hannah Joss, BSc.
Biologist and Report Draft – Grace Teller, MSc.

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Acronyms

CCC	California Coastal Commission
CDFW	California Department of Fish and Wildlife
CEMP	California Eelgrass Mitigation Policy
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
dGPS	differential global positioning system
EFH	Essential Fish Habitat Assessment
ESA	Endangered Species Act
FMPs	Fishery Management Plan
HAPCs	Habitat Areas of Particular Concern
INRP	San Diego Bay Integrated Natural Resource Management Plan
MBTA	Migratory Bird Treaty Act
MLLW	mean lower low water
MMPA	Marine Mammal Protection Act
MSA	Magnuson-Stevens Fishery Management and Conservation Act
MTS	Marine Taxonomic Services, Ltd.
NAB	Naval Amphibious Base
NAS	Naval Air Station
NASSCO	General Dynamics-NASSCO
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
Project	Floating Dry Dock Replacement and Waterfront Improvement Project
RWQCB	Regional Water Quality Control Board
SWRCB	State Water Resource Control Board
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
WoS	waters of the State
WoUS	waters of the United States

Marine Habitat Assessment for the General Dynamics-NASSCO Floating Dry Dock Replacement and Waterfront Improvement Project

June 28, 2021 (Revised March 23, 2023)

1 Introduction

Marine Taxonomic Services, Ltd. (MTS) was contracted by Ascent Environmental, Inc (Ascent) to perform an assessment of marine habitats within the NASSCO shipyard leasehold. The goal of the survey was to observe areas below +7.79-feet mean lower low water (MLLW) for the purpose of mapping biological habitats for the proposed Project. This elevation was determined as the high-water line and is the jurisdictional elevation for permitting with the United States Army Corps of Engineers (USACE). The habitat data was used to develop a marine biological assessment presented in this document. This assessment provides an eelgrass map, discusses the habitats and dominant species present, includes an Essential Fish Habitat Assessment (EFH), and evaluates potential Project related impacts and potential mitigation measures.

1-1 Project Location

The NASSCO shipyard is located at 2798 East Harbor Drive in San Diego, California (Figure 1). The project site includes land and on/over water structures (Figure 2). All information relative to the project description, background, project need, and project description are adapted from supplemental information prepared for NASSCO (Anchor QEA 2020).

1-2 Project Description

General Dynamics-NASSCO (NASSCO) is proposing to perform land and waterside improvements under the Floating Dry Dock Replacement and Waterfront Improvement Project (Project; Figure 3). The goal of the proposed Project is to replace NASSCO's existing floating dry dock and supporting infrastructure to comply with current standards and code; improve the existing Repair Complex Wharf to maximize storage and laydown capabilities; repair failed revetment and exposed shoreline throughout the NASSCO leasehold to address damage from wave action and maintain safe operation of the shipyard; and repair and/or replace damaged structural piles throughout the NASSCO shipyard to restore structural integrity, extend service life, and provide safe mooring berths for new construction and repair vessels.

The Project includes removal and replacement of the existing floating dry dock and construction of supporting infrastructure (Figure 3). Improvements to the Repair Complex Wharf includes repair and replacement of piles and overwater expansion of the overall wharf structure. Additionally, repairs will be performed to the quay wall tow of slope along stretches of shoreline throughout the NASSCO leasehold. These repairs will be performed along shoreline segments from Lot 20 to Pier 12, floating dry dock approach pier to Berth 8, Ways to Building Dock, Berth 2 to Berth 3, Berth 4 to Berth 5, and Berth 6 to Navy Base Quay Wall. As-needed structural repair and/or replacement is proposed at selected piles at Berths 2, 3, 4, 5, 6, Pier 12 and the floating dry dock approach pier, and at the Berth 1 Platform.

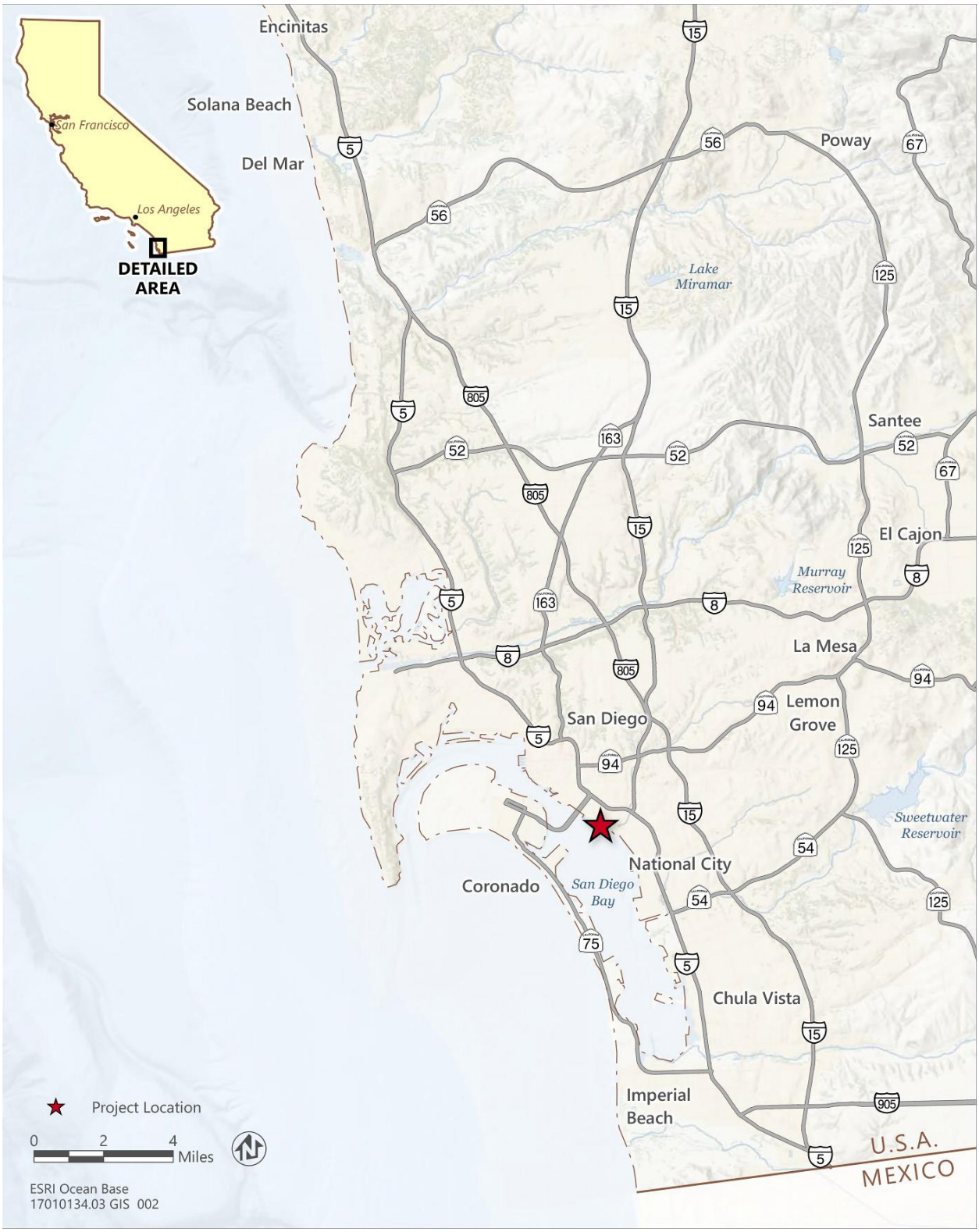


Figure 1. Vicinity map showing the location of NASSCO facility (project location) in San Diego Bay. Source Ascent Environmental 2021.

Figure 2. Extent of Project site boundary within San Diego Bay. Source: Ascent Environmental 2021.

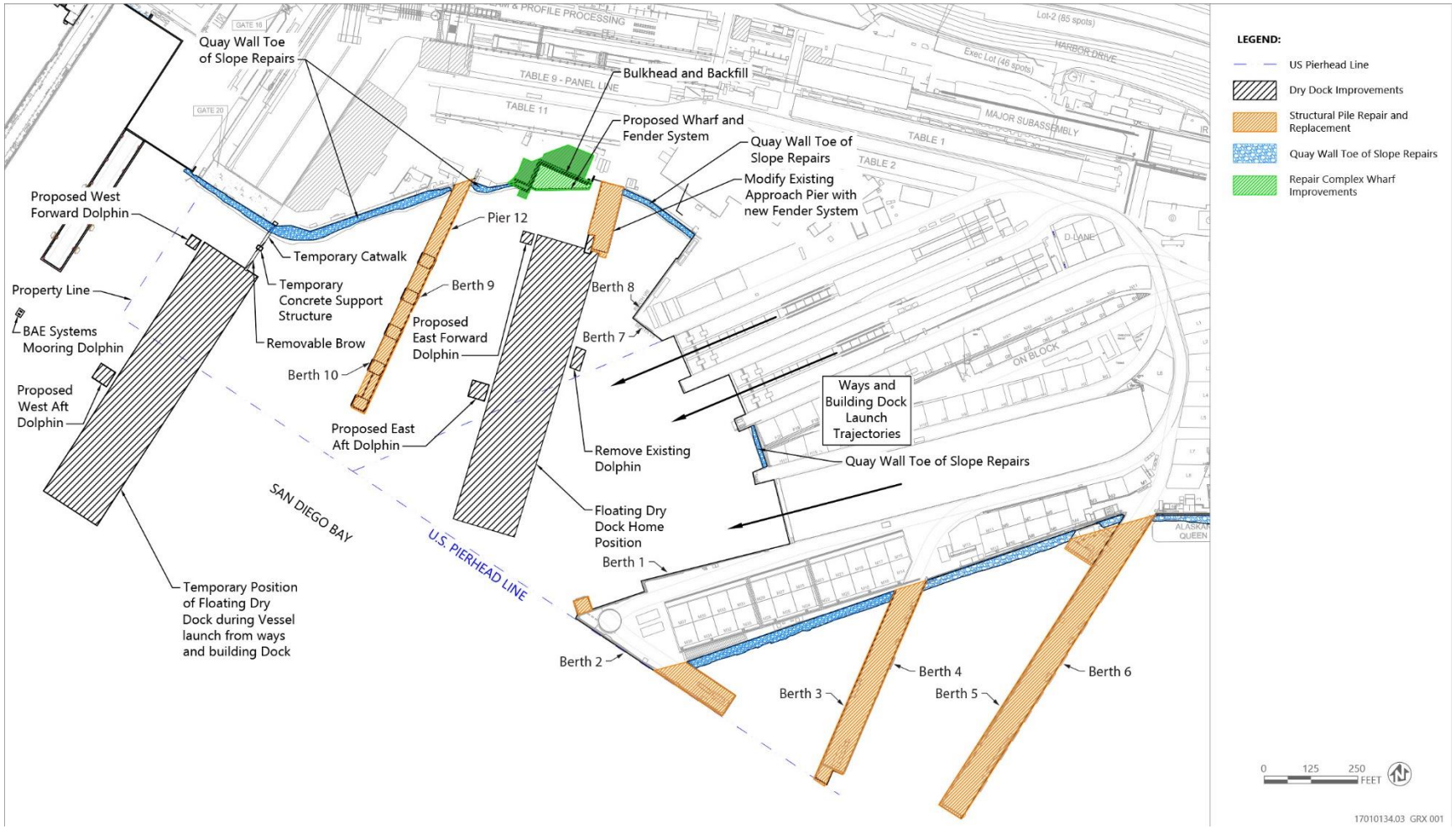


Figure 3. NASSCO facility proposed Project plans.

2 Survey Methods

This report relies on a combination of previously collected data, literature, and observations made during survey work performed by MTS staff Robert Mooney and Hannah Joss on May 12, 2021. A secondary dive survey was performed on May 20, 2021, by Robert Mooney and Grace Teller to verify sonar data and map eelgrass boundaries within the Project site.

Data on intertidal habitats, hard bottom habitats, piles, and soft bottom habitats were collected by swimming within portions of the Project site water area using SCUBA (Figure 2). Piles were evaluated by observing a random subset of structures within the Project site. Intertidal and subtidal hard bottom and soft bottom habitat was evaluated by swimming multiple transects extending from shallow water to deeper water portions within the leasehold. Additional observations were made by performing a zig-zag pattern swim along shallow-water portions within the leasehold where hard bottom habitat transitioned to soft bottom habitat. The primary focus of performing the zig-zag portion of the survey was to confirm the extent of vegetated soft bottom habitat. Where vegetated soft bottom habitat was comprised of eelgrass (*Zostera* sp.). Side-scan sonar images of the seafloor were collected in shallow and deeper water area to complete the eelgrass survey within the Project site. Data from diver transects were also used to provide validation of side-scan sonar data and generally characterize the habitats within the Project site. The survey methods are described below.

2-1 Side-Scan Sonar Survey

To detect and map any eelgrass present, a side-scan sonar survey was performed by navigating a small vessel along a series of track lines through the Project site (Figure 2). The vessel was fitted with a pole-mounted side-scan sonar operating at 450 kHz. The sonar was set to scan 30 meters on both the port and starboard channels for a total scanning swath of 60 meters. Multiple side-scan sonar survey track lines within close proximity to one another were navigated across the Project area. This allowed for complete coverage of the Project area at water depths with potential to be occupied by eelgrass while providing overlapping data that allowed redundancy within the sonar record.

Following the field surveys, the collected side-scan sonar files were geographically registered using the vessel's navigation data collected during the survey. The side-scan files were then compiled to create a contiguous view of the seafloor across the entirety of the survey area. The boundaries of the eelgrass were identified for visual verification and mapping by diver.

2-2 Scuba and Transect Surveys

The SCUBA surveys were implemented to visually verify the sonar data, map eelgrass, and generally characterize habitats within the Project site (Figure 2). During the initial survey, each habitat type in the survey area was visually inspected for qualitative characterization and to document the dominant flora and fauna present. Notes were made on the occurrence, or potential for occurrence of sensitive species that could be impacted by the proposed Project.

The transect data were obtained by swimming multiple transects from shallow water to deep water in the Project site. Within the survey area boundaries, the diver anchored a fiberglass tape measure to the seafloor and used compass navigation to swim across the survey site. While the diver swam along the transect, they towed a buoy mounted with a differential global positioning system (dGPS). The diver was equipped with underwater communication system and was able to communicate within the Project site

to a second MTS staff member, the dive tender, on a small research vessel. The dive tender equipped with mapping software would then connect to the diver towed dGPS and record the location and description of what the diver was communicating. Along each transect, the diver surveyed habitat types including hard bottom, unvegetated soft bottom, vegetated soft bottom, piles, and open water.

On the follow up survey day, eelgrass identified in the sonar imagery was visually verified by diver and the boundary of each eelgrass bed was mapped. Additionally, MTS referenced previously mapped eelgrass (M&A 2019) within the NASSCO facility to confirm the extent of potential eelgrass targets not observed during the initial diver survey or in sonar imagery. MTS mapped eelgrass boundaries using the towed dGPS and mapping software used during the transect survey. When the diver identified eelgrass, they communicated to the dive tender. The diver tender started recording the location of the towed buoy as the diver swam the perimeter of the eelgrass bed. Eelgrass targets smaller than 4 square feet were mapped as a waypoint, the size was approximated and recorded, and later digitized during map development.

2-3 Habitat Characterization

Habitats were categorized by substrate type, vegetation presence or absence, and water depth. Substrate type consisted of hard bottom, piles, unvegetated soft bottom, vegetated soft bottom, and open water. A soft bottom habitat was considered vegetated if eelgrass was observed to be growing on the soft bottom substrate. Habitats were further divided by water depth categories delineated in the San Diego Bay Integrated Natural Resources Management Plan ([INRP]; Tierra Data 2013). Depth categories determined in the INRP were intertidal (+7.8 to -2.2 feet MLLW), shallow subtidal (-2.2 to -12 feet MLLW), moderately deep subtidal (-12 to -20 feet MLLW), and deep subtidal (>-20 feet MLLW).

3 Results

The results below present the findings of the side-scan sonar survey, SCUBA surveys of the marine habitat areas, and the analysis of the essential fish habitat. The depth range of each habitat mapped is provided in Table 1. The aerial extent of each habitat described below is presented in Figure 5.

Table 1. Table of habitat depth ranges within the NASSCO Project site.

HABITAT	Area (m2)
Intertidal (+7.8 - -2.2)	
Vegetated Soft Bottom Intertidal Habitat (eelgrass)	52.0
Unvegetated Soft Bottom Intertidal Habitat	1,120.9
Unvegetated Hard Bottom Intertidal Habitat	5,528.2
Shallow Subtidal (-2.2 - -12.0)	
Vegetated Soft Bottom Shallow Subtidal Habitat (eelgrass)	422.0
Unvegetated Soft Bottom Shallow Subtidal Habitat	6,587.8
Unvegetated Hard Bottom Shallow Subtidal Habitat	1,171.8
Moderately Deep Subtidal (-12.0 - -20.0)	
Vegetated Soft Bottom Moderately Deep Subtidal Habitat (eelgrass)	3.5
Unvegetated Soft Bottom Moderately Deep Subtidal Habitat	13,311.3
Unvegetated Hard Bottom Moderately Deep Subtidal Habitat	363.0
Deep Subtidal (-20.0 - -57.3)	
Unvegetated Soft Bottom Deep Subtidal Habitat	196,331.5

Habitats were considered vegetated only if they supported eelgrass resources. While minor amounts of other algae species were observed over soft bottom and hard substrates, they were still considered to be unvegetated. Eelgrass was only present on soft bottom habitat. Thus, all hard substrate was unvegetated.

3-1 Marine Habitats

The natural and man-made habitats observed and surveyed within the Project site included intertidal and subtidal hard bottom, intertidal and subtidal piles, subtidal unvegetated soft bottom, subtidal vegetated soft bottom, and open water habitats. Each marine habitat is discussed below. Subtidal habitats occurred in shallow, moderately deep, and deep subtidal water depths.

3-1.1 Hard Bottom Habitat

Hard bottom habitats observed throughout the Project site were generally present along the shallow water edges of survey sites and consisted of items used for the purpose of armoring the shoreline. Hard bottom substrate was generally comprised of varying and on occasion multiple types of hard material including riprap rock, stacked concrete blocks, and concrete poured over stacked concrete block.

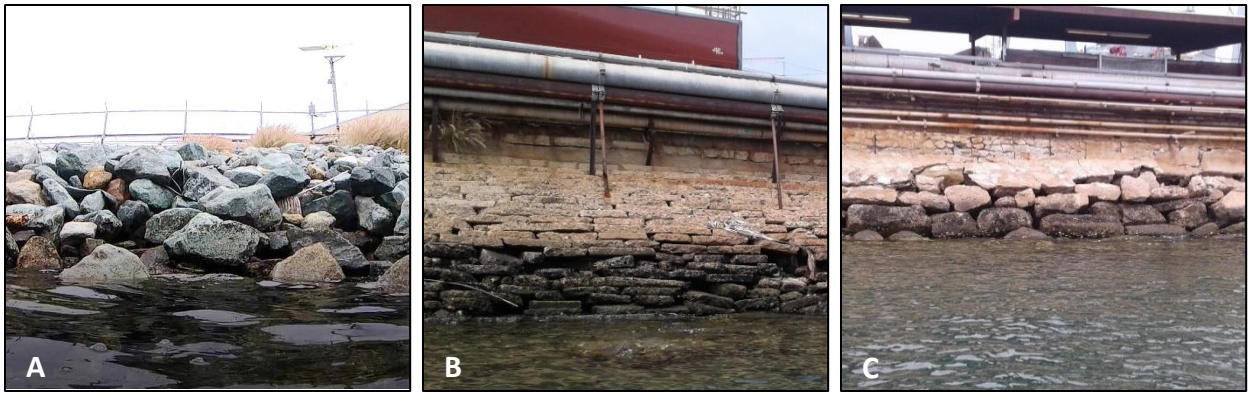


Figure 4. Photos of hard substrate taken within the Project site. (A) riprap rock, (B) stacked concrete block, and (C) concrete poured over staked concrete block.

3-1.1.1 Intertidal Hard Bottom Habitat (+7.8 to -2.2 feet MLLW)

Intertidal hard bottom habitats were present along the shoreline throughout each area surveyed and were generally present throughout the Project site for the purpose of shoreline stabilization. Organisms observed over and within intertidal hard bottom habitat generally included those that are typically associated with biofouling communities present in San Diego Bay. This included Pacific oysters (*Crassostrea gigas*), minor amounts of barnacles (*Chlhamalus* spp.), and filamentous brown algae (*Ectcarpus* sp.) algae. A single juvenile California sargo (*Anistremus davidsonii*) was observed seeking shelter between the rocks near the water's surface.

3-1.1.2 Shallow Subtidal Hard Bottom Habitat (-2.2 to -12 feet MLLW)

Shallow subtidal hard bottom substrate was generally present below areas where intertidal hard bottom substrate was observed. The presence of Pacific oysters increased from intertidal to shallow subtidal hard bottom habitat. Invertebrates also observed in the shallow subtidal areas included sponges (*Halichondria* sp.), bryozoans (*Cellaria mandibulata*), California aglaja (*Navanax intermis*), and tunicates (*Styela plicata*). In addition to filamentous brown algae, occasional occurrences of filamentous red algae (*Polysiphonia* sp.), foliose red algae (*Gelidium* sp., *Gracilaria* sp.), brown algae (*Sargassum muticum, Dictyota* sp., *Colpomenia* sp.), coralline algae (*Corallina officinalis, Lithothrix* spp.), kelp (*Undaria pinnatifida*) were observed. Vertebrate species observed in shallow subtidal hard bottom habitat included opaleye (*Girella nigricans*), kelp bass (*Paralabrax clathratus*), barred sand bass (*Paralabrax nebulifer*), spotted sand bass (*Paralabrax maculatofasciatus*), and California sargo.

3-1.1.3 Moderately Deep and Deep Subtidal Hard Bottom Habitat (-12 to >-20 feet MLLW)

Hard substrate was not consistently present below -12 feet MLLW. However, on occasion small rock or hard debris was present that allowed for the existence of organisms associated with hard substrate. Coralline algae and red algae were observed along with gorgonian corals (*Muricea fruticosa, M. californica*). Additionally, multiple California spiny lobster (*Panulirus interruptus*) were found to be associated with scattered hard substrate below -12 feet MLLW. Evidence of octopus dens were present on occasion near scattered hard substrate. Octopus dens were identified by holes burrowed below hard substrate that were surrounded by large shells and bivalve shells split in half, typically clam and mussel shells. Fish species observed in shallow subtidal hard bottom habitat were also present in moderately deep and deep hard bottom habitat. Barred sand bass, spotted sand bass, and California sargo were commonly seen seeking shelter near scattered rock or hard debris present in deeper subtidal habitat.

3-1.2 Piles

Piles are generally present throughout the Project site supporting overwater structures of the NASSCO facility. The upper reaches of the piles (approximately +2 to -2-feet MLLW) were generally colonized by a fouling community dominated by Pacific oysters, barnacles, and foliose species of red algae. Moving down the piles, foliose red algae, tunicates (*Styela plicata, Euherdamania claviformis,* compound tunicate species), and Pacific oyster were common. Fish were not observed around the piles, however, California sargo, barred sand bass, kelp bass, spotted sand bass, and opaleye observed elsewhere in the Project site may utilize these structures on occasion.

Figure 5. Habitat map for NASSCO Project site. See Appendix A for map sheets 1 through 4.

3-1.3 Unvegetated Soft Bottom

The majority of the area surveyed within the Project site was unvegetated soft bottom habitat. Unvegetated soft bottom habitat was found across all INRP habitat ranges. Unvegetated soft bottom habitat was generally characterized by sediment grain size of small to fine sand and shell hash. Bioturbation was generally low throughout all soft bottom habitats. In portions of deep subtidal unvegetated habitat moderate bioturbation was observed due to reduced coarseness of sediment and reduced presence of shell hash and shells.

3-1.3.1 Intertidal and Shallow Subtidal Unvegetated Soft Bottom Habitat (+7.8 to -12 feet MLLW)

A narrow section of intertidal and shallow subtidal unvegetated soft bottom habitat was present within the Project site. In addition to sand particulate large shells and shell hash composed much of the sediment this area. Minimal flora was observed in this area, green algae (*Ulva lactuca*) was typically seen in this region. Other algae species were generally associated with a pieces of hard substrate, debris, or rock. Few organisms were observed and consisted of occasional invertebrate organisms including tunicates, dorids (*Doridida*e sp.), and California aglaja. Vertebrate species observed included round stingrays (*Urolophus halleri*), California sargo, spotted sand bass, and barred sand bass.

3-1.3.2 Moderately Deep Subtidal Unvegetated Soft Bottom Habitat (-12 to -20 feet MLLW)

Moderately deep subtidal unvegetated soft bottom habitat was similar to habitat observed in shallow subtidal regions. Substrate was generally composed of sand particulate with shell hash and fewer large shells. However, aggregates of larger shell hash and shells were scattered throughout this depth range. Where these aggregates occurred, they allowed for green and red algae, and coralline algae to persist. On occasion invertebrates including tunicates, dorids, California aglaja, and burrowing anemones (*Pachycerianthus fimbriatus*) were observed. Vertebrate species observed in shallow subtidal unvegetated habitats were generally observed at this depth range.

3-1.3.3 Deep Subtidal Unvegetated Soft Bottom Habitat (>-20 feet MLLW)

Deep subtidal unvegetated habitat composed most of the seafloor within the Project site. Substrate was similar to that observed at moderately deep depths, however fewer shell aggregates were observed, and sediment grain size consisted of more small and fine particles. Where shell aggregates were observed filamentous red algae was observed. Tunicates, burrowing anemones, and bryozoans were observed on occasion in deep subtidal unvegetated soft bottom areas. Round stingrays (*Urolophus halleri*) became common in deep subtidal unvegetated soft bottom habitat where small grain size was present.

3-1.4 Vegetated Soft Bottom

Vegetated soft bottom (i.e., eelgrass) occurs within portions of areas surveyed throughout the Project site (Figure 6). Eelgrass covers a total aerial extent of 478 square meters and unvegetated eelgrass habitat covers 2,788 square meters within the Project site. Unvegetated eelgrass habitat is the area within 5-meters of established eelgrass resources where the beneficial aspects of eelgrass presence extend and influence benthic communities. Eelgrass was typically present in shallow subtidal habitat, occasionally intertidal habitat, and 3 square meters were mapped in moderately deep subtidal habitat. On occasion *Ruppia maritima* was observed growing in areas of eelgrass. Between berths 2 through 6.

The most common invertebrate observed within eelgrass was the cloudy bubble snail (*Bulla gouldiana*). Other common motile invertebrate species included the California aglaja. The soft bottom associated with

eelgrass was generally similar to unvegetated areas with evidence of more burrowing invertebrates, likely including bivalves, burrowing anemones, amphipods, and annelid worms. Fish observed within the eelgrass included round stingrays, barred sand bass, spotted sand bass, kelp bass, and shiner surfperch (*Cymatogaster aggregata*). It is likely that the eelgrass beds support numerous other fish species not observed during the survey.

3-1.5 Open Water

During the time of the survey Topsmelt (*Atherinops affinis*) were observed swimming in open water. It is likely that schooling baitfish frequent the waters of the open Project site, including Topsmelt and anchovy (*Anchoa* spp.) (Pondella and Williams 2009). These fish are important prey items for seabirds that can be expected to forage in the Project site, including brown pelicans (*Pelecanus occidentalis californicus*), double-crested cormorants (*Phalacrocorax auritus*), grebes, and terns. Jellyfish may also be present on occasion and/or seasonally within the Project site (Gavidor 2015). Jellyfish are common prey items for green sea turtles (*Chelonia mydas*) known to take reside in San Diego Bay.

Figure 6. Eelgrass map showing the aerial extent of eelgrass and unvegetated eelgrass habitat within the Project site relative to project components. Eelgrass map sheet set can be found in Appendix B.

4 Sensitive Species

Based on species lists provided by the U.S Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) (USFWS 2019 and NMFS 2019a), an analysis of the range and habitat preferences of protected, rare, threatened, or endangered species that may occur within, or adjacent to the Project site was conducted. A list of these special status and protected species with potential to occur in the region and within the project site is provided below in Table 2.

Table 2. Special Status and Protected Species with the potential to occur within or near the Project site (USFWS 2019 and NMFS 2019a).

Common Name	Scientific Name	Conservation Status	Potential For Occurrence	
Birds			**San Diego Region**	**Project Site**
California brown pelican	*Pelecanus occidentalis*	Protected	High	Moderate
Least tern	*Sternula antillarum*	Threatened	High	Moderate
Western snowy plover	*Charadrius nivosus nivosus*	Threatened	High	Low
Turtles				
Green turtle	*Chelonia mydas*	Threatened	Moderate	Moderate
Leatherback turtle	*Dermochelys coriacea*	Endangered	Low	Unlikely
Loggerhead turtle	*Caretta caretta*	Threatened	Low	Unlikely
Olive Ridley turtle	*Lepidochelys olivacea*	Threatened	Low	Unlikely
Cetaceans				
Blue Whale	*Balaenoptera musculus*	Endangered	Low	Unlikely
Bottlenose dolphin	*Tursiops truncatus*	Protected	Moderate	Low
Bryde's whale	*Balaenoptera brydei*	Protected	Low	Unlikely
Cuvier's beaked whale	*Ziphius cavirostris*	Protected	Low	Unlikely
Dall's porpoise	*Phocoenoides dalli*	Protected	Low	Unlikely
Fin whale	*Balaenoptera physalus*	Endangered	Low	Unlikely
Gray whale	*Eschrichtius robustus*	Protected	Moderate	Low
Guadalupe fur seal	*Arctocephalus townsendi*	Threatened	Low	Unlikely
Humpback whale	*Megaptera novaeangliae*	Endangered	Low	Unlikely
Long-beaked common dolphin	*Delphinus capensis*	Protected	High	Low
Minke whale	*Balaenoptera acutorostrata*	Protected	Low	Unlikely
Northern right whale dolphin	*Lissodelphis borealis*	Protected	Low	Unlikely
Orca	*Orcinus orca*	Endangered	Low	Unlikely
Pacific white-sided dolphin	*Lagenorhychus obliquidens*	Protected	Low	Unlikely
Risso's dolphin	*Grampus griseus*	Protected	Moderate	Unlikely
Sei whale	*Balaenoptera borealis*	Endangered	Low	Unlikely
Short-beaked common dolphin	*Delphinus delphis*	Protected	High	Low
Short-finned pilot whale	*Globicephala macrorhynchus*	Protected	Low	Unlikely
Sperm whale	*Physeter macrocephalus*	Endangered	Low	Unlikely
Pinnipeds				
California sea lion	*Zalophus californicus*	Protected	High	Moderate
Northern elephant seal	*Mirounga angustrirostris*	Protected	Low	Unlikely
Northern fur seal	*Callorhinus ursinus*	Protected	Low	Unlikely
Pacific harbor seal	*Phoca vitulina*	Protected	Moderate	Low
Steller sea lion	*Eumetopias jubatus*	Endangered	Low	Unlikely

4-1 Birds

The California least tern nests along the west coast of North America, from Baja California, Mexico, north to the San Francisco Bay area. California least terns are seasonal residents of San Diego Bay, typically arriving in mid-to late-April to nest at several colonies adjacent to the Bay and are generally present through mid-August with September 15th marking the end of nesting season. California least terns may have two waves of nesting during this time period (Massey and Atwood 1981). California least terns establish nesting colonies on sandy open space with little vegetation. Along the shores of San Diego Bay and south of the Imperial Beach Oceanfront, California least terns' nest at multiple sites. These nest sites are located at the runway ovals at San Diego International Airport, the airfield tarmac at Naval Air Station (NAS) North Island as well as Delta and Echo Beaches at Naval Amphibious Base (NAB) Coronado, the D Street Fill, the Chula Vista Wildlife Reserve, the South Bay Salt Works levees, and along the beaches of the Tijuana River National Estuarine Research Reserve south of the Imperial beach Oceanfront (Frost 2017). California least terns actively forage for fish in the waters adjacent to nesting colonies in San Diego Bay; foraging also occurs in open ocean waters and along the nearshore waters adjacent to beaches of Silver Strand and Imperial Beach.

Available space for nesting least terns does not occur within the NASSCO Project site, however due to the proximality of the facility relative to known nesting colonies there is moderate potential for least terns to utilize areas of open water within the Project site to actively forage for fish.

The California brown pelican does not nest in San Diego Bay. They nest in colonies at Anacapa and Santa Barbara Islands in the California Channel Islands. They are wide ranging and can be frequently observed loafing and foraging in San Diego Bay. The California brown pelican is a state fully protected species under the California Fish and Game Code.

Although nesting does not occur along the mainland, there is moderate potential for California brown pelican to utilize areas of open water within the Project site to actively forage for fish.

The western snowy plover is a sparrow-sized, white and tan colored shorebird with dark patches on either side of the neck, behind the eyes, and on the forehead. The coastal western snowy plover population is defined as those individuals that nest adjacent to or near tidal waters and includes all nesting colonies on the mainland coast, peninsulas, offshore islands, adjacent bays, and estuaries. The breeding range of the coastal population of the western snowy plover extends along coastal beaches from the southern portion of Washington State to southern Baja California, Mexico. The recognized breading season of the western snowy plover normally extends from March 1 through September 15. In California, earliest nesting is sometimes observed in the first week of March with nesting typically observed by the third week of March. Peak initiation of nesting is observed mid-April through mid-June (USFWS 2007). Western snowy plover nest along similar sandy flat and dunes as California least tern. In San Diego Bay, nesting colonies occur along the beach at NAS North Island; at NAB Coronado, which includes the entire beachfront north of Imperial Beach; and farther south along the Silver Strand Training Complex and the beaches of the Tijuana River National Estuarine Research Reserve. California snowy plovers generally forage for small crustaceans, worms, and insects within exposed sandy beach or mudflat areas (Page et al. 2009).

Like the California least tern, available space for California snowy plovers nesting does not occur within the NASSCO Project site. Additionally, there is minimal habitat exposed at any given tide thus there is low potential for this species to utilize space within the facility for foraging.

4-2 Turtles

Green sea turtles (Chelonia mydas) have been documented in San Diego Bay dating back to the 1800s (Stinson 1984). Green sea turtles in San Diego Bay represent a local foraging population. These individuals do not breed in San Diego. Rather, the San Diego foraging population as well as other regional foraging populations is part of the Mexican breeding population (Eguchi et al. 2010). The nesting sites of the San Diego foraging population may include the Revillagigedo Islands, Tres Maria Islands, and mainland Mexico (Dutton 2003 as cited in Eguchi et al. 2010).

Although documented to historically occupy San Diego Bay, much of the resent research was performed while the South Bay Power Plant was in operation in south San Diego Bay. The warm water effluent associated with the once through cooling of the power plant created a warm water environment that researchers attributed to the abundance of green sea turtles in south San Diego Bay (Stinson 1984; McDonald et al. 1994; Duke Energy South Bay, LLC 2004). While it is likely true that the thermal discharges from the power plant worked to structure the San Diego Bay green sea turtle population, the population has continued to persist after the decommissioning of the power plant. This is likely due in part to the long residence time of south San Diego Bay waters which tend to be warmer than the rest of the bay regardless of the presence of additional thermal input.

The population requirements of green sea turtles in San Diego Bay mean that the animals spend most of their time in the south bay. The potential to observe animals in more northern portions of San Diego Bay and in offshore environments increases in summer months when warmer surface water is present. The decommissioning of the South Bay Power Plant has also been attributed to an increased number of more northern observations (*sensu* Seminoff quoted in Brody 2013). Animals will also leave foraging opportunities in San Diego Bay when they migrate to nesting sites.

There is moderate potential for green sea turtle presents at the NASSCO Project site due to the facility's central location within San Diego Bay. Other sea turtle species have not been observed in San Diego Bay thus it is unlikely for them to be observed within the Project site.

4-3 Cetaceans

Common dolphin's and bottlenose dolphins have widespread distributions and are commonly observed in southern California nearshore environments. They are also often observed in the north San Diego Bay area from the San Diego Bay entrance to approximately Harbor Island (personal observation R. Mooney and refer to NAVFACSW 2016). These animals are often observed either swimming alongshore or bow-riding vessels entering and leaving the bay. Due to the location of the NASSCO Project site, further south and away from the San Diego Bay entrance, the potential for the occurrence of these species is low.

All the remaining cetaceans except for the gray whale, have very low potential for observation along the San Diego coast and are unlikely to occur within the NASSCO Project site. The gray whale performs annual migrations from cooler northern Pacific feeding areas to embayments in Baja California, Mexico for mating and caving. Gray whales migrate south through San Diego coastal waters in fall and early winter and can be observed on their northbound migration in later winter and early spring. Animals have been occasionally observed entering San Diego Bay (personal observation R. Mooney and NAVFACSW 2016); these events are likely accidental and are rare. Should animals enter San Diego Bay there is very low potential for them to travel as far south as the Project site.

4-4 Pinnipeds

Pinnipeds are flipper-footed marine mammals that spend a portion of their time out of the water. Pinnipeds typically spend a portion of their day on dry land resting, sleeping, mating (in season), and giving birth (in season), a behavior called hauling out. Choice of haul out sites is probably related to ease of access, proximity to food resources, protection from waves and predators. Pinnipeds are documented to occupy natural settings: sandy beaches, rocky beaches, boulder beaches, rocks and pinnacles, mud flats, reefs, fallen trees, and rock shelves. California sea lion (*Zalophus californianus*) and occasionally Pacific harbor seal (*Phoca vitulina*) occupy man-made structures (e.g., docks, buoys, landings, breakwaters, boats, barges, and fish ladders). Potential disturbance occurs when these haul-out locations overlap with urbanized areas.

In San Diego Bay, both California sea lion and Pacific harbor seal haul out on natural (e.g., beaches) and man-made structures, forage, raft, and mill throughout the entirety of the bay. California sea lion and harbor seal are not typically found in the same haul out locations due, in part, to their physiology. The California sea lion is able to haul out on steep, rocky habitat because it can rotate its pelvis to use all four limbs to walk. Harbor seal cannot rotate the pelvis and must move on land by undulating the body (NPS 2016). Within San Diego Bay, California sea lion is the dominant and most numerous pinniped observed, whereas harbor seal is more elusive and found in lower numbers. California sea lion haul out in large numbers at the two bait barges that are located near the entrance to San Diego Bay in Point Loma. They also haul out individually or in small groups on buoys, docks, and boats throughout San Diego Bay but are most prevalent in northern portions of San Diego Bay. In addition to the animals that haul out on the buoys, docks, and boats, California sea lion rests in moderate numbers on the rock riprap that forms Zuniga Jetty at the entrance to San Diego Bay (M&A 2008).

On the exposed ocean side of the Point Loma Peninsula, harbor seals have established one of two mainland hauling and rookery sites in San Diego County. As a result, Pacific harbor seals and their pups have been documented in San Diego Bay, mostly at the northern end of the Bay nearest Ballast Point. The harbor seals use a portion of the docks in a restricted area adjacent to the Naval Base Point Loma Submarine docking station to haul out. In addition, harbor seals have been observed to haul out along the shore south of Ballast Point (NAVFACSW 2014).

Other pinnipeds seen in the bay include northern elephant seal (*Mirounga angustrirostris*) and Steller sea lion (*Eumetopias jubatus*). These are rare sightings and—in the case of the elephant seals—they are typically undernourished juveniles that strand on the shore within the bay. Steller sea lions have been recorded hauled out on the bait barge and navy docks, and swimming in the north bay (NAVFACSW 2015).

While the NASSCO Project site is located further from the San Diego Bay entrance and the established natural haul out sites there is potential for these species to travel further into the bay in search of anthropogenic haul out areas and foraging for food. There is potential for California sea lions and harbor seals to transit within the open waters of the NASSCO facility and utilize structures within the facility as haul out sites. Given the overall rarity of sightings of other pinniped species in north San Diego Bay, all other pinniped species are considered to be unlikely to occur within the project area.

5 Essential Fish Habitat Assessment

This section includes an assessment of Essential Fish Habitat Assessment (EFH) located within the designated Project site that could potentially be impacted by the proposed project. The legal background and purpose of the following EFH assessment, managed species and fisheries with the potential to occur within the designated Project site, and Habitat Areas of Particular Concern (HAPCs) known to occurs within the designated Project site are discussed below.

5-1 Essential Fish Habitat Background

The following EFH assessment for the proposed project is provided in accordance with the 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act (MSA) (Code of Federal Regulations (CFR) Title 50, Chapter VI, Part 600). The amendments require the delineation of "essential fish habitat" for all managed species. Federal action agencies which fund, permit, or carry out activities that may adversely impact EFH are required to consult with the NMFS regarding the potential effects of their actions on EFH and respond in writing to the NMFS's recommendations.

The MSA defines EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." For the purpose of interpreting the definition of essential fish habitat: "waters" include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; "substrate" includes sediment, hard bottom, structures underlying the waters, and associated biological communities; "necessary" means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and "spawning, breeding, feeding, or growth to maturity" covers a species' full life cycle. A healthy ecosystem is defined under the MSA as, "an ecosystem where ecological productive capacity is maintained, diversity of the flora and fauna is preserved, and the ecosystem retains the ability to regulate itself".

The purpose of this EFH assessment is to comprehensively identify and analyze EFH occurring within the designated study area, so that federal agencies can best determine whether or not the proposed project would adversely affect designated EFH, and identify possible conservation measures to avoid, minimize, or otherwise offset potential adverse effects to EFH. The MSA requires consultation for all federal agency actions that may adversely affect EFH. EFH consultation with NMFS is required by federal agencies undertaking, permitting, or funding activities that may adversely affect EFH, regardless of its location. Under Section 305(b)(4) of the MSA, NMFS is required to provide EFH conservation and enhancement recommendations to federal and state agencies for actions that adversely affect EFH. As such, the following EFH assessment, which includes an analysis of species managed by the Pacific Fishery Management Council (PFMC) that are known to utilize EFH within the study area, and an analysis of potential HAPCs within the study area, will provide all of the information necessary for NMFS to conduct any future EFH consultations for the proposed project.

5-2 Managed Fisheries with EFH occurring within the Project Site

To adequately address EFH within the study area, fish species managed by the PFMC that are known to either occur within the study area, have historically occurred within the study area, or depend upon those marine habitats that are known to occur within study area, were identified. This was accomplished through a thorough evaluation of both fish species identified during previously conducted fisheries inventories within the study area (Pondella and Allen 2000), and by reviewing species distribution lists of species managed under Pacific Fishery Management Council Fishery Management Plan (FMPs; NOAA Fisheries 2019). In all, 28 species managed by the PFMC were identified, including species managed under

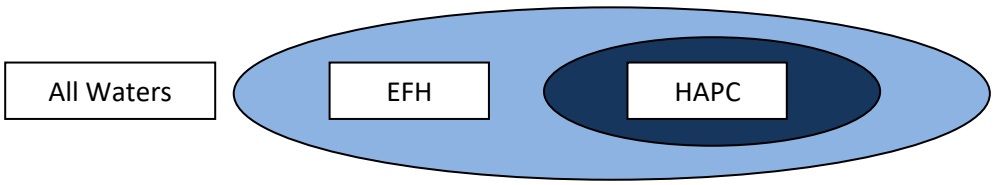
the Coastal Pelagic Species FMP, the Highly Migratory Species FMP, and the Pacific Groundfish FMP (Table 3).

Table 3. Fish species managed under the Coastal Pelagic Species FMP, Highly Migratory Species FMP, and Pacific Coast Groundfish FMP with designated EFH occurring within the study area.

Common Name	Species Name
Coastal Pelagic Species FMP	
Jack Mackerel	*Trachurus symmetricus*
Krill	*Euphausia Pacifica & Thysanoessa Spinifera*
Market Squid	*Loligo opalescens*
Northern Anchovy	*Engraulis mordax*
Pacific Mackerel	*Scomber japonicas*
Pacific Sardine	*Sardinops sagax*
Highly Migratory Species FMP	
Albacore Tuna	*Thunnus Alalunga*
Bigeye Tuna	*Thunnus obesus*
Blue Shark	*Prionace glauca*
Broadbill Swordfish	*Xiphias gladius*
Common Thresher Shark	*Alopias vulpinus*
Dorado	*Coryphaena hippurus*
Northern Bluefin Tuna	*Thunnus thynnus*
Shortfin Mako Shark	*Isurus oxyrinchus*
Skipjack Tuna	*Katsuwonus pelamis*
Striped Marlin	*Kajikia audax*
Yellowfin Tuna	*Thunnus albacares*
Pacific Coast Groundfish FMP	
Black and Yellow Rockfish	*Sebastes chrysomelas*
Blue Rockfish	*Sebastes mystinus*
Boccaccio	*Sebastes paucispinis*
Big Skate	*Raja binoculata*
Cabezon	*Scorpaenichthys marmoratus*
Calico Rockfish	*Sebastes dalli*
California Scorpionfish	*Scorpaena guttata*
California Skate	*Raja inornate*
Canary Rockfish	*Sebastes pinniger*
Chilipepper Rockfish	*Sebastes phillipsi*
Copper Rockfish	*Sebastes caurinus*
Cowcod	*Sebastes levis*
Curlfin Sole	*Pleuronichthys decurrens*
Spiny Dogfish	*Squalus acanthias*
Dover Sole	*Microstomus pacificus*
English Sole	*Parophrys vetulus*
Gopher Rockfish	*Sebastes carnatus*
Grass Rockfish	*Sebastes rastrelliger*
Green-Spotted Rockfish	*Sebastes chlorostictus*
Honeycomb Rockfish	*Sebastes umbrosus*
Kelp Rockfish	*Sebastes atrovirens*
Leopard Shark	*Triakis semifasciata*
Petrale sole	*Eopsetta jordani*
Pacific Sanddab	*Citharichthys sordidus*

5-3 Habitat Areas of Particular Concern (HAPCs) Observed within the Project Area

HAPC were observed within the Project site. HAPCs are a discreet subset of EFH (as illustrated below *) that are distinguished by characteristics including their high ecological value and vulnerability to anthropogenic stressors.



(Adapted from NMFS 2019b)

Area within designated EFH can also be designated as a HAPC based on one or more of the following characteristics: 1) The importance of the ecological function provided by the habitat, 2) Its sensitivity to human-induced environmental degradation, 3) The extent of threats posed by development of the habitat, or 4) The rarity of the habitat type (NMFS 2019b). HAPCs are considered high priority areas for conservation, management, or research because they are rare, sensitive, stressed by development, or important to ecosystem function (NMFS 2019b). The HAPC designation does not necessarily mean additional protections or restrictions upon an area, but the help to prioritize and focus conservation efforts (NMFS 2019b). Although these habitats are particularly important for healthy fish populations, other EFH area that provide suitable habitats are also necessary to support and maintain sustainable fisheries and a healthy ecosystem (NMFS 2019b). Current HAPC types are estuaries, canopy kelp, seagrass, and rocky reefs. Rocky reefs are defined by NMFS as submerged rock outcrops with varying relief, creating refuges for juvenile and smaller fishes and surface areas for colonization of algae and invertebrates.

Based on this definition, a review of mapping NMFS mapping data for pacific Coast HAPCs (NOAA Fisheries 2019), and confirmation obtained from side-scan sonar and visual SCUBA survey observation from this biological assessment, 478 square meters of eelgrass (*Zostera marina*), seagrass habitat, were identified within the Project site and can be classified as a HAPC (Figure 5, Figure 6).

Seagrass habitats present within waters of the Project site performed functions and contributions to ecological processes, summarized by Mooney and Woodfield (2009).

Eelgrass plays many important roles in estuarine systems. It clarifies water through sediment trapping and stabilization (de Boer 2007). It also provides the benefits of nutrient transformation and water oxygenation (Yarbro and Carlson 2008). Eelgrass serves as a primary producer in detritus-based food webs (Thresher et al. 1992) and is further directly grazed upon by invertebrates, fish, and birds (Valentine and Heck 1999), thus contributing to eco-system health at multiple trophic levels. Additionally, it provides physical structure in the form of habitat to the community and supports epiphytic plants and animals, which are in turn grazed upon by other invertebrates, fish, and birds. Eelgrass is also a nursery area for many commercially and recreationally important finfish and shellfish (Heck et al. 2003), including both those that are resident within the bays and estuaries, as well as oceanic species that enter the estuaries to breed or spawn. Among recreationally important species, sand basses and lobster make use of eelgrass beds as habitat. Besides providing important habitat for fish, eelgrass and associated invertebrates provide important food resources, supporting migratory birds during critical life stages, including migratory periods.

6 Laws and Regulations

6-1 Federal

6-1.1 Coastal Zone Management Act of 1972

The Coastal Zone Management Act of 1972 is administered by the National Oceanic and Atmospheric Administration's (NOAA) Office of Ocean and Coastal Resource Management, provides for management of the nation's coastal resources and balances economic development with environmental conservation.

The Coastal Zone Management Act outlines two national programs. The National Coastal Zone Management Program includes 34 coastal programs. The goal of the programs are to balance competing land and water issues in the coastal zone. The National Estuarine Research Reserve System creates field laboratories that provide a greater understanding of estuaries and how humans affect them. The overall program objectives of the act are to "preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone."

The Coastal Zone Management Act ensures that development projects in coastal areas are designed and permitted in a manner that is consistent with coastal zone land uses, maximizes public health and safety, and ensures that biological resources (e.g., wetlands, estuaries, beaches, and fish and wildlife and their habitat) within the coastal zone are protected. The California Coastal Commission enforces the Coastal Zone Management Act by certifying that any proposed project is consistent with the California Coastal Act of 1976 (as amended). The enforceable policies of the Coastal Zone Management Act are found in Chapter 3 of the California Coastal Act.

6-1.2 Rivers and Harbors Act (Section 10)

The USACE is authorized to regulate any activity within or over any navigable water of the United States pursuant to Section 10 of the Rivers and Harbors Act. Rivers and Harbors Act Section 10 jurisdiction is defined as "those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use, to transport interstate or foreign commerce" (33 Code of Federal Regulations 322). The San Diego Bay is considered a traditional navigable water regulated under Section 10 of the Rivers and Harbors Act.

6-1.3 Endangered Species Act of 1973

Species listed as endangered and/or threatened by the USFWS are protected under Section 9 of the federal Endangered Species Act, which forbids any person to "take" an endangered or threatened species. Take is defined in Section 3 of the act as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The U.S. Supreme Court ruled in 1995 that the term "harm" includes destruction or modification of habitat. Sections 7 and 10 of the Act may authorize "incidental take" for an otherwise lawful activity (a development project, for example) if it is determined that the activity would not jeopardize survival or recovery of the species. Section 7 applies to projects where a federally listed species is present and there is a federal nexus, such as a federal Clean Water Act (CWA) Section 404 permit (e.g., impacts on waters of the U.S.) that is required. Section 10, requiring an incidental take permit, applies when a federally listed species is present, but there is no federal nexus.

6-1.4 Magnuson-Stevens Fishery Management and Conservation Act, as amended 1996 (Public Law 104-267)

Federal agencies must consult with NOAA Fisheries on actions that may adversely affect EFH. EFH is defined as those "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." NOAA Fisheries encourages streamlining the consultation process using review procedures under the National Environmental Policy Act, Fish and Wildlife Coordination Act, the CWA, and/or the federal Endangered Species Act (ESA) provided that documents meet requirements for EFH assessments under Section 600.920(g). EFH assessments must include (1) a description of the proposed action, (2) an analysis of effects, including cumulative effects, (3) the federal agency's views regarding the effects of the action on EFH, and (4) proposed mitigation, if applicable. The EFH is discussed in Section 5 of this report.

6-1.5 Marine Mammal Protection Act of 1972

The Marine Mammal Protection Act (MMPA) of 1972 prohibits, with certain exceptions, the take of marine mammals in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the United States. Congress passed the MMPA based on the following findings and policies: (1) some marine mammal species or stocks may be in danger of extinction or depletion as a result of human activities, (2) these species of stocks must not be permitted to fall below their optimum sustainable population level (depleted), (3) measures should be taken to replenish these species or stocks, (4) there is inadequate knowledge of the ecology and population dynamics, and (5) marine mammals have proven to be resources of great international significance.

The MMPA was amended substantially in 1994 to provide for: (1) certain exceptions to the take prohibitions, such as for Alaska Native subsistence, and for permits and authorizations for scientific research; (2) a program to authorize and control the taking of marine mammals incidental to commercial fishing operations; (3) preparation of stock assessments for all marine mammal stocks in waters under U.S. jurisdiction; and (4) studies of pinniped-fishery interactions. Additionally, under the 1994 amendments to the MMPA, harassment is statutorily defined as any act of pursuit, torment, or annoyance that:

- Has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment); or
- Has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavior patterns, including, but not limited to migration, breathing, nursing, breading, feeding, or sheltering but which does not have the potential to injure a marine mammal or marine mammal stock in the wild (Level B harassment).

NOAA Fisheries and USFWS administer the MMPA. The proposed project must be analyzed to ensure that marine mammals protected under the MMPA would not be harassed or injured as a result of future activities in or adjacent to San Diego Bay. Any future project activities that may result in Level A or B harassment, injury, or mortality would require consultation with NOAA Fisheries and USFWS under the MMPA.

6-1.6 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) was enacted in 1918 to prohibit the killing or transport of native migratory birds, or any part, nest, or egg of any such bird, unless allowed by another regulation adopted in accordance with the MBTA. Under the MBTA, "take" means to kill, directly harm, or destroy individuals, eggs, or nests or to otherwise cause failure of an ongoing nesting effort. Migratory bird species that are

protected by the MBTA is maintained by USFWS, which regulates most aspects of the taking, possession, transportation, sale, purchase, barter, exportation, and importation of migratory birds. The USFWS does not issue permits for "incidental take" of migratory birds that results from otherwise lawful activities such as construction of development projects.

6-1.7 Clean Water Act

The major federal legislation governing water quality is the Federal Water Pollution Control Act Amendments of 1972, commonly known as the CWA (33 United States Code [USC] 1251–1376), as amended by the Water Quality Act of 1987. The intention of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Discharges into waters of the United States (WoUS) are regulated under CWA Section 404 and includes (1) all navigable waters (including all waters subject to the ebb and flow of the tide); (2) all interstate waters and wetlands; (3) all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, or natural ponds; (4) all impoundments of waters mentioned above; (5) all tributaries to waters mentioned above; (6) the territorial seas; and (7) all wetlands adjacent to waters mentioned above. Important applicable sections of the CWA are discussed below.

- **Section 401** requires any federal permit applicant that proposes an activity that may result in a discharge into WoUS to obtain certification from the state that the discharge will comply with the CWA. A 401 certification is provided by the Regional Water Quality Control Board (RWQCB) assigned to the project's region. A Section 401 certification from the San Diego RWQCB would be required this project if a Section 404 permit and Rivers and Harbor Act (Section 10) permit is required.

- **Section 404** certification is required where USACE issues permits for discharge of dredged or fill material into WoUS. These permits typically include conditions to minimize impacts on water quality. Common conditions include: (1) USACE review and approval of sediment quality analysis before dredging; (2) a detailed pre- and post-construction monitoring plan that includes disposal site monitoring; and (3) requiring compensation for loss of WoUS.

6-1.8 California Eelgrass Mitigation Policy

Eelgrass, *Zostera* spp., is protected under the CWA as a habitat forming species and the resource is managed locally under the California Eelgrass Mitigation Policy (CEMP) as developed by NOAA fisheries (NMFS 2014). Additionally, due to the high ecological value of eelgrass as essential fish habitat, eelgrass is also designated as a habitat of particular concern (HAPC) by NOAA Fisheries. The CEMP requires that an eelgrass survey be performed prior to construction to evaluate the presence of eelgrass and or potential eelgrass habitat.

NMFS has provided this policy to other state and federal agencies, including the California Department of Fish and Wildlife (CDFW), as guidance for handling project-related impacts on eelgrass habitat.

6-2 State

6-2.1 California Coastal Act of 1976

California ports, harbors, and coastline beaches are recognized as primary economic and coastal resources and as essential elements of the national maritime industry by the California Coastal Act of 1976. Decisions to undertake specific development projects are to be based on consideration of alternative locations and

designs in order to minimize any adverse environmental impacts. The California Coastal Act is implemented by the California Coastal Commission (CCC).

6-2.2 California Endangered Species Act; Fully Protected Species

The California Endangered Species Act (CESA) establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. Projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available should not be approved according to the CESA. For projects that affect both a state- and federally listed species, compliance with the federal ESA will satisfy the CESA if the CDFW determines that the federal incidental take authorization is consistent with the CESA under California Fish and Game Code Section 2080.1. Also, California Fish and Game Code Sections 3511, 4700, 5050, and 5515 prohibit take or possession of fully protected species.

6-2.3 California Fish and Game Code

Other sections of the California Fish and Game Code establish the Fish and Game Commission, as authorized by Article IV, Section 20, of the Constitution of the State of California. Under Sections 200-221 the Fish and Game Commission is responsible for regulating the take of fish and game, not including the taking, processing, or use of fish, mollusks, crustaceans, kelp, or other aquatic plants for commercial purposes. The Fish and Game Commission does regulate aspects of commercial fishing, including fish reduction; shellfish cultivation; take of herring, lobster, sea urchins, and abalone; kelp leases; leases of state water bottoms for oyster allotments; and aquaculture operations. The resource protection is responsible for setting recreational and commercial limits on species collection, collection method, and determines the conditions under which permits, or licenses may be issued or revoked by CDFW. The Fish and Game Commission also oversees the establishment of wildlife areas and ecological reserves and regulates their use and sets policy for CDFW.

CDFW is a lead state agency that manages native fish, wildlife, plant species, and natural communities for their ecological value and their benefits to people. CDFW oversees the management of marine species through several programs, some in coordination with NMFS and other agencies.

6-2.4 Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act is the California or state equivalent of the federal CWA. It provides for statewide coordination of water quality regulations through the establishment of the State Water Resources Control Board (SWRCB) and nine separate RWQCBs that oversee water quality on a day-to-day basis at the regional/local level. The RWQCB regulates actions involving “discharging waste, or proposing to discharge waste, within any region that could affect the water of the state” (Water Code Section 13260(a)), pursuant to provisions of the Porter-Cologne Act. Waters of the state (WoS) are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (Water Code Section 13050 (e)).

The RWQCB regulates WoS under Section 401 of the CWA. This requires states to certify that federally authorized activities comply with state water quality standards. A Water Quality Certification or a waiver must be obtained from the RWQCB if an activity requiring a Section 404 permit would affect WoS. Additionally, the RWQCB issues waste discharge requirements for discharges to WoS for fill of wetlands and other waters that are not regulated by Section 404 of the federal CWA.

6-3 Local

6-3.1 San Diego Bay Integrated Natural Resources Management Plan

The INRP is a long-term strategy sponsored by the U.S. Navy and the District. Its intent is to provide direction for the good management of natural resources while also supporting the ability of the Navy and District to meet their missions and continue functioning within San Diego Bay. The main strategies of the plan are to (1) manage and restore habitats, populations, and ecosystem processes; (2) plan and coordinate projects and activities so that they are compatible with natural resources; (3) improve information sharing, coordination, and dissemination; (4) conduct research and long-term monitoring that supports decision-making; and (5) put in place a Stakeholder's Committee and Focus Subcommittees for collaborative, ecosystem-based problem-solving in pursuit of the goal and objectives.

7 Project Impact Analysis

7-1 Thresholds of Significance

The following significance criteria are based on Appendix G of the State of California Environmental Quality Act (CEQA) Guidelines and provide the basis for determining the significance of biological resource impacts resulting from the proposed Project. The determination of whether a biological resource impact would be significant is based on the threshold described below and the professional judgment and recommendations of qualified MTS personnel.

Impacts are considered if the proposed Project would result in any of the following.

Threshold 1: Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, pr special-status species in local or regional plans, policies, or regulations, or by CDFW and USFWS.

Threshold 2: Have substantial adverse effects on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW, NMFS, or USFWS.

7-2 Project Impacts and Mitigation Measures

The proposed Floating Dry Dock Replacement and Waterfront Improvement Project is summarized by the following elements:

- Replacement of the existing floating dry dock and construction of supporting infrastructure.
- Improvements to the Repair Complex Wharf.
- Repairs to the quay wall toe of slope along stretches of shoreline throughout the NASSCO leasehold, which includes shoreline segments Lot 20 to Pier 12, floating dry dock approach pier to Berth 8, Ways to Building Dock, Berth 2 to Beth 3, Berth 4 to Berth 5, and Berth 6 to Navy Base Quay Wall.
- As-needed structural repair and/or replacement of selected piles at Berths 2, 3, 4, 5, 6, at Pier 12, and the floating dry dock approach pier, and at the Berth 1 Platform.

Total permanent overwater coverage would increase 4,170 square feet. Additionally, a total of 300 square feet of overwater coverage would be temporarily present during use of the floating dry dock's removable brow. A more detailed description of proposed work elements can be sourced from Anchor QEA 2020. Implementation of the Project would not expand the existing use of the site or result in changes of any operations.

7-2.1 Threshold 1 - Marine Resources

Threshold 1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW and USFWS.

In general, construction activities from implementation of the proposed Project would potentially cause construction-induced noise, increases in turbidity, increase in overwater coverage, and release of particulates and chemicals of concern into U.S. and State waters. A discussion of each of these potential construction- and operational-related impacts is provided below. Note that the impacts and mitigation measures provided in this assessment are intended to support the development of impacts and mitigation measures in the Project's Environmental Impact Report (EIR). The numbering of impacts and mitigation

measures may be different in the EIR and the level of development of the measures may vary as they are incorporated into the EIR.

7-2.1.1 Construction Noise Impacts on Marine Resources

The use of large machinery for construction and demolition as well as pile driving could result in construction-induced noise impacts that could alter the behavior of protected species. These impacts could occur from construction activities such as hammering, drilling, operation of heavy construction equipment, or unloading building materials. Additionally, the temporary installation of new overwater berthing structures (i.e., dry docks) would also have the potential to result in similar impacts on protected species from in-water construction activities such as pile driving. Construction-induced noise impacts from landside construction activity and overwater construction activities such as pile driving could disrupt the foraging behavior of the California least tern if construction occurs during the California least tern nesting season. Other sensitive fish-foraging avian species such as brown pelican can similarly be impacted. This would be considered a significant impact without mitigation (**Impact-1**). Construction noise can also impact species protected under the Migratory Bird Treaty Act and California Fish and Game Code. For instance, marine dependent avian species such as the black-crowned night heron nest in trees near shore where their nesting activities could be disturbed by construction noise. Disturbance can cause nesting birds to abandon nest sites or alter nesting behavior in ways that lower nesting success. This would be considered a significant impact without mitigation (**Impact-2**).

In-water construction associated with proposed construction could generate enough underwater noise to physically injure marine mammals, sea turtles, and fishes should impact hammer or vibratory pile driving occur during construction. Any noise related impacts would be dependent on the type of activity being performed, the proximity to marine waters, and the biology of the considered species. In-water impact hammer or vibratory pile driving activity could potentially generate enough underwater noise to injure (Level A Harassment) or alter behavior (Level B Harassment) for marine mammals, green sea turtles, and fishes. Impacts are therefore considered significant without mitigation (**Impact-3**).

7-2.1.2 Construction Noise Mitigation Measures for Marine Resources

Mitigation measures for reducing noise related impacts on foraging California least tern and other sensitive fish feeding avian predators during nesting season (**Impact-1**) include construction monitoring during the nesting season (**Mitigation-1**). If pile driving activities occur during the nesting season (April 1 – September 15), a qualified biologist approved by the District would monitor during pile driving activities. The monitor would have the ability to reduce or temporarily stop noise producing activities if those activities were believed to impact or otherwise alter foraging behavior of sensitive avian species during the nesting season. The project applicant shall take specific actions, as approved by the District, to reduce or temporarily stop noise-producing activities if the qualified biologist identifies that the activities are impacting the foraging behavior of sensitive avian species. These actions shall include, but not be limited to the installation of sound barriers, reducing intensity of pile driving, and restricting pile driving to periods when sensitive avian species are not present. Implementation of **Mitigation-1** would reduce impacts to foraging California least terns and other sensitive fish feeding avian predators during the nesting season to less than significant by minimizing the effects of noise producing activities that could alter foraging behavior.

While disturbance of nesting marine dependent avian species (**Impact-2**) is not anticipated due to the lack of nesting habitat within the Project site, disturbance can be minimized by ensuring that nesting bird behavior is not modified during construction activities that generate loud noises. Project proponents would be required to retain a qualified biologist to perform a nesting bird survey within 500 feet of the

noise generating activity one week prior to the start of construction utilizing heavy equipment, and if nests are found, survey once per week during construction until use of heavy equipment ceases (**Mitigation-2**). If noise levels are anticipated to be 10dBA or greater above ambient background noise levels within the vicinity of an active nest, the qualified biologist shall monitor noise levels daily and establish a no-disturbance buffer around each nest site. Distance from the nest would be determined by the qualified biologist based on the species nesting and the noise acceptability exhibited by the bird. If noise effects cannot be minimized, construction shall be altered, to the extent necessary and as approved by the District to ensure that impacts to the nesting species are negligible. Implementation of **Mitigation-2** would reduce impacts on nesting marine dependent avian species to less than significant by implementing the measures to minimize noise impacts on active nests.

Potential impacts on marine mammals and green sea turtles (**Impact-3**) can be minimized by implementing the various measures required under mitigation measure **Mitigation-3**. This mitigation measure requires development of a marine mammal monitoring plan and subsequent monitoring of hauled out marine mammals whenever noise generating activities are in excess of 90 dB root mean square (RMS) for harbor seals and 100 dB RMS for non-harbor seals (sea lions) at the haul out locations or if the haul out is within 500 feet of the noise source. These criteria are established by NOAA NMFS as noise levels for a Level B harassment (behavior alteration) of marine mammals when those mammals are hauled out. Protecting marine mammals against Level B harassment when hauled out also ensures protection against Level A harassment (injury). If marine mammals are hauled out within the zone where sound thresholds are exceeded, then the biological monitor will notify the contractor to halt or alter the noise generating activity such that construction noise is at or below 90 dB RMS or 100 dB RMS for harbor seals and non-harbor seals, respectively. The zones of influence to thresholds for harassment of hauled out marine mammals is provided in I&R 2022. The noise study performed by I&R (2022) is included as an appendix to the EIR.

For portions of the proposed project that generate in water noise such as impact and vibratory pile driving, the biological monitor will monitor for marine mammals when those animals are in the water within isopleth distances calculated (I& R 2022) to be within the range of sound thresholds established by NOAA NMFS for Level A and Level B harassment of marine mammals (NMFS 2018). Like monitoring for hauled out animals, the biological monitor will have the authority to halt or modify work based on animal observations relative to monitoring isopleths. Green sea turtles will be monitored using the maximum calculated isopleth for Level B harassment of marine mammals; there is no specific guidance for sea turtles, but they are often monitored alongside marine mammals to ensure their protection.

In addition, Project activities where impact hammer and vibratory pile driving occurs shall utilize a soft start for pile driving. This generally means performance of three pile strikes at reduced (approximately 50%) force, then waiting 30 seconds. This is repeated three times before starting pile driving at full force. This measure provides time for marine mammals, green sea turtles, and fishes to disperse from the sound source area in the event the sound is a source of stress for the animal. Implementation of **Mitigation-3** would reduce impacts to less than significant.

7-2.1.3 Construction Water Quality Impacts on Marine Resources

Construction activities associated with structural pile repair and replacement, quay wall toe of slope repairs, and repair complex wharf improvement could increase levels of turbidity in waters within the Bay in the absence of regulations. This could occur either during activities such as pile driving, incidentally during vessel contact with bottom substrate, and by propeller wash in shallower water.

Increases in turbidity in water may occur as a result of displaced sediment from construction activities. In general, increased turbidity could limit the ability of California least terns and other sensitive fish-foraging avian species to locate prey. Construction activities could potentially result in impacts on protected species by the inadvertent introduction of pollutants such as fuel, oil, and/or other industrial and mechanical fluids into waters of the U.S., either from construction equipment, landside construction vehicles, construction vessels, and from partially completed overwater structures. Additionally, disruption to eelgrass can occur due to increased turbidity. Prolonged increases in turbidity can reduce primary productivity associated with eelgrass because turbid water prevents sunlight from reaching this primary producer and sensitive species. These impacts would be considered a significant impact without mitigation (**Impact-4**)

7-2.1.4 Construction Water Quality Mitigation Measures on Marine Resources

Turbidity generated by in water construction activities (**Impact 4**) can be reduced by implementing various measures required under **Mitigation-4**. These measures include contractor education. Vessel operators shall be instructed regarding the impacts of propeller wash with regards to erosion of sediment and suspension of fine particulates; this will allow vessel operators to adjust operations, when possible, in ways that lessen impact. All vessels would be required to use depth sounders which are routinely checked to ensure vessels are positioned to avoid shallow water areas to the extent practical. Finally, when construction involves necessary bottom disturbance such as dredging or pile driving, silt curtains would be in place around the activity to limit the spread of any turbidity generated during the bottom disturbing activity. As such, **Mitigation-4** would reduce impacts to less than significant. Potential impacts associated with turbidity and bottom disturbance that might reduce the extent of eelgrass is identified under Threshold 2 (**Impact-6**) and the associated mitigation measures are provided as **Mitigation-6**.

7-2.1.5 Operational Overwater Cover and Shading Impacts on Marine Resources

The operational impacts associated with overwater cover are introduced by the temporary dry dock structures and the repair complex wharf improvement. The installation and use of overwater structures would result in temporary and permanent reduction of potential open water foraging habitat for California least tern and other sensitive fish-foraging species. The overwater coverage also leads to lower eelgrass productivity due to shading if the overwater structure is above eelgrass. Additionally, solar aspect and structure height will influence the level of impact. Structures that face the sun to the south with water to the north will result in a greater temporal impact from shading. The lost eelgrass productivity impacts all higher trophic levels due to the lost production of organic carbon. The impacts to California least tern associated with overwater coverage are considered a significant impact (**Impact 5**). Potential impacts associated with overwater cover and shading that might reduce the extent of eelgrass is identified under Threshold 2 (**Impact-6**) and the associated mitigation measures are provided as **Mitigation-6**.

7-2.1.6 Operational Overwater Cover Mitigation Measures for Marine Resources

Overwater cover from permanent structures can be mitigated in-kind if feasible, or out-of-kind if in-kind options are not available. Mitigation measure **Mitigation-5** includes a variety of suitable options for mitigating impacts associated with **Impact-5**. These options can be implemented either individually or in combination, as may be required through consultation with applicable resource agencies during permitting processes, including but not limited to, NMFS, USFWS, RWQCB, and/or USACE, to offset impacts from permanent overwater coverage. The in-kind option includes removal of existing overwater coverage at a 1:1 mitigation ratio at other locations within the Project site. Out-of-kind mitigation could include creation or restoration of eelgrass habitat at a 1:1 mitigation ratio to improve fisheries and associated wildlife beneficial uses in consultation with regulatory agencies identified above, and/or

contribution to an approved mitigation bank. Implementation of **Mitigation-5** would reduce the potential permanent overwater coverage impacts (**Impact-5**) to less than significant.

7-2.2 Threshold 2 – Marine Resources

Threshold 2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW, NMFS, or USFWS.

7-2.2.1 Construction Related Impacts to Marine Resources

Eelgrass beds are both the primary biologically important habitat associated with submerged soft-bottom substrate in the Project site and are managed by NMFS as EFH. In addition, the Magnuson-Stevens Fishery Management and Conservation Act designates HAPC that provide notable contributions to ecological processes.

Proposed construction activities have the potential to have a substantial adverse effect on sensitive marine habitats such as eelgrass. These activities include temporary new placement of the dry dock structure, structural pile repair and replacement, quay wall tow of slope repairs, and repair complex wharf improvements. Construction related impacts that could result from these proposed activities could result from increased turbidity from support vessels, equipment, installation of structures and piles, and shading from support vessels, barges, and relocation of the dry dock structure. The operation of vessels over shallow water during construction can decrease light to the seafloor by increasing turbidity from propeller wash or direct contact with the seafloor. Suspended particles reduce water clarity and can reduce the light reaching plant and algae cells. When suspended particles settle on primary producers such as periphyton, macroalgae, and eelgrass, they can further continue to prevent light from reaching the plant cells. Additionally, any contact with the seafloor where eelgrass occurs could directly dislodge and remove eelgrass and other vegetation. Although **Mitigation-4** provides for measures to reduce and restrict turbidity, in some cases eelgrass may occur within the footprint where construction vessels and turbidity curtains are placed during construction. In such cases, the contained turbidity may still impact eelgrass that is within the limits of the silt curtains and construction activity. In some locations where quay wall tow of slope repair is proposed, eelgrass is immediately adjacent to repair activities and may be impacted by placement and/or removal of material at those select locations. Additionally, extended temporary placement of the dry dock, construction support vessels, and barges could impede eelgrass growth depending on the location, height of structure, and sun angle during the presence of each structure. The construction related impacts would be significant (**Impact-6**).

The mitigation measures to reduce construction turbidity impacts to eelgrass beds are the same as those proposed under **Mitigation-4**. Impacts associated with reduced growth and cover of eelgrass or direct removal of eelgrass during construction would be mitigated by mitigation measures identified under **Mitigation-6**. **Mitigation-6** would follow guidelines set by the CEMP (NMFS 2014). Pre- and post-construction eelgrass surveys would be required at the construction site and a suitable reference area. The final calculation of mitigation requirements should occur after the post-construction monitoring. Should losses to eelgrass occur, mitigation should be carried out in accordance with the CEMP at or before the time of impact in a manner that conservatively mitigates for all potential impacts to eelgrass. Mitigation by replanting or restoring eelgrass should follow the CEMP's eelgrass restoration ratio of 1.2:1. Any implemented eelgrass mitigation site shall be monitored for 5 years to ensure successful eelgrass establishment in accordance with the CEMP. **Mitigation-4** and **Mitigation-6** would reduce potential temporary water quality, eelgrass shading, or direct removal impacts to eelgrass (**Impact-6**) to less than significant.

7-3 Impacts and Mitigation Summary

The below summary is a brief synopsis of the impacts and mitigation measures identified above. The summary below and the text above detailing the impacts and mitigation measures are intended to inform the EIR. Through the development of the EIR, the mitigation measures may be expanded and further developed.

7-3.1 Summary

Impact-1: Construction-induced noise impacts disrupting foraging behavior of California least tern and other fish-foraging avian species.
Mitigation-1: Implement construction measures to eliminate noise impacts to California least tern.

Impact-2: Construction noise impacts on nesting behavior of marine dependent species protected under the Migratory Bird Treaty Act and California Fish and Game Code.
Mitigation-2: Implement construction noise measures to eliminate noise impacts on sensitive nesting avian species.

Impact-3: In-water pile driving activity could generate noise levels that could injure (Level A harassment) or alter the behavior of (Level B harassment) marine mammals, green sea turtles, and fishes.
Mitigation-3: Implement a marine mammal and green sea turtle monitoring program during pile installation activities.

Impact-4: Increased water turbidity from disturbance of submerged sediments during in-water construction would limit the ability of protected fish-foraging avian species to locate prey and can disrupt eelgrass productivity.
Mitigation-4: Implement construction measures to eliminate water quality impairment impacts on California least tern, other sensitive fish-foraging avian species, and eelgrass.

Impact-5: Permanent overwater coverage from new overwater structures would reduce available open water foraging space for protected avian species and depress primary production of eelgrass.
Mitigation-5: Implement overwater coverage mitigation in coordination with the appropriate resource agencies to compensate foe loss of open water habitat.

Impact-6: Temporary water quality and sedimentation impacts to eelgrass beds during project construction.
Mitigation-6: Implementation eelgrass mitigation and monitoring in compliance with the California Eelgrass Mitigation Policy.

7-3.2 Level of Significance After Mitigation

Implementation of **Mitigation-1** would reduce potential noise related impacts on foraging California least tern and other sensitive fish feeding avian predators during the nesting season (**Impact-1**) to less than significant by requiring construction monitoring during the nesting season by a qualified biological monitor. The monitor would have the ability to reduce or temporarily stop noise producing construction activities if those activities were believed to impact or otherwise alter the foraging behavior of sensitive avian species during the nesting season.

Impacts associated with disturbance of nesting marine dependent avian species (**Impact-2**) would be reduced to less than significant by **Mitigation-2**, which requires preconstruction surveys and, if nests are detected, noise monitoring to ensure that noise levels do not exceed 10 dBA above ambient levels. In the event noise exceedances occur or disruption of nesting behavior is observed, **Mitigation-2** provides for actions that can be taken to protect nesting marine dependent avian species from the noise generating activity and the nest.

Implementation of **Mitigation-3** would reduce impacts on marine mammals, green sea turtles, and fishes (**Impact-3**) to less-than-significant levels by identifying when the species are approaching or within the designated isopleth for Level B harassment and halting in-water pile driving activities until the species has left the construction area.

Implementation of **Mitigation-4** would reduce impacts associated with **Impact-4** to less than significant levels by requiring implementation of training and construction measures, such as silt curtains, which will protect the foraging behavior of sensitive avian species from turbidity impacts. The measures would also prevent water quality impacts to eelgrass in areas surrounding the activity.

Implementation of **Mitigation-5** would reduce **Impact-5** to less-than-significant levels by requiring implementation of any combination of the following mitigation options at a 1:1 ratio for no net increase in overwater coverage per the CWA: removing overwater coverage within the Project site or restoring or creating eelgrass habitat at a suitable mitigation site of equivalent size and value within San Diego Bay. Implementation of **Mitigation-5** would reduce **Impact-5** to less-than-significant levels

Implementation of **Mitigation-6** would monitor for impacts associated with **Impact-6** to confirm less than significant levels of impact or to monitor for potential significant levels of impact. **Mitigation-6** would require monitoring and mitigation in accordance with the CEMP for impacts associated with **Impact-6**.

8 Discussion

The biological communities present within the designated study area are typical of the bays and shorelines in the region, and are not notably diverse, unique, or sensitive, with one exception being the eelgrass HAPC mapped in primarily intertidal and shallow subtidal vegetated habitat regions. Fish and invertebrate species that were observed during SCUBA surveys throughout the study area are generally considered common through the bays and shorelines of the region and would generally not be put at risk by activities such as those proposed by this Project.

The marine habitat within the Project site is generally composed of intertidal and shallow subtidal hard bottom, subtidal unvegetated soft bottom, and intertidal and shallow subtidal vegetated soft bottom habitat (eelgrass). Flora and fauna observed within the Project site were typical of species likely to occur

within San Diego Bay. Neither sensitive nor unique species were observed during the survey. However, commercially, and recreationally important California lobster was observed throughout the Project site associated with hard bottom habitat and scattered rock and debris items beyond the hard bottom habitat mapped in Figure 5.

The proposed Project would consist of construction and operational activities in marine environments. Construction related impacts on marine resources that could occur from this Project include construction-induced noise impacts, increases in turbidity, increase in overwater coverage, and release of particulates and chemicals of concern into U.S. or State waters.

Construction-induced noise impacts from overwater and in water construction activities such as pile driving could disrupt the foraging behavior of the California least tern and other sensitive fish-foraging avian species (**Impact-1**). Construction noise can also impact marine dependent species protected under the MBTA and California Fish and Game Code by causing nesting birds to abandon nest sites or alter nesting behavior in ways that lower nesting success (**Impact-2**). Furthermore, in-water construction activities could generate enough underwater noise to physically injure marine mammals, sea turtles, and fish should impact hammer or vibratory pile driving occur during construction (**Impact-3**). However, the implementation of **Mitigation-1** through **Mitigation-3** would reduce these project level impacts to less than significant. In-water construction activities that involve bottom sediment disturbance would also potentially result in temporary increases in turbidity, which could limit the ability of California least terns and other sensitive fish-foraging avian species to locate prey (**Impact-4**). However, this Project level impact would be reduced to less than significant with implementation of **Mitigation-4**, which requires implementation of various construction measures to reduce turbidity and its effects on foraging. Additionally, the increase of overwater structures would result in increased overwater coverage, which can impact foraging opportunities for sensitive fish-foraging species and lowered primary productivity due to shading (**Impact-5**). However, overwater cover from permanent structures can be mitigated in-kind if feasible, or out-of-kind if in-kind options are not available as required by **Mitigation-5**. Implementation of **Mitigation-5** would reduce the Project level impact to less than significant.

Construction of the proposed Project has the potential to have adverse effects on sensitive marine habitats such as eelgrass (**Impact-6**). The placement of the proposed drydock occurs over subtidal unvegetated soft bottom habitat where no sensitive species or unique habitats were observed. Impacts from the placement of drydocks may occur indirectly by altering the sunlight attenuation to the seafloor through reduced available sun angle. Where dry docks occur offshore of eelgrass beds late afternoon sun would be reduced by the drydock structure blocking light during certain hours of the day when sunrays are coming from the west. The overall impact from drydock placement is negligible because it does not occur near eelgrass beds.

Similar to the placement of proposed drydocks, repair complex wharf improvements are proposed over unvegetated soft bottom habitat and do not occur near eelgrass resources. Permanent impacts are likely to occur from shading to the seafloor caused by wharf improvement where the wharf and fender system extend beyond the current footprint. However, eelgrass resources were not found within the proposed wharf expansion or near the location of proposed wharf expansion. As a result, it is unlikely that repair complex wharf improvements would impact eelgrass resources within the Project site.

Structural pile repair and replacement and quay wall toe of slope repairs occurs near eelgrass habitat within the Project site. Eelgrass is present along the tow of hard substrate present in areas west of berth 10, east of berth 8, and between berths 2 through 6. In these regions indirect impacts to eelgrass are

possible. The degree to which eelgrass could be impacted in these areas cannot yet be determined. Given the potential for unpredictable impacts to eelgrass implementation of mitigation measures **Mitigation-4** and **Mitigation-6** would reduce Project related impacts from potential temporary eelgrass shading or direct removal (**Impact-6**) to less than significant.

In general, the Project should seek to avoid impacting eelgrass during construction. Indirect impacts may arise due to disturbance by construction vessels, pile installation, quay wall toe of slope repairs, or increased turbidity. To avoid these impacts, Project implementation should minimize shading associated with staging of vessels or dock structures. Construction crews should incorporate techniques that avoid suspension of sediment that could reduce light transmittance through the water or settle on eelgrass directly. This includes the use of silt curtains to contain suspended sediments during pile installation and quay wall repairs. The proposed Project may result in potentially significant impacts on marine resources; however, all impacts may be reduced to less than significant with implementation of the mitigation measures described above.

It is not anticipated that the green sea turtle and other sensitive species noted above would be significantly impacted by the proposed improvement or construction activities. The potential loss of foraging habitat (eelgrass) is a concern relative the green sea turtles, but that loss is likely minimal and would be mitigated for according to the CEMP. However, the pile driving associated with structural pile replacement and repair complex wharf components may produce noise levels that can cause behavioral disruption of marine mammals and green sea turtles.

Many species of pacific coast groundfish, coastal pelagic, and estuarine species utilize eelgrass habitat at some life stage. The eelgrass surveyed within the Project site contained a moderate diversity of marine vertebrate and invertebrate species, indicating that they function to some degree of importance to marine species persisting in the area and/or migrating through the area. Additionally, eelgrass (seagrass) is listed as an HAPC and as such is a protected and monitored resource.

The purpose of this assessment was to determine whether proposed Project activities would have any effect to the surrounding marine environment, or to the marine flora and fauna reliant on the resources provided by this marine environment. Based on the analyses previously described in this assessment, it has been determined that any potential impacts caused by the Project to the marine environment, sensitive species, and marine mammals can be reduced to less than significant and impacts would be reduced if mitigation measures are followed.

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Appendix A: Habitat Map Sheet Set

SHEET 1

Figure A-1. Habitat map sheet 1.

SHEET 2

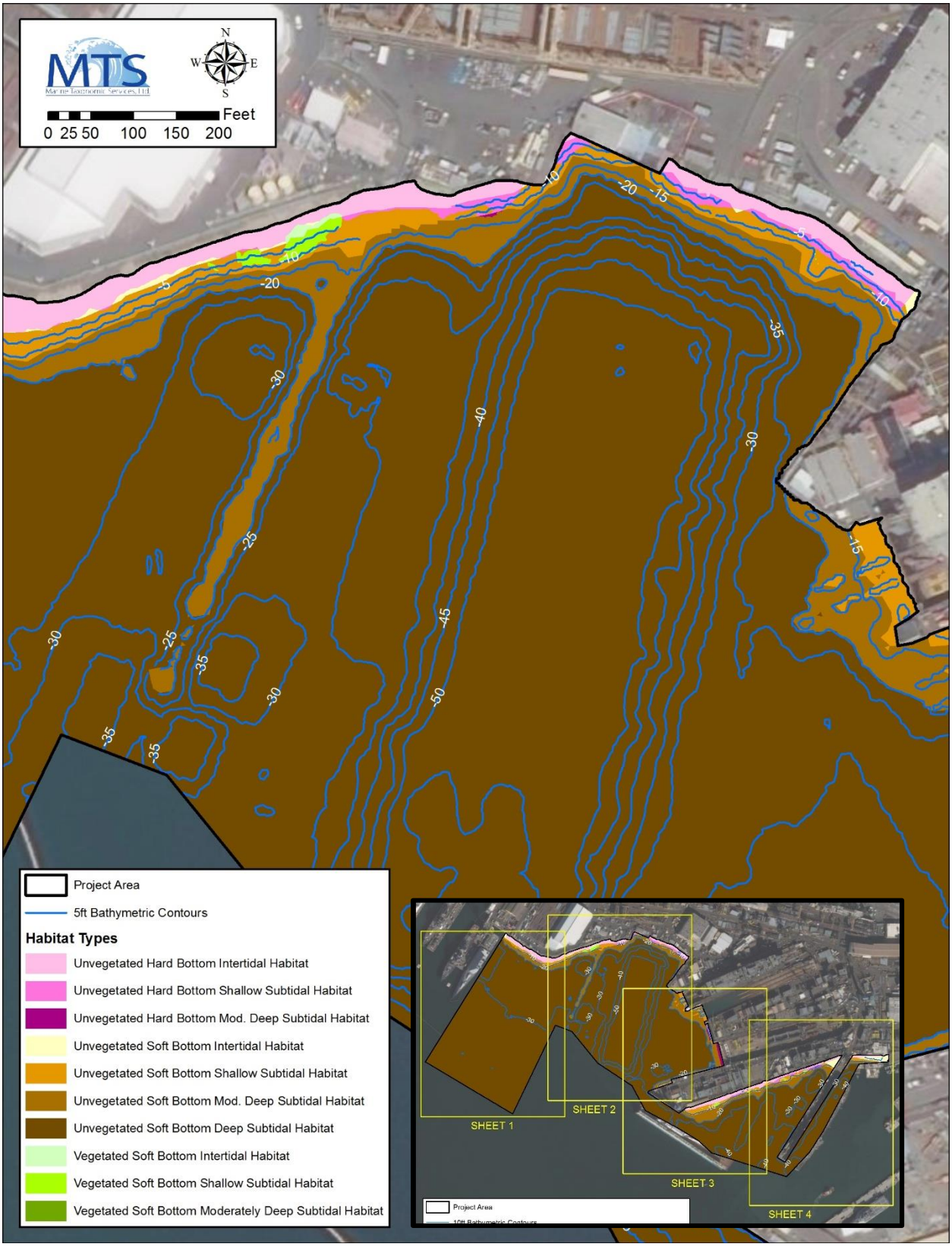

Figure A-2. Habitat map sheet 2.

SHEET 3

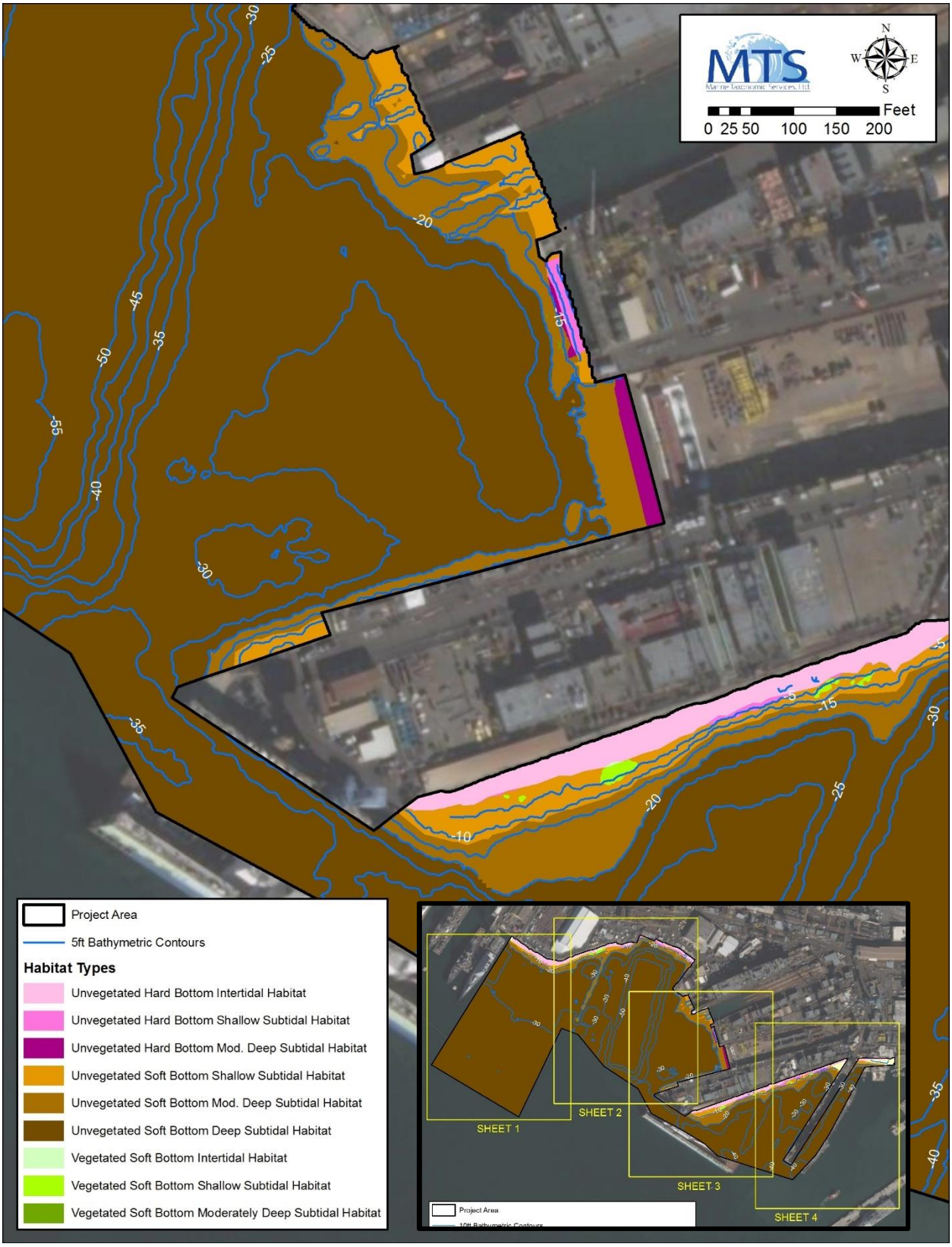

Figure A-3. Habitat map sheet 3.

SHEET 4

Figure A-4. Habitat map sheet 4.

Appendix B: Eelgrass Map Sheet Set

SHEET 1

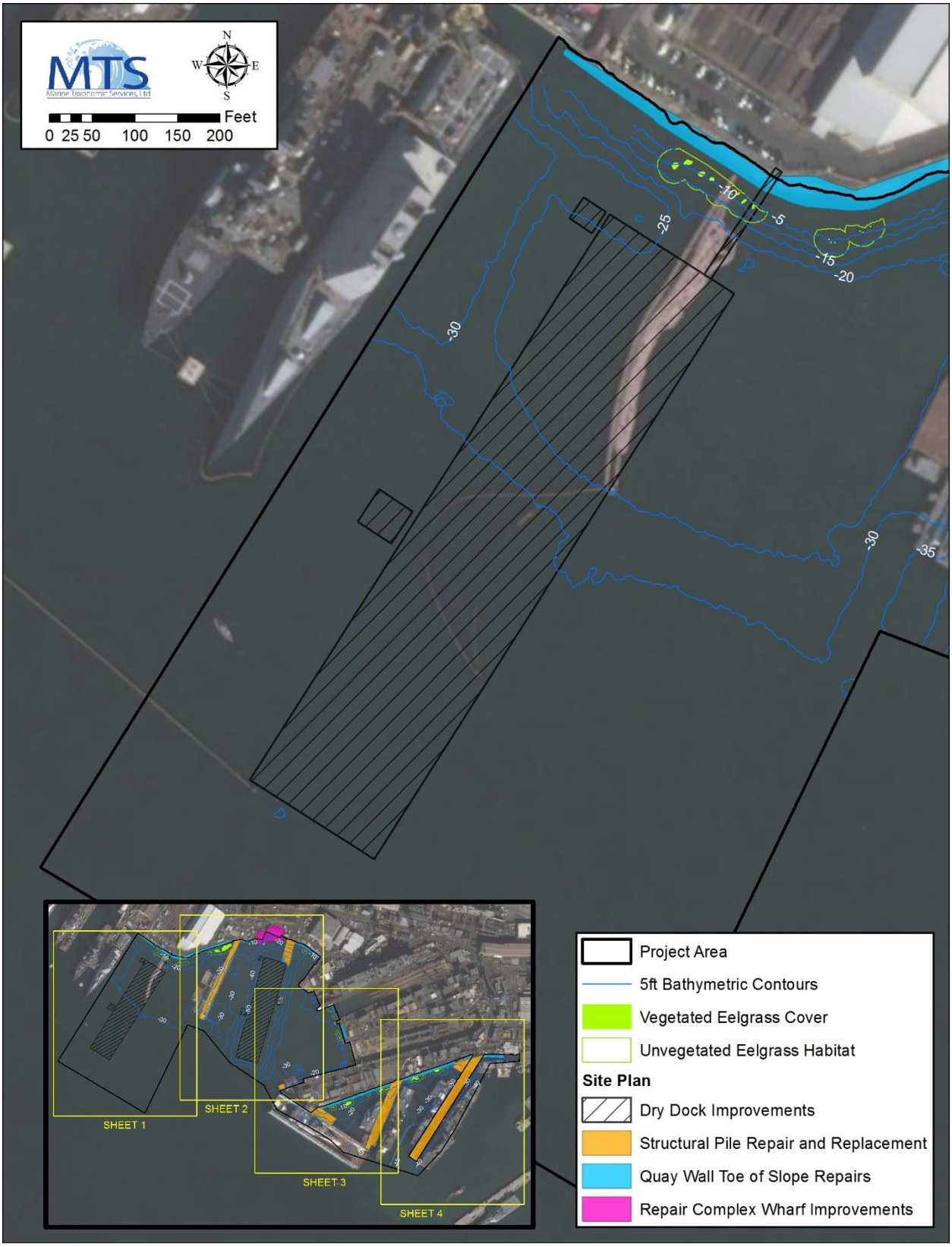

Figure B-1. Eelgrass map sheet 1.

SHEET 2

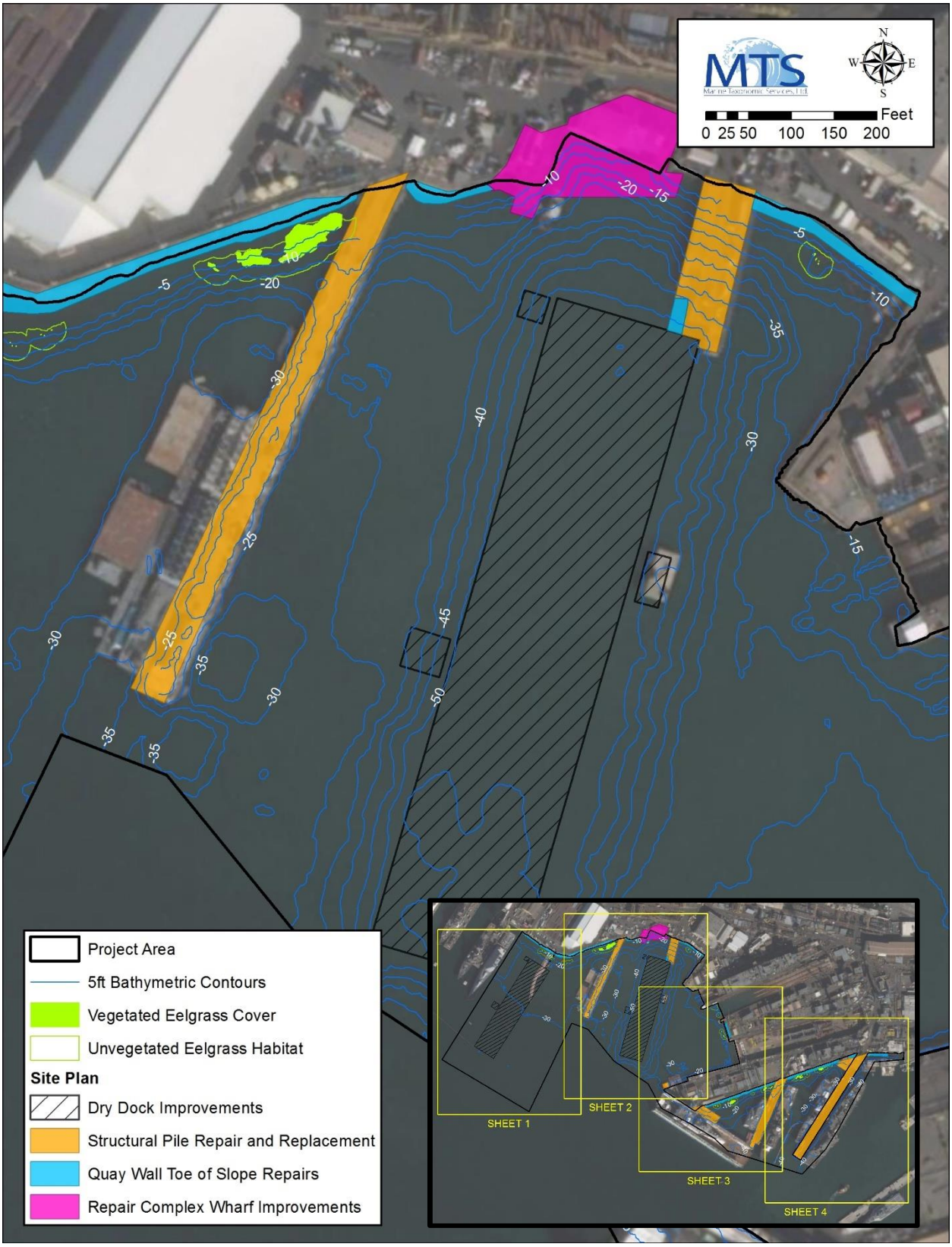

Figure B-2. Eelgrass map sheet 2.

SHEET 3

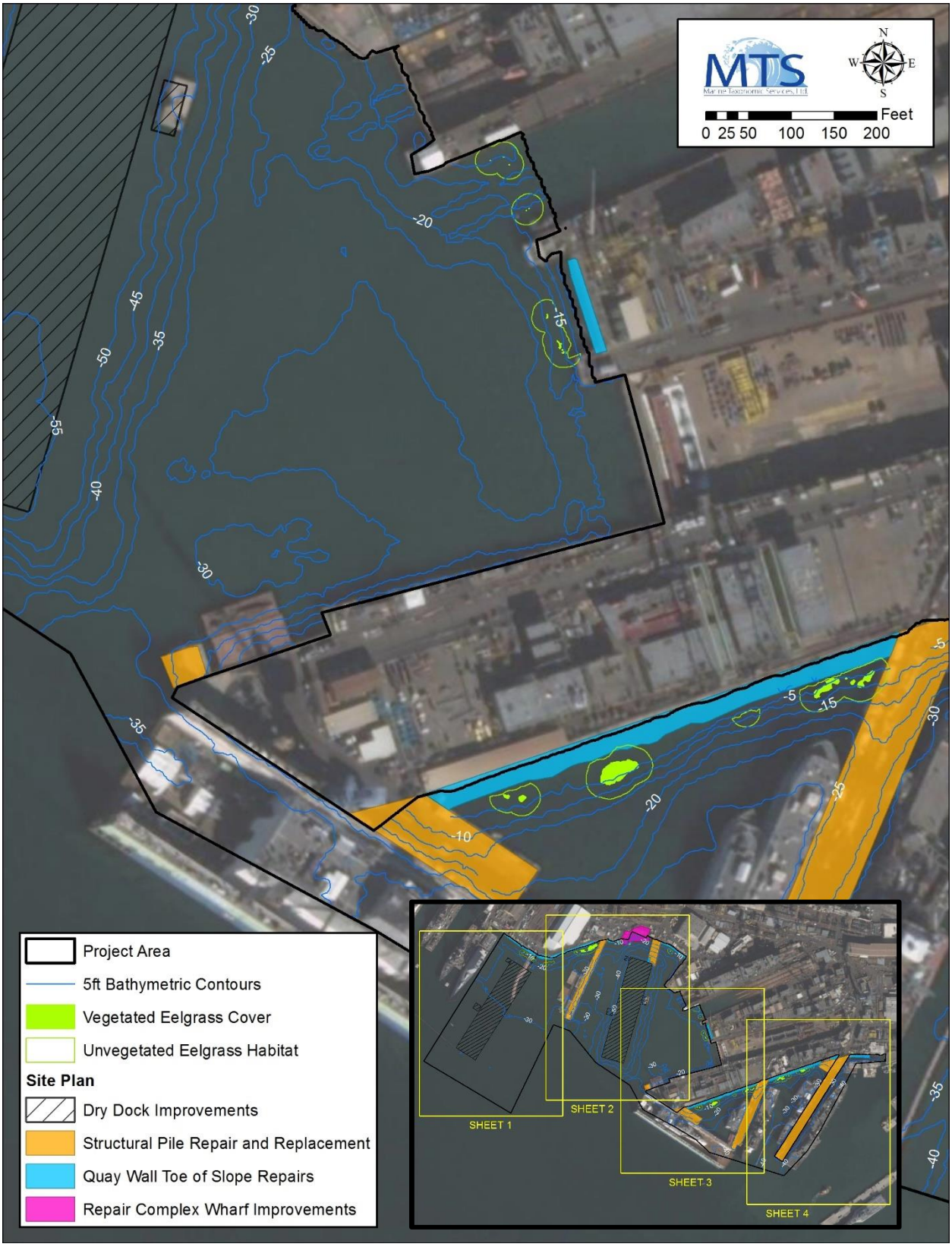

Figure B-3. Eelgrass map sheet 3.

SHEET 4

Figure B-4. Eelgrass map sheet 4.

Appendix F

Underwater Acoustical Assessment

PORT OF SAN DIEGO NASSCO FLOATING DRYDOCK AND WATERFRONT IMPROVEMENT PROJECT –

UNDERWATER ASSESSMENT

San Diego, California

June 28, 2021
Revised: Feb 10, 2022

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INTRODUCTION

This study is an assessment of potential sound levels generated by planned construction of the NASSCO Floating Drydock and Waterfront Improvement Project (NASSCO) at the Port of San Diego in San Diego, California. The proposed project involves replacing a floating dock that has reached the end of its useful life and completing waterfront improvements, such as repairing, replacing, and expanding specific infrastructure to improve functionality and operational safety within the NASSCO leasehold, which is located at 2798 East Harbor Drive. The project site is located within the Harbor Drive Industrial Subarea of Planning District 4 (Tenth Avenue Marine Terminal) of the certified Port Master Plan. Specific project elements include the following:

- Removal and replacement of the existing floating drydock and construction of supporting infrastructure;

- Improvements to the Repair Complex Wharf;

- Repairs to the quay wall toe of slope along stretches of shoreline throughout the NASSCO leasehold, which includes shoreline segments Lot 20 to Pier 12, floating dry dock approach pier to Berth 8, Ways to Building Dock, Berth 2 to Berth 3, Berth 4 to Berth 5, and Berth 6 to Navy Base Quay Wall; and

- As-needed structural repair and/or replacement of selected piles at Berths 2, 3, 4, 5, 6, and 12 and the Floating Drydock Approach Pier, and the Berth 1 Platform.

Attachment 1 shows the Existing and Proposed Improvements.

This report includes the prediction of underwater sound levels calculated based on the results of measurements for similar projects. Predicted underwater sound levels are compared against interim thresholds that have been accepted by the National Oceanic and Atmospheric Administration (NOAA). The estimated number of strikes for impact driving was provided by the applicant. The duration of vibratory driving for the installation and removal of each pile was estimated based on experience with other projects.

UNDERWATER SOUNDS FROM PILE DRIVING ACTIVITIES

Fundamentals of Underwater Noise

When a pile driving hammer strikes a pile, a pulse is created that propagates through the pile and radiates sound into the water, the ground, and the air. Sound pressure pulse as a function of time is referred to as the waveform. In terms of acoustics, these sounds are described by the peak pressure, the root-mean-square pressure (RMS), and the sound exposure level (SEL). The peak pressure is the highest absolute value of the measured waveform and can be a negative or positive pressure peak. For pile driving pulses, RMS level is determined by analyzing the waveform and computing the average of the squared pressures over the time that comprises that portion of the

waveform containing the sound energy.[1] The pulse RMS has been approximated in the field for pile driving sounds by measuring the signal with a precision sound level meter set to the "impulse" RMS setting and is typically used to assess impacts to marine mammals. Another measure of the pressure waveform that can be used to describe the pulse is the sound energy itself. The total sound energy in the pulse is referred to in many ways, most commonly as the "total energy flux."[2] The "total energy flux" is equivalent to the un-weighted sound exposure level (SEL) for a plane wave propagating in a free field, a common unit of sound energy used in airborne acoustics to describe short-duration events. The unit used is dB re 1 μPa^2-sec. In this report, peak pressures levels are expressed in decibels re 1 µPa; however, in other literature they can take varying forms such as a Pascals or pounds per square inch. The total sound energy in an impulse accumulates over the duration of that pulse. How rapidly the energy accumulates may be significant in assessing the potential effects of impulses on fish. Figure 1 illustrates the acoustical characteristics of an underwater pile driving pulse. Table 1 includes the definitions of terms commonly used to describe underwater sounds.

The variation of instantaneous pressure over the duration of a sound event is referred to as the waveform. The waveform can provide an indication of rise time or how fast pressure fluctuates with time; however, rise time differences are not clearly apparent for pile driving sounds due to the numerous rapid fluctuations that are characteristic to this type of impulse. A plot showing the accumulation of sound energy over the duration of the pulse (or at least the portion where much of the energy accumulates) illustrates the differences in source strength and rise time. An example of the underwater acoustical characteristics of a typical pile driving pulse is shown in Figure 1.

SEL is an acoustic metric that provides an indication of the amount of acoustical energy contained in a sound event. For pile driving, the typical event can be one pile driving pulse or many pulses such as pile driving for one pile or for one day of pile driving. Typically, SEL is measured for a single strike and a cumulative condition. The cumulative SEL associated with the driving of a pile can be estimated using the single strike SEL value and the number of pile strikes through the following equation:

$$SEL_{cumulative} = SEL_{single-strike} + 10log(\#of\ pile\ strikes)$$

For example, if a single strike SEL for a pile is 165 dB and it takes 1000 strikes to drive the pile, the cumulative SEL is 195 dBA (165 dB + 30 dB = 195 dB), where 10 * $Log_{10}(1000) = 30$.

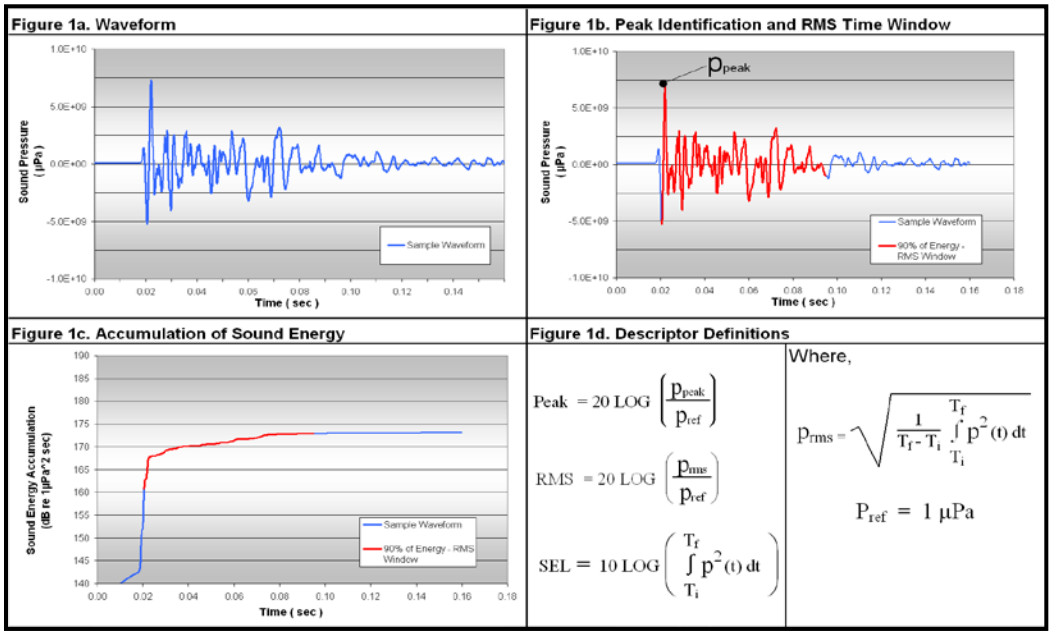
[1] Richardson, Greene, Malone & Thomson, *Marine Mammals and Noise*, Academic Press, 1995, and Greene, personal communication.

[2] Finerran, et. al., *Temporary Shift in Masked Hearing Thresholds in Odontocetes after Exposure to Single Underwater Impulses from a Seismic Watergun*, Journal of the Acoustical Society of America, June 2002.

TABLE 1 Definition of Underwater Acoustical Terms

Term	Definition
Peak Sound Pressure, unweighted (dB)	Peak sound pressure level based on the largest absolute value of the instantaneous sound pressure. This pressure is expressed in this report as a decibel (referenced to a pressure of 1 µPa) but can also be expressed in units of pressure, such as µPa or PSI.
Root-Mean-Square (RMS) Sound Pressure Level, (NMFS Criterion) dB re 1µPa	The square root of the average of the squared pressures over the time that comprise that portion of the waveform containing 90 percent of the sound energy for one pile driving impulse.[3] This measure is typically used to assess acoustical impacts to marine mammals.
Sound Exposure Level (SEL), dB re 1 µPa^2-sec	Proportionally equivalent to the time integral of the pressure squared and is described in this report in terms of dB re 1 µPa^2-sec over the duration of the impulse. Similar to the unweighted Sound Exposure Level (SEL) standardized in airborne acoustics to study noise from single events.
Cumulative SEL	Measure of the total energy received through a pile-driving event (here defined as pile driving that occurs with a day).
Waveforms, µPa over time	A graphical plot illustrating the time history of positive and negative sound pressure of individual pile strikes shown as a plot of µPa over time (i.e., seconds).
Frequency Spectra, dB over frequency range	A graphical plot illustrating the distribution of sound pressure vs. frequency for a waveform, dimension in rms pressure and defined frequency bandwidth.

FIGURE 1 Underwater Acoustical Characteristics of a Pile Driving Pulse



[3] The underwater sound measurement results obtained during the Pile Installation Demonstration Project indicated that most pile driving impulses occurred over a 50 to 100 millisecond (msec) period. Most of the energy was contained in the first 30 to 50 msec. Analysis of that underwater acoustic data for various pile strikes at various distances demonstrated that the acoustic signal measured using the standard "impulse exponential-time-weighting" (35-msec rise time) correlated to the RMS (impulse) level measured over the duration of the impulse.

Underwater Sound Thresholds

Fish

A Fisheries Hydroacoustic Workgroup (FHWG) that consisted of transportation officials, resources agencies, the marine construction industry (including Ports), and experts was formed in 2003 to address the underwater sound issues associated with marine construction. The first order of business was to document all that was clearly known about the effects of sound on fish. The result of this effort was a report prepared by Dr. Mardi Hastings and Dr. Arthur Popper, titled Effects of Sound on Fish.[4] This report provided recommended preliminary guidance to protect fish. Research to further investigate the effects of pile driving sounds on fish was also recommended in this report. Some of these recommendations were taken up in an ongoing National Cooperative Highway Research Program (NCHRP 25-28). This NCHRP study is intended to develop guidelines for the prediction and mitigation of the impacts on fish from underwater sound pressure and particle motion caused by pile driving.

To provide additional explanation of the injury criteria recommended in the "Effects of Sound on Fish" and to provide a practical means to apply the criteria, Caltrans commissioned Dr. Popper and other leading experts to prepare a subsequent report. This report is entitled "Interim Criteria for Injury of Fish Exposed to Pile Driving Operations: A White Paper," (*White Paper*).[5] This *White Paper* recommended a dual criterion for evaluating the potential for injury to fish from pile driving operations. The dual approach considered that a single pile strike with high enough amplitude, as measured by zero to peak (either negative or positive pressure) could cause injury. To account for the energy in a single strike, the SEL metric proposed by Hastings and Popper[4] was included as the second part of the dual criteria.

On June 12, 2008, NOAA's National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service, California, Oregon, and Washington Departments of Transportation, California Department of Fish and Game and the U.S. Federal Highway Administration agreed in principle to interim criteria to protect fish from pile driving activities (Table 2).

TABLE 2 Adopted Fish Criteria

Interim Criteria for Injury	Sound Levels Agreed in Principle
Peak	206 dB re: 1μPa (for all size of fish)
Cumulative SEL	187 dB re: 1μPa^2-sec – for fish size of 2 grams or greater 183 dB re: 1μPa^2-sec – for fish size of less than 2 grams

The primary difference between the adopted criteria and previous recommendations is that the single strike SEL was replaced with a cumulative SEL over a day of pile driving. NMFS does not consider sound that produce a SEL per strike of less than 150 dB to accumulate and cause injury.

[4] Hastings, M and A. Popper. 2005. Effects of Sound on Fish. Prepared for the California Department of Transportation. January 28 (revised August 23).

[5] Popper, A., Carlson, T., Hawkins, A., Southall, B., and Gentry, R. 2006. Interim Criteria for Injury of Fish Exposed to Pile Driving Operations: A White Paper. May 15.

Thus, where underwater pile driving noise exceeds 206 dB or cumulatively exceeds 187 dB SEL it can cause injury to fish in that location. All fish species of concern for this project are assumed to be two grams or larger.

The adopted criteria listed in Table 2 are for pulse-type sounds (e.g., pile driving) and does not address sound from vibratory driving. The SEL criteria are not applied to vibratory driving sounds.

Marine Mammals

Under the Marine Mammal Protection Act, NMFS has defined levels of harassment for marine mammals. Level A harassment is defined as "Any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild." Level B harassment is defined as "Any act of pursuit, torment, or annoyance which has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including but not limited to migration, breathing, nursing, breeding, feeding or sheltering."

Table 3 below outlines the current adopted Level A and Behavioral harassment (Level B) criteria. The application of the threshold for vibratory pile driving can sometimes be problematic because this threshold level can be above the ambient noise level of certain locations. The U.S. Navy has conducted ambient underwater sound measurements in the area that characterize the sound environment at 129.2 dB[6]. For continuous sounds, NMFS Northwest Region has provided guidance for reporting RMS sound pressure levels. RMS levels are based on a time-constant of 10 seconds; RMS levels should be averaged across the entire event. For impact pile driving, the overall RMS level should be characterized by integrating sound for each acoustic pulse across 90 percent of the acoustic energy in each pulse and averaging all the RMS for all pulses.

NMFS has provided marine mammal acoustic technical guidance for predicting onset of permanent threshold shift (PTS) and temporary threshold shifts (TTS) in marine mammal hearing from sound sources.[7] For this project location, the functional hearing groups are low-frequency cetaceans (humpback and gray whales), high-frequency cetaceans (harbor porpoises), phocid pinnipeds (harbor seals) and otariid pinnipeds (Stellar and California sea lions and northern elephant seals). For impact pile driving, the majority of the acoustic energy is confined to frequencies below 2 kilohertz (kHz) and there is very little energy above 20 kHz. Similarly, for much of the acoustic energy for vibratory driving is in the frequency range below 2.5 kHz. The underwater acoustic criteria for marine mammals are shown in Table 3. Table 4 shows a summary of the functional hearing groups and their hearing ranges as defined by the NMFS guidance.

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[6] Naval Facilities Engineering Command Southwest (NAVFAC SW). 2020. *Compendium of Underwater and Airborne Sound Data During Pile Installation and In-Water Demolition Activities in San Diego Bay, California*. October 2020. Prepared by Tierra Data, Inc. Data from measurement periods in December 2014, December 2015, and April 5, 2016 (Table 49 of the report), which excluded locally influenced sound measurements at active areas, the average median (or L50) SPL over both years was 129.2 dB RMS.

[7] NMFS. 2016 Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing Underwater Acoustic Thresholds for Onset of Permanent and Temporary Threshold Shifts. July.

TABLE 3 Adopted Underwater Acoustic Criteria for Marine Mammals

Species	Underwater Noise Thresholds (dB re: 1µPa)				
	Vibratory Pile Driving Disturbance Threshold (*Level B Harassment*)	Impact Pile Driving Disturbance Threshold (*Level B Harassment*)	Marine Mammal Hearing Group (see Table 4)	PTS SEL_{cum} Threshold Peak – dB re: 1µPa SEL_{cum} – dB re: 1µPa^2-sec	
				Impulsive (*Impact Pile Driving*)	Non-Impulsive (*Vibratory Pile Driving*)
Cetaceans	129.2 dB RMS*	160 dB RMS	Low Frequency	219 dB Peak 183 dB SEL_{cum}	199 dB SEL_{cum}
			Mid Frequency	230 dB Peak 185 dB SEL_{cum}	198 dB SEL_{cum}
			High Frequency	202 dB Peak 155 dB SEL_{cum}	173 dB SEL_{cum}
Pinnipeds	129.2 dB RMS*	160 dB RMS	Phocid	218 dB Peak 185 dB SEL_{cum}	201 dB SEL_{cum}
			Otariid	232 dB Peak 203 dB SEL_{cum}	219 dB SEL_{cum}

*Threshold is 120 dB or ambient level, whichever is highest. Ambient levels were measured by the U.S. Navy at 129.2 dB in the Project area.

TABLE 4 Definition of Marine Mammal Hearing Group

Marine Mammal Hearing Groups	
Functional Hearing Group	**Functional Hearing Range**
Low Frequency Cetaceans – gray whales	7 Hz to 35 kHz
Mid Frequency Cetaceans – dolphins, toothed whales, beaked whales, bottlenose whales	150 Hz to 160 kHz
High Frequency Cetaceans – true porpoises, *kogia*, river dolphins, cehalorhynchid, *lagenorhynchus cruciger* & *L. australis*	275 Hz to 160 kHz
Phocid Pinnipeds – true seals, including harbor seals	50 Hz to 86 kHz
Otariid Pinnipeds – sea lions and fur seals	60 Hz to 39 kHz

Green Sea Turtles

For sea turtles, the Navy established a threshold for injury from vibratory pile driving and impact driving at 190 dB RMS. Behavioral effects thresholds were noted to be more complex to establish than injury, as there is limited data on turtle behavioral response to sound. Turtles exhibit a low frequency hearing range, typically below 2 kHz. As a result, the potential for behavioral response to sound is further limited to sounds at both elevated intensity and low frequency. While there are no widely adopted behavioral thresholds for sound impacts to turtles, the proposed project would include RMS criteria for Green Sea Turtles, which are summarized in Table 5.

TABLE 5 Adopted Underwater Acoustic Criteria for Green Sea Turtles

Level of Effect	Underwater Noise Thresholds (dB re: 1µPa)	
	Vibratory Pile Driving Disturbance Threshold	Impact Pile Driving Disturbance
Adaptive action trigger for impulsive noise exposure	--	160 dB RMS
Potential harassment take from exposure	--	166 dB RMS

Injury from sound exposures	190 dB RMS	190 dB RMS

Underwater Sound-Generating Activities

The primary source of underwater sound will be the vibratory and impact installation of the piles. Table 6 summarizes the proposed pile driving activities, the number of piles anticipated per day, and the number of strikes per pile for impact events. All impact events will use an APE Model D46-32 hammer (or similar), and all vibratory events will use an APE Model 200 hammer (or similar).

For pile installation with an impact hammer, the initial 20 to 25 feet will be jetted to depth, and an impact hammer will be used for the remaining five to 10 feet. The blow counts in Table 6 are conservative estimates. In addition to the pile installations summarized in Table 6, 20-inch concrete piles, round timber piles, round timber piles encased with a concrete jacket, steel H-piles, and concrete filled steel pipe piles will be removed as part of the proposed project with vibratory hammers. Temporary piles will ultimately be part of the proposed project. Based on previous Berth 6 and 7 Bulkhead Project, temporary pin piles were utilized to establish a template along the bulkhead to properly set sheet piles and king piles prior to driving. Similar techniques may be used for the proposed project.

TABLE 6 Pile Driving Activities for the Proposed Project

Project Element	Project Feature	Pile Type & Size	Total No. of Piles	No. of Piles per Day	No. of Strikes per Pile
Floating Drydock	Catwalk and Removable Brow	16-inch round or square precast concrete	2	10	1,000
	West Aft Dolphin	24-inch octagonal precast concrete	56	10	1,000
	East Aft Dolphin	24-inch octagonal precast concrete	56	10	1,000
	West Forward Dolphin	24-inch octagonal precast concrete	22	10	1,000
	East Forward Dolphin	24-inch octagonal precast concrete	22	10	1,000
	West Aft Dolphin Fender	HP14 x 89	18	10	1,000
	East Aft Dolphin Fender	HP14 x 89	18	10	1,000
	West Forward Dolphin Fender	HP14 x 89	15	10	1,000
	East Forward Dolphin Fender	HP14 x 89	15	10	1,000
	Approach Pier Fender	HP14 x 89	19	10	1,000
Repair Complex Wharf	Repair Complex Wharf Sheet pile wall and backfill	Steel sheet piles	128	5	--[a]
	Repair Complex Wharf (concrete pad)	24-inch octagonal precast concrete piles	34	10	1,000
		18-inch square precast concrete piles	24	10	1,000
	Repair Complex Wharf (fender system)	HP14 x 89 fender	20	10	1,000

[a] The sheet piles will be driven with a vibratory hammer only.

Structure pile repairs and replacement at Berths 2, 3, 4, 5, 6, and Pier 12, and the floating drydock approach pier and the Berth 1 Platform would address deficiencies in steel pipe piles, steel-jacketed concrete piles, concrete-filled steel, and steel H-piles. Approximately 100 piles would be repaired or replaced per year with a total construction duration lasting approximately 10 years. The distribution may change based on the need at the facility, but the total number would not exceed 100 per year. If condition of the structural piles is beyond repair, the piles would be replaced in kind with the same dimension and material. Table 7 summarizes the pile driving information for this project element.

TABLE 7 Pile Driving Activities for the Proposed Floating Drydock and Associated Infrastructure

Project Element	Project Feature	Pile Type & Size	Total No. of Piles	No. of Piles per Day	No. of Strikes per Pile
Structure pile repairs and replacement at Berths 2, 3, 4, 5, 6, and Pier 12, and the floating drydock approach pier and the Berth 1 Platform	Drydock Approach Pier	20-inch square precast concrete	76	10	1,000
	Berth 2 Extension	16-inch square precast concrete	19	10	1,000
		16-inch octagonal precast concrete	60	10	1,000
		13-inch steel pipe	12		--[a]
	Berths 3/4	16-inch octagonal precast concrete	195	10	1,000
	Platform Extension to Berths 3/4	13-inch steel pipe	14		--[a]
	Berths 5/6	16-inch octagonal precast concrete	96	10	1,000
		18-inch octagonal precast concrete	246	10	1,000
		14-inch steel H-piles	2	10	1,000
	Hatch Platform at Berth 5	14-inch steel H-piles	12	10	1,000
	Drydock Mooring Dolphin	20-inch square precast concrete	37	10	1,000
	Pier 12	12-inch square precast concrete	56	10	1,000
		12-inch steel pipe	119		--[a]
		12-inch square precast concrete piles	8	10	1,000
		12-inch steel H-piles	5	10	1,000

[a] Driven with a vibratory hammer

Underwater Sound Levels from Construction

This assessment predicts underwater sound levels associated with the different piling activities that are anticipated. Piling activities include the vibratory installation of steel pipe piles and steel sheet piles and the impact driving of concrete piles. The prediction of sound levels associated with this activity are based on measurements from similar activities.

In October 2020, Caltrans published the updated *Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish* (referred to as the Caltrans Compendium).[8] The appendices of this document contain measurement data for numerous pile driving activities. The prediction of sound levels from pile driving activities proposed for this project relies on data collected from other sites with similar conditions. The following studies were identified to aid in predicting underwater noise levels, as well as for calculating the different distances to threshold for fishes, marine mammals and sea turtles discussed later in the report. Note that the U.S. Navy has published a compendium of sound levels associated with piling and demolition activities in San Diego Bay[9]. However, these data are only reported as the maximum levels observed, while NMFS computations typically use the median SEL and RMS sound levels or mean levels when median levels are not available. For example, use of the maximum SEL per pile strike level would greatly overestimate the accumulated SEL which assumes a equal energy hypothesis. These data were not used in this assessment. Compendium levels are summarized in *Attachment 2*.

Underwater Sound Levels from Project Pile Driving

Data in the Caltrans Compendium were reviewed for the various piling activities summarized in Table 8. The compendium provides summary data by piling activity, type, and size. Detailed information on the measurements that make up these levels are summarized in the compendium.

Much of the underwater sound impacts would be associated with impact driving of concrete piles. The U.S. Navy has published a compendium of underwater and airborne sound levels for piling and in-water demolition activities that occurred in San Diego Bay. The underwater sound levels for 24-inch concrete piles reported in this compendium are significantly louder than all other available data sets that are summarized in the Caltrans Compendium and other compendiums published by the U.S. Navy[8,10]. The reported sound levels for those activities in San Diego Bay were over 10 to 15 dB higher than other data. Therefore, this data is considered an outlier and not used in this assessment.

[8] Caltrans. *Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish*. October 2020. Document prepared by ICF International and Illingworth & Rodkin, Inc. under contract to Caltrans. Report No. CTHWANP-RT-20-365.01.04.

[9] Naval Facilities Engineering Command Southwest (NAVFAC SW). 2020. *Compendium of Underwater and Airborne Sound Data During Pile Installation and In-Water Demolition Activities in San Diego Bay, California*. October 2020. Prepared by Tierra Data, Inc.

[10] United States Navy. 2015. *Proxy source sound levels and potential bubble curtain attenuation for acoustic modeling of nearshore marine pile driving at Navy installations in Puget Sound*. Prepared by Michael Slater, Naval Surface Warfare Center, Carderock Division, and Sharon Rainsberry, Naval Facilities Engineering Command Northwest. Revised January 2015.

TABLE 8 Measured Levels for Piling Activities

Driving Method	Pile Type	Size	Sound Pressure Level Measured in dB re: 1µPa at 10 meters			Notes
			Peak	RMS	SEL	
Impact	Concrete	12-in. Round or Square	190	172	160	Average of 2 different similar projects (16- to 20-in. dia.). Note available measurements for 12- and 14-inch piles are limited and in very shallow water.
Impact	Concrete	14-in. Round or Square				
Impact	Concrete	16-in. Round or Square				
Impact	Concrete	18-in. Round or Square				
Impact	Concrete	20-in. Round or Square	187	175	167	Averaged of 6 different similar projects (24-in. dia.). Note outlier low measurements not used
Impact	Concrete	24-in. Octagonal				
Impact	Steel H (HP 12x89)	12-in.	200	178	166	Used 12-in. H pile impact data for Parsons Slough that had higher levels than reported 14-in piles.
Impact	Steel H (HP 14x89)	14-in.				
Vibrate	Steel Pipe	13-in.	172	160	--	Used one project (Mad River Slough)
Vibrate	Steel Sheet	--	177	163	--	Average of 3 projects in deeper water for 24-in AZ sheet piles

Prediction of Underwater Sound Levels from Project Pile Driving

Table 9 shows the sound levels expected at 10-meter distances from different pile driving activities expected from the project (as shown in Table 6). Included are the unattenuated sound levels (Peak, RMS, SEL) expected, also at a distance of 10 meters from the piles. This table also shows levels corresponding to a 5 dB attenuation owing to different attenuation mechanisms like bubble curtains, isolation casing etc. that may be used during the pile driving activities. These levels have been taken from past projects that give a good estimate of the levels one can expect from the different pile driving activities proposed for the project. Impacts to fishes, marine mammals and turtles are then calculating using these levels (both unattenuated and attenuated).

TABLE 9 Sound levels used for analyzing marine mammal impacts for different pile types and sizes as per project requirements

Driving Method	Pile Type	Size	Sound Pressure Level (dB re: 1µPa at 10 meters)			Sound Pressure Level (dB re: 1µPa at 10 meters)		
			UNATTENUATED			ATTENUATED[1]		
			Peak	RMS	SEL	Peak	RMS	SEL
Impact	Concrete	12-in. Round or Square	190	172	160	185	167	155
Impact	Concrete	14-in. Round or Square						
Impact	Concrete	16-in. Round or Square						
Impact	Concrete	18-in. Round or Square						
Impact	Concrete	20-in. Round or Square	187	175	167	182	170	162
Impact	Concrete	24-in. Octagonal						
Impact	Steel H (HP 12x89)	12-in.	200	178	166	195	173	161
Impact	Steel H (HP 14x89)	14-in.						
Vibrate	Steel Pipe	13-in.	172	160	--	167	155	--
Vibrate	Steel Sheet	--	177	163	--	172	158	--

[1] Attenuated condition assumes 5-dB lower sounds

Predicted Impacts to Fishes

Table 10 shows the anticipated distances to the various adopted interim fish thresholds. Distances are shown for both unattenuated and attenuated piles (5 dB attenuation). Also, when the piles are installed with a vibratory hammer, the cumulative SEL thresholds for fish do not apply and the 150 RMS acts as a threshold. The distance to each threshold was computed using the transmission loss coefficient of 15 times the Log_{10} of the distance, as recommended by NMFS when there is no site-specific information for the area. Cumulative SEL was computed by adding 10 times the Log_{10} of the number of impact pile strikes to the median SEL for a single strike. Attachment 3 shows the NMFS spreadsheets used for calculating impacts to fishes.

TABLE 10 Distance to the Various Adopted Fish Thresholds for all piles

Driving Method	Pile Type	Size	Piles installed per day	No. of strikes per pile	Condition[1]	Distance to various adopted fish thresholds (in meters)			
						Peak 206 dB[2]	RMS 150 dB[2]	Cumulative SEL 187 dB[3]	Cumulative SEL 183dB[3]
Impact	Concrete	12-18 in. Round or Square	10	1,000	Unattenuated	<1	293	46	46
					Attenuated	<1	136	22	22
Impact	Concrete	20-24 in. Round or Square	10	1,000	Unattenuated	<1	464	136	136
					Attenuated	<1	215	63	63
Impact	Steel H	12-14in.	10	1,000	Unattenuated	4	736	117	117
					Attenuated	2	341	54	54
Vibrate	Steel Pipe	13-in.	2	N/A	Unattenuated	<1	46	N/A	N/A
					Attenuated	<1	22	N/A	N/A
Vibrate	Steel Sheet	--	2	N/A	Unattenuated	<1	74	N/A	N/A
					Attenuated	<1	34	N/A	N/A

[1] Attenuated condition assumes 5-dB lower sounds. [2] dB : re 1 µpa [3] dB : re 1 µpa^{2}sec

Predicted Impacts to Marine Mammals

The following threshold distances were computed to assess impacts to marine mammals:

- Distance to onset PTS Isopleth for each hearing group
  - Unattenuated
  - Attenuated
- Distance for unweighted 120 dB vibratory and 160 dB Impulse Behavior Isopleth
  - Unattenuated
  - Attenuated

The NMFS Companion User Spreadsheet (Version 2.2 [2020]) to the *National Marine Fisheries Service (NMFS): Technical Guidance for Assessing the Effects of Anthropogenic Noise on Marine Mammal Hearing: Underwater Acoustic Thresholds for Onset of Permanent and Temporary Threshold Shifts* was used to predict zones where the onset of Permanent Threshold Shift to marine mammal hearing could occur. A spreading loss calculation is included in the spreadsheet to predict the distance to the onset PTS from accumulated SEL and Peak sound pressure. The spreadsheet incorporates a frequency weighting function that accounts for sensitivity for different hearing groups when computing accumulated SEL. These are referred to as weighting frequency adjustments (WFAs). The default frequency WFA of 2 kHz for impact pile driving and 2.5-kHz for vibratory driving were used. Since the onset of PTS based on SEL_{cum} is computed as further from the pile than it would be using Peak sound pressure computations, the onset of PTS is based

on SEL computations; therefore, the onset of PTS based on peak sound levels is not provided in this assessment.

The extent of Level B zone calculations were made using the 10-meter sound levels and applying a transmission loss coefficient of 15 times the Log_{10} of the distance, as recommended by NMFS when there is no site-specific information for the area.

Table 11 shows the anticipated distances to the various adopted Marine Mammal thresholds (Level A and Level B zones). When the piles are installed with a vibratory hammer, the cumulative SEL thresholds do not apply and the Peak PTS Thresholds that apply to marine mammals will not be reached. Distances are shown for both unattenuated and attenuated pile driving activities expected from the project. Attachment 4 shows the NMFS spreadsheets used for calculating impacts to marine mammals.

TABLE 11 Distance to the Adopted Marine Mammal Thresholds for different Pile Driving activities – Level A & B zones (meters)

Driving Method	Pile Type	Size	Piles per day	No. of strikes per pile	Condition[1]	Level A injury zone (meters) (using SEL_{cum} Threshold)					Level B harassment zone (meters)
						Cetaceans			Pinnipeds		
						LF	MF	HF	PW	OW	
Impact	Concrete	12-18 in. Round or Square	10	1,000	Unattenuated	136	5	162	73	5	63
					Attenuated	63	2	75	34	3	29
Impact	Concrete	20-24 in. Round or Square	10	1,000	Unattenuated	398	14	474	213	16	100
					Attenuated	185	7	220	99	7	46
Impact	Steel H	12-14in.	10	1,000	Unattenuated	341	12	406	183	13	158
					Attenuated	158	6	189	85	6	74
Vibrate	Steel Pipe	13-in.	2	N/A	Unattenuated	6	1	9	4	<1	1,131
					Attenuated	3	<1	4	2	<1	525
Vibrate	Steel Sheet	--	2	N/A	Unattenuated	9	<1	14	6	<1	1,792
					Attenuated	4	<1	6	3	<1	832

[1] Attenuated condition assumes 5-dB lower sounds.

Predicted Impacts to Green Sea Turtles

Table 12 shows the predicted distances to the adopted 160 dB RMS for impact driving and 190 dB RMS for vibratory driving Green Sea Turtle thresholds (as mentioned in Table 5). These distances have been calculated for all the different types of pile driving activities and their respective levels expected from the project using the $15Log_{10}$ transmission loss coefficient. Attachment 3 shows the NMFS spreadsheets used for calculating impacts to green sea turtles.

TABLE 12 Distance to the Adopted Green Sea Turtle thresholds for different Pile Driving activities (meters)

Driving Method	Pile Type	Size	Piles installed per day	No. of strikes per pile	Condition[1]	Distance to adopted Green Sea Turtle threshold (meters)
						160 dB RMS (Impact) 190 dB RMS (Vibratory)
Impact	Concrete	12-18 in. Round or Square	10	1,000	Unattenuated	63
					Attenuated	29
Impact	Concrete	20-24 in. Round or Square	10	1,000	Unattenuated	100
					Attenuated	46
Impact	Steel H	12-14in.	10	1,000	Unattenuated	158
					Attenuated	74
Vibrate	Steel Pipe	13-in.	2	N/A	Unattenuated	<1
					Attenuated	<1
Vibrate	Steel Sheet	--	2	N/A	Unattenuated	<1
					Attenuated	<1

[1] Attenuated condition assumes 5-dB lower sounds.

Summary of Underwater Sound Level Impacts

Based on the above calculations (Tables 10 to 12), construction of the NASSCO Floating Drydock and Waterfront Improvement Project would result in the generation of significant underwater sounds that could affect fishes, marine mammals and sea turtles that may be present in waters at or near the project. Impact and vibratory pile driving activities are expected to have potential impacts that extend out to around 740 meters as per the adopted fish thresholds. Pile installation activities are predicted to have potential Level A marine mammal impacts that extend out to 474 meters each day, depending on the types of activity and animal species. The range of level B impact would be much greater, extending out to 1.8 kilometers during vibratory pile driving. For most activities involving impact driving only, Level B zones would be less than 160 meters. It should be noted that the prediction that sounds extending out 1.8 kilometers would be to waters that have clear line of sight to the construction activity. The distances to the PTS thresholds for vibratory driving would be small when compared to the impact driving distances. The Level B harassment zones would however be much larger with the vibratory installation of the pile compared to impact driving. The maximum distance to adopted Green Sea Turtle thresholds is

expected to be up to 160 meters from the impact pile driving activities. Level B zones for vibratory driving with respect to adopted Green Sea Turtle thresholds are expected to be less than 10 meters.

AIRBORNE NOISE LEVELS FROM PROJECT PILE DRIVING

Fundamentals of Airborne Noise

Airborne sound is treated slightly different that underwater sound. For example, the decibel scale used to express airborne sounds reference an acoustic pressure of 20 µPa rather than 1µPa, as 20µPa is the threshold of healthy human hearing. Sound transmission in air from a single source (i.e., a "point" source) radiates uniformly outward in a more spherical pattern as it travels away from the source since the propagating field is less bounded. The sound level attenuates (or drops off) at a rate of 6 dBA for each doubling of distance. Usually, the noise path between the source and the observer is very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the rate of attenuation. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is done for simplification only; for distances of less than 300 feet, prediction results based on this scheme are sufficiently accurate. For acoustically "hard" sites (i.e., sites with a reflective surface, such as a smooth body of water, between the source and the receiver), no excess ground attenuation is assumed.

Sounds generated from construction activities are considered point sources, rather than a line source such as a freeway or roadway. The marine environment around the project site is mostly water and would be considered a "hard" site. The TL drop off rate of sound is represented by spherical spreading loss (a $20Log_{10}$ function). This equates to a 6-dB reduction in sound per doubling distance. The formula for calculating the drop off is the source level plus $20*Log_{10}(D_1/D_2)$, where D_1 is the reference position and D_2 is the receiver position.

Airborne Noise Thresholds

In-air acoustic impacts are only considered for marine mammals that would haul out of the water. Therefore, pinnipeds (seals and sea lions) are considered but cetaceans (whales, dolphins, and porpoises) are not. Current in-air acoustic thresholds provided by NMFS for marine mammals are 90 dB RMS for Level B take of harbor seals and 100 dB RMS for Level B take of non-harbor seal pinnipeds. It is noted that thresholds are currently only provided for Level B take (behavioral disruption) and that no threshold are currently established for Level A take (injury). Because injury is a more severe effect than behavioral disruption it follows that Level A take would occur at higher noise levels than those associated with Level B take. Therefore, although no specific threshold has been established for Level A take (injury) it can be concluded that avoidance of Level B take would also avoid Level A take. It is noted that the thresholds in Table 13 are all established using unweighted decibels (dB) (also sometimes referred to as "flat" or "Z" weighted), as opposed to A-weighted decibels (dBA) which are typically used for assessing environmental noise impacts on humans. When a sound is measured using both unweighted decibels and A-weighted decibels, the values are rarely the same. The unweighted (dB) level will be higher than the A-weighted (dBA) level, especially for sounds with substantial low frequency acoustic energy. The difference between the two values depends on the frequency content (spectrum) of the sound.

TABLE 13 Airborne noise thresholds

Criterion	Criterion Definition	Threshold
Level A	PTS (injury) conservatively based on TTS	None established
Level B	Harbor seals (Level B – behavioral disruption) exposure	90 dBA RMS
Level B	Non-harbor seal pinnipeds (Level B – behavioral disruption) exposure	100 dBA RMS

Sound Levels for Pile Driving

The U.S. Navy reports airborne sounds from pile driving[11,12]. These impact pile driving levels are for steel piles, which are considered to generate more noise than concrete piles. The Navy reports maximum unweighted airborne sound levels at 112 dB (L_{max}) for impact and 95 to 97 dB for Vibratory (36in piles). FHWA's RCNM v2.0 (Roadway Construction Noise Model) is commonly used to documented A-weighted levels for evaluating impacts to people. Impact pile driving is predicted at 104 dBA at 50 feet (15 meters). However, these are A-weighted levels. Table 14 provides the L_{max} and L_{eq} levels[13] measured while driving relatively small diameter steel shell piles (24- to 36-inch diameter) at the Navy Test Pile Program project in Bangor, Washington.

TABLE 14 Airborne Noise Levels from Driving of Steel Piles Measured at 50 feet (15 meters)

Sound Descriptor	Sound Level, dBA[1]	
	Vibratory Hammer	Impact Hammer
L_{max}	102	112
L_{eq}	97	103

[1] dB re: 20 µPa

Airborne Impacts from Vibratory Pile Driving

Measured sound levels from vibratory pile driving used in this analysis are based on measurements made during the Navy Test Pile Project. The maximum measured unweighted L_{max} was 102 dB and the average L_{eq} was 97 dB at 50 feet or 15 meters. The $20\log_{10}$ attenuation rate was used to calculate the distances to the various NMFS thresholds that are presented in Table 15. The distances shown are based on the L_{max} levels. We believe the NMFS criterion are based on average levels, so these distances likely overestimate impacts.

[11] NAVFAC 2015. *Proxy Source Sound Levels and Potential Bubble Curtain Attenuation for Acoustic Modeling of Nearshore Marine Pile Driving at Navy Installations in Puget Sound*. January. Available at http://www.nbkeis.com/_Docs/FEIS/AppendixH_Navy%202015%20Noise%20Analysis.pdf . Accessed June 25, 2021

12 Navy (U.S. Department of the Navy). 2012. *Acoustic monitoring report Test Pile Program. Prepared for Naval Base Kitsap at Bangor*, WA. Prepared by Illingworth and Rodkin, Inc., April 27, 2012

[13] L_{max} level is the typical maximum RMS sound level measured with a Sound Level Meter set to the "fast" response (or $1/8^{th}$ second response time). The Leq is the energy average sound level measured over a driving event.

TABLE 15 Distance to Thresholds for Vibratory Driving

Threshold	Distance (meters)	
	100 dB	90 dB
L_{max}	20	60
L_{eq}	<10	35

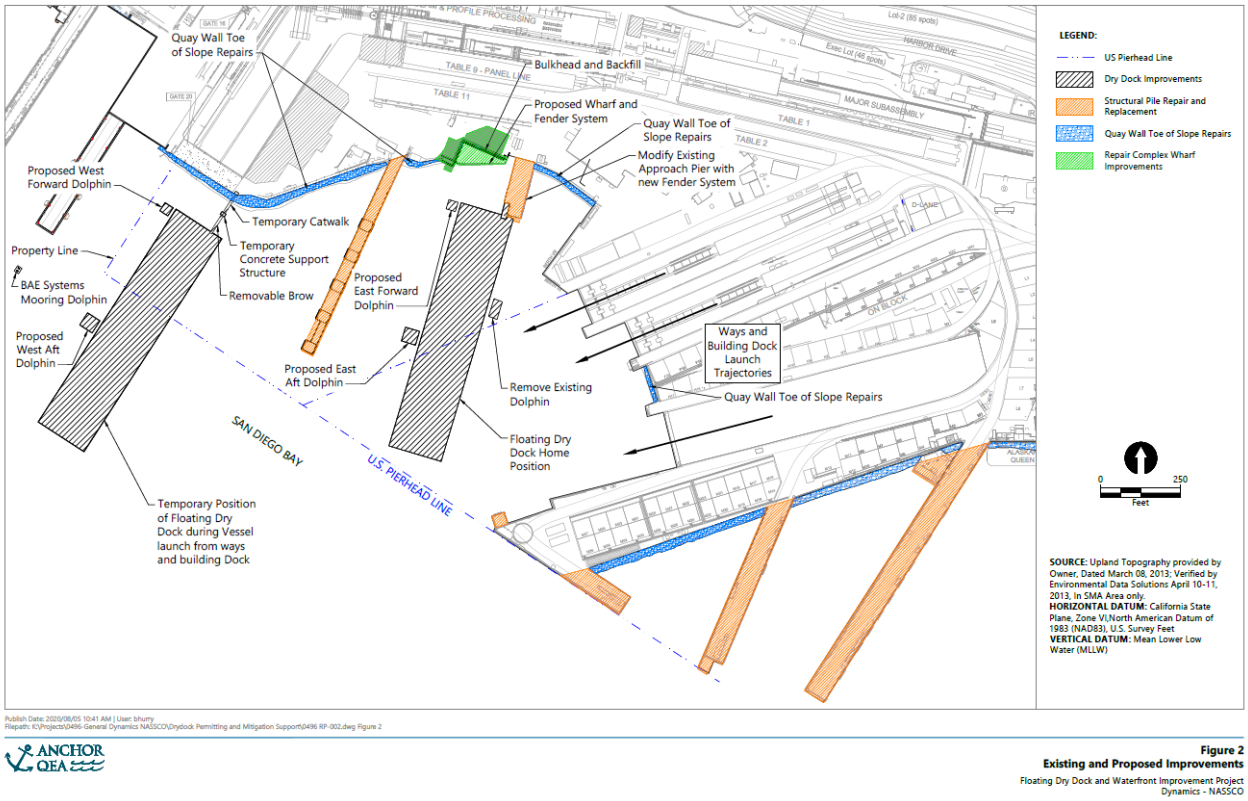
Airborne Impacts from Impact Pile Driving

Measured sound levels from impact pile driving used in this analysis are also based on measurements made during the Navy Test Pile Project. The maximum measured unweighted L_{max} was 112 dB and the average L_{max} was 103 dB at 50 feet (15 meters). The $20\log_{10}$ attenuation rate was used to calculate the distances to the various NMFS thresholds that are presented in Table 16. The levels shown are the L_{max} levels. Again, these distances likely overestimate impact areas since they are based on the maximum levels.

TABLE 16 Distance to Thresholds for Impact Driving

Threshold	Distance (meters)	
	100 dB	90 dB
L_{max}	200 feet (60 meters)	630 feet (190 meters)
L_{eq}	70 feet (20 meters)	225 feet (70 meters)

Attachment 1



ANCHOR QEA

Figure 2
Existing and Proposed Improvements
Floating Dry Dock and Waterfront Improvement Project
Dynamics - NASSCO

FIGURE A1 - Floating Dry Dock and Waterfront Improvement Project Plan

Attachment 2

Table A-2. Summary of Applicable Caltrans Compendium Data

Pile type	Diameter	Project	Location	Hammer type	Water Depth	Measured Sound Levels (dB re : 1 µPa)				Comments
						Distance	Peak	RMS	SEL	
Concrete	12-inch square	Noyo Harbor Mooring Basin Dock Project	Fort Bragg, CA Noyo Harbor	Diesel Impact	2-3m	10m	183	157	146	
Concrete	16-inch sqaure	Pier 2, Concord NWS	Concord, CA - Carquinez Straits	Drop Steam-Powered	10m	10m	184	173	--	Piles driven using steam-powered drop hammer that included a cushion block. Hammer energies were 48,000 to 60,000 ft-lbs
Concrete	18-inch octagonal	Berkeley Marina	Berekely, CA San Francisco Bay	Diesel D-30	2-4m	10m	185	166	154	
Concrete	20-inch square	Pier 12 attenuation device test	Honolulu, Hawaii	Junttan Hydraulic impact hammer Model HHS9	4-10m	10m	188	177	164	
Concrete	24-inch octagonal	Berth 22 Reconstruction, Port of Oakland	Oakland, CA - San Francisco Bay	Diesel Impact(Delmag D62-22)	10-15m	10m	188	176	166	Piles installed using D62-22 Delmag impact hammer with cushion block. Hammer energies up to 165,000 ft-lbs (224 kilo joules). Fish exposure study conducted during measurements
Steel H Pile	12-inch	Noyo River Bridge	Fort Bragg, CA	Diesel Impact	2m	30m	179	165	NA	Temporary trestle piles. Piles driven using small diesel impact hammer. Piles installed in shallow water.
Steel H Pile	14-inch	Parson Slough	Montrery, CA Parson Slough	Diesel Impact APE19-42	4m	10m	200	178	166	Small diesel hammer in deep water
Steel Pipe	13-inch	Mad River Slough Pipeline	Mad River Slough, Arcata, CA	Vibratory Hammer	5m	10m	171	155	155	Piles driven in tidal river slough. Piles were first vibrated, then driven with a drop hammer.
AZ Steel Sheet	24-inch AZ	Berth 35/37, Port of Oakland (Dutra)	Oakland, CA - San Francisco Bay	Vibratory (APE 600B Super Kong)	15m	10m	177	163	163	Vibratory installation of sheet piles for deep-water berth, as described above. Sound levels of some driving events exceeded 185 dB peak and 165 dB SEL for very short periods

Attachment 3 – NMFS Fish and Sea Turtle calculation sheets

Title	**21-047 NASSCO Port of San Diego**
Description	12-18 in round or square concrete impact piles
Assumptions	

Instructions:

Input: Fill in the green colored cells

B1: Enter a descriptive title for the analysis.
B2: Enter complete information about the pile driving operation, including the type of pile, size of pile, pile driver type, noise attenuation, hours of operation, etc.
B3: Enter any assumptions you need to make about the choice of parameter values, project methods, environment, etc.
B26: Enter the number of strikes required to drive a single pile to final depth (from the Action Agency's description or from the No. Strikes per Pile Data tab)
B27: Enter the maximum number of piles to be installed in a single day (from the Action Agency's description of the project)
For the next 6 values, use the information on the Pile Driving Noise Data tab if possible, otherwise request information from the Action Agency or search the internet for another source.
B32: Enter the estimated single strike peak pressure (dB re: 1µPa)
B33: Enter the distance (m) from the pile where B7 was measured
B34: Enter any noise reduction (from unattenuated noise levels) due to noise abatement methods. See the Noise Abatement Data Tab.
C32: Enter the estimated single strike SEL (dB re: 1µPa²s). If no direct measurement is available, use peak pressure minus 25 dB
C33: Enter the distance (m) from the pile where C9 was measured
D32: Enter the estimated single strike RMS pressure (dB re: 1µPa). If no direct measurement is available, use peak pressure minus 15 dB
D33: Enter the distance (m) from the pile where D9 was measured
B38: Enter the transmission loss constant (attenuation with distance), which depends on the model used:
For deep water (depth is greater than the cSEL radius of effect) use the spherical model attenuation constant = 20
For shallow water use a cylindrical model attenuation constant = 10 to 15; use 15 if unknown.
If you use an attenuation constant that was reported with the noise data, be sure that the depth profile and bottom type of your project is similar to the project that generated the data.

Output: Read the values in the blue cells in the Calculated Distances Table

Pile Driving Parameters	
Number of strikes per pile	**1000**
Number of piles per day	**10**
Estimated number of strikes per day	10000

Acoustic Measurements				
Measurement	Peak	SEL	RMS	
Measured single strike level	**190**	**160**	**172**	
Distance from source (m)	**10**	**10**	**10**	**← The pre-filled values are the most comm**
Noise reduction due to abatement (dB)	**5**			

Model Assumptions	
Effective Quiet	**150**
Transmission loss constant (15 if unknown)	**15**
Cumulative SEL at measured distance	210

Calculated Acoustic Values Used by the Model			
Measurement	Peak	SEL	RMS
Single Strike Levels	**200**	**170**	**182**
Distance from source (m)	**1**	**1**	**1**

Calculated Distances					
	Onset of Physical Injury			Fish Behavior	Sea Turtle Behavior
	Peak	Cumulative SEL dB**		RMS	RMS
	Sea Turtles & Fish	Sea Turtles & Fish ≥ 2 g	Fish < 2 g	dB	dB
Threshold value	206	187	183	150	160
Distance to threshold (meters)	**0**	**21.5443469**	**21.5443469**	**135.9356391**	**29.28644565**
Distance to threshold (US Standard)	**0.0 ft**	**70.684 ft**	**70.684 ft**	**445.983 ft**	**96.084 ft**
	** This calculation assumes that single strike SELs < 150 dB do not accumulate to cause injury (Effective Quiet)				

Title	21-047 NASSCO Port of San Diego
Description	20-24 in round or square concrete impact piles
Assumptions	

Instructions:

Input: Fill in the green colored cells

B1: Enter a descriptive title for the analysis.

B2: Enter complete information about the pile driving operation, including the type of pile, size of pile, pile driver type, noise attenuation, hours of operation, etc.

B3: Enter any assumptions you need to make about the choice of parameter values, project methods, environment, etc.

B26: Enter the number of strikes required to drive a single pile to final depth (from the Action Agency's description or from the No. Strikes per Pile Data tab)

B27: Enter the maximum number of piles to be installed in a single day (from the Action Agency's description of the project)

For the next 6 values, use the information on the Pile Driving Noise Data tab if possible, otherwise request information from the Action Agency or search the internet for another source.

B32: Enter the estimated single strike peak pressure (dB re: 1µPa)

B33: Enter the distance (m) from the pile where B7 was measured

B34: Enter any noise reduction (from unattenuated noise levels) due to noise abatement methods. See the Noise Abatement Data Tab.

C32: Enter the estimated single strike SEL (dB re: 1µPa²s). If no direct measurement is available, use peak pressure minus 25 dB

C33: Enter the distance (m) from the pile where C9 was measured

D32: Enter the estimated single strike RMS pressure (dB re: 1µPa). If no direct measurement is available, use peak pressure minus 15 dB

D33: Enter the distance (m) from the pile where D9 was measured

B38: Enter the transmission loss constant (attenuation with distance), which depends on the model used:

For deep water (depth is greater than the cSEL radius of effect) use the spherical model attenuation constant = 20

For shallow water use a cylindrical model attenuation constant = 10 to 15; use 15 if unknown.

If you use an attenuation constant that was reported with the noise data, be sure that the depth profile and bottom type of your project is similar to the project that generated the data.

Output: Read the values in the blue cells in the Calculated Distances Table

Pile Driving Parameters	
Number of strikes per pile	**1000**
Number of piles per day	**10**
Estimated number of strikes per day	10000

Acoustic Measurements				
Measurement	Peak	SEL	RMS	
Measured single strike level	**187**	**167**	**175**	
Distance from source (m)	**10**	**10**	**10**	**← The pre-filled values are the most comm**
Noise reduction due to abatement (dB)	**5**			

Model Assumptions	
Effective Quiet	**150**
Transmission loss constant (15 if unknown)	**15**
Cumulative SEL at measured distance	217

Calculated Acoustic Values Used by the Model			
Measurement	Peak	SEL	RMS
Single Strike Levels	**197**	**177**	**185**
Distance from source (m)	**1**	**1**	**1**

Calculated Distances

	Onset of Physical Injury			Fish Behavior	Sea Turtle Behavior
	Peak	Cumulative SEL dB**		RMS	RMS
	Sea Turtles & Fish	Sea Turtles & Fish ≥ 2 g	Fish < 2 g	dB	dB
Threshold value	206	187	183	150	160
Distance to threshold (meters)	**0**	**63.09573445**	**63.09573445**	**215.443469**	**46.41588834**
Distance to threshold (US Standard)	**0.0 ft**	**207.007 ft**	**207.007 ft**	**706.836 ft**	**152.283 ft**
	** This calculation assumes that single strike SELs < 150 dB do not accumulate to cause injury (Effective Quiet)				

Title	21-047 NASSCO Port of San Diego
Description	12-14 in steel H impact piles
Assumptions	

Instructions:

Input: Fill in the green colored cells

B1: Enter a descriptive title for the analysis.

B2: Enter complete information about the pile driving operation, including the type of pile, size of pile, pile driver type, noise attenuation, hours of operation, etc.

B3: Enter any assumptions you need to make about the choice of parameter values, project methods, environment, etc.

B26: Enter the number of strikes required to drive a single pile to final depth (from the Action Agency's description or from the No. Strikes per Pile Data tab)

B27: Enter the maximum number of piles to be installed in a single day (from the Action Agency's description of the project)

For the next 6 values, use the information on the Pile Driving Noise Data tab if possible, otherwise request information from the Action Agency or search the internet for another source.

B32: Enter the estimated single strike peak pressure (dB re: 1µPa)

B33: Enter the distance (m) from the pile where B7 was measured

B34: Enter any noise reduction (from unattenuated noise levels) due to noise abatement methods. See the Noise Abatement Data Tab.

C32: Enter the estimated single strike SEL (dB re: 1µPa²s). If no direct measurement is available, use peak pressure minus 25 dB

C33: Enter the distance (m) from the pile where C9 was measured

D32: Enter the estimated single strike RMS pressure (dB re: 1µPa). If no direct measurement is available, use peak pressure minus 15 dB

D33: Enter the distance (m) from the pile where D9 was measured

B38: Enter the transmission loss constant (attenuation with distance), which depends on the model used:

For deep water (depth is greater than the cSEL radius of effect) use the spherical model attenuation constant = 20

For shallow water use a cylindrical model attenuation constant = 10 to 15; use 15 if unknown.

If you use an attenuation constant that was reported with the noise data, be sure that the depth profile and bottom type of your project is similar to the project that generated the data.

Output: Read the values in the blue cells in the Calculated Distances Table

Pile Driving Parameters	
Number of strikes per pile	**1000**
Number of piles per day	**10**
Estimated number of strikes per day	10000

Acoustic Measurements				
Measurement	Peak	SEL	RMS	
Measured single strike level	**200**	**166**	**178**	
Distance from source (m)	**10**	**10**	**10**	**← The pre-filled values are the most comm**
Noise reduction due to abatement (dB)	**5**			

Model Assumptions	
Effective Quiet	**150**
Transmission loss constant (15 if unknown)	**15**
Cumulative SEL at measured distance	216

Calculated Acoustic Values Used by the Model			
Measurement	Peak	SEL	RMS
Single Strike Levels	**210**	**176**	**188**
Distance from source (m)	**1**	**1**	**1**

Calculated Distances

	Onset of Physical Injury			Fish Behavior	Sea Turtle Behavior
	Peak	Cumulative SEL dB**		RMS	RMS
	Sea Turtles & Fish	Sea Turtles & Fish ≥ 2 g	Fish < 2 g	dB	dB
Threshold value	206	187	183	150	160
Distance to threshold (meters)	**1.847849797**	**54.11695265**	**54.11695265**	**341.4548874**	**73.56422545**
Distance to threshold (US Standard)	**6.062 ft**	**177.549 ft**	**177.549 ft**	**1120.259 ft**	**241.352 ft**
	** This calculation assumes that single strike SELs < 150 dB do not accumulate to cause injury (Effective Quiet)				

Attachment 4 – NMFS Level A Marine Mammal impact calculation sheets

E.1: IMPACT PILE DRIVING (STATIONARY SOURCE: Impulsive, Intermittent)

VERSION 2.2: 2020

KEY

	Action Proponent Provided Information
	NMFS Provided Information (Technical Guidance)
	Resultant Isopleth

STEP 1: GENERAL PROJECT INFORMATION

PROJECT TITLE	Port of San Diego NASSCO
PROJECT/SOURCE INFORMATION	12-18" Concrete IMPACT

Please include any assumptions

PROJECT CONTACT	Adwait Ambaskar aambaskar@illingworthrodkin.com

STEP 2: WEIGHTING FACTOR ADJUSTMENT

Specify if relying on source-specific WFA, alternative weighting/dB adjustment, or if using default value

Weighting Factor Adjustment (kHz)¥	2	

*Broadband: 95% frequency contour percentile (kHz); For appropriate default WFA: See INTRODUCTION tab

† If a user relies on alternative weighting/dB adjustment rather than relying upon the WFA (source-specifi
or default), they may override the Adjustment (dB) (row 73), and enter the new value directly.
However, they must provide additional support and documentation supporting this modification.

STEP 3: SOURCE-SPECIFIC INFORMATION

NOTE: METHOD E.1-1 is PREFERRED method when SEL-based source levels are available (because pulse duration is not required). Only use method E.1-2 if SEL-

E.1-1: METHOD TO CALCULATE PK AND SEL_{cum} (SINGLE STRIKE EQUIVALENT) PREFERRED METHOD (pulse duration not needed)

Unweighted $SEL_{cum\ (at\ measured\ distance)}$ = SEL_{ss} + 10 Log (# strikes)	200.0

SEL_{cum}

Single Strike SEL_{ss} ($L_{E,p,\ single\ strike}$) specified at "x" meters (Cell B32)	160
Number of strikes per pile	1000
Number of piles per day	10
Transmission loss coefficient	15
Distance of single strike SEL_{ss} ($L_{E,p,\ single\ strike}$) measurement (meters)	10

PK

$L_{p,0\text{-}pk}$ specified at "x" meters (Cell G29)	190
Distance of $L_{p,0\text{-}pk}$ measurement (meters)†	10
$L_{p,0\text{-}pk}$ Source level	205.0

RESULTANT ISOPLETHS*

*Impulsive sounds have dual metric thresholds (SELcum & PK). Metric producing largest isopleth should be used.

Hearing Group	Low-Frequency Cetaceans	Mid-Frequency Cetaceans	High-Frequency Cetaceans	Phocid Pinnipeds	Otariid Pinnipeds
SEL_{cum} Threshold	183	185	155	185	203
PTS Isopleth to threshold (meters)	135.7	4.8	161.7	72.6	5.3
PK Threshold	219	230	202	218	232
PTS PK Isopleth to threshold (meters)	NA	NA	1.6	NA	NA

*"NA": PK source level is ≤ to the threshold for that marine mammal hearing group.

E.1: IMPACT PILE DRIVING (STATIONARY SOURCE: Impulsive, Intermittent)

VERSION 2.2: 2020

KEY

	Action Proponent Provided Information
	NMFS Provided Information (Technical Guidance)
	Resultant Isopleth

STEP 1: GENERAL PROJECT INFORMATION

PROJECT TITLE	Port of San Diego NASSCO
PROJECT/SOURCE INFORMATION	20-24" Concrete IMPACT
Please include any assumptions	
PROJECT CONTACT	Adwait Ambaskar aambaskar@illingworthrodkin.com

STEP 2: WEIGHTING FACTOR ADJUSTMENT

Specify if relying on source-specific WFA, alternative weighting/dB adjustment, or if using default value

Weighting Factor Adjustment (kHz)¥	2	

¥Broadband: 95% frequency contour percentile (kHz); For appropriate default WFA: See INTRODUCTION tab

† If a user relies on alternative weighting/dB adjustment rather than relying upon the WFA (source-speci or default), they may override the Adjustment (dB) (row 73), and enter the new value directly. However, they must provide additional support and documentation supporting this modification.

STEP 3: SOURCE-SPECIFIC INFORMATION

NOTE: METHOD E.1-1 is PREFERRED method when SEL-based source levels are available (because pulse duration is not required). Only use method E.1-2 if SEL

E.1-1: METHOD TO CALCULATE PK AND SEL_{cum} (SINGLE STRIKE EQUIVALENT) PREFERRED METHOD (pulse duration not needed)

Unweighted $SEL_{cum\ (at\ measured\ distance)}$ = SEL_{ss} + 10 Log (# strikes)	207.0

SEL_{cum}		PK	
Single Strike SEL_{ss} ($L_{E,p,\ single\ strike}$) specified at "x" meters (Cell B32)	167	$L_{p,0\text{-}pk}$ specified at "x" meters (Cell G29)	187
Number of strikes per pile	1000	Distance of $L_{p,0\text{-}pk}$ measurement (meters)*	10
Number of piles per day	10	$L_{p,0\text{-}pk}$ Source level	202.0
Transmission loss coefficient	15		
Distance of single strike SEL_{ss} ($L_{E,p,\ single\ strike}$) measurement (meters)	10		

RESULTANT ISOPLETHS*

*Impulsive sounds have dual metric thresholds (SELcum & PK). Metric producing largest isopleth should be used.

Hearing Group	Low-Frequency Cetaceans	Mid-Frequency Cetaceans	High-Frequency Cetaceans	Phocid Pinnipeds	Otariid Pinnipeds
SEL_{cum} Threshold	183	185	155	185	203
PTS Isopleth to threshold (meters)	397.6	14.1	473.6	212.8	15.5
PK Threshold	219	230	202	218	232
PTS PK Isopleth to threshold (meters)	NA	NA	NA	NA	NA

"NA": PK source level is ≤ to the threshold for that marine mammal hearing group.

E.1: IMPACT PILE DRIVING (STATIONARY SOURCE: Impulsive, Intermittent)

VERSION 2.2: 2020

KEY

	Action Proponent Provided Information
	NMFS Provided Information (Technical Guidance)
	Resultant Isopleth

STEP 1: GENERAL PROJECT INFORMATION

PROJECT TITLE	Port of San Diego NASSCO
PROJECT/SOURCE INFORMATION	12-14" Steel H IMPACT
Please include any assumptions	
PROJECT CONTACT	Adwait Ambaskar aambaskar@illingworthrodkin.com

STEP 2: WEIGHTING FACTOR ADJUSTMENT

		Specify if relying on source-specific WFA, alternative weighting/dB adjustment, or if using default value
Weighting Factor Adjustment (kHz)¥	2	

*Broadband: 95% frequency contour percentile (kHz); For appropriate default WFA: See INTRODUCTION tab

† If a user relies on alternative weighting/dB adjustment rather than relying upon the WFA (source-speci
or default), they may override the Adjustment (dB) (row 73), and enter the new value directly.
However, they must provide additional support and documentation supporting this modification.

STEP 3: SOURCE-SPECIFIC INFORMATION

NOTE: METHOD E.1-1 is PREFERRED method when SEL-based source levels are available (because pulse duration is not required). Only use method E.1-2 if SEL

E.1-1: METHOD TO CALCULATE PK AND SEL_{cum} (SINGLE STRIKE EQUIVALENT) PREFERRED METHOD (pulse duration not needed)

Unweighted SEL_{cum} (at measured distance) = SEL_{ss} + 10 Log (# strikes)	206.0

SEL_{cum}		PK	
Single Strike SEL_{ss} ($L_{E,p,\ single\ strike}$) specified at "x" meters (Cell B32)	166	$L_{p,0\text{-}pk}$ specified at "x" meters (Cell G29)	200
Number of strikes per pile	1000	Distance of $L_{p,0\text{-}pk}$ measurement (meters)*	10
Number of piles per day	10	$L_{p,0\text{-}pk}$ Source level	215.0
Transmission loss coefficient	15		
Distance of single strike SEL_{ss} ($L_{E,p,\ single\ strike}$) measurement (meters)	10		

RESULTANT ISOPLETHS*

*Impulsive sounds have dual metric thresholds (SELcum & PK). Metric producing largest isopleth should be used.

Hearing Group	Low-Frequency Cetaceans	Mid-Frequency Cetaceans	High-Frequency Cetaceans	Phocid Pinnipeds	Otariid Pinnipeds
SEL_{cum} Threshold	183	185	155	185	203
PTS Isopleth to threshold (meters)	341.0	12.1	406.2	182.5	13.3
PK Threshold	219	230	202	218	232
PTS PK Isopleth to threshold (meters)	NA	NA	7.4	NA	NA

*"NA": PK source level is ≤ to the threshold for that marine mammal hearing group.

A.1: Vibratory Pile Driving (STATIONARY SOURCE: Non-Impulsive, Continuous)

VERSION 2.2: 2020

KEY

	Action Proponent Provided Information
	NMFS Provided Information (Technical Guidance)
	Resultant Isopleth

STEP 1: GENERAL PROJECT INFORMATION

PROJECT TITLE	Port of San Diego NASSCO
PROJECT/SOURCE INFORMATION	12-13" steel pipe VIBRATORY

Please include any assumptions

PROJECT CONTACT	Adwait Ambaskar aambaskar@illingworthrodkin.com

STEP 2: WEIGHTING FACTOR ADJUSTMENT

		Specify if relying on source-specific WFA, alternative weighting/dB adjustment, or if using default value
Weighting Factor Adjustment (kHz)¥	2.5	

¥Broadband: 95% frequency contour percentile (kHz) OR Narrowband: frequency (kHz); For appropriate default WFA: See INTRODUCTION tab

† If a user relies on alternative weighting/dB adjustment rather than relying upon the WFA (source-specifi or default), they may override the Adjustment (dB) (row 48), and enter the new value directly. However, they must provide additional support and documentation supporting this modification.

STEP 3: SOURCE-SPECIFIC INFORMATION

Sound Pressure Level (L_{rms}), specified at "x" meters (Cell B30)	155
Number of piles within 24-h period	2
Duration to drive a single pile (minutes)	30
Duration of Sound Production within 24-h period (seconds)	3600
10 Log (duration of sound production	35.56
Transmission loss coefficient	15
Distance of sound pressure level (L_{rms}) measurement (meters)	10

NOTE: The User Spreadsheet tool provides a means to estimates distances a with the Technical Guidance's PTS onset thresholds. Mitigation and monitorin requirements associated with a Marine Mammal Protection Act (MMPA) author Endangered Species Act (ESA) consultation or permit are independent mana decisions made in the context of the proposed activity and comprehensive effe and are beyond the scope of the Technical Guidance and the User Spreadshe

RESULTANT ISOPLETHS

Hearing Group	Low-Frequency Cetaceans	Mid-Frequency Cetaceans	High-Frequency Cetaceans	Phocid Pinnipeds	Otariid Pinnipeds
SEL_{cum} Threshold	199	198	173	201	219
PTS Isopleth to threshold (meters)	**2.7**	**0.2**	**4.0**	**1.7**	**0.1**

A.1: Vibratory Pile Driving (STATIONARY SOURCE: Non-Impulsive, Continuous)

VERSION 2.2: 2020

KEY

	Action Proponent Provided Information
	NMFS Provided Information (Technical Guidance)
	Resultant Isopleth

STEP 1: GENERAL PROJECT INFORMATION

PROJECT TITLE	Port of San Diego NASSCO
PROJECT/SOURCE INFORMATION	Steel Sheet VIBRATORY

Please include any assumptions

PROJECT CONTACT	Adwait Ambaskar aambaskar@illingworthrodkin.com

STEP 2: WEIGHTING FACTOR ADJUSTMENT

Specify if relying on source-specific WFA, alternative weighting/dB adjustment, or if using default value

Weighting Factor Adjustment (kHz)¥	2.5	

¥Broadband: 95% frequency contour percentile (kHz) OR Narrowband: frequency (kHz); For appropriate default WFA: See INTRODUCTION tab

† If a user relies on alternative weighting/dB adjustment rather than relying upon the WFA (source-specif or default), they may override the Adjustment (dB) (row 48), and enter the new value directly. However, they must provide additional support and documentation supporting this modification.

STEP 3: SOURCE-SPECIFIC INFORMATION

Sound Pressure Level (L_{rms}), specified at "x" meters (Cell B30)	158
Number of piles within 24-h period	2
Duration to drive a single pile (minutes)	30
Duration of Sound Production within 24-h period (seconds)	3600
10 Log (duration of sound production	35.56
Transmission loss coefficient	15
Distance of sound pressure level (L_{rms}) measurement (meters)	10

NOTE: The User Spreadsheet tool provides a means to estimates distances with the Technical Guidance's PTS onset thresholds. Mitigation and monitorir requirements associated with a Marine Mammal Protection Act (MMPA) autho Endangered Species Act (ESA) consultation or permit are independent mana decisions made in the context of the proposed activity and comprehensive eff and are beyond the scope of the Technical Guidance and the User Spreadsh

RESULTANT ISOPLETHS

Hearing Group	Low-Frequency Cetaceans	Mid-Frequency Cetaceans	High-Frequency Cetaceans	Phocid Pinnipeds	Otariid Pinnipeds
SEL_{cum} Threshold	199	198	173	201	219
PTS Isopleth to threshold (meters)	**4.3**	**0.4**	**6.4**	**2.6**	**0.2**

Appendix G

Special-Status Species Lists

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (La Jolla (3211772) OR La Mesa (3211771) OR Point Loma (3211762) OR National City (3211761) OR Imperial Beach (3211751))

Map Index Number: 53057
EO Index: 53057
Key Quad: Imperial Beach (3211751)
Element Code: AAABF02020
Occurrence Number: 273
Occurrence Last Updated: 2019-01-07

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G2G3
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 1999-11-02
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1999-11-02
Occurrence Rank: Unknown
Owner/Manager: DPR-BORDER FIELD SP
Trend: Unknown
Presence: Presumed Extant

Location:

BORDERFIELD STATE PARK, SOUTH OF THE TIJUANA RIVER, ABOUT 0.9 MI NORTH OF THE INTERNATIONAL BORDER.

Detailed Location:

SITE NAME: TIJUANA ESTUARY NATIONAL WILDLIFE REFUGE. THIS SITE IS PART OF THE MSCP PLANNING AREA. PIT-FALL TRAP ARRAY 2.

Ecological:

AUTHOR NOTED THIS WAS ONE OF THE LAST REMAINING SAND-DUNE SPADEFOOT POPULATIONS IN COASTAL CALIFORNIA. MARITIME SUCCULENT SCRUB, SALT MARSH AND COASTAL SAGE SCRUB. SUBSTANTIAL FOOT TRAFFIC THROUGHOUT THE AREA.

Threats:

General:

1 INDIVIDUAL CAPTURED BETWEEN 5 FEB 1998 AND 6 OCT 1998, AND 1 BETWEEN 2 FEB AND 2 NOV 1999.

PLSS: T19S, R02W, Sec. 06 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3601182 E488272
Latitude/Longitude: 32.54796 / -117.12491
Elevation (feet): 12

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

FIS00R0001	FISHER, R. & T. CASE (CALIFORNIA STATE UNIVERSITY, SACRAMENTO) - SOUTHERN CALIFORNIA HERPETOFAUNA RESEARCH AND MONITORING: 1995-1999 DATA SUMMATION REPORT. 2000-XX-XX
FIS00R0002	FISHER, R. & T. CASE (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - FINAL REPORT ON HERPETOFAUNA MONITORING IN THE TIJUANA ESTUARY NATIONAL ESTUARINE RESEARCH RESERVE 2000-02-XX
ROC01R0001	ROCHESTER, C. ET AL. (U.S. GEOLOGICAL SURVEY) - HERPETOFAUNAL MONITORING IN MSCP REGION OF SAN DIEGO 2001-03-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 54869
EO Index: 54869
Key Quad: La Mesa (3211771)
Element Code: AAABF02020
Occurrence Number: 283
Occurrence Last Updated: 2019-01-08

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G2G3
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 2003-04-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-04-22
Occurrence Rank: Good
Owner/Manager: PVT-SDGE
Trend: Unknown
Presence: Presumed Extant

Location:

ON WESTSIDE OF CALLE DE VIDA, 0.1 MI S OF RUEDA DR INTERSECTION, W OF MISSION GORGE & E OF MURPHY CANYON, SAN DIEGO.

Detailed Location:

ALONG THE SDG&E TRANSMISSION LINE CORRIDOR. MAPPED TO PROVIDED MAP.

Ecological:

HABITAT CONSISTS OF A DEPRESSION IN THE SDG&E ACCESS ROAD, EXHIBITING VERNAL POOL CHARACTERISTICS; SURROUNDED BY COASTAL SAGE SCRUB & VERNAL POOLS.

Threats:

General:

100 JUVENILES OBSERVED ON 22 APR 2003.

PLSS: T15S, R02W, Sec. 34 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3631584 E492552
Latitude/Longitude: 32.82224 / -117.07956
Elevation (feet): 560

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

KIM03F0001	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR SPEA HAMMONDII 2003-04-22
KIM03R0001	KIM, C. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION-FOCUSED WET SEASON SURVEY RESULTS FOR LISTED FAIRY SHRIMP SPECIES FOR THE SAN DIEGO GAS & ELECTRIC MISSION TO MIGUEL 230 KILOVOLT #2 PROJECT 2003-06-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	56616	**EO Index:**	56632
Key Quad:	La Jolla (3211772)	**Element Code:**	AAABF02020
Occurrence Number:	296	**Occurrence Last Updated:**	2019-02-14

Scientific Name: *Spea hammondii*

Common Name: western spadefoot

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2G3

State: S3

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed:	2004-03-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2004-03-11	**Occurrence Rank:**	Fair
Owner/Manager:	PVT-SDGE	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

JUST SOUTH OF RONDA AVE INTERSECTION WITH MELBOURNE DR, 0.5 MILE NW OF QUALCOMM (SDCCU) STADIUM, NORTH SAN DIEGO.

Detailed Location:

MAPPED TO PROVIDED MAP. SITE IS LOCATED ALONG A TRANSMISSION LINE CORRIDOR; RESIDENTIAL HOUSING SURROUNDS THE CORRIDOR ON THE NORTH, EAST, AND WEST.

Ecological:

HABITAT CONSISTED OF A WATER-FILLED ROAD RUT, ON A MESA TOP ABOVE QUALCOMM STADIUM.

Threats:

THREATENED BY VEHICLE TRAFFIC USED FOR EQUIPMENT MAINTENANCE OF THE TRANSMISSION LINES.

General:

ESTIMATED 100 TADPOLES OBSERVED ON 11 MAR 2004.

PLSS:	T16S, R02W, Sec. 18 (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3627815 E487873	**Latitude/Longitude:**	32.78820 / -117.12950	**Elevation (feet):**	320

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

KIM04F0001	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR SPEA HAMMONDII 2004-03-11
KIM04R0001	KIM, C. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION- FOCUSED WET SEASON SURVEY RESULTS FOR LISTED ENDANGERED FAIRY SHRIMP SPECIES FOR THE SAN DIEGO GAS & ELECTRIC MISSSION TO MIGUEL 230 KILOVOLT #2 PROJECT 2004-06-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 56618
EO Index: 56634
Key Quad: La Mesa (3211771)
Element Code: AAABF02020
Occurrence Number: 297
Occurrence Last Updated: 2004-09-02

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G2G3
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 2004-04-10
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2004-04-10
Occurrence Rank: Fair
Owner/Manager: PVT-SDGE
Trend: Unknown
Presence: Presumed Extant

Location:

BETWEEN LITTLE SYCAMORE CANYON AND QUAIL CANYON, 2 MILES NORTH OF SANTEE.

Detailed Location:

Ecological:

HABITAT CONSISTS OF A WATER-FILLED ROAD RUT, ON A RIDGE TOP IN MCAS MIRAMAR; BURNED COASTAL SAGE SCRUB SURROUNDS THE DIRT ROAD, OPEN SPACE PRESENT IN ALL DIRECTIONS. COAST BARREL CACTUS AND SAN DIEGO GOLDEN STAR PRESENT AT THIS SITE.

Threats:

General:

ESTIMATED 200 TADPOLES OBSERVED ON 10 APR 2004.

PLSS: T15S, R01W, Sec. 18 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3636999 E497776
Latitude/Longitude: 32.87111 / -117.02376
Elevation (feet): 1,050

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

KIM04F0002 KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR SPEA HAMMONDII 2004-04-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1585
EO Index: 113495
Key Quad: Imperial Beach (3211751)
Element Code: AAABF02020
Occurrence Number: 529
Occurrence Last Updated: 2018-12-07

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G2G3
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:
VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
JUST WEST OF AVENUE DE LAS VISTAS SANTA DOMINGO, DENNERY CANYON VERNAL POOL RESERVE, SAN DIEGO.

Detailed Location:
AT ROBINHOOD RIDGE POOLS 3, 4, AND 64. MAPPED TO SHAPEFILE LOCATIONS PROVIDED.

Ecological:
VERNAL POOLS.

Threats:

General:
TADPOLES OBSERVED BETWEEN JAN AND MAY 2003.

PLSS: T18S, R01W, Sec. 29, NE (S)
Accuracy: specific area
Area (acres): 9
UTM: Zone-11 N3604491 E499608
Latitude/Longitude: 32.57787 / -117.00417
Elevation (feet): 517

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1591	**EO Index:**	113502
Key Quad:	Imperial Beach (3211751)	**Element Code:**	AAABF02020
Occurrence Number:	533	**Occurrence Last Updated:**	2019-01-04

Scientific Name: *Spea hammondii* **Common Name:** western spadefoot

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:** BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

CNDDB Element Ranks: **Global:** G2G3

State: S3

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed:	2005-02-25	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2005-02-25	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO, UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EAST OF SPRING CANYON NEAR ITS CONFLUENCE WITH DILLON CANYON, 0.5 TO 0.8 MILES NORTH OF US / MEXICO BORDER, SAN DIEGO.

Detailed Location:

MAPPED TO COORDINATES, SHAPEFILE AND MAPS PROVIDED.

Ecological:

COASTAL SAGE SCRUB. SITE HAS HISTORY OF RECREATIONAL AND BORDER PATROL OFF ROAD VEHICLE USAGE. AREA HAS INTACT VERNAL POOLS AND IS MODERATLEY GRAZED BY GOATS.

Threats:

OFF ROAD VEHICLES.

General:

6 INDIVIDUALS CAUGHT IN PITFALL TRAPS BETWEEN 1995 AND 1996. 4 LARVAE COLLECTED IN 2000. TADPOLES AND METAMORPHS OBSERVED ON 21 FEB 2003. LARVAE COLLECTED ON 3 APR 2003 AND ON 25 FEB 2005.

PLSS:	T19S, R01W, Sec. 5, NE (S)	**Accuracy:**	specific area	**Area (acres):**	30
UTM:	Zone-11 N3601757 E499902	**Latitude/Longitude:**	32.55321 / -117.00105	**Elevation (feet):**	457

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

BAL03S0002	BALO, K. & B. MILLER - CAS #242867 COLLECTED FROM SPRING CANYON, VERNAL POOL #1, 32 33 6.12 N, 117 0 14.52 W 2003-04-03
CLA05S0002	CLARK, D. - CAS #243375 & 243531 COLLECTED FROM SPRING CANYON, 32 33 10.8 N, 117 0 1.76 W 2005-02-25
CLA07U0001	CLARK, D. - REPORT OF COLLECTED + SALVAGED ANIMALS 2007-04-10
KAN03S0001	KANE, C. - CAS #242767 COLLECTED FROM SPRING CANYON, POOL #1, 32 33 6.12 N, 117 0 14.52 W 2003-04-03
PAL00S0001	PALMER, D. - CAS #242756 COLLECTED FROM SPRING CANYON, 32 33 19.03 N, 117 0 0.94 W 2000-03-29
ROC01R0001	ROCHESTER, C. ET AL. (U.S. GEOLOGICAL SURVEY) - HERPETOFAUNAL MONITORING IN MSCP REGION OF SAN DIEGO 2001-03-XX
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
USG00S0002	U.S. GEOLOGICAL SURVEY - LACM #185943 COLLECTED FROM SPRING CANYON 2000-04-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1592
Key Quad: Imperial Beach (3211751)
Occurrence Number: 534
EO Index: 113504
Element Code: AAABF02020
Occurrence Last Updated: 2018-12-07

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S3

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:
VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 2003-03-05
Last Survey Date: 2003-03-05
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
0.25 MILE NORTH OF US / MEXICO BORDER, 0.5 MILE EAST OF SAN YSIDRO PORT OF ENTRY, SAN DIEGO.

Detailed Location:
AT J 11W POOL 1 & 2. MAPPED TO SHAPEFILE LOCATIONS PROVIDED.

Ecological:
VERNAL POOLS.

Threats:

General:
TADPOLES OBSERVED ON 5 MAR 2003.

PLSS: T19S, R01W, Sec. 6, S (S)
UTM: Zone-11 N3601006 E497859
Accuracy: specific area
Latitude/Longitude: 32.54642 / -117.0228
Area (acres): 12
Elevation (feet): 318

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1594	**EO Index:**	113505
Key Quad:	Imperial Beach (3211751)	**Element Code:**	AAABF02020
Occurrence Number:	535	**Occurrence Last Updated:**	2018-12-10

Scientific Name: *Spea hammondii* **Common Name:** western spadefoot

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G2G3
State: S3

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed:	2008-02-19	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2008-02-19	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NEAR FINGER CANYON, 0.6 MILE NORTH OF US / MEXICO BORDER, 1 MILE NE OF SAN YSIDRO PORT OF ENTRY, SAN DIEGO.

Detailed Location:

MAPPED TO SHAPEFILE LOCATIONS AND COORDINATES PROVIDED.

Ecological:

ROAD RUT POOLS AND VERNAL POOLS.

Threats:

General:

TADPOLES OBSERVED IN 2003 AND ON 19 FEB 2008.

PLSS:	T19S, R01W, Sec. 6, NE (S)	**Accuracy:**	specific area	**Area (acres):**	15
UTM:	Zone-11 N3601648 E498497	**Latitude/Longitude:**	32.55222 / -117.01601	**Elevation (feet):**	475

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

KAN03S0002	KANE, C. - CAS #242841 COLLECTED FROM SPRING CANYON, VERNAL POOL #1, 32 33 12.36 N, 117 1 3.06 W 2003-04-03
POW08U0001	POWERS, C. ET AL. (ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC) - 90-DAY PROTOCOL SURVEY REPORT FOR USFWS LISTED VERNAL POOL BRANCHIOPODS, DEXSTAR PROPERTY, OTAY MESA, CALIFORNIA. 2008-07-08
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1595
EO Index: 113506
Key Quad: Imperial Beach (3211751)
Element Code: AAABF02020
Occurrence Number: 536
Occurrence Last Updated: 2018-12-10

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G2G3
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:
VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 2003-03-20
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-03-20
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
0.4 AIR MILE SE OF INTERSECTION OF AIRWAY RD AND CALIENTE AVE, SE OF SAN YSIDRO HIGH SCHOOL, SAN DIEGO.

Detailed Location:
AT J 34 POOL 1. MAPPED TO SHAPEFILE LOCATION PROVIDED.

Ecological:
VERNAL POOL.

Threats:

General:
TADPOLES DETECTED ON 20 MAR 2003.

PLSS: T18S, R01W, Sec. 32, W (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3602654 E499085
Latitude/Longitude: 32.5613 / -117.00975
Elevation (feet): 499

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1599
Key Quad: Imperial Beach (3211751)
Occurrence Number: 537
EO Index: 113510
Element Code: AAABF02020
Occurrence Last Updated: 2018-12-10

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S3

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:
VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 2003-XX-XX
Last Survey Date: 2003-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
0.4 AIR MILE SE OF INTERSECTION OF HAWKEN DRIVE AND OTAY MESA ROAD, SW OF SAN YSIDRO HIGH SCHOOL, SAN DIEGO.

Detailed Location:
AT WEST OTAY A&B POOLS 43 AND 44. MAPPED TO SHAPEFILE LOCATION PROVIDED.

Ecological:
VERNAL POOLS.

Threats:

General:
TADPOLES OBSERVED BETWEEN JAN AND MAY 2003.

PLSS: T18S, R01W, Sec. 31, W (S)
UTM: Zone-11 N3602648 E497403
Accuracy: 80 meters
Latitude/Longitude: 32.56124 / -117.02767
Area (acres): 5
Elevation (feet): 489

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1600	**EO Index:**	113511
Key Quad:	Imperial Beach (3211751)	**Element Code:**	AAABF02020
Occurrence Number:	538	**Occurrence Last Updated:**	2020-06-05

Scientific Name: *Spea hammondii* **Common Name:** western spadefoot

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S3

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed:	2019-03-14	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2019-03-14	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

0.2 MILE SOUTH OF BAY CREST LANE AND OTAY MESA ROAD INTERSECTION, JUST WEST OF SAN YSIDRO HIGH SCHOOL, SAN DIEGO.

Detailed Location:

MAPPED TO SHAPEFILE LOCATIONS AND COORDINATES PROVIDED.

Ecological:

VERNAL POOLS.

Threats:

General:

TADPOLES OBSERVED BETWEEN JAN AND MAY 2003. 1 ADULT AND 1 LARVA OBSERVED AND PHOTOGRAPHED ON 14 MAR 2019.

PLSS:	T18S, R01W, Sec. 31, NE (S)	**Accuracy:**	specific area	**Area (acres):**	14
UTM:	Zone-11 N3602818 E498005	**Latitude/Longitude:**	32.56278 / -117.02126	**Elevation (feet):**	523

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
SMI19D0001	SMITH, N. (U.S. GEOLOGICAL SURVEY) - EXCEL TABLE OF SPECIAL STATUS SPECIES DETECTIONS ASSOCIATED WITH [SC-000838], 2019 2019-12-30
SMI19U0010	SMITH, N. & INATURALIST - OBSERVATION 21250694 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 17 APR 2020. 2019-03-14
SMI19U0011	SMITH, N. & INATURALIST - OBSERVATION 21250707 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 17 APR 2020. 2019-03-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1601
EO Index: 113512
Key Quad: Imperial Beach (3211751)
Element Code: AAABF02020
Occurrence Number: 539
Occurrence Last Updated: 2018-12-10

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G2G3
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 2014-03-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2014-03-22
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

ALONG OTAY VALLEY RD IN VICINITY OF CORPORATE CENTER DR INTERSECTION, WEST OF BROWN FIELD AIRPORT, SAN DIEGO.

Detailed Location:

MAPPED TO LOCATIONS PROVIDED.

Ecological:

VERNAL POOLS.

Threats:

General:

TADPOLES OBSERVED ON 16 APR 2003. DOZENS OF LARVAE OBSERVED ON 22 MAR 2014.

PLSS: T18S, R01W, Sec. 29, S (S)
Accuracy: specific area
Area (acres): 13
UTM: Zone-11 N3603430 E499452
Latitude/Longitude: 32.56829 / -117.00584
Elevation (feet): 510

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

HER16D0001 HERP, INC. - HERPETOLOGICAL EDUCATION AND RESEARCH PROJECT (HERP) DATABASE. FORMERLY A PROJECT OF THE NORTH AMERICAN FIELD HERPING ASSOCIATION. 2016-10-11

SDG03D0001 CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX

SDG03R0001 CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1603	**EO Index:**	113514
Key Quad:	Imperial Beach (3211751)	**Element Code:**	AAABF02020
Occurrence Number:	540	**Occurrence Last Updated:**	2018-12-10

Scientific Name: *Spea hammondii* **Common Name:** western spadefoot

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G2G3
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed:	2017-03-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-03-26	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO, CALTRANS	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH OF HWY 905 AT CALIENTE AVE, WEST OF DENNERY CANYON, NORTH OF SAN YSIDRO HIGH SCHOOL, SAN DIEGO.

Detailed Location:

MAPPED TO SHAPEFILE AND MAP LOCATIONS PROVIDED.

Ecological:

ROAD RUT AND VERNAL POOLS AND IN GRASSLAND. 2 POOLS (SOUTHEASTERN POLYGONS) HAVE BEEN DEVELOPED AND 1 POOL (SOUTHERNMOST) IN PATH OF THE NEW (AROUND 2012) HWY 905 ALIGNMENT.

Threats:

DEVELOPMENT.

General:

TADPOLES AND METAMORPHS OBSERVED IN 2003. DETECTED IN 2009, 2010, 2011, AND 2012. ABOUT 40 TADPOLES OBSERVED ON 26 MAR 2017.

PLSS:	T18S, R01W, Sec. 29, SW (S)	**Accuracy:**	specific area	**Area (acres):**	42
UTM:	Zone-11 N3603893 E498667	**Latitude/Longitude:**	32.57247 / -117.01421	**Elevation (feet):**	523

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

AEC10U0003	AECOM - 90-DAY REPORT OF PROTOCOL WET SEASON FAIRY SHRIMP SURVEYS FOR LISTED BRANCHIOPOD SPECIES FOR DENNERY CANYON WEST RESTORATION SITE 2010-09-30
AEC12U0001	AECOM - 90-DAY REPORT OF PROTOCOL WET SEASON FAIRY SHRIMP SURVEYS FOR LISTED BRANCHIOPOD SPECIES FOR DENNERY CANYON WEST RESTORATION SITE 2012-06-27
HER17D0001	HERP, INC. - HERPETOLOGICAL EDUCATION AND RESEARCH PROJECT (HERP) DATABASE, 2017 UPDATES 2017-12-27
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 26123
EO Index: 113519
Key Quad: Imperial Beach (3211751)
Element Code: AAABF02020
Occurrence Number: 541
Occurrence Last Updated: 2018-12-10

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G2G3
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:
VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 1928-03-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1928-03-11
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
VICINITY OF SAN YSIDRO.

Detailed Location:
EXACT LOCATION UNKNOWN.

Ecological:

Threats:

General:
COLLECTED ON 11 MAR 1928.

PLSS: T19S, R02W, Sec. 02 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3601614 E495269
Latitude/Longitude: 32.55191 / -117.05038
Elevation (feet): 100

County Summary:
San Diego, Mexico

Quad Summary:
Imperial Beach (3211751)

Sources:
PER28S0002 PERKINS, C. - SDNHM #441 & 442 COLLECTED FROM SAN YSIDRO 1928-03-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1607
EO Index: 113520
Key Quad: Imperial Beach (3211751)
Element Code: AAABF02020
Occurrence Number: 542
Occurrence Last Updated: 2018-12-11

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G2G3
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:
VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 1998-02-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1998-02-XX
Occurrence Rank: Unknown
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:
SPOONERS MESA, 0.3 MILE NORTH OF US / MEXICO BORDER, TIJUANA RIVER VALLEY REGIONAL PARK, SAN DIEGO.

Detailed Location:
MAPPED TO COORDINATES PROVIDED.

Ecological:

Threats:

General:
LARVA COLLECTED IN FEB 1998.

PLSS: T19S, R02W, Sec. 4, SW (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3600421 E490977
Latitude/Longitude: 32.54111 / -117.09609
Elevation (feet): 342

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

ERV98S0002 ERVIN, E. - CAS #220085 COLLECTED FROM US-MEXICO INTERNATIONAL BORDER, SPOONERS MESA, 0.58 MI NE OF INTERNATIONAL BORDER MONUMENT NUMBER 257, 32.54112 N, 117.09610 W, 106 M ELEVATION 1998-02-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1609
EO Index: 113521
Key Quad: Imperial Beach (3211751)
Element Code: AAABF02020
Occurrence Number: 543
Occurrence Last Updated: 2018-12-11

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G2G3
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:
VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 2004-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2004-XX-XX
Occurrence Rank: Unknown
Owner/Manager: SDG COUNTY, UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
JUST EAST OF GOAT CANYON, 0.1 MILE NORTH OF US / MEXICO BORDER, TIJUANA RIVER VALLEY REGIONAL PARK, SAN DIEGO.

Detailed Location:

Ecological:
BORDER PATROL ROAD WATER-FILLED DEPRESSION. BULLFROGS WERE FOUND WITHIN THE PARK.

Threats:
BULLFROGS MAY BE PRESENT.

General:
TADPOLES OBSERVED IN 2004.

PLSS: T19S, R02W, Sec. 9, W (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3600067 E490759
Latitude/Longitude: 32.53792 / -117.09842
Elevation (feet): 301

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
SDG07R0001 SAN DIEGO COUNTY - TIJUANA RIVER VALLEY REGIONAL PARK, AREA SPECIFIC MANAGEMENT DIRECTIVES 2007-06-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1618
EO Index: 113531
Key Quad: Imperial Beach (3211751)
Element Code: AAABF02020
Occurrence Number: 544
Occurrence Last Updated: 2018-12-11

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G2G3
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 1941-04-27
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1941-04-27
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

VICINITY OF CORONADO CAYS, SILVER STRAND STATE BEACH, SAN DIEGO.

Detailed Location:

COLLECTION LOCALITY DESCRIBED AS HOG FARM ON CORONADO STRAND. A HOG FARM PREVIOUSLY EXISTED IN THIS AREA ABOUT 4 MILES SOUTH OF THE FORMER TENT CITY.

Ecological:

Threats:

General:

COLLECTED ON 27 APR 1941.

PLSS: T18S, R03W, Sec. 12, N (S)
Accuracy: 3/5 mile
Area (acres): 776
UTM: Zone-11 N3609535 E487113
Latitude/Longitude: 32.62329 / -117.13737
Elevation (feet): 18

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751), Point Loma (3211762)

Sources:

SAN41S0006 SAN DIEGO ZOO - SDNHM #33793 COLLECTED FROM HOG FARM ON CORONADO STRAND 1941-04-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1787
Key Quad: La Jolla (3211772)
Occurrence Number: 584

EO Index: 113702
Element Code: AAABF02020
Occurrence Last Updated: 2020-04-24

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2G3
State: S3

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 2019-02-28
Last Survey Date: 2019-02-28
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

ALONG THE WEST SIDE OF I-805 JUST NORTH AND SOUTH OF NOBEL DR, UNIVERSITY CITY, NORTHWEST SAN DIEGO.

Detailed Location:

MAPPED TO SHAPEFILE AND MAP LOCATIONS PROVIDED.

Ecological:

ROAD RUT AND VERNAL POOLS. DEVELOPMENT HAS ENCROACHED SINCE AROUND 2003.

Threats:

DEVELOPMENT.

General:

SPADEFOOTS DETECTED IN 2000S. TADOPOLES OBSERVED ON 21 FEB AND 4 APR 2003. LARVAE OBSERVED ON 28 FEB 2019.

PLSS: T15S, R03W, Sec. 16, S (S)
UTM: Zone-11 N3636598 E481666

Accuracy: specific area
Latitude/Longitude: 32.86735 / -117.19597

Area (acres): 12
Elevation (feet): 382

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

ANO10R0001	ANONYMOUS - EXHIBIT J: KNOWN BIOLOGICAL RESOURCES ON THE NOBEL DR. SITE AND NEARBY PROPERTIES 2010-XX-XX
INA19U0052	INATURALIST - OBSERVATION 20836238 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-12-20. 2019-02-28
INA19U0055	INATURALIST - OBSERVATION 20836231 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2020-03-05. 2019-02-28
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1789
Key Quad: La Jolla (3211772)
Occurrence Number: 585
EO Index: 113705
Element Code: AAABF02020
Occurrence Last Updated: 2019-02-19

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S3

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:
VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 1976-04-06
Last Survey Date: 1976-04-06
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
EAST OF GENESEE AVE AT RADCLIFFE LN, ABOUT 0.1-0.2 MILES SOUTH OF GOVERNOR DR, UNIVERSITY CITY, NORTHEAST SAN DIEGO.

Detailed Location:
GIVEN LOCALITY "SAN DIEGO; UNIVERSITY CITY; GOVERNOR DRIVE, BEHIND SAFEWAY," MOST LIKELY REFERS TO WHAT IS NOW VONS.

Ecological:
1962 AERIAL IMAGE SHOWS THE BEGINING OF NEW CONSTRUCTION OVER INTACT HABITATS. 1975 AERIAL SHOWS UNDEVELOPED LAND ADJACENT TO SHOPPING CENTER, WHEREAS 1976 AERIAL SHOWS THE AREA RECENTLY GRADED AND DEVELOPMENT TAKING PLACE FOR CONDOMINIUMS.

Threats:
HEAVY DEVELOPMENT SINCE THE TIME OF COLLECTION; POSSIBLY EXTIRPATED.

General:
COLLECTED ON 6 APR 1976.

PLSS: T15S, R03W, Sec. 21, SW (S)
UTM: Zone-11 N3634958 E481049
Accuracy: 1/10 mile
Latitude/Longitude: 32.85254 / -117.20253
Area (acres): 18
Elevation (feet): 374

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

CAL76S0001	CALLISON, M. - SDNHM #57567 COLLECTED FROM SAN DIEGO; UNIVERSITY CITY; GOVERNOR DRIVE, BEHIND SAFEWAY 1976-04-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1790
Key Quad: La Jolla (3211772)
Occurrence Number: 586

EO Index: 113706
Element Code: AAABF02020
Occurrence Last Updated: 2019-02-19

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S3

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:
VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 1969-04-28
Last Survey Date: 1969-04-28
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
ON SOUTHEAST SIDE OF LA JOLLA VILLAGE DR AND I-5 INTERSECTION, UNIVERSITY CITY, NORTH SAN DIEGO.

Detailed Location:

Ecological:
AREA WAS UNDEVELOPED IN 1975-1976 AERIALS, BUT INFRASTRUCTURE (ROAD NETWORKS) AND NEARBY AREAS WERE BEING BUILT-OUT. EXTENSIVE DEVELOPMENT BY 1990 AERIAL.

Threats:
AREA HAS BEEN HEAVILY DEVELOPED.

General:
COLLECTED ON 28 APR 1969.

PLSS: T15S, R03W, Sec. 18, NE (S)
UTM: Zone-11 N3636954 E478631

Accuracy: 1/5 mile
Latitude/Longitude: 32.8705 / -117.22842

Area (acres): 70
Elevation (feet): 327

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
BON69S0001 BONDS, J. - SDNHM #47784 COLLECTED FROM JUST SE OF JUNCTION I5 & LA JOLLA VILLAGE DR 1969-04-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 26650
EO Index: 113707
Key Quad: La Jolla (3211772)
Element Code: AAABF02020
Occurrence Number: 587
Occurrence Last Updated: 2019-02-19

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G2G3
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:
VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 1927-06-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1927-06-12
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:
SAN DIEGO RIVER, IN VICINITY OF OLD TOWN, SAN DIEGO.

Detailed Location:

Ecological:

Threats:

General:
SEVERAL COLLECTED ON 12 JUN 1927.

PLSS: T16S, R03W (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3624318 E481402
Latitude/Longitude: 32.75657 / -117.19854
Elevation (feet): 30

County Summary:
San Diego, Pacific Ocean

Quad Summary:
Point Loma (3211762), La Jolla (3211772)

Sources:

KLA27S0014 KLAUBER, L. - SDNHM #1074, 1075, 1076, 1077, 1078, 1079, 1080, 1081, 1082 COLLECTED FROM SAN DIEGO; OLD TOWN, SAN DIEGO RIVER 1927-06-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1315
Key Quad: National City (3211761)
Occurrence Number: 588

EO Index: 113708
Element Code: AAABF02020
Occurrence Last Updated: 2020-04-29

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2G3
State: S3

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 1946-06-14
Last Survey Date: 1946-06-14
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

CITY OF SAN DIEGO.

Detailed Location:

MAPPED TO VICINITY OF SAN DIEGO, EXACT LOCATION UNKNOWN. THIS OCCURRENCE PRIMARILY REPRESENTS RECORDS THAT ONLY HAVE A LOCATION OF SAN DIEGO.

Ecological:

MUCH OF THE NATURAL HABITST HAS BEEN COMPLETELY DESTROYED DUE TO DEVELOPMENT. THERE MAY BE PATCHES OF REFUGIA IN UNDEVELOPED RAVINES AND BALBOA PARK.

Threats:

AREA HAS BEEN HEAVILY DEVELOPED.

General:

COLLECTED IN THE 1800S, IN 1905, 1927, 1929, 1935, AND 1946.

PLSS: T17S, R02W, Sec. 6 (S)
Accuracy: non-specific area
Area (acres): 19,408
UTM: Zone-11 N3621381 E488656
Latitude/Longitude: 32.73017 / -117.12107
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

National City (3211761), Point Loma (3211762), La Mesa (3211771), La Jolla (3211772)

Sources:

ANO05S0020	ANONYMOUS - SDNHM #11264 COLLECTED FROM SAN DIEGO 1905-05-25
ARN27S0001	ARNOLD, M. - SDNHM #1208 COLLECTED FROM SAN DIEGO 1927-10-27
COP83A0001	COPE, E. - NOTES ON THE GEOGRAPHICAL DISTRIBUTION OF BATRACHIA AND REPTILIA IN WESTERN NORTH AMERICA. PROCEEDINGS OF THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA 35:10-35 1883-XX-XX
GAN27S0001	GANDER, F. - SDNHM #11391COLLECTED FROM SAN DIEGO 1927-06-10
KLA27S0012	KLAUBER, L. - SDNHM #1217 COLLECTED FROM SAN DIEGO 1927-10-28
KLA27S0013	KLAUBER, L. - SDNHM #240, 241, 242, 243, 244, 245, 246, 247 COLLECTED FROM SAN DIEGO 1927-10-31
KLA29S0007	KLAUBER, P. - SDNHM #1785 COLLECTED FROM SAN DIEGO 1929-05-09
LIPNDS0001	LIPPINCOTT, J. - ANSP #13782, 13783, 13784, 13785 COLLECTED FROM SAN DIEGO 18XX-XX-XX
PER35S0001	PERKINS, C. - SDNHM #23355, 23356, 23357, 23358, 23359 COLLECTED FROM SAN DIEGO 1935-04-29
SAN46S0003	SAN DIEGO ZOO - SDNHM #37441 COLLECTED FROM SAN DIEGO 1946-06-14
STE05S0003	STEPHENS, F. - SDNHM #11265 COLLECTED FROM SAN DIEGO 1905-08-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1792
Key Quad: National City (3211761)
Occurrence Number: 589

EO Index: 113709
Element Code: AAABF02020
Occurrence Last Updated: 2019-02-19

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2G3
State: S3

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 1951-04-02
Last Survey Date: 1951-04-02
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

PARADISE HILLS, NATIONAL CITY, SOUTHEAST SAN DIEGO.

Detailed Location:

Ecological:

Threats:

AREA HAS BEEN HEAVILY DEVELOPED; POSSIBLY EXTIRPATED.

General:

COLLECTED ON 2 APR 1951.

PLSS: T17S, R02W, Sec. 23 (S)
UTM: Zone-11 N3615501 E494977

Accuracy: 1 mile
Latitude/Longitude: 32.67718 / -117.05357

Area (acres): 1,987
Elevation (feet): 306

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

GOR51S0029 GORDON - LACM #12157 COLLECTED FROM PARADISE HILLS, NATIONAL CITY 1951-04-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1794
EO Index: 113710
Key Quad: La Jolla (3211772)
Element Code: AAABF02020
Occurrence Number: 590
Occurrence Last Updated: 2019-02-19

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S3

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:
VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 2003-03-26
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-03-26
Occurrence Rank: Good
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
ON NORTHEAST SIDE OF AERO DR AND RUFFIN RD INTERSECTION, JUST EAST OF MONTGOMERY GIBBS EXECUTIVE AIRPORT, SAN DIEGO.

Detailed Location:

Ecological:
VERNAL POOLS.

Threats:

General:
TADPOLES, METAMORPHS AND ADULTS OBSERVED ON 26 MAR 2003.

PLSS: T16S, R02W, Sec. 6, SW (S)
Accuracy: specific area
Area (acres): 25
UTM: Zone-11 N3630425 E488032
Latitude/Longitude: 32.81175 / -117.12784
Elevation (feet): 424

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

SDG03D0001 CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001 CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1795	**EO Index:**	113711
Key Quad:	La Jolla (3211772)	**Element Code:**	AAABF02020
Occurrence Number:	591	**Occurrence Last Updated:**	2019-01-03

Scientific Name: *Spea hammondii* **Common Name:** western spadefoot

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:** BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

CNDDB Element Ranks: **Global:** G2G3

State: S3

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed:	2012-02-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-02-26	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTHSIDE OF HWY 52, 0.6 MI E OF HWY 52 AND HWY 163 JUNCTION, KEARNY MESA, SAN DIEGO.

Detailed Location:

"SANDER" VERNAL POOLS.

Ecological:

VERNAL POOLS. SAGE SCRUB FLATLANDS.

Threats:

General:

TADPOLES OBSERVED ON 4 APR 2003. SEVERAL POSSIBLE SPADEFOOT TADPOLES OBSERVED ON 26 FEB 2012. THIS SITE HAS SOME UNCERTAINTLY AND IS IN NEED OF FUTHER INVESTIGATION AND REPORTING.

PLSS:	T15S, R03W, Sec. 25, S (S)	**Accuracy:**	specific area	**Area (acres):**	10
UTM:	Zone-11 N3633287 E486514	**Latitude/Longitude:**	32.83755 / -117.1441	**Elevation (feet):**	407

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

HER16D0001	HERP, INC. - HERPETOLOGICAL EDUCATION AND RESEARCH PROJECT (HERP) DATABASE. FORMERLY A PROJECT OF THE NORTH AMERICAN FIELD HERPING ASSOCIATION. 2016-10-11
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1816
Key Quad: La Mesa (3211771)
Occurrence Number: 592

EO Index: 113732
Element Code: AAABF02020
Occurrence Last Updated: 2019-02-19

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2G3
State: S3

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 1932-03-25
Last Survey Date: 1932-03-25
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

VICINITY OF LA MESA

Detailed Location:

MAPPED TO APPROXIMATE CENTER OF LA MESA AS SHOWN ON 1930 LA JOLLA 1:62,500 TOPO QUAD.

Ecological:

Threats:

POSSIBLY EXTIRPATED DUE TO DEVELOPMENT SINCE THE TIME OF COLLECTION.

General:

10 LARVAE COLLECTED ON 25 MAR 1932.

PLSS: T16S, R01W, Sec. 19 (S)
UTM: Zone-11 N3625018 E498012

Accuracy: 1 mile
Latitude/Longitude: 32.76304 / -117.02122

Area (acres): 1,987
Elevation (feet): 546

County Summary:

San Diego

Quad Summary:

National City (3211761), La Mesa (3211771)

Sources:

ANO32S0013 ANONYMOUS - USNM #89896 COLLECTED FROM LA MESA 1932-03-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1822	**EO Index:**	113740
Key Quad:	La Mesa (3211771)	**Element Code:**	AAABF02020
Occurrence Number:	593	**Occurrence Last Updated:**	2019-02-19

Scientific Name: *Spea hammondii* **Common Name:** western spadefoot

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:** BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

CNDDB Element Ranks: **Global:** G2G3

State: S3

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed:	2017-03-03	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-03-03	**Occurrence Rank:**	Good
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

JUST SOUTH OF SANTO ROAD AND PATRIOT STREET INTERSECTION, MURPHY CANYON NAVAL PRESERVE, SAN DIEGO.

Detailed Location:

SPECIMENS COLLECTED FROM MURPHY CANYON WHERE THE EXACT LOCATION IS UNKNOWN ARE ATTRIBUTED HERE.

Ecological:

VERNAL POOLS AND WET MEADOW AREA ON COASTAL SAGE SCRUB MESA TOP. SPADEFOOT BREEDING IN VERNAL AND DIRT ROAD POOLS. FRESH TIRE TRACKS OBSERVED IN BREEDING POOL IN 2017. OPEN SPACE SURROUNDED BY RESIDENTIAL DEVELOPMENT AND ROADWAYS.

Threats:

VEHICULAR MORTALITY.

General:

COLLECTED FROM THE VICINITY IN 1932 AND 2001. DETECTED IN 2003. EGG MASSES, TADPOLES AND JUVENILES OBSERVED IN 2016. 25+ EGG MASSES, 300+ TADPOLES, AND 70 JUVENILES OBSERVED IN 3 MAR 2017.

PLSS:	T16S, R02W, Sec. 8, NE (S)	**Accuracy:**	specific area	**Area (acres):**	9
UTM:	Zone-11 N3629088 E490126	**Latitude/Longitude:**	32.79971 / -117.10546	**Elevation (feet):**	406

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

ALB17F0006	ALBERTS, K. - FIELD SURVEY FORM FOR SPEA HAMMONDII 2017-03-03
KIM03R0001	KIM, C. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION-FOCUSED WET SEASON SURVEY RESULTS FOR LISTED FAIRY SHRIMP SPECIES FOR THE SAN DIEGO GAS & ELECTRIC MISSION TO MIGUEL 230 KILOVOLT #2 PROJECT 2003-06-20
WAL32S0001	WALKER, F. - SDNHM #7561, 7562, 7563, 7564, 7565, 7566, 7567, 7568 COLLECTED FROM MURPHY CANYON 1932-04-20
WAR01S0004	WARBURTON, M. & D. STOKES - CAS #242905 COLLECTED FROM MURPHY CANYON, 32 47 11.51 N, 117 6 53.24 W 2001-03-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1825
Key Quad: La Mesa (3211771)
Occurrence Number: 594
EO Index: 113743
Element Code: AAABF02020
Occurrence Last Updated: 2019-01-04

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S3

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:
VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 2003-03-11
Last Survey Date: 2003-03-11
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
0.8 AIR MILE SW OF FORTUNA MOUNTAIN, MISSION TRAILS REGIONAL PARK, SAN DIEGO.

Detailed Location:
MAPPED TO SHAPEFILE PROVIDED.

Ecological:
VERNAL POOL. AERIAL IMAGERY SHOWS POOL IS ADJACENT TO ROAD/TRAIL.

Threats:

General:
TADPOLES OBSERVED ON 11 MAR 2003.

PLSS: T15S, R02W, Sec. 27, SE (S)
UTM: Zone-11 N3633646 E493154
Accuracy: 80 meters
Latitude/Longitude: 32.84085 / -117.07315
Area (acres): 5
Elevation (feet): 867

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1826
Key Quad: La Mesa (3211771)
Occurrence Number: 595

EO Index: 113744
Element Code: AAABF02020
Occurrence Last Updated: 2019-02-19

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2G3
State: S3

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 2014-03-27
Last Survey Date: 2014-03-27
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

ABOUT 1 AIR MILE SW OF FORTUNA MOUNTAIN, MISSION TRAIL REGIONAL PARK, SAN DIEGO.

Detailed Location:

MAPPED TO MAPS AND COORDINATES PROVIDED. ADJACENT TO RIM TRAIL ABOUT 0.5 MI N OF INTERSECTION WITH SAN DIEGO RIVER CROSSING TRAIL.

Ecological:

VERNAL POOLS AND EPHEMERAL POOL IN ROAD RUT. MESA TOP DOMINATED BY COASTAL SAGE SCRUB/MIXED GRASSLAND.

Threats:

General:

EGG MASS AND 63 LARVAE COLLECTED IN NOV 2002. 11 TADPOLES COLLECTED ON 2 APR 2003. SPADEFOOT OBSERVED IN 2013 AND 2014.

PLSS: T15S, R02W, Sec. 27, SE (S)
Accuracy: specific area
Area (acres): 14

UTM: Zone-11 N3633158 E493260
Latitude/Longitude: 32.83644 / -117.07202
Elevation (feet): 828

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

BAL03S0003	BALO, K. - CAS #242744 COLLECTED FROM MISSION TRAILS, VERNAL POOL #15, 32 50 9.12 N, 117 4 16.56 W 2003-04-02
ERV02S0001	ERVIN, E. - CAS #226120 COLLECTED FROM SAN DIEGO, MISSION TRAILS REGIONAL PARK, 32 50 9.54 N, 117 04 16.14 W 2002-11-09
ERV02S0002	ERVIN, E. & C. SMITH - CAS #226122, 226123 COLLECTED FROM SAN DIEGO, MISSION TRAILS REGIONAL PARK, 32 50 09.54 N, 117 04 16.14 W 2002-11-20
LOE14R0001	LOEFFLER, W. ET AL. (RECON ENVIRONMENTAL, INC.) - 2014 POST-SRUVEY REPORT FOR THE VERNAL POOL WET SEASON SURVEY FOR THE SAN DIEGO COUNTY WATER AUTHORITY'S VERNAL POOL HABITAT ENHANCEMENT SITE IN MISSION TRAILS REGIONAL PARK. 2014-09-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92350
EO Index: 113745
Key Quad: La Mesa (3211771)
Element Code: AAABF02020
Occurrence Number: 596
Occurrence Last Updated: 2019-02-19

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G2G3
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:
VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 2003-11-03
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-11-03
Occurrence Rank: Good
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
0.5 AIR MILE E OF RUEDA DR AND CALLE DE VIDA INTERSECTION, MISSION TRAILS REGIONAL PARK, SAN DIEGO.

Detailed Location:
MAPPED TO SHAPEFILE AND COORDINATES PROVIDED. ADJACENT TO QUARRY LOOP TRAIL.

Ecological:
VERNAL POOL.

Threats:

General:
7 TADPOLES COLLECTED ON 2 APR 2003. TADPOLES OBSERVED ON 3 NOV 2003.

PLSS: T15S, R02W, Sec. 34, SE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3631649 E493366
Latitude/Longitude: 32.82284 / -117.07086
Elevation (feet): 780

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
YAN03S0001	YANG, B. - CAS #242749 COLLECTED FROM MISSION TRAILS, VERNAL POOL #2, 32 49 22.32 N, 117 4 15.06 W 2003-04-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1827
Key Quad: La Mesa (3211771)
Occurrence Number: 597

EO Index: 113746
Element Code: AAABF02020
Occurrence Last Updated: 2019-02-19

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S3

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:
VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 2011-02-25
Last Survey Date: 2011-02-25
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:
ON E SIDE OF OAK CANYON AND S SIDE OF HWY 52, 0.9 MILES E OF FORTUNA MTN, MISSION TRAILS REGIONAL PARK, SAN DIEGO.

Detailed Location:
MAPPED TO COORDINATES PROVIDED. IN VICINITY OF NORTH FORTUNA PERIMETER TRAIL NORTH AND FORTUNA SADDLE TRAIL INTERSECTION NEAR SDG&E POWERLINES.

Ecological:
POOL IN ROAD. OBSERVER NOTED SPADEFOOT TADPOLES ALSO OCCUPY ADJACENT STREAM. COASTAL SAGE SCRUB.

Threats:
ROAD TRAFFIC, CONSTRUCTION ACTIVITY ASSOCIATED WITH THE SUNRISE POWERLINK PROJECT.

General:
~100 TADPOLES OBSERVED ON 25 FEB 2011.

PLSS: T15S, R02W, Sec. 24, SW (S)
UTM: Zone-11 N3634642 E495560

Accuracy: 80 meters
Latitude/Longitude: 32.84984 / -117.04745

Area (acres): 5
Elevation (feet): 527

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
BUG11F0008 BUGBEE, C. (CHAMBERS GROUP, INC.) - FIELD SURVEY FORM FOR SPEA HAMMONDII 2011-02-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1828
Key Quad: La Mesa (3211771)
Occurrence Number: 598

EO Index: 113747
Element Code: AAABF02020
Occurrence Last Updated: 2019-02-19

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2G3
State: S3

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 2003-04-02
Last Survey Date: 2003-04-02
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

E OF SPRING CANYON AND W OF LITTLE SYCAMORE CANYON, 0.5 MILES WNW OF HWY 52 AT MAST BLVD, MISSION TRAILS RP, SAN DIEGO.

Detailed Location:

MAPPED TO COORDINATES PROVIDED. ALONG DIRT ROAD ABOUT 0.2 MI W OF EAST FORTUNA STAGING AREA.

Ecological:

VERNAL POOL ADJACENT TO DIRT ROAD.

Threats:

General:

10 LARVAE COLLECTED ON 2 APR 2003.

PLSS: T15S, R02W, Sec. 25, NE (S)
UTM: Zone-11 N3634313 E496788

Accuracy: 80 meters
Latitude/Longitude: 32.84688 / -117.03432

Area (acres): 5
Elevation (feet): 315

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

YAN03S0002 YANG, B. - CAS #242919 COLLECTED FROM MISSION TRAILS, VERNAL POOL #14, 32 50 48.78 N, 117 2 3.54 W 2003-04-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1829	**EO Index:**	113748
Key Quad:	La Mesa (3211771)	**Element Code:**	AAABF02020
Occurrence Number:	599	**Occurrence Last Updated:**	2019-01-04

Scientific Name: *Spea hammondii* **Common Name:** western spadefoot

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened
CNDDB Element Ranks: **Global:** G2G3
State: S3

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed:	2005-03-06	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2005-03-06	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

W OF PEBBLE BEACH DR VICINITY OF GRASS VALLEY LN, NW OF SANTEE, SAN DIEGO.

Detailed Location:

EAST ELLIOTT, SOUTH END OF QUAIL CANYON AND ON W SIDE OF SYCAMORE CANYON.

Ecological:

VERNAL POOLS. IT APPEARS THAT THIS AREA IS TO BE PRESERVED AS OPEN SPACE ACCORDING TO THE 2013 EAST ELLIOTT COMMUNITY PLAN.

Threats:

General:

SPADEFOOTS DETECTED BETWEEN 7 NOV 2004 AND 6 MAR 2005.

PLSS:	T15S, R01W, Sec. 20, NW (S)	**Accuracy:**	non-specific area	**Area (acres):**	34
UTM:	Zone-11 N3635874 E498931	**Latitude/Longitude:**	32.86097 / -117.01143	**Elevation (feet):**	432

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

MAT05R0001	MATTSON, M. (GLENN LUKOS ASSOCIATES) - 90-DAY REPORT FOR THE SECOND YEAR WET SEASON PRESENCE/ABSENCE SURVEYS FOR VERNAL POOL BRANCHIOPODS CONDUCTED ON THE CASTLEROCK PROPERTY, EAST ELLIOTT, SAN DIEGO COUNTY, CALIFORNIA 2005-05-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1871
Key Quad: La Mesa (3211771)
Occurrence Number: 601

EO Index: 113791
Element Code: AAABF02020
Occurrence Last Updated: 2019-02-19

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2G3
State: S3

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:

OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:

VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 2003-XX-XX
Last Survey Date: 2003-XX-XX
Owner/Manager: PVT
Presence: Possibly Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

ON NORTHSIDE OF MAST BLVD, ABOUT 0.4 MI W OF MEDINA DR INTERSECTION, WEST OF SANTEE, NORTHEAST SAN DIEGO.

Detailed Location:

NORTH OF WEST HILLS HIGH SCHOOL. MAPPED TO MAP LOCATION PROVIDED.

Ecological:

BACCHARIS-DOMINATED COASTAL SAGE SCRUB.

Threats:

PROPOSED DEVELOPMENT; DEVELOPMENT OCCURRING IN 2017 GOOGLEMAPS STREET VIEW.

General:

SPADEFOOT DETECTED IN 2003.

PLSS: T15S, R01W, Sec. 19, SE (S)
UTM: Zone-11 N3634612 E498384

Accuracy: 80 meters
Latitude/Longitude: 32.84959 / -117.01727

Area (acres): 5
Elevation (feet): 429

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

SDG13R0001 CITY OF SAN DIEGO - FINAL ENVIRONMENTAL IMPACT REPORT FOR THE CASTLEROCK PROJECT 2013-06-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1955
Key Quad: La Jolla (3211772)
Occurrence Number: 616
EO Index: 113878
Element Code: AAABF02020
Occurrence Last Updated: 2019-02-19

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S3

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:
VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 1958-05-04
Last Survey Date: 1958-05-04
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
VICINITY OF SHARP MEMORIAL HOSPITAL, SIERRA MESA, SAN DIEGO.

Detailed Location:
GIVEN LOCATION "KEARNY MESA NEAR SHARP HOSPITAL," MAPPED TO VICINITY OF SHARP MEMORIAL HOSPITAL, LOCATED ON SOUTHSIDE OF KERNY MESA.

Ecological:
SPECIFIC AREA WAS UNDEVELOPED IN 1952, THOUGH NEW DEVELOPMENT WAS NEARBY. THE HOSPITAL WAS BUILT BY 1963, AND I-805 CONSTRUCTED THROUGH MURRAY CANYON BY 1975.

Threats:
AREA HAS BEEN HEAVILY DEVELOPED SINCE THE TIME OF COLLECTION.

General:
COLLECTED ON 4 MAY 1958.

PLSS: T16S, R03W, Sec. 11 (S)
Accuracy: 1 mile
Area (acres): 1,987
UTM: Zone-11 N3628999 E485452
Latitude/Longitude: 32.79885 / -117.15539
Elevation (feet): 386

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:
MAK58S0001 MAKINSON, A. - SDNHM #43797, 43798 COLLECTED FROM SAN DIEGO; KEARNY MESA NEAR SHARP HOSPITAL 1958-05-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B2358
Key Quad: Point Loma (3211762)
Occurrence Number: 792
EO Index: 114283
Element Code: AAABF02020
Occurrence Last Updated: 2019-02-22

Scientific Name: *Spea hammondii*
Common Name: western spadefoot

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S3
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:
OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro Habitat:
VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Last Date Observed: 1976-04-08
Last Survey Date: 1976-04-08
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
POINT LOMA COMMUNITY PARK, POINT LOMA, SAN DIEGO.

Detailed Location:
GIVEN LOCATION "LOMA PORTAL LITTLE LEAGUE FIELD." POINT LOMA LITTLE LEAGUE FIELD IS LOCATED AT POINT LOMA COMMUNITY PARK.

Ecological:
PARK IS SURROUNDED BY RESIDENTIAL DEVELOPMENT. AERIAL IMAGERY FROM 1975 SHOWS A LARGER PATCH OF HABITAT ON EASTERN SIDE OF PARK. PARK FEATURES HAVE BEEN EXPANDED SINCE TIME OF COLLECTION. POSSIBLY EXTIRPATED.

Threats:
DEVELOPMENT.

General:
COLLECTED ON 8 APR 1976. NEEDS MORE MODERN FIELDWORK AND REPORTING TO DETERMINE STATUS.

PLSS: T17S, R04W, Sec. 1, SE (S)
Accuracy: 1/5 mile
Area (acres): 70
UTM: Zone-11 N3620820 E477241
Latitude/Longitude: 32.72494 / -117.24288
Elevation (feet): 219

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
FRI76S0004 FRITTS, T. & D. JEHL - SDNHM #57378 COLLECTED FROM LOMA PORTAL LITTLE LEAGUE FIELD, SAN DIEGO 1976-04-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 63569
EO Index: 63664
Key Quad: Point Loma (3211762)
Element Code: ABNFC01021
Occurrence Number: 17
Occurrence Last Updated: 2006-01-04

Scientific Name: *Pelecanus occidentalis californicus*
Common Name: California brown pelican

Listing Status: **Federal:** Delisted
State: Delisted
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G4T3T4
State: S3

Other Lists: BLM_S-Sensitive
CDFW_FP-Fully Protected
USFS_S-Sensitive

General Habitat:

COLONIAL NESTER ON COASTAL ISLANDS JUST OUTSIDE THE SURF LINE.

Micro Habitat:

NESTS ON COASTAL ISLANDS OF SMALL TO MODERATE SIZE WHICH AFFORD IMMUNITY FROM ATTACK BY GROUND-DWELLING PREDATORS. ROOSTS COMMUNALLY.

Last Date Observed: 2000-09-13
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2000-09-13
Occurrence Rank: Excellent
Owner/Manager: DOD-NAVY, DOD-COE
Trend: Unknown
Presence: Presumed Extant

Location:

ZUNIGA POINT, SAN DIEGO BAY MOUTH.

Detailed Location:

ROOST NUMBER SD 3.5. BIRDS PREFER THE BREAKWATER BUT WILL ALSO USE CONCRETE JETTY & ROCKS ON MAINLAND POINT IF BREAKWATER IS UNAVAILABLE OR CROWDED.

Ecological:

BREAKWATER AND JETTY. PELICAN USE IS LIMITED BY TIDAL HEIGHT AS MUCH OF THE BREAKWATER IS SUBMERGED AT HIGH TIDES.

Threats:

General:

DAY & NIGHT ROOST. THIS IS 3RD LARGEST ROOST ON SOUTHERN CALIFORNIA COAST. 193-245 BIRDS COUNTED BETWEEN DUSK ON 12 SEP & DAWN ON 13 SEP 2000. SUMMARY OF 1986-87, 1992-93 & 1998-2000 DIURNAL COUNTS: RANGE 0-700 BIRDS, MEAN 158.2 BIRDS.

PLSS: T17S, R03W, Sec. 20 (S)
Accuracy: specific area
Area (acres): 80
UTM: Zone-11 N3616236 E479056
Latitude/Longitude: 32.68362 / -117.22340
Elevation (feet): 0

County Summary:

San Diego, Pacific Ocean

Quad Summary:

Point Loma (3211762)

Sources:

JAQ03R0001	JAQUES, D. & C. STRONG (CRESCENT COASTAL RESEARCH) - BROWN PELICAN NIGHT ROOST SITES ON THE SOUTHERN CALIFORNIA COAST 2003-04-XX
STR03R0001	STRONG, C. & D. JAQUES (CRESCENT COASTAL RESEARCH) - BROWN PELICAN ROOST SITES ON THE MAINLAND COAST OF SOUTHERN CALIFORNIA 2003-01-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 65642
EO Index: 65721
Key Quad: La Mesa (3211771)
Element Code: ABNGA02010
Occurrence Number: 4
Occurrence Last Updated: 2007-10-17

Scientific Name: *Ixobrychus exilis*
Common Name: least bittern

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G4G5
State: S2
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

General Habitat:

COLONIAL NESTER IN MARSHLANDS AND BORDERS OF PONDS AND RESERVOIRS WHICH PROVIDE AMPLE COVER.

Micro Habitat:

NESTS USUALLY PLACED LOW IN TULES, OVER WATER.

Last Date Observed: 2007-07-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2007-07-17
Occurrence Rank: Fair
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

SYCAMORE CANYON, AT THE NORTH END OF SANTEE LAKES REGIONAL PARK, SANTEE.

Detailed Location:

NESTS FOUND IN TYPHA STANDS.

Ecological:

HABITAT CONSISTS OF A SERIES OF 7 LAKES THAT EXTEND SOUTH TO NORTH; NESTING OCCURS ON THE 6TH AND 7TH LAKES (ON THE NORTH END OF THE SERIES). LAKES ARE SURROUNDED BY A NARROW RIPARIAN STRIP TO THE WEST AND RESIDENCES ON ALL SIDES.

Threats:

THREATENED BY VEGETATION CLEARING, MANAGEMENT OF HABITAT FOR HUMAN RECREATIONAL, & PREDATION BY RACCOONS.

General:

2 ADULTS FLEDGED 3 CHICKS ON LAKE #6; CHICKS NOT SEEN AFTER 14 JUL 2006. ADULTS AND A NEST WITH 2 EGGS WAS FOUND ON LAKE #7 ON 2 JUL; NEST HAD FAILED BY 3 JUL 2006. ADULT MALE OBSERVED ON LAKE #6 AND 3 JUVENILES ON LAKE #7 ON 17 JUL 2007.

PLSS: T15S, R01W, Sec. 17 (S)
Accuracy: specific area
Area (acres): 18
UTM: Zone-11 N3636344 E499227
Latitude/Longitude: 32.86521 / -117.00825
Elevation (feet): 380

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

COM06F0001	COMRACK, L. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR IXOBRYCHUS EXILIS (NESTING) 2006-06-25
COM06F0002	COMRACK, L. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR IXOBRYCHUS EXILIS (NESTING) 2006-07-02
COM07F0001	COMRACK, L. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR IXOBRYCHUS EXILIS (NESTING) 2007-07-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68222
EO Index: 68373
Key Quad: Point Loma (3211762)
Element Code: ABNKC01010
Occurrence Number: 417
Occurrence Last Updated: 2007-02-22

Scientific Name: *Pandion haliaetus*
Common Name: osprey

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S4
Other Lists: CDF_S-Sensitive
CDFW_WL-Watch List
IUCN_LC-Least Concern

General Habitat:
OCEAN SHORE, BAYS, FRESHWATER LAKES, AND LARGER STREAMS.

Micro Habitat:
LARGE NESTS BUILT IN TREE-TOPS WITHIN 15 MILES OF A GOOD FISH-PRODUCING BODY OF WATER.

Last Date Observed: 2005-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DOD-NORTH ISLAND NAS
Trend: Unknown
Presence: Presumed Extant

Location:
ABOUT 0.3 MI SOUTH OF THE INTERSECTION OF MCCAIN BLVD & ROGERS RD. NORTH ISLAND NAVAL AIR STATION.

Detailed Location:

Ecological:

Threats:

General:
NESTING PAIR WITH AT LEAST 1 FLEDGLING OBSERVED ON LIGHT POLE.

PLSS: T17S, R03W, Sec. 16 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3617654 E481909
Latitude/Longitude: 32.69646 / -117.19299
Elevation (feet): 15

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

REC05D0002 RECON ENVIRONMENTAL, INC. - SHAPEFILES WITH SPECIES LOCATION DATA COLLECTED BY RECON FOR THE US NAVY AT NORTH ISLAND NAVAL AIR STATION (RECON PROJECT NUMBER 4050). 2005-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B3753
Key Quad: National City (3211761)
Occurrence Number: 508
EO Index: 116670
Element Code: ABNKC01010
Occurrence Last Updated: 2019-08-22

Scientific Name: *Pandion haliaetus*
Common Name: osprey

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S4

Rare Plant Rank:
Other Lists: CDF_S-Sensitive
CDFW_WL-Watch List
IUCN_LC-Least Concern

General Habitat:
OCEAN SHORE, BAYS, FRESHWATER LAKES, AND LARGER STREAMS.

Micro Habitat:
LARGE NESTS BUILT IN TREE-TOPS WITHIN 15 MILES OF A GOOD FISH-PRODUCING BODY OF WATER.

Last Date Observed: 2019-06-22
Last Survey Date: 2019-06-22
Owner/Manager: PORT OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:
WEST SIDE OF I-5, N OF THE SWEETWATER RESERVOIR CHANNEL AND S OF E 24TH ST, NATIONAL CITY.

Detailed Location:
MAPPED TO COORDINATES PROVIDED IN 2018 REPORT AND ON FIELD SURVEY FORMS; EXACT LOCATIONS NOT GIVEN FOR EBIRD RECORDS. INCLUDES NATIONAL CITY MARINE TERMINAL PROPERTY. NESTS OSPR-11, 12, 13, 15, 19, & 20 FROM 2018 REPORT.

Ecological:
NESTS ON MANMADE STRUCTURES (LIGHT POLES, NESTING PLATFORMS) ABOVE PARKING LOTS & SHIPPING YARDS ADJACENT TO SAN DIEGO BAY. 2017 SURVEYOR NOTED THAT THERE WAS A LOT OF HUMAN ACTIVITY, BUT IT DID NOT APPEAR TO DISTURB THE NESTING BIRDS.

Threats:

General:
NESTING OBSERVED IN 2012, 2015 & 2016. 2 NESTS EACH PRODUCED 2 YOUNG IN 2017. 4 NESTS PRODUCED A TOTAL OF 7 YOUNG IN 2018; OSPR-20 WAS INACTIVE AND OSPR-12 WAS REMOVED. 2 ACTIVE NESTS OBSERVED IN 2019.

PLSS: T17S, R02W, Sec. 32, NW (S)
Accuracy: specific area
Area (acres): 32
UTM: Zone-11 N3612744 E489276
Latitude/Longitude: 32.65227 / -117.11436
Elevation (feet): 12

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

EDE17U0001	EDELL, T. - T. EDELL'S CHECKLIST S36379297 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 2019-08-21) 2017-04-21
ESL12U0002	ESLINGER, G. - G. ESLINGER'S CHECKLIST S10249762 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 2019-08-21) 2012-03-21
FIE17F0003	FIELDS, L. - FIELD SURVEY FORM FOR PANDION HALIAETUS 2017-04-23
FIE17F0004	FIELDS, L. - FIELD SURVEY FORM FOR PANDION HALIAETUS 2017-04-02
JOH18R0002	JOHNSON, D. & D. DRISCOLL - RAPTOR MANAGEMENT IN SUPPORT OF THE CALIFORNIA LEAST TERN AND WESTERN SNOWY PLOVER MANAGEMENT PROGRAM AT NAVAL BASE CORONADO, CALIFORNIA 2018 2018-12-XX
MAY19U0001	MAYERS, S. - S. MAYERS' CHECKLIST S57597358 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 2019-08-21) 2019-06-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B3759	**EO Index:**	116674
Key Quad:	National City (3211761)	**Element Code:**	ABNKC01010
Occurrence Number:	509	**Occurrence Last Updated:**	2019-08-21

Scientific Name: *Pandion haliaetus* **Common Name:** osprey

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S4

Rare Plant Rank:

Other Lists: CDF_S-Sensitive
CDFW_WL-Watch List
IUCN_LC-Least Concern

General Habitat:

OCEAN SHORE, BAYS, FRESHWATER LAKES, AND LARGER STREAMS.

Micro Habitat:

LARGE NESTS BUILT IN TREE-TOPS WITHIN 15 MILES OF A GOOD FISH-PRODUCING BODY OF WATER.

Last Date Observed:	2019-03-05	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2019-03-05	**Occurrence Rank:**	Fair
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

FROM THE INTERSECTION OF H ST AND MARINA PARKWAY TO ABOUT 0.5 MI NNW, ALONG THE E EDGE OF SAN DIEGO BAY IN CHULA VISTA.

Detailed Location:

3+ NEST SITES: LAGOON DR MUDFLATS (2015), G ST & SANDPIPER WAY (2012, '13, '14, '17, '18) (OSPR-14 IN 2018 REPORT), H ST AT MARINA PKWY (2017) (=OSPR-10), ADD'L NEST AT BAYSIDE PARK/G ST ('16, '18, '19) ("DANGER SHOALS"), EXACT LOC UNKNOWN.

Ecological:

NESTS ON MANMADE STRUCTURES (TELEPHONE POLE, LIGHT POST, ETC) IN AREA OF INDUSTRIAL LAND USE, PARKS AND PARKING LOTS ADJACENT TO BAY. SOME OF THESE WERE ALTERNATE NEST SITES.

Threats:

HUMAN DISTURBANCE FROM INDUSTRIAL ACTIVITY (2017).

General:

1-2 ACTIVE NESTS OBSERVED EACH YEAR FROM 2012 TO 2019. 2 YOUNG OBSERVED IN 2012, 1 IN 2013, 3 IN 2016, 2 IN 2017, AND 2-3 IN 2018.

PLSS:	T18S, R02W, Sec. 5 (S)	**Accuracy:**	specific area	**Area (acres):**	15
UTM:	Zone-11 N3610351 E490216	**Latitude/Longitude:**	32.63069 / -117.10431	**Elevation (feet):**	12

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

ANO14U0002	ANONYMOUS - GOOGLE STREET VIEW SCREEN CAPTURE OF NEST AT THE INTERSECTION OF G STREET AND SANDPIPER WAY, CHULA VISTA. 2014-03-XX
DIL15U0002	DILLINGHAM, T. - T. DILLINGHAMR'S CHECKLIST S26026583 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 8/21/2019) 2015-11-28
DIL17U0001	DILLINGHAM, T. - T. DILLINGHAM'S CHECKLIST S40979175 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 8/21/2019) 2017-12-08
ESL12U0001	ESLINGER, G. - G. ESLINGER'S CHECKLIST S10249697 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 8/21/2019) 2012-03-21
EVA13U0001	EVANS, M.. - M. EVANS' CHECKLIST S13438462 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 8/21/2019) 2013-03-17
FIE17F0005	FIELDS, L. ET AL. - FIELD SURVEY FORM FOR PANDION HALIAETUS 2017-04-02
JOH18R0002	JOHNSON, D. & D. DRISCOLL - RAPTOR MANAGEMENT IN SUPPORT OF THE CALIFORNIA LEAST TERN AND WESTERN SNOWY PLOVER MANAGEMENT PROGRAM AT NAVAL BASE CORONADO, CALIFORNIA 2018 2018-12-XX
LAN16U0001	LANGHAM, J. - J. LANGHAM'S CHECKLIST S29531919 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 8/21/2019) 2016-05-07
MOR19U0003	MORROW, C. - C. MORROW'S CHECKLIST S53466915 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 8/21/2019) 2019-03-05
TOR18U0001	TORRES, J. - J. TORRES' CHECKLIST S43360614 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 8/21/2019) 2018-03-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B3763	**EO Index:**	116679
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABNKC01010
Occurrence Number:	510	**Occurrence Last Updated:**	2019-08-21

Scientific Name: *Pandion haliaetus* **Common Name:** osprey

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S4

Rare Plant Rank:

Other Lists: CDF_S-Sensitive
CDFW_WL-Watch List
IUCN_LC-Least Concern

General Habitat:

OCEAN SHORE, BAYS, FRESHWATER LAKES, AND LARGER STREAMS.

Micro Habitat:

LARGE NESTS BUILT IN TREE-TOPS WITHIN 15 MILES OF A GOOD FISH-PRODUCING BODY OF WATER.

Last Date Observed:	2019-03-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2019-03-10	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN, CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

VICINITY OF CHULA VISTA BAYFRONT PARK, AND ABOUT 0.4 MI SW OF MARINA PKWY AT SANDPIPER WAY IN CHULA VISTA.

Detailed Location:

MAPPED TO COORDINATES PROVIDED FOR NEST SITE OSPR-16 IN 2018 REPORT (NW POLYGON) & VICINITY OF BAYFRONT PARK (J ST), LOCALITY GIVEN IN EBIRD (EXACT LOCATIONS NOT KNOWN; SOME SIGHTINGS MAY HAVE BEEN OF OCC #511, AS VIEWED FROM THE PARK).

Ecological:

2018: NEST ON BOAT LANE MARKER WEST OF CHULA VISTA MARINA. OTHER SIGHTINGS INCLUDED NESTS ON NEST PLATFORMS.

Threats:

General:

NESTING OBSERVED IN VICINITY OF PARK IN 2010, 2013, 2014, 2015, 2016, 2017, 2018. NEST FLEDGED 1 YOUNG IN 2018. NESTING PAIR PHOTOGRAPHED ON 10 MAR 2019.

PLSS:	T18S, R02W, Sec. 8 (S)	**Accuracy:**	non-specific area	**Area (acres):**	75
UTM:	Zone-11 N3609135 E490440	**Latitude/Longitude:**	32.61972 / -117.1019	**Elevation (feet):**	11

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

BAR14U0001	BARRY, J. - J. BARRY'S CHECKLIST S18093073 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 8/21/2019) 2014-04-26
HOS19U0001	HOSMER, S. - S. HOSMER'S CHECKLIST S53736257 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 8/21/2019 2019-03-10
JAE16U0001	JAEGER, J. - C. WISEL'S CHECKLIST S26730480 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 8/21/2019) 2016-01-03
JOH18R0002	JOHNSON, D. & D. DRISCOLL - RAPTOR MANAGEMENT IN SUPPORT OF THE CALIFORNIA LEAST TERN AND WESTERN SNOWY PLOVER MANAGEMENT PROGRAM AT NAVAL BASE CORONADO, CALIFORNIA 2018 2018-12-XX
LAN18U0001	LANGHAM, J. - J. LANGHAM'S CHECKLIST S44943023 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 8/21/2019 2018-04-25
MAR15U0004	MARANTZ, C. - C. MARANTZ'S CHECKLIST S22354981 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 8/21/2019) 2015-03-13
PEA13U0001	PEA, J. - J. PEA'S CHECKLIST S13619759 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 8/21/2019) 2013-04-03
STA10U0001	STACEY, B. - B.J.STACEY'S CHECKLIST S6403434 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 8/21/2019) 2010-05-02
WIS17U0001	WISEL, C. - C. WISEL'S CHECKLIST S36457030 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 8/21/2019) 2017-04-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B3764	**EO Index:**	116680
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABNKC01010
Occurrence Number:	511	**Occurrence Last Updated:**	2019-08-26

Scientific Name: *Pandion haliaetus* **Common Name:** osprey

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:** CDF_S-Sensitive
CDFW_WL-Watch List
IUCN_LC-Least Concern

CNDDB Element Ranks: **Global:** G5

State: S4

General Habitat:

OCEAN SHORE, BAYS, FRESHWATER LAKES, AND LARGER STREAMS.

Micro Habitat:

LARGE NESTS BUILT IN TREE-TOPS WITHIN 15 MILES OF A GOOD FISH-PRODUCING BODY OF WATER.

Last Date Observed:	2018-07-09	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2018-07-09	**Occurrence Rank:**	Unknown
Owner/Manager:	SAN DIEGO UNIFIED PORT DIST	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

CHULA VISTA WILDLIFE RESERVE, ABOUT 0.7 MI WSW OF BAY BLVD AT L ST IN CHULA VISTA.

Detailed Location:

MAPPED TO COORDINATES GIVEN FOR OSPR-07 & OSPR-08 IN 2018 REPORT. EBIRD SIGHTINGS "ON PLATFORM ACROSS THE BAY (FROM BAYFRONT PARK) AT THE CHULA VISTA WILDLIFE RESERVE" & "ON TOP OF THE BAY TOWER TO THE S (OF BAYFRONT PARK)" ATTRIBUTED HERE.

Ecological:

NESTS ON MANMADE STRUCTURES (NEST PLATFORM, TOWER, BUOY) IN AREA WITH INDUSTRIAL LAND USE ADJACENT TO PROTECTED WATERFRONT. BUOY WITH NEST IN 2014 WAS REMOVED IN 2017.

Threats:

NEST REMOVAL.

General:

NESTS DETECTED IN VICINITY IN 2014, 2015 AND 2016. BUOY NEST REMOVED IN 2017. 1 ACTIVE NEST OBSERVED IN 2018, OSPR-07 FLEDGED 1 YOUNG.

PLSS:	T99X, R99X, Sec. UN (X)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3608416 E490204	**Latitude/Longitude:**	32.61323 / -117.10441	**Elevation (feet):**	9

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

JAE16U0001	JAEGER, J. - C. WISEL'S CHECKLIST S26730480 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 8/21/2019) 2016-01-03
JOH18R0002	JOHNSON, D. & D. DRISCOLL - RAPTOR MANAGEMENT IN SUPPORT OF THE CALIFORNIA LEAST TERN AND WESTERN SNOWY PLOVER MANAGEMENT PROGRAM AT NAVAL BASE CORONADO, CALIFORNIA 2018 2018-12-XX
MAR15U0004	MARANTZ, C. - C. MARANTZ'S CHECKLIST S22354981 FROM EBIRD: AN ONLINE DATABASE OF BIRD DISTRIBUTION AND ABUNDANCE. ITHACA, NEW YORK. AVAILABLE: HTTP://WWW.EBIRD.ORG. (ACCESSED: 8/21/2019) 2015-03-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47089
EO Index: 56075
Key Quad: Imperial Beach (3211751)
Element Code: ABNKC11011
Occurrence Number: 26
Occurrence Last Updated: 2004-08-10

Scientific Name: *Circus hudsonius*
Common Name: northern harrier

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

CNDDB Element Ranks: **Global:** G5
State: S3

General Habitat:

COASTAL SALT & FRESHWATER MARSH. NEST AND FORAGE IN GRASSLANDS, FROM SALT GRASS IN DESERT SINK TO MOUNTAIN CIENAGAS.

Micro Habitat:

NESTS ON GROUND IN SHRUBBY VEGETATION, USUALLY AT MARSH EDGE; NEST BUILT OF A LARGE MOUND OF STICKS IN WET AREAS.

Last Date Observed: 2001-07-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-07-12
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

WEST OF GOAT CANYON AND 0.6 - 1.0 MILE EAST OF THE PACIFIC OCEAN, JUST NORTH OF THE CALIFORNIA-MEXICO BORDER.

Detailed Location:

Ecological:

HABITAT CONSISTS OF SOUTHERN WILLOW SCRUB (SALIX SPECIES, BACCHARIS SALICIFOLIA) AND DISTURBED RIPARIAN AND EXOTICS (CASTOR BEAN, GIANT CANE, BRAZILIAN PEPPER TREE, FENNEL, COMMON COCKLEBUR, MUSTARD). ICTERIA VIRENS IN VICINITY.

Threats:

General:

3 PAIRS AND 2 NESTS OBSERVED SOMETIME BETWEEN 13 APR AND 12 JUL 2001.

PLSS: T19S, R02W, Sec. 05 (S)
Accuracy: non-specific area
Area (acres): 134
UTM: Zone-11 N3600335 E489548
Latitude/Longitude: 32.54033 / -117.11130
Elevation (feet): 15

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

VAR01U0002 HAAS, W.E. ET AL. (VARANUS BIOLOGICAL SERVICES) - 2001 LEAST BELL'S VIREO SURVEYS AND SPOT MAPPING, GOAT CANYON, SAN YSIDRO, SAN DIEGO COUNTY. 2001-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47089
EO Index: 56073
Key Quad: Imperial Beach (3211751)
Element Code: ABNKC12040
Occurrence Number: 95
Occurrence Last Updated: 2004-07-13

Scientific Name: *Accipiter cooperii*
Common Name: Cooper's hawk

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern

CNDDB Element Ranks: **Global:** G5
State: S4

General Habitat:

WOODLAND, CHIEFLY OF OPEN, INTERRUPTED OR MARGINAL TYPE.

Micro Habitat:

NEST SITES MAINLY IN RIPARIAN GROWTHS OF DECIDUOUS TREES, AS IN CANYON BOTTOMS ON RIVER FLOOD-PLAINS; ALSO, LIVE OAKS.

Last Date Observed: 2001-07-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-07-12
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

WEST OF GOAT CANYON AND 0.6 - 1.0 MILE EAST OF THE PACIFIC OCEAN, JUST NORTH OF THE CALIFORNIA-MEXICO BORDER.

Detailed Location:

Ecological:

HABITAT CONSISTS OF SOUTHERN WILLOW SCRUB (SALIX SPECIES, BACCHARIS SALICIFOLIA) AND DISTURBED RIPARIAN AND EXOTICS (CASTOR BEAN, GIANT CANE, BRAZILIAN PEPPER TREE, FENNEL, COMMON COCKLEBUR, MUSTARD). ICTERIA VIRENS IN VICINITY.

Threats:

General:

COOPER'S HAWK AND NEST OBSERVED SOMETIME BETWEEN 13 APR AND 12 JUL 2001.

PLSS: T19S, R02W, Sec. 05 (S)
Accuracy: non-specific area
Area (acres): 134
UTM: Zone-11 N3600335 E489548
Latitude/Longitude: 32.54033 / -117.11130
Elevation (feet): 15

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

VAR01U0002 HAAS, W.E. ET AL. (VARANUS BIOLOGICAL SERVICES) - 2001 LEAST BELL'S VIREO SURVEYS AND SPOT MAPPING, GOAT CANYON, SAN YSIDRO, SAN DIEGO COUNTY. 2001-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B2559
Key Quad: La Jolla (3211772)
Occurrence Number: 139

EO Index: 114490
Element Code: ABNKC12040
Occurrence Last Updated: 2019-03-13

Scientific Name: *Accipiter cooperii*
Common Name: Cooper's hawk

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S4

Rare Plant Rank:

Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern

General Habitat:

WOODLAND, CHIEFLY OF OPEN, INTERRUPTED OR MARGINAL TYPE.

Micro Habitat:

NEST SITES MAINLY IN RIPARIAN GROWTHS OF DECIDUOUS TREES, AS IN CANYON BOTTOMS ON RIVER FLOOD-PLAINS; ALSO, LIVE OAKS.

Last Date Observed: 2017-06-15
Last Survey Date: 2017-06-15
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

ALONG THE SAN DIEGO RIVER, ABOUT 0.4 MI NE OF THE I-8/I-805 INTERCHANGE & 0.4 MI SE OF FRIARS RD AT FENTON PARKWAY.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

WETLAND MITIGATION SITE, UNDER CONSTRUCTION AT TIME OF SURVEY. MATURE SOUTHERN WILLOW SCRUB DOMINATED BY BLACK WILLOWS. SURROUNDED BY RESIDENTIAL AREAS & TRANSPORTATION CORRIDORS. DISTURBANCE FROM TRANSIENT ACTIVITY & TRASH DUMPING NOTED.

Threats:

General:

NESTING PAIR WITH 2 FLEDGLINGS OBSERVED DURING MITIGATION SITE CONSTRUCTION MONITORING ON 15 JUN 2017.

PLSS: T16S, R02W, Sec. 18, S (S)
Accuracy: 80 meters
Area (acres): 5

UTM: Zone-11 N3626555 E488091
Latitude/Longitude: 32.77684 / -117.12716
Elevation (feet): 40

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

MAR17F0012 MARCON, J. - FIELD SURVEY FORM FOR ACCIPITER COOPERII 2017-06-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90416
EO Index: 91526
Key Quad: National City (3211761)
Element Code: ABNKC19070
Occurrence Number: 2564
Occurrence Last Updated: 2013-10-23

Scientific Name: *Buteo swainsoni*
Common Name: Swainson's hawk

Listing Status: **Federal:** None
State: Threatened
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G5
State: S3

General Habitat:

BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.

Micro Habitat:

REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Last Date Observed: 1889-04-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1889-04-12
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:

VICINITY OF SWEETWATER DAM.

Detailed Location:

MAPPED TO GIVEN SPECIMEN LOCALITY "SWEETWATER DAM;" EXACT COLLECTION LOCATION UNKNOWN.

Ecological:

SAN DIEGO COUNTY BREEDING POPULATION CONSIDERED EXTIRPATED.

Threats:

EXTENSIVE DEVELOPMENT SINCE THE TIME OF COLLECTION HAS GREATLY REDUCED NESTING AND FORAGING HABITAT.

General:

EGGS COLLECTED ON 12 APR 1889.

PLSS: T17S, R01W, Sec. 17 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3617088 E499202
Latitude/Longitude: 32.69150 / -117.00850
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

Jamul Mountains (3211668), National City (3211761)

Sources:

PER89S0001 PERNBER, F. - WFVZ EGG-NEST SPECIMEN #171398, COLLECTED AT SWEETWATER DAM. 1889-04-12

UNI84A0001 UNITT, P. (SAN DIEGO NATURAL HISTORY MUSEUM) - THE BIRDS OF SAN DIEGO COUNTY. MEMOIRS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY 13. 1984-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68466
EO Index: 91528
Key Quad: Point Loma (3211762)
Element Code: ABNKC19070
Occurrence Number: 2565
Occurrence Last Updated: 2013-10-23

Scientific Name: *Buteo swainsoni*
Common Name: Swainson's hawk

Listing Status: **Federal:** None
State: Threatened
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G5
State: S3

General Habitat:

BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.

Micro Habitat:

REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Last Date Observed: 1926-04-25
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1926-04-25
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:

SAN DIEGO.

Detailed Location:

MAPPED GENERALLY TO GIVEN LOCALITY; EXACT COLLECTION LOCATIONS UNKNOWN.

Ecological:

COLLECTOR IN 1926 REPORTED THAT THE ONCE-COMMON SPECIES WAS "NOW SCARCE NEAR SAN DIEGO." SINCE THAT TIME, THE BREEDING POPULATION IN SAN DIEGO COUNTY HAS BEEN CONSIDERED EXTIRPATED.

Threats:

EXTENSIVE DEVELOPMENT SINCE DATE OF LAST COLLECTION HAS ELIMINATED NESTING AND FORAGING HABITAT.

General:

BARLOW COLLECTED 9 EGGS FROM 3 NESTS IN 1894. SECHRIST COLLECTED EGGS NEAR SAN DIEGO ON 10 MAY 1906 AND 25 APR 1926.

PLSS: T17S, R03W, Sec. 11 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3619708 E485384
Latitude/Longitude: 32.71505 / -117.15595
Elevation (feet): 80

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

BAR94S0005	BARLOW, S. - USNM #30689, 30690 & 30691 COLLECTED FROM SAN DIEGO 1894-04-07
UNI84A0001	UNITT, P. (SAN DIEGO NATURAL HISTORY MUSEUM) - THE BIRDS OF SAN DIEGO COUNTY. MEMOIRS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY 13. 1984-XX-XX
WIL33B0001	WILLETT, G. - A REVISED LIST OF THE BIRDS OF SOUTHWESTERN CALIFORNIA. PACIFIC COAST AVIFAUNA NO. 21. 1933-12-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 65879
Key Quad: Point Loma (3211762)
Occurrence Number: 28
EO Index: 65958
Element Code: ABNKD06071
Occurrence Last Updated: 2006-08-17

Scientific Name: *Falco peregrinus anatum*
Common Name: American peregrine falcon

Listing Status: **Federal:** Delisted
*** SENSITIVE *** **State:** Delisted
CNDDB Element Ranks: **Global:** G4T4
State: S3S4

Rare Plant Rank:
Other Lists: CDF_S-Sensitive
CDFW_FP-Fully Protected
USFWS_BCC-Birds of Conservation Concern

General Habitat:
NEAR WETLANDS, LAKES, RIVERS, OR OTHER WATER; ON CLIFFS, BANKS, DUNES, MOUNDS; ALSO, HUMAN-MADE STRUCTURES.

Micro Habitat:
NEST CONSISTS OF A SCRAPE OR A DEPRESSION OR LEDGE IN AN OPEN SITE.

Last Date Observed: 1990-05-11
Last Survey Date: 1990-05-11
Owner/Manager:
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SENSITIVE LOCATION INFORMATION SUPPRESSED.

Detailed Location:
PLEASE CONTACT THE CALIFORNIA NATURAL DIVERSITY DATABASE, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, FOR MORE INFORMATION: (916) 322-2493

Ecological:

Threats:

General:

PLSS:
UTM:
Accuracy: non-specific area
Latitude/Longitude:
Area (acres): 32
Elevation (feet): 90

County Summary:
San Diego, Pacific Ocean

Quad Summary:
Point Loma (3211762)

Sources:
PAV90A0001 PAVELKA, M.A. - PEREGRINE FALCONS NESTING IN SAN DIEGO, CALIFORNIA. WESTERN BIRDS 21:181-183, 1990. 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04241
Key Quad: La Mesa (3211771)
Occurrence Number: 42

EO Index: 26446
Element Code: ABNKD06090
Occurrence Last Updated: 1989-08-10

Scientific Name: *Falco mexicanus*
Common Name: prairie falcon

Listing Status: **Federal:** None
*** SENSITIVE *** **State:** None
CNDDB Element Ranks: **Global:** G5
State: S4

Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

General Habitat:
INHABITS DRY, OPEN TERRAIN, EITHER LEVEL OR HILLY.

Micro Habitat:
BREEDING SITES LOCATED ON CLIFFS. FORAGES FAR AFIELD, EVEN TO MARSHLANDS AND OCEAN SHORES.

Last Date Observed: 1980-XX-XX
Last Survey Date: 1980-XX-XX
Owner/Manager:
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SENSITIVE LOCATION INFORMATION SUPPRESSED.

Detailed Location:
PLEASE CONTACT THE CALIFORNIA NATURAL DIVERSITY DATABASE, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, FOR MORE INFORMATION: (916) 322-2493

Ecological:

Threats:

General:

PLSS:
Accuracy: 1 mile
Area (acres): 0
UTM:
Latitude/Longitude:
Elevation (feet): 800

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

DFG81U0003 CALIFORNIA DEPARTMENT OF FISH & GAME - SWAINSON'S HAWK & PRAIRIE FALCON NEST RECORDS FROM FILES AT DFG NONGAME WILDLIFE INVESTIGATIONS (WILDLIFE BRANCH); NOT AT CNDDB. 1981-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68466
Key Quad: Point Loma (3211762)
Occurrence Number: 21
EO Index: 106981
Element Code: ABNME01010
Occurrence Last Updated: 2017-10-27

Scientific Name: *Coturnicops noveboracensis*
Common Name: yellow rail

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4
State: S1S2
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
NABCI_RWL-Red Watch List
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:
SUMMER RESIDENT IN EASTERN SIERRA NEVADA IN MONO COUNTY.

Micro Habitat:
FRESHWATER MARSHLANDS.

Last Date Observed: 1905-10-04
Last Survey Date: 1905-10-04
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
VICINITY OF SAN DIEGO.

Detailed Location:
MAPPED GENERALLY TO THE SPECIFIC CITY OF SAN DIEGO, BUT LIKELY COLLECTED SOMEWHERE IN THE VICINITY OF SAN DIEGO BAY.

Ecological:

Threats:
DEVELOPMENT.

General:
1 COLLECTED ON 4 OCT 1905.

PLSS: T17S, R03W, Sec. 11 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3619708 E485384
Latitude/Longitude: 32.71505 / -117.15595
Elevation (feet): 80

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
ANO05S0019 ANONYMOUS - ISM #604275 COLLECTED FROM SAN DIEGO 1905-10-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36983
EO Index: 25792
Key Quad: National City (3211761)
Element Code: ABNME03041
Occurrence Number: 55
Occurrence Last Updated: 2017-07-26

Scientific Name: *Laterallus jamaicensis coturniculus*
Common Name: California black rail

Listing Status: **Federal:** None
State: Threatened
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3G4T1
State: S1
Other Lists: BLM_S-Sensitive
CDFW_FP-Fully Protected
IUCN_NT-Near Threatened
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

General Habitat:

INHABITS FRESHWATER MARSHES, WET MEADOWS AND SHALLOW MARGINS OF SALTWATER MARSHES BORDERING LARGER BAYS.

Micro Habitat:

NEEDS WATER DEPTHS OF ABOUT 1 INCH THAT DO NOT FLUCTUATE DURING THE YEAR AND DENSE VEGETATION FOR NESTING HABITAT.

Last Date Observed: 1954-05-01
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1954-05-01
Occurrence Rank: Unknown
Owner/Manager: USFWS-SAN DIEGO BAY NWR
Trend: Decreasing
Presence: Presumed Extant

Location:

VICINITY OF SWEETWATER SLOUGH, SWEETWATER RIVER MOUTH, NW OF CHULA VISTA, SW OF NATIONAL CITY.

Detailed Location:

LOCATIONS VAGUE. DESCRIBED ONLY AS "NATIONAL CITY," "SWEETWATER SLOUGH," "SWEETWATER MARSH," "CHULA VISTA," & "SAN DIEGO" MAPPED ACCORDING TO WETLAND HABITAT BASED ON HISTORIC USGS TOPO MAPS (SAN DIEGO 1904/1930 & NATIONAL CITY 1944).

Ecological:

NUMBERS ARE THE MINIMUM # OF EGGS & BIRDS COLLECTED AS SPECIMENS EACH YEAR (MAJORITY EGGS). REMNAT MARSH. ANECDOTAL DETECTIONS OF MIGRATING BIRDS IN 1955 & 1964. HISTORICALLY ESTIMATED AT 30+ PAIRS OCCUPYING MARSH. EXTIRPATED AS BREEDER.

Threats:

DEVELOPMENT. EXTIRPATED AS BREEDER.

General:

1901: 1 EGG(E). 1906-07: 8-15E. 1908-09: 6 BIRDS(B)/49E. 1910-12: 7B/32E. 1914: 9E. 1921: 6E 1922-24: 8E. 1926: 7E. 1929: 14E. 1930-32: 11E. 1933: 1B/9E. 1934-36: 16E. 1937: 4E. 1939: 2E. 1941: 2E. 1942: 8E. 1949: 7E. 1953: 6E. 1954: 7E.

PLSS: T17S, R02W, Sec. 32 (S)
Accuracy: non-specific area
Area (acres): 724
UTM: Zone-11 N3612406 E490028
Latitude/Longitude: 32.64923 / -117.10633
Elevation (feet): 17

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

BAN22S0001	BANCROFT, G. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #7829 COLLECTED NEAR NATIONAL CITY 1922-05-21
CAR11S0035	CARPENTER, B. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #33818 COLLECTED AT NATIONAL CITY 1911-03-12
DIC14S0004	DICKEY, D. & L. HUEY (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #188051 COLLECTED NEAR NATIONAL CITY, SWEETWATER MARSH (SLOUGH) 1914-05-19
DIC14S0005	DICKEY, D. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #69977 COLLECTED NEAR SWEETWATER MARSH (SLOUGH) 1914-05-13
DIX32S0001	DIXON, J. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #64755 COLLECTED AT NATIONAL CITY, TIDE FLATS AT ABOVE 1932-05-04
DIX33S0003	DIXON, J. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #86358 AT NATIONAL CITY, IN TIDE FLAT OF PACIFIC OCEAN 1933-05-12
FIE21S0001	FIELD, C. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #44369 COLLECTED IN SAN DIEGO 1921-03-25
FIE29S0001	FIELD, C. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #127838 COLLECTED IN SAN DIEGO 1929-03-31
FIE33S0002	FIELD, C. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #69552 COLLECTED AT NATIONAL CITY 1933-04-10

FIE35S0002	FIELD, P. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #38725 COLLECTED AT NATIONAL CITY 1935-04-02
FIE36S0001	FIELD, C. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #44363 COLLECTED IN SAN DIEGO 1936-03-29
HEA23S0002	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #205987 COLLECTED AT NATIONAL CITY 1923-04-19
HEA24S0001	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139787 COLLECTED AT NATIONAL CITY 1924-04-18
HEA29S0001	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139781 COLLECTED AT NATIONAL CITY 1929-04-22
HEA30S0001	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139780 COLLECTED AT NATIONAL CITY 1930-05-03
HEA30S0002	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139752 COLLECTED AT NATIONAL CITY 1930-05-06
HEA34S0001	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139784 COLLECTED AT NATIONAL CITY 1934-04-01
HEA34S0002	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139792 COLLECTED AT NATIONAL CITY 1934-04-16
HEA34S0003	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #205985 COLLECTED AT NATIONAL CITY 1934-04-22
HEA34S0004	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #205986 COLLECTED AT NATIONAL CITY 1934-04-20
HEA35S0001	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139785 COLLECTED AT NATIONAL CITY 1935-04-11
HEA35S0002	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139793 COLLECTED AT NATIONAL CITY 1935-05-06
HEA35S0003	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139778 COLLECTED AT NATIONAL CITY 1935-06-03
HEA35S0004	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139783 COLLECTED AT NATIONAL CITY 1935-06-10
HEA35S0005	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139788 COLLECTED AT NATIONAL CITY 1935-06-12
HEA36S0002	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139779 COLLECTED AT NATIONAL CITY 1936-04-23
HEA36S0003	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139791 COLLECTED AT NATIONAL CITY 1936-05-11
HEA36S0004	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139795 COLLECTED AT NATIONAL CITY 1936-04-20
HEA37S0001	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139782 COLLECTED AT NATIONAL CITY 1937-06-02
HEA37S0002	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139786 COLLECTED AT NATIONAL CITY 1937-04-22
HEA37S0003	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139794 COLLECTED AT NATIONAL CITY 1937-05-26
HEA37S0004	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139790 COLLECTED AT NATIONAL CITY 1937-06-28
HEA39S0001	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139751 COLLECTED AT NATIONAL CITY 1939-04-20
HEA39S0004	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #139789 COLLECTED AT NATIONAL CITY 1939-06-10
HEA41S0001	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #205983 COLLECTED AT NATIONAL CITY 1941-04-29
HEA41S0002	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #177163 COLLECTED AT NATIONAL CITY 1941-05-13
HEA42S0001	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #205984 COLLECTED AT NATIONAL CITY 1942-05-XX
HUE08S0002	HUEY, L. (UNIVERSITY OF CALIFORNIA, LOS ANGELES) - UCLA #9816 COLLECTED AT SWEETWATER SLOUGH 1908-07-12
HUE08S0003	HUEY, L. (UNIVERSITY OF CALIFORNIA, LOS ANGELES) - UCLA #9817 COLLECTED AT SWEETWATER SLOUGH 1908-06-10
HUE09S0002	HUEY, L. (SAN DIEGO NATURAL HISTORY MUSEUM) - SDNHM #31221 AND 31222 COLLECTED AT NATIONAL CITY 1909-02-14
HUE09S0003	HUEY, L. (UNIVERSITY OF CALIFORNIA, LOS ANGELES) - UCLA #9188 COLLECTED AT SWEETWATER SLOUGH 1909-04-04
HUE09S0004	HUEY, L. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #9850 COLLLECTED AT SWEETWATER SLOUGH 1909-05-25
HUE10S0001	HUEY, L. (SAN DIEGO NATURAL HISTORY MUSEUM) - SDNHM #31220 COLLECTED AT NATIONAL CITY 1910-02-13
HUE12S0002	HUEY, L. - MVZ #23521 COLLECTED AT SWEETWATER SLOUGHS 1912-11-20
HUE12S0003	HUEY, L. (SAN DIEGO NATURAL HISTORY MUSEUM) - SDNHM #31223 COLLECTED AT NATIONAL CITY 1912-11-21
HUE12S0005	HUEY, L. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #72106 COLLECTED AT SWEETWATER MARSH (SLOUGH) 1912-03-26
HUE12S0006	HUEY, L. (UNIVERSITY OF CALIFORNIA, LOS ANGELES) - UCLA #11341 COLLECTED AT SWEETWATER SLOUGH 1912-11-19
HUE12S0007	HUEY, L. (UNIVERSITY OF CALIFORNIA, LOS ANGELES) - UCLA #9190 COLLECTED AT SWEETWATER SLOUGH 1912-11-21
HUE12S0008	HUEY, L. (UNIVERSITY OF CALIFORNIA, LOS ANGELES) - UCLA #9191 COLLECTED AT SWEETWATER SLOUGH 1912-11-20
HUE12S0009	HUEY, L. (UNIVERSITY OF CALIFORNIA, LOS ANGELES) - UCLA #9189 AND 9818 COLLECTED AT SWEETWATER SLOUGH 1912-11-25
HUE16A0001	HUEY, L. - THE FARALLON RAILS OF SAN DIEGO COUNTY. CONDOR 18(2):58-62 1916-XX-XX
ING07S0001	INGERSOLL, A. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #177779 COLLECTED AT SWEETWATER MARSH (NATIONAL CITY MARSH); SWEETWATER VALLEY 1907-05-03

ING09A0001	INGERSOLL, A. - THE ONLY KNOWN BREEDING GROUND OF CRECISCUS COTURNICULUS. CONDOR 11(4):123-127 1909-XX-XX
ING09S0001	INGERSOLL, A. - MVZ #1112 COLLECTED AT NATIONAL CITY 1909-04-08
ING09S0002	INGERSOLL, A. (SANTA BARBARA MUSEUM OF NATURAL HISTORY) - SBMNH #21426 COLLECTED AT NATIONAL CITY 1909-04-16
ING09S0003	INGERSOLL, A. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #9984 & 205978 COLLECTED AT NATIONAL CITY 1909-04-08
ING31S0001	INGERSOLL, A. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #83872 COLLECTED AT NATIONAL CITY 1931-05-15
ORT09S0001	ORTMAN, O. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #83871 COLLECTED AT CHULA VISTA SLOUGHS 1909-04-04
ORT12S0001	ORTMAN, O. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #72107 COLLECTED AT SWEETWATER MARSH (SLOUGH) 1912-04-04
SEC08S0001	SECHRIST, E. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #71600 COLLECTED AT NATIONAL CITY 1908-04-08
SEC08S0002	SECHRIST, E. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #99627 COLLECTED AT CHULA VISTA 1908-04-10
SEC09S0001	SECHRIST, E. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #54452 COLLECTED AT NATIONAL CITY, MARSH ON SAN DIEGO BAY 1909-03-28
SEC11S0001	SECHRIST, E. - MVZ #2745 COLLECTED AT SWEETWATER SLOUGH 1911-03-26
SEC11S0002	SECHRIST, E. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #177776 COLLECTED AT NATIONAL CITY 1911-03-20
SEC11S0003	SECHRIST, E. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #92391 AT SWEETWATER MARSH (SLOUGH); SALT MARSH 1911-03-20
SEC11S0004	SECHRIST, E. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #99724 COLLECTED AT SWEET WATER SLOUGH 1911-04-20
SEC11S0005	SECHRIST, E. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #99679 COLLECTED AT SWEET WATER SLOUGH 1911-03-30
SEC26S0001	SECHRIST, E. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #177777 COLLECTED IN SAN DIEGO 1926-04-18
SEC29S0002	SECHRIST, E. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #44364 COLLECTED IN SAN DIEGO 1929-05-05
SEC29S0003	SECHRIST, E. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #32273 COLLECTED IN SAN DIEGO 1929-05-05
SEC32S0001	SECHRIST, E. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #65855 COLLECTED IN SAN DIEGO 1932-05-06
SEC33S0001	SECHRIST, E. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #205989 COLLECTED AT NATIONAL CITY 1933-05-12
SEC33S0002	SECHRIST, E. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #44371 COLLECTED IN SAN DIEGO 1933-05-13
SEC42S0001	SECHRIST, E. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #32274 COLLECTED AT SWEETWATER MARSH (SLOUGH) 1942-05-25
SEC49S0002	SECHRIST, E. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #86359 COLLECTED IN SAN DIEGO 1949-05-30
SEC53S0001	SECHRIST, E. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #81774 COLLECTED IN SAN DIEGO 1953-05-21
SEC54S0001	SECHRIST, E. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #65854 COLLECTED IN SAN DIEGO 1954-05-01
SHA06S0002	SHARP, C. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #177778 COLLECTED IN SAN DIEGO 1906-04-21
SHA06S0003	SHARP, C. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGGS #44370 COLLECTED IN SAN DIEGO 1906-04-07
STE01S0004	STEPHENS, F. - MVZ #70 COLLECTED AT A SALT MARSH NEAR CHULA VISTA, S OF SAN DIEGO 1901-05-23
STE08S0008	STEPHENS, F. - MVZ #3688 COLLECTED AT CHULA VISTA 1908-05-22
STE09A0001	STEPHENS, F. - NOTES ON THE CALIFORNIA BLACK RAIL. CONDOR 11(2):47-49, MAR-APR 1909. 1909-03-XX
THO12S0006	THOMPSON, C. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #205990 COLLECTED AT SWEETWATER MARSH (SLOUGH) 1912-04-XX
UNI84A0001	UNITT, P. (SAN DIEGO NATURAL HISTORY MUSEUM) - THE BIRDS OF SAN DIEGO COUNTY. MEMOIRS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY 13. 1984-XX-XX
WAL41A0001	WALKER, L. - YOUNG CALIFORNIA BLACK RAILS. CONDOR 43(5):246 1941-XX-XX
WIL33B0001	WILLETT, G. - A REVISED LIST OF THE BIRDS OF SOUTHWESTERN CALIFORNIA. PACIFIC COAST AVIFAUNA NO. 21. 1933-12-01

WIL74R0001 WILBUR, S.R. - THE LITERATURE OF THE CALIFORNIA BLACK RAIL. U.S. FISH AND WILDLIFE SERVICE, SPECIAL SCIENTIFIC REPORT - WILDLIFE NO. 179. 1974-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A3968
EO Index: 105633
Key Quad: La Jolla (3211772)
Element Code: ABNME03041
Occurrence Number: 58
Occurrence Last Updated: 2017-07-26

Scientific Name: *Laterallus jamaicensis coturniculus*
Common Name: California black rail

Listing Status: **Federal:** None
State: Threatened
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3G4T1
State: S1
Other Lists: BLM_S-Sensitive
CDFW_FP-Fully Protected
IUCN_NT-Near Threatened
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

General Habitat:

INHABITS FRESHWATER MARSHES, WET MEADOWS AND SHALLOW MARGINS OF SALTWATER MARSHES BORDERING LARGER BAYS.

Micro Habitat:

NEEDS WATER DEPTHS OF ABOUT 1 INCH THAT DO NOT FLUCTUATE DURING THE YEAR AND DENSE VEGETATION FOR NESTING HABITAT.

Last Date Observed: 1908-06-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1908-06-22
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:

AREA JUST NW OF I-5 AND I-8 INTERCHANGE, 2.4 MI SSW OF I-5 AT BALBOA AVE, MISSION BAY.

Detailed Location:

LOCATION DESCRIBED AS "FALSE BAY" IN WHAT IS CURRENT DAY MISSION BAY. MAPPED GENERALLY USING A HISTORIC USGS MAP FOR LA JOLLA (1903, 1:62500).

Ecological:

MARSH. BASED ON HISTORIC USGS MAP THE SE PART OF BAY APPEARS TO HAVE HAD MARSHES. FALSE/MISSION BAY HAS BEEN MODIFIED SINCE TIME OF DETECTION. POTENTIAL HABITAT WITHIN THE SNA DIEGO RIVER MOUTH CHANNEL. EXTIRPATED AS BREEDER BY 1950S.

Threats:

DEVELOPMENT OF SURROUNDING UPLANDS AND INFILLING OF BAY AND MARSHES SINCE 1908. EXTIRPATED AS A BREEDER BY 1950S.

General:

1 OBSERVED CROUCHED IN THE MUD A FEW FEET FROM THE BANK ON 22 JUN 1908, RAIL "STOOD PERFECTLY STILL, WITH HEAD LOWERED, AS IF EXPECTING TO BE OVERLOOKED." RAIL WAS SHOT & COLLECTED BY F. STEPHENS. ANOTHER BIRD FLUSHED OUT A FEW DAYS LATER.

PLSS: T99X, R99X, Sec. UN (X)
Accuracy: 1 mile
Area (acres): 1,987
UTM: Zone-11 N3626333 E478844
Latitude/Longitude: 32.7747 / -117.2259
Elevation (feet): 1

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

STE09A0001	STEPHENS, F. - NOTES ON THE CALIFORNIA BLACK RAIL. CONDOR 11(2):47-49, MAR-APR 1909. 1909-03-XX
UNI84A0001	UNITT, P. (SAN DIEGO NATURAL HISTORY MUSEUM) - THE BIRDS OF SAN DIEGO COUNTY. MEMOIRS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY 13. 1984-XX-XX
WIL74R0001	WILBUR, S.R. - THE LITERATURE OF THE CALIFORNIA BLACK RAIL. U.S. FISH AND WILDLIFE SERVICE, SPECIAL SCIENTIFIC REPORT - WILDLIFE NO. 179. 1974-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A3945
Key Quad: Point Loma (3211762)
Occurrence Number: 61

EO Index: 105607
Element Code: ABNME03041
Occurrence Last Updated: 2017-07-26

Scientific Name: *Laterallus jamaicensis coturniculus*
Common Name: California black rail

Listing Status: **Federal:** None
State: Threatened

CNDDB Element Ranks: **Global:** G3G4T1
State: S1

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_FP-Fully Protected
IUCN_NT-Near Threatened
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

General Habitat:

INHABITS FRESHWATER MARSHES, WET MEADOWS AND SHALLOW MARGINS OF SALTWATER MARSHES BORDERING LARGER BAYS.

Micro Habitat:

NEEDS WATER DEPTHS OF ABOUT 1 INCH THAT DO NOT FLUCTUATE DURING THE YEAR AND DENSE VEGETATION FOR NESTING HABITAT.

Last Date Observed: 1908-06-22
Last Survey Date: 1908-06-22
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

POINT LOMA, SAN DIEGO.

Detailed Location:

1876 LOCATION DESCRIBED AS "THE POINT LOMA LIGHT, NEAR SAN DIEGO." THIS IS PRESUMABLY IN REFERENCE TO THE OLD POINT LOMA LIGHTHOUSE (ACTIVE FROM 1855-1891, ATTACHED TO A HOUSE). 1908 LOCATION DESCRIBED ONLY AS "POINT LOMA."

Ecological:

EXACT LOCATION OF RAILS UNKNOWN. MAPPED GENERALLY TO THE OLD POINT LOMA LIGHTHOUSE. POTENTIALLY OCCUPIED MARSH EXISTED FUTHER NE NEAR CURRENT DAY SAN DIEGO INTERNATIONAL AIRPORT. EXTIRPATED AS A BREEDER FROM THE AREA AROUND THE 1950S.

Threats:

General:

ONE COLLETED ON 4 AUG 1876; BIRD HAD STRUCK THE LIGHT HOUSE, POSSIBLY A MIGRATING BIRD. ONE COLLECTED ON 22 JUN 1908; THIS RECORD IS LIKELY NOT REPRESENTATIVE OF A NESTING LOCALITY.

PLSS: T17S, R03W, Sec. 19 (S)
Accuracy: 1 mile
Area (acres): 1,987

UTM: Zone-11 N3615550 E477321
Latitude/Longitude: 32.6774 / -117.2419
Elevation (feet): 350

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

GRI18B0002	GRINNELL, J. ET AL. (MUSEUM OF VERTEBRATE ZOOLOGY) - THE GAME BIRDS OF CALIFORNIA. UNIV. CALIF. PRESS, BERKELEY, CALIF. 610PP. 1918-XX-XX
STE08S0009	STEPHENS, F. - MVZ #3495 COLLECTED AT POINT LOMA 1908-06-22
UNI84A0001	UNITT, P. (SAN DIEGO NATURAL HISTORY MUSEUM) - THE BIRDS OF SAN DIEGO COUNTY. MEMOIRS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY 13. 1984-XX-XX
WIL33B0001	WILLETT, G. - A REVISED LIST OF THE BIRDS OF SOUTHWESTERN CALIFORNIA. PACIFIC COAST AVIFAUNA NO. 21. 1933-12-01
WIL74R0001	WILBUR, S.R. - THE LITERATURE OF THE CALIFORNIA BLACK RAIL. U.S. FISH AND WILDLIFE SERVICE, SPECIAL SCIENTIFIC REPORT - WILDLIFE NO. 179. 1974-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A3332
EO Index: 77242
Key Quad: Imperial Beach (3211751)
Element Code: ABNME03041
Occurrence Number: 201
Occurrence Last Updated: 2017-04-03

Scientific Name: *Laterallus jamaicensis coturniculus*
Common Name: California black rail

Listing Status: **Federal:** None
State: Threatened
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3G4T1
State: S1
Other Lists: BLM_S-Sensitive
CDFW_FP-Fully Protected
IUCN_NT-Near Threatened
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

General Habitat:

INHABITS FRESHWATER MARSHES, WET MEADOWS AND SHALLOW MARGINS OF SALTWATER MARSHES BORDERING LARGER BAYS.

Micro Habitat:

NEEDS WATER DEPTHS OF ABOUT 1 INCH THAT DO NOT FLUCTUATE DURING THE YEAR AND DENSE VEGETATION FOR NESTING HABITAT.

Last Date Observed: 1966-09-05
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1966-09-05
Occurrence Rank: Unknown
Owner/Manager: USFWS, DPR
Trend: Unknown
Presence: Presumed Extant

Location:

VICINITY OF THE MOUTH OF THE TIJUANA RIVER, SOUTH OF IMPERIAL BEACH.

Detailed Location:

1908 LOCATION DESCRIBED AS "NEAR MOUTH OF TIJUANA RIVER." EXACT LOCATION UNKNOWN. AREA EXPLORED BY L. HUEY & F. STEPHENS IN NOV 1908; HUNTED MARSHES AT HIGH TIDE. LOCATIONS OF 1965-66 DETECTION UNK & THEREFORE ATTRIBUTED TO THIS OCCURRENCE.

Ecological:

BLACK RAIL GENERALLY LISTED AS AN OCCUPANT OF THE TIJUANA RIVER ESTUARINE SANCTUARY IN THE 1981 ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED ESTUARINE SANCTUARY GRANT AWARD. MAY BE EXTIRPATED AS A BREEDER FROM SAN DIEGO CO.

Threats:

General:

1 COLLECTED ON 8 NOV 1908. GENERALLY LISTED AS AN OCCUPANT IN THE 1981 REPORT. 2 DETECTIONS REPORTED IN "FRESH WATER IN THE TIJUANA RIVER VALLEY" ON 24 APR 1965 AND 5 SEP 1966 BY G. MCCASKI; SITE COULD BE FURTHER TO THE EAST.

PLSS: T18S, R02W, Sec. 31 (S)
Accuracy: 4/5 mile
Area (acres): 1,312
UTM: Zone-11 N3602207 E488425
Latitude/Longitude: 32.5572 / -117.1233
Elevation (feet): 3

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

DOC81R0001	U.S. DEPT. OF COMMERCE, NOAA - PROPOSED ESTUARINE SANCTUARY GRANT AWARD TO THE STATE OF CALIFORNIA FOR A TIJUANA RIVER NATIONAL ESTUARINE SANCTUARY 1981-08-XX
HUE08S0001	HUEY, L. - MVZ #4096 COLLECTED NEAR MOUTH OF TIJUANA RIVER 1908-11-08
STE09A0001	STEPHENS, F. - NOTES ON THE CALIFORNIA BLACK RAIL. CONDOR 11(2):47-49, MAR-APR 1909. 1909-03-XX
UNI84A0001	UNITT, P. (SAN DIEGO NATURAL HISTORY MUSEUM) - THE BIRDS OF SAN DIEGO COUNTY. MEMOIRS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY 13. 1984-XX-XX
WIL74R0001	WILBUR, S.R. - THE LITERATURE OF THE CALIFORNIA BLACK RAIL. U.S. FISH AND WILDLIFE SERVICE, SPECIAL SCIENTIFIC REPORT - WILDLIFE NO. 179. 1974-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 48845
Key Quad: La Jolla (3211772)
Occurrence Number: 333
EO Index: 105537
Element Code: ABNME03041
Occurrence Last Updated: 2017-07-27

Scientific Name: *Laterallus jamaicensis coturniculus*
Common Name: California black rail

Listing Status: **Federal:** None
State: Threatened
CNDDB Element Ranks: **Global:** G3G4T1
State: S1
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_FP-Fully Protected
IUCN_NT-Near Threatened
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

General Habitat:

INHABITS FRESHWATER MARSHES, WET MEADOWS AND SHALLOW MARGINS OF SALTWATER MARSHES BORDERING LARGER BAYS.

Micro Habitat:

NEEDS WATER DEPTHS OF ABOUT 1 INCH THAT DO NOT FLUCTUATE DURING THE YEAR AND DENSE VEGETATION FOR NESTING HABITAT.

Last Date Observed: 1912-03-24
Last Survey Date: 1912-03-24
Owner/Manager: CITY OF SAN DIEGO
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

S SIDE OF SAN DIEGO RIVER, 0.5 MI E OF POINT LOMA BLVD AT NIMITZ BLVD, 1.6 MI WSW OF I-5 AT I-8, E OF OCEAN BEACH.

Detailed Location:

LOCATION DESCRIBED ONLY AS "LA PUNTA SLOUGH" AND "FAMOSA (LA PUNTA) SLOUGHS." MAPPED GENERALLY TO THE REMNANT PORTION OF FAMOSA SLOUGH.

Ecological:

SLOUGH IS CONNECTED TO THE SAN DIEGO RIVER CHANNEL. MUCH OF THE SURROUNDING AREA HAS BEEN DEVELOPED.

Threats:

EXTENSIVE DEVELOPMENT SINCE 1912.

General:

1 ADULT FEMALE COLLECTED ON 18 APR 1909. EGGS COLLECTED ON 24 MAR 1912. OTHERS HAVE NOTED THAT CALIFORNIA BLACK RAIL HAS BEEN EXTIRPATED AS A BREEDER SINCE ABOUT THE 1950S (UNI84A0001).

PLSS: T16S, R03W, Sec. 30, SE (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3623872 E478522
Latitude/Longitude: 32.75250 / -117.22927
Elevation (feet): 11

County Summary:

San Diego, Pacific Ocean

Quad Summary:

Point Loma (3211762), La Jolla (3211772)

Sources:

HUE09S0001 HUEY, L.M. - UCLA #9819 COLLECTED AT LA PUNTA SLOUGH. 1909-04-18

HUE12S0004 HUEY, L. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ #9851 COLLECTED AT FAMOSA (LA PUNTA) SLOUGHS 1912-03-24

UNI84A0001 UNITT, P. (SAN DIEGO NATURAL HISTORY MUSEUM) - THE BIRDS OF SAN DIEGO COUNTY. MEMOIRS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY 13. 1984-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A3953
EO Index: 105616
Key Quad: National City (3211761)
Element Code: ABNME03041
Occurrence Number: 335
Occurrence Last Updated: 2017-03-14

Scientific Name: *Laterallus jamaicensis coturniculus*
Common Name: California black rail

Listing Status: **Federal:** None
State: Threatened
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3G4T1
State: S1
Other Lists: BLM_S-Sensitive
CDFW_FP-Fully Protected
IUCN_NT-Near Threatened
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

General Habitat:

INHABITS FRESHWATER MARSHES, WET MEADOWS AND SHALLOW MARGINS OF SALTWATER MARSHES BORDERING LARGER BAYS.

Micro Habitat:

NEEDS WATER DEPTHS OF ABOUT 1 INCH THAT DO NOT FLUCTUATE DURING THE YEAR AND DENSE VEGETATION FOR NESTING HABITAT.

Last Date Observed: 1929-08-30
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1929-08-30
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

ABOUT 0.9 MI WSW OF HWY 94 AT COLLEGE AVE, 2.6 MI NE OF HWY 94 AT I-805, 2 MI N OF ESCANTO, E OF SAN DIEGO.

Detailed Location:

BIRD WAS LOCATED "NEAR THE TOWERS OF THE U.S. NAVAL RADIO STATION JUST EAST OF SAN DIEGO." MAPPED TO THE PRESUMED LOCATION OF THE HISTORIC CHOLLAS HEIGHTS NAVAL RADIO STATION ROUGHLY 6 MILES EAST OF SAN DIEGO PROPER.

Ecological:

A FRESHWATER POND AND CATTAILS IN ADJACENT CANYONS NOTED IN 1929. MUCH OF THE SURROUNDING AREA HAS BEEN DEVELOPED. CHOLLAS HEIGHTS RESERVOIR STILL A POTENTIAL SOURCE OF WATER.

Threats:

General:

1 FEMALE COLLECTED ON 30 AUG 1929; SENT TO THE O'ROURKE ZOOLOGICAL INSTITUTE OF SAN DIEGO. IT WAS NOTED THAT THIS RAIL WAS LIKELY IN MIGRATION WHEN LOCATED BASED ON ITS DISTANCE FROM MORE LIKELY SUITABLE SALT MARSH HABITAT TO THE WEST.

PLSS: T16S, R02W, Sec. 35 (S)
Accuracy: 3/5 mile
Area (acres): 776
UTM: Zone-11 N3622244 E493957
Latitude/Longitude: 32.738 / -117.0645
Elevation (feet): 434

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

GAN30A0001 GANDER, F. - A BLACK RAIL LEAVES THE SALT MARSH. CONDOR 32(4):211 1930-XX-XX

WIL33B0001 WILLETT, G. - A REVISED LIST OF THE BIRDS OF SOUTHWESTERN CALIFORNIA. PACIFIC COAST AVIFAUNA NO. 21. 1933-12-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A3972
Key Quad: Point Loma (3211762)
Occurrence Number: 337

EO Index: 105638
Element Code: ABNME03041
Occurrence Last Updated: 2017-07-27

Scientific Name: *Laterallus jamaicensis coturniculus*
Common Name: California black rail

Listing Status: **Federal:** None
State: Threatened

CNDDB Element Ranks: **Global:** G3G4T1
State: S1

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_FP-Fully Protected
IUCN_NT-Near Threatened
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

General Habitat:

INHABITS FRESHWATER MARSHES, WET MEADOWS AND SHALLOW MARGINS OF SALTWATER MARSHES BORDERING LARGER BAYS.

Micro Habitat:

NEEDS WATER DEPTHS OF ABOUT 1 INCH THAT DO NOT FLUCTUATE DURING THE YEAR AND DENSE VEGETATION FOR NESTING HABITAT.

Last Date Observed: 1902-11-16
Last Survey Date: 1902-11-16
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

ABOUT 0.7 MI W OF I-5 AT HWY 75, 1 MI SE OF HARBOR DR AT MARKET ST, SAN DIEGO.

Detailed Location:

LOCATION DESCRIBED AS "THE RAILROAD TRACK NEAR THE FOOT OF 14TH STREET...AT THIS PLACE THE RAILROAD TRACKS CROSS A TIDE MARSH." MAPPED USING HISTORIC USGS TOPO MAPS FOR SAN DIEGO (1904 AND 1930) NEAR THE S END OF 14TH STREET AT RR TRACK.

Ecological:

MARSH. AREA WHERE RAIL ROAD TRACKS CROSSED THE MARSH BEGAN BEING FILLED CIRCA 1909 AND NOW IS THE TENTH AVENUE MARINE TERMINAL.

Threats:

DEVELOPMENT OF MARSH SINCE 1909.

General:

1 BLACK RAIL CAUGHT BY HAND ON 16 NOV 1902; BIRD WAS CAUGHT AT A RAIL ROAD TRACK CROSSING A TIDE MARSH AT HIGH TIDE. THIS BIRD WAS GIVEN TO F. STEPHENS. EXTIRPATED AS A BREEDER FROM THE SAN DIEGO AREA SINCE ABOUT THE 1950S.

PLSS: T17S, R03W, Sec. 13 (S)
Accuracy: 2/5 mile
Area (acres): 280

UTM: Zone-11 N3618173 E485491
Latitude/Longitude: 32.7012 / -117.1548
Elevation (feet): 13

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

STE09A0001 STEPHENS, F. - NOTES ON THE CALIFORNIA BLACK RAIL. CONDOR 11(2):47-49, MAR-APR 1909. 1909-03-XX

UNI84A0001 UNITT, P. (SAN DIEGO NATURAL HISTORY MUSEUM) - THE BIRDS OF SAN DIEGO COUNTY. MEMOIRS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY 13. 1984-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04111	**EO Index:**	25891
Key Quad:	National City (3211761)	**Element Code:**	ABNME05014
Occurrence Number:	1	**Occurrence Last Updated:**	2008-05-05

Scientific Name: *Rallus obsoletus levipes*

Common Name: light-footed Ridgway's rail

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank:

Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G3T1T2
State: S1

General Habitat:

FOUND IN SALT MARSHES TRAVERSED BY TIDAL SLOUGHS, WHERE CORDGRASS AND PICKLEWEED ARE THE DOMINANT VEGETATION.

Micro Habitat:

REQUIRES DENSE GROWTH OF EITHER PICKLEWEED OR CORDGRASS FOR NESTING OR ESCAPE COVER; FEEDS ON MOLLUSCS AND CRUSTACEANS.

Last Date Observed:	2007-06-05	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2007-06-05	**Occurrence Rank:**	Unknown
Owner/Manager:	USFWS-SAN DIEGO BAY NWR, UNK	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SWEETWATER RIVER MOUTH, INCLUDING PARADISE SLOUGH & REMNANT MARSHES AT E, F & G STREETS, CHULA VISTA/NATIONAL CITY.

Detailed Location:

2007: 3 PAIRS IN VENER POND SECTION OF MAIN MARSH.

Ecological:

130 ACRES OF MARSH IN 1985. HABITAT CONSISTS MOSTLY OF DEGRADED, REMNANT SALTMARSH; LIMITED CORDGRASS, OPEN TO TIDAL FLUX.

Threats:

General:

1980:7 PR, '81:9, '82:14, '83:10, '84:18, '85:5, '86:11, '87:5+ SINGLES, '88: 6+SINGLES, '89:5+, '90:2+, '91:5, '92:6, '93:4, '94:7+; '95:10, '96:11, '97:4+, '98:6, '99:5, '00:4, '01:3+; '02:4+, '03:2+, '04:3+, '05:1, '06:6+, '07:5+.

PLSS:	T17S, R02W, Sec. 32 (S)	**Accuracy:**	specific area	**Area (acres):**	195
UTM:	Zone-11 N3611964 E490063	**Latitude/Longitude:**	32.64524 / -117.10594	**Elevation (feet):**	5

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

FWS85U0004	U.S. FISH & WILDLIFE SERVICE - REGIONAL BRIEFS ABOUT LIGHT-FOOTED CLAPPER RAIL SURVEY. ENDANGERED SPECIES TECHNICAL BULLETIN VOL X, NO. 9. 1985-XX-XX
FWS86R0004	U.S. FISH & WILDLIFE SERVICE - MANAGEMENT AND RESTORATION OF HABITAT FOR LIGHT-FOOTED CLAPPER RAILS ON CAMP PENDLETON. UNPUBLISHED REPORT. 1986-03-XX
MAS85F0002	MASSEY, B. - FIELD SURVEY FORM FOR RALLUS LONGIROSTRIS LEVIPES & PASSERCULUS SANDWICHENSIS BELDINGI 1985-03-16
MAS85F0003	MASSEY, B. - FIELD SURVEY FORM FOR RALLUS LONGIROSTRIS LEVIPES & PASSERCULUS SANDWICHENSIS BELDINGI 1985-03-XX
MAS85F0004	MASSEY, B. - FIELD SURVEY FORM FOR RALLUS LONGIROSTRIS LEVIPES & PASSERCULUS SANDWICHENSIS BELDINGI 1985-03-XX
WIL79A0001	WILBUR, S.R. ET AL. - THE LIGHT-FOOTED CLAPPER RAIL: AN UPDATE IN AMERICAN BIRDS 33:251. 1979-XX-XX
ZEM07R0001	ZEMBAL, R. ET AL. - STATUS AND DISTRIBUTION OF THE LIGHT-FOOTED CLAPPER RAIL IN CALIFORNIA, 2007. 2007-07-XX
ZEM88R0001	ZEMBAL, R.L. & B.W. MASSEY - LIGHT-FOOTED CLAPPER RAIL CENSUS AND STUDY. 1988-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03709	**EO Index:**	13614
Key Quad:	La Jolla (3211772)	**Element Code:**	ABNME05014
Occurrence Number:	10	**Occurrence Last Updated:**	2008-05-29

Scientific Name: *Rallus obsoletus levipes*

Common Name: light-footed Ridgway's rail

Listing Status: **Federal:** Endangered

State: Endangered

CNDDB Element Ranks: **Global:** G3T1T2

State: S1

Rare Plant Rank:

Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

General Habitat:

FOUND IN SALT MARSHES TRAVERSED BY TIDAL SLOUGHS, WHERE CORDGRASS AND PICKLEWEED ARE THE DOMINANT VEGETATION.

Micro Habitat:

REQUIRES DENSE GROWTH OF EITHER PICKLEWEED OR CORDGRASS FOR NESTING OR ESCAPE COVER; FEEDS ON MOLLUSCS AND CRUSTACEANS.

Last Date Observed:	2007-06-05	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2007-06-05	**Occurrence Rank:**	Unknown
Owner/Manager:	UCNR-KENDALL-FROST,CITY OF SDG	**Trend:**	Fluctuating
Presence:	Presumed Extant		

Location:

UCNR KENDALL - FROST RESERVE, NE SHORE MISSION BAY.

Detailed Location:

APPROXIMATELY 60 ACRES OF MARSH IN 1985.

Ecological:

SMALL, TOTALLY ISOLATED SALT MARSH SURROUNDED BY URBAN HOUSING. NESTING RAFTS WERE INSTALLED AND HAVE BEEN HEAVILY USED SINCE 1987.

Threats:

1995: PREDATOR CONTROL TARGETING RATS & CATS, BUT RAIL NUMBERS STILL LOW. 2007: PREDATION BY NATIVE RAPTORS. SMALL POP.

General:

1980:18 PR; '81:16; '82:6; '83:20; '84:24; '85:17; '86:12; '87:6+ SINGLES; '88 & '89:4+; '90:5+; '91:9; '92:11; '93 & '94:5+; '95:4+; '96:1+; '97:2; '98:2; '99:4; '00 & '01:4; '02:5; '03:6; '04 & '05:14; '06:5+; '07:4+.

PLSS:	T99X, R99X, Sec. UN (X)	**Accuracy:**	non-specific area	**Area (acres):**	36
UTM:	Zone-11 N3628354 E478535	**Latitude/Longitude:**	32.79293 / -117.22924	**Elevation (feet):**	0

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

FWS85U0004	U.S. FISH & WILDLIFE SERVICE - REGIONAL BRIEFS ABOUT LIGHT-FOOTED CLAPPER RAIL SURVEY. ENDANGERED SPECIES TECHNICAL BULLETIN VOL X, NO. 9. 1985-XX-XX
FWS86R0004	U.S. FISH & WILDLIFE SERVICE - MANAGEMENT AND RESTORATION OF HABITAT FOR LIGHT-FOOTED CLAPPER RAILS ON CAMP PENDLETON. UNPUBLISHED REPORT. 1986-03-XX
WIL79A0001	WILBUR, S.R. ET AL. - THE LIGHT-FOOTED CLAPPER RAIL: AN UPDATE IN AMERICAN BIRDS 33:251. 1979-XX-XX
ZEM07R0001	ZEMBAL, R. ET AL. - STATUS AND DISTRIBUTION OF THE LIGHT-FOOTED CLAPPER RAIL IN CALIFORNIA, 2007. 2007-07-XX
ZEM88R0001	ZEMBAL, R.L. & B.W. MASSEY - LIGHT-FOOTED CLAPPER RAIL CENSUS AND STUDY. 1988-XX-XX
ZEM96R0001	ZEMBAL, R., S. HOFFMAN & J.R. BRADLEY - LIGHT-FOOTED CLAPPER RAIL MANAGEMENT AND POPULATION ASSESSMENT, 1995. 1996-XX-XX
ZEM98R0001	ZEMBAL, R., S. HOFFMAN & J. BRADLEY - LIGHT-FOOTED CLAPPER RAIL MANAGEMENT AND POPULATION ASSESSMENT, 1997 BIRD AND MAMMAL CONSERVATION PROGRAM REPORT, 98-01. 1998-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04130
EO Index: 25884
Key Quad: Imperial Beach (3211751)
Element Code: ABNME05014
Occurrence Number: 11
Occurrence Last Updated: 2002-10-17

Scientific Name: *Rallus obsoletus levipes*
Common Name: light-footed Ridgway's rail

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G3T1T2
State: S1

General Habitat:

FOUND IN SALT MARSHES TRAVERSED BY TIDAL SLOUGHS, WHERE CORDGRASS AND PICKLEWEED ARE THE DOMINANT VEGETATION.

Micro Habitat:

REQUIRES DENSE GROWTH OF EITHER PICKLEWEED OR CORDGRASS FOR NESTING OR ESCAPE COVER; FEEDS ON MOLLUSCS AND CRUSTACEANS.

Last Date Observed: 1985-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1985-XX-XX
Occurrence Rank: Unknown
Owner/Manager: USFWS-SAN DIEGO BAY NWR, UNK
Trend: Unknown
Presence: Presumed Extant

Location:

SAN DIEGO BAY MARSHES. SOUTHERN END OF SAN DIEGO BAY.

Detailed Location:

Ecological:

Threats:

General:

5 RAILS OBSERVED IN 1984; 1 RAIL OBSERVED IN 1985.

PLSS: T18S, R02W, Sec. 20 (S)
Accuracy: non-specific area
Area (acres): 1,332
UTM: Zone-11 N3606602 E490357
Latitude/Longitude: 32.59687 / -117.10276
Elevation (feet):

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

FWS85U0004 U.S. FISH & WILDLIFE SERVICE - REGIONAL BRIEFS ABOUT LIGHT-FOOTED CLAPPER RAIL SURVEY. ENDANGERED SPECIES TECHNICAL BULLETIN VOL X, NO. 9. 1985-XX-XX

WIL79A0001 WILBUR, S.R. ET AL. - THE LIGHT-FOOTED CLAPPER RAIL: AN UPDATE IN AMERICAN BIRDS 33:251. 1979-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04077	**EO Index:**	25885
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABNME05014
Occurrence Number:	12	**Occurrence Last Updated:**	2008-05-05

Scientific Name: *Rallus obsoletus levipes*

Common Name: light-footed Ridgway's rail

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank:

Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G3T1T2

State: S1

General Habitat:

FOUND IN SALT MARSHES TRAVERSED BY TIDAL SLOUGHS, WHERE CORDGRASS AND PICKLEWEED ARE THE DOMINANT VEGETATION.

Micro Habitat:

REQUIRES DENSE GROWTH OF EITHER PICKLEWEED OR CORDGRASS FOR NESTING OR ESCAPE COVER; FEEDS ON MOLLUSCS AND CRUSTACEANS.

Last Date Observed:	2007-06-05	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2007-06-05	**Occurrence Rank:**	Unknown
Owner/Manager:	USFWS, DPR	**Trend:**	Increasing
Presence:	Presumed Extant		

Location:

TIJUANA RIVER ESTUARY INCLUDING ONEONTA SLOUGH.

Detailed Location:

BETWEEN 1992 & 1995 THIS SUBPOPULATION HAS BEEN THE SECOND LARGEST IN CALIFORNIA WITH OVER 60 PAIRS EACH YEAR.

Ecological:

410 ACRES OF MARSH IN 1985. PRODUCTIVE SALT MARSH UNTIL MOUTH CLOSED IN 1985. SINCE 1992 THIS HAS BEEN A VERY PRODUCTIVE AREA AGAIN.

Threats:

SEDIMENTATION/MOUTH CLOSURE, TIJUANA RIVER CONTAMINANTS.

General:

1980:26 PR; '81:31; '82:25; '83:41; '84:38; '85:2 IND; '86:4 IND; '87:<23; '88:<14; '90:17; '91:47; '92:67; '93:63; '94:64; '95:61; '96:77; '97:77; '98:68; '99:80; '00:61; '01:52; '02:78; '03:64; '04:87; '05:87; '06:102; '07:142.

PLSS:	T18S, R02W, Sec. 31 (S)	**Accuracy:**	specific area	**Area (acres):**	497
UTM:	Zone-11 N3602218 E488441	**Latitude/Longitude:**	32.55731 / -117.12312	**Elevation (feet):**	0

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

FWS85U0004	U.S. FISH & WILDLIFE SERVICE - REGIONAL BRIEFS ABOUT LIGHT-FOOTED CLAPPER RAIL SURVEY. ENDANGERED SPECIES TECHNICAL BULLETIN VOL X, NO. 9. 1985-XX-XX
FWS86R0004	U.S. FISH & WILDLIFE SERVICE - MANAGEMENT AND RESTORATION OF HABITAT FOR LIGHT-FOOTED CLAPPER RAILS ON CAMP PENDLETON. UNPUBLISHED REPORT. 1986-03-XX
FWS86R0005	U.S. FISH & WILDLIFE SERVICE - THE ECOLOGY OF TIJUANA ESTUARY. BIOLOGICAL REPORT 85(7.5). 1986-06-XX
HYD81R0001	HYDE, K.M. - SONOGRAPHIC ANALYSIS OF VOCALIZATION IN THE LIGHT-FOOTED CLAPPER RAIL. DRAFT REPORT TO NATURAL RESOURCES OFFICE, DEPT. OF THE NAVY. CONTRACT #NOD246-81M-1849. 1981-XX-XX
WIL79A0001	WILBUR, S.R. ET AL. - THE LIGHT-FOOTED CLAPPER RAIL: AN UPDATE IN AMERICAN BIRDS 33:251. 1979-XX-XX
ZEM07R0001	ZEMBAL, R. ET AL. - STATUS AND DISTRIBUTION OF THE LIGHT-FOOTED CLAPPER RAIL IN CALIFORNIA, 2007. 2007-07-XX
ZEM88R0001	ZEMBAL, R.L. & B.W. MASSEY - LIGHT-FOOTED CLAPPER RAIL CENSUS AND STUDY. 1988-XX-XX
ZEM96R0001	ZEMBAL, R., S. HOFFMAN & J.R. BRADLEY - LIGHT-FOOTED CLAPPER RAIL MANAGEMENT AND POPULATION ASSESSMENT, 1995. 1996-XX-XX
ZEM98R0001	ZEMBAL, R., S. HOFFMAN & J. BRADLEY - LIGHT-FOOTED CLAPPER RAIL MANAGEMENT AND POPULATION ASSESSMENT, 1997 BIRD AND MAMMAL CONSERVATION PROGRAM REPORT, 98-01. 1998-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03761
EO Index: 25886
Key Quad: La Jolla (3211772)
Element Code: ABNME05014
Occurrence Number: 13
Occurrence Last Updated: 2008-05-29

Scientific Name: *Rallus obsoletus levipes*
Common Name: light-footed Ridgway's rail

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G3T1T2
State: S1

General Habitat:

FOUND IN SALT MARSHES TRAVERSED BY TIDAL SLOUGHS, WHERE CORDGRASS AND PICKLEWEED ARE THE DOMINANT VEGETATION.

Micro Habitat:

REQUIRES DENSE GROWTH OF EITHER PICKLEWEED OR CORDGRASS FOR NESTING OR ESCAPE COVER; FEEDS ON MOLLUSCS AND CRUSTACEANS.

Last Date Observed: 2007-06-05
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2007-06-05
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Fluctuating
Presence: Presumed Extant

Location:

SAN DIEGO RIVER MOUTH AREA FROM NEAR MORENA BLVD OVERCROSSING.

Detailed Location:

Ecological:

CORDGRASS CONTINUES TO EXPAND AND DOMINATE A SIGNIFICANT PORTION OF THE MOUTH.

Threats:

REGULAR FLOODS MAY LIMIT THE HABITAT SUITABILITY FOR RAILS.

General:

1981:3 PAIR; '82:1; '83 & '84:2+; '85:1+; '86 & '87:0; '88:1,+ INDIVIDUALS; '89:0 PR, +; '90:2; '91:5; '92:1; '93 & '94:5+; '95:6; '96 & '97:5; '98:4; '99:3; '00:3+; '01:4; '02 & '03:6; '04:8 +; '05:5; '06:4; '07:6.

PLSS: T16S, R03W, Sec. 29 (S)
Accuracy: non-specific area
Area (acres): 49
UTM: Zone-11 N3624744 E480194
Latitude/Longitude: 32.76039 / -117.21144
Elevation (feet):

County Summary:

San Diego, Pacific Ocean

Quad Summary:

La Jolla (3211772)

Sources:

FWS85U0004 U.S. FISH & WILDLIFE SERVICE - REGIONAL BRIEFS ABOUT LIGHT-FOOTED CLAPPER RAIL SURVEY. ENDANGERED SPECIES TECHNICAL BULLETIN VOL X, NO. 9. 1985-XX-XX

WIL79A0001 WILBUR, S.R. ET AL. - THE LIGHT-FOOTED CLAPPER RAIL: AN UPDATE IN AMERICAN BIRDS 33:251. 1979-XX-XX

ZEM07R0001 ZEMBAL, R. ET AL. - STATUS AND DISTRIBUTION OF THE LIGHT-FOOTED CLAPPER RAIL IN CALIFORNIA, 2007. 2007-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71256
EO Index: 13613
Key Quad: Imperial Beach (3211751)
Element Code: ABNME05014
Occurrence Number: 18
Occurrence Last Updated: 2008-05-07

Scientific Name: *Rallus obsoletus levipes*
Common Name: light-footed Ridgway's rail

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G3T1T2
State: S1

General Habitat:

FOUND IN SALT MARSHES TRAVERSED BY TIDAL SLOUGHS, WHERE CORDGRASS AND PICKLEWEED ARE THE DOMINANT VEGETATION.

Micro Habitat:

REQUIRES DENSE GROWTH OF EITHER PICKLEWEED OR CORDGRASS FOR NESTING OR ESCAPE COVER; FEEDS ON MOLLUSCS AND CRUSTACEANS.

Last Date Observed: 2007-06-05
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2007-06-05
Occurrence Rank: Unknown
Owner/Manager: USFWS-SAN DIEGO BAY NWR
Trend: Decreasing
Presence: Presumed Extant

Location:

SOUTH SAN DIEGO BAY. INCLUDES SOUTH BAY MARINE RESERVE AND OTAY RIVER MOUTH.

Detailed Location:

15 ACRES OF MARSH IN 1985. S1985 LOCATION GIVEN AS "SW PORTION SAN DIEGO BAY, EAST OF SILVER STRAND BLVD, 1.5 MILES NORTH OF PALM AVENUE, IMPERIAL BEACH". AREA INCLUDES OTAY RIVER MOUTH AND SOUTH BAY MARINE RESERVE.

Ecological:

HIGHER MARSH, EXEMPLARY CREEK NETWORK, EASY PREDATOR ACCESS.

Threats:

THIS TINY MARSH IS OVERRUN BY PEOPLE AND DOGS, AND IT HAS RECENTLY BECOME A POPULAR CLAMMING AREA.

General:

1980: 6PR. '81:7PR. '82:6PR. '83:4PR. '84:7PR. '85-87:2PR. '88-90:5PR. '91:2PR. '92:3PR. '93, '95, '99 & '00-02:1PR. '94, '03-04:NO BIRDS OBS. '96 & '98:3PR. '97:4PR. 2005: 1 PR. 2006-2007:3PR.

PLSS: T18S, R02W, Sec. 18 (S)
Accuracy: non-specific area
Area (acres): 162
UTM: Zone-11 N3607063 E488778
Latitude/Longitude: 32.60101 / -117.11959
Elevation (feet): 10

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

FWS85U0004 U.S. FISH & WILDLIFE SERVICE - REGIONAL BRIEFS ABOUT LIGHT-FOOTED CLAPPER RAIL SURVEY. ENDANGERED SPECIES TECHNICAL BULLETIN VOL X, NO. 9. 1985-XX-XX

FWS86R0004 U.S. FISH & WILDLIFE SERVICE - MANAGEMENT AND RESTORATION OF HABITAT FOR LIGHT-FOOTED CLAPPER RAILS ON CAMP PENDLETON. UNPUBLISHED REPORT. 1986-03-XX

MAS85F0001 MASSEY, B. - FIELD SURVEY FORM FOR RALLUS LONGIROSTRIS LEVIPES 1985-03-15

WAG89R0002 WAGONER, R. - NATURAL RESOURCE MANAGEMENT PLAN, NAVAL RECEIVING FACILITY. 1989-XX-XX

ZEM07R0001 ZEMBAL, R. ET AL. - STATUS AND DISTRIBUTION OF THE LIGHT-FOOTED CLAPPER RAIL IN CALIFORNIA, 2007. 2007-07-XX

ZEM88R0001 ZEMBAL, R.L. & B.W. MASSEY - LIGHT-FOOTED CLAPPER RAIL CENSUS AND STUDY. 1988-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04197
EO Index: 32908
Key Quad: National City (3211761)
Element Code: ABNME05014
Occurrence Number: 26
Occurrence Last Updated: 1998-01-13

Scientific Name: *Rallus obsoletus levipes*
Common Name: light-footed Ridgway's rail

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G3T1T2
State: S1

General Habitat:

FOUND IN SALT MARSHES TRAVERSED BY TIDAL SLOUGHS, WHERE CORDGRASS AND PICKLEWEED ARE THE DOMINANT VEGETATION.

Micro Habitat:

REQUIRES DENSE GROWTH OF EITHER PICKLEWEED OR CORDGRASS FOR NESTING OR ESCAPE COVER; FEEDS ON MOLLUSCS AND CRUSTACEANS.

Last Date Observed: 1997-06-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1997-06-XX
Occurrence Rank: Fair
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

SWEETWATER RIVER, EAST OF 4TH AVE, SOUTH OF SWEETWATER ROAD, AT THE BORDER OF CHULA VISTA AND NATIONAL CITY.

Detailed Location:

Ecological:

HABITAT CONSISTS OF FRESHWATER/BRACKISH MARSH WITHIN THE FLOOD CONTROL CHANNEL (TYPHA, SCIRPUS), WITH SCATTERED CLUSTERS OF SALIX GOODDINGII, SALIX LASIOLEPIS, AND SALIX EXIGUA.

Threats:

THREATENED BY URBANIZATION.

General:

<4 CLAPPER RAILS OBSERVED MAY-JUNE 1997.

PLSS: T17S, R02W, Sec. 28 (S)
Accuracy: specific area
Area (acres): 19
UTM: Zone-11 N3613443 E491892
Latitude/Longitude: 32.65860 / -117.08646
Elevation (feet): 10

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

FAM97F0001 FAMOLARO, P. (SWEETWATER AUTHORITY) - FIELD SURVEY FORM FOR RALLUS LONGIROSTRIS LEVIPES 1997-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	37903	**EO Index:**	32910
Key Quad:	National City (3211761)	**Element Code:**	ABNME05014
Occurrence Number:	27	**Occurrence Last Updated:**	2006-04-05

Scientific Name: *Rallus obsoletus levipes*

Common Name: light-footed Ridgway's rail

Listing Status: **Federal:** Endangered
State: Endangered

CNDDB Element Ranks: **Global:** G3T1T2
State: S1

Rare Plant Rank:

Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

General Habitat:

FOUND IN SALT MARSHES TRAVERSED BY TIDAL SLOUGHS, WHERE CORDGRASS AND PICKLEWEED ARE THE DOMINANT VEGETATION.

Micro Habitat:

REQUIRES DENSE GROWTH OF EITHER PICKLEWEED OR CORDGRASS FOR NESTING OR ESCAPE COVER; FEEDS ON MOLLUSCS AND CRUSTACEANS.

Last Date Observed:	2005-04-13	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2005-04-13	**Occurrence Rank:**	Fair
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SWEETWATER RIVER FLOOD CONTROL CHANNEL, S OF THE I-805/HWY 54 INTERCHANGE, NEAR BONITA GOLF COURSE, SWEETWATER VALLEY.

Detailed Location:

1997: EAST OF I-805. 2002: NEAR & EAST OF I-805. 2003: EAST & WEST OF I-805. 2004: PAIR EAST OF I-805. 2005: FEMALE WEST & MALE EAST OF I-805.

Ecological:

HABITAT CONSISTS OF FRESHWATER/BRACKISH MARSH WITHIN THE FLOOD CONTROL CHANNEL (TYPHA, SCIRPUS), WITH SCATTERED CLUSTERS OF SALIX GOODDINGII, SALIX LASIOLEPIS, AND SALIX EXIGUA. DOMINANT EXOTIC PLANT IS TAMARIX SP.

Threats:

THREATENED BY URBANIZATION, VEGETATION SUCCESSION, INVASIVE PLANT SPECIES, VEGETATION/SOIL MOISTURE STRESS.

General:

2-4 CLAPPER RAILS DETECTED MAY-JUNE 1997. 1-2 ADULTS DETECTED ON 29 MAR & 12 APR 2002. 2 MALES ADVERTISING ON 28, 31 MAR, 8, 29 APR & 19 MAY 2003. PAIR OBS 18 MAR & 1 APR 2004. 1 FEMALE & 1 MALE OBS 29 MAR, 5 & 13 APR 2005.

PLSS:	T17S, R02W, Sec. 34 (S)	**Accuracy:**	non-specific area	**Area (acres):**	29
UTM:	Zone-11 N3613206 E493119	**Latitude/Longitude:**	32.65647 / -117.07337	**Elevation (feet):**	20

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

FAM02F0002	FAMOLARO, P. (SWEETWATER AUTHORITY) - FIELD SURVEY FORM FOR RALLUS LONGIROSTRIS LEVIPES 2002-XX-XX
FAM03F0001	FAMOLARO, P. (SWEETWATER CORPORATION) - FIELD SURVEY FORM FOR RALLUS LONGIROSTRIS LEVIPES 2003-04-XX
FAM04F0002	FAMOLARO, P. (SWEETWATER AUTHORITY) - FIELD SURVEY FORM FOR RALLUS LONGIROSTRIS LEVIPES 2004-04-01
FAM04R0001	FAMOLARO, P. (SWEETWATER AUTHORITY) - 2003 THREATENED AND ENDANGERED SPECIES MONITORING REPORT 2004-01-19
FAM05F0001	FAMOLARO, P. (SWEETWATER AUTHORITY) - FIELD SURVEY FORM FOR RALLUS LONGIROSTRIS LEVIPES 2005-04-13
FAM97F0001	FAMOLARO, P. (SWEETWATER AUTHORITY) - FIELD SURVEY FORM FOR RALLUS LONGIROSTRIS LEVIPES 1997-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	53722	**EO Index:**	53722
Key Quad:	National City (3211761)	**Element Code:**	ABNME05014
Occurrence Number:	30	**Occurrence Last Updated:**	2003-12-29

Scientific Name: *Rallus obsoletus levipes*

Common Name: light-footed Ridgway's rail

Listing Status: **Federal:** Endangered
State: Endangered

CNDDB Element Ranks: **Global:** G3T1T2
State: S1

Rare Plant Rank:

Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

General Habitat:

FOUND IN SALT MARSHES TRAVERSED BY TIDAL SLOUGHS, WHERE CORDGRASS AND PICKLEWEED ARE THE DOMINANT VEGETATION.

Micro Habitat:

REQUIRES DENSE GROWTH OF EITHER PICKLEWEED OR CORDGRASS FOR NESTING OR ESCAPE COVER; FEEDS ON MOLLUSCS AND CRUSTACEANS.

Last Date Observed:	2003-03-28	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-03-28	**Occurrence Rank:**	Fair
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SWEETWATER RIVER FLOOD CONTROL CHANNEL, JUST NORTH OF THE INTERSECTION OF I-805 AND BONITA ROAD, SWEETWATER VALLEY.

Detailed Location:

EAST OF BONITA MESA ROAD.

Ecological:

HABITAT CONSISTS OF TYPHA SP. AND SCIRPUS. THE DOMINANT EXOTIC PLANT IS TAMARIX SP.

Threats:

VEGETATION SUCCESSION, VEGETATION/SOIL MOISTURE STRESS.

General:

1 BIRD, SEX UNKNOWN, DETECTED ON 28 MAR 2003.

PLSS:	T17S, R02W, Sec. 35, W (S)	**Accuracy:**	1/10 mile	**Area (acres):**	0
UTM:	Zone-11 N3612560 E494062	**Latitude/Longitude:**	32.65064 / -117.06331	**Elevation (feet):**	30

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

FAM03F0001	FAMOLARO, P. (SWEETWATER CORPORATION) - FIELD SURVEY FORM FOR RALLUS LONGIROSTRIS LEVIPES 2003-04-XX
FAM04R0001	FAMOLARO, P. (SWEETWATER AUTHORITY) - 2003 THREATENED AND ENDANGERED SPECIES MONITORING REPORT 2004-01-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04173
EO Index: 72161
Key Quad: Imperial Beach (3211751)
Element Code: ABNME05014
Occurrence Number: 34
Occurrence Last Updated: 2008-05-07

Scientific Name: *Rallus obsoletus levipes*
Common Name: light-footed Ridgway's rail

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G3T1T2
State: S1

General Habitat:
FOUND IN SALT MARSHES TRAVERSED BY TIDAL SLOUGHS, WHERE CORDGRASS AND PICKLEWEED ARE THE DOMINANT VEGETATION.

Micro Habitat:
REQUIRES DENSE GROWTH OF EITHER PICKLEWEED OR CORDGRASS FOR NESTING OR ESCAPE COVER; FEEDS ON MOLLUSCS AND CRUSTACEANS.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
"J" STREET MARSH NEAR POWERPLANT AT SOUTH END OF SAN DIEGO BAY; JUST NORTH OF NE END WESTERN SALT PONDS.

Detailed Location:

Ecological:

Threats:

General:
1980 &'84-85: NOT SURVEYED. 1982-83, '86-99, '01-02 & '04-07: NO RAILS DETECTED. 1 PAIR OF RAILS DETECTED IN 1981, 2000 AND 2003.

PLSS: T18S, R02W, Sec. 09 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3609293 E491033
Latitude/Longitude: 32.62115 / -117.09558
Elevation (feet): 15

County Summary:
San Diego, Pacific Ocean

Quad Summary:
Imperial Beach (3211751)

Sources:
ZEM07R0001 ZEMBAL, R. ET AL. - STATUS AND DISTRIBUTION OF THE LIGHT-FOOTED CLAPPER RAIL IN CALIFORNIA, 2007. 2007-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1086
EO Index: 112974
Key Quad: National City (3211761)
Element Code: ABNME05014
Occurrence Number: 38
Occurrence Last Updated: 2018-10-11

Scientific Name: *Rallus obsoletus levipes*
Common Name: light-footed Ridgway's rail

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G3T1T2
State: S1

General Habitat:

FOUND IN SALT MARSHES TRAVERSED BY TIDAL SLOUGHS, WHERE CORDGRASS AND PICKLEWEED ARE THE DOMINANT VEGETATION.

Micro Habitat:

REQUIRES DENSE GROWTH OF EITHER PICKLEWEED OR CORDGRASS FOR NESTING OR ESCAPE COVER; FEEDS ON MOLLUSCS AND CRUSTACEANS.

Last Date Observed: 2017-06-01
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2017-06-01
Occurrence Rank: Good
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:

ALONG THE SWEETWATER RIVER ON BOTH SIDES OF THE WILLOW STREET BRIDGE.

Detailed Location:

MAPPED TO AREA OCCUPIED BY OBSERVED INDIVIDUALS, BASED ON LOCATION DESCRIPTION. "WITHIN 60 METERS UPSTREAM AND DOWNSTREAM OF MAPPED POINT WITHIN FRESHWATER MARSH HABITAT."

Ecological:

FRESHWATER MARSH AND WILLOW RIPARIAN WITH GOLF COURSE AND WALKING TRAIL TO E, SWEETWATER REGIONAL PARK TO THE W, RESIDENTIAL TO N AND COMMERCIAL TO S.

Threats:

VEHICLES, PEDESTRIANS, DOGS, PREDATORS. DETECTED ADJACENT TO AN ACTIVE CONSTRUCTION SITE.

General:

FAMILY GROUP OF 2 ADULTS AND 4 JUVENILES OBSERVED ON 9 VISITS, 9 MAY - 1 JUN 2017. ADULTS WERE FORAGING AND FEEDING YOUNG. NEST NOT FOUND.

PLSS: T17S, R02W, Sec. 25, SW (S)
Accuracy: specific area
Area (acres): 10
UTM: Zone-11 N3613506 E496067
Latitude/Longitude: 32.65919 / -117.04194
Elevation (feet): 59

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

JEN17F0001 JENKINS, C. - FIELD SURVEY FORM FOR RALLUS OBSOLETUS LEVIPES 2017-06-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04036
EO Index: 25769
Key Quad: Imperial Beach (3211751)
Element Code: ABNNB03031
Occurrence Number: 16
Occurrence Last Updated: 1998-12-18

Scientific Name: *Charadrius nivosus nivosus*
Common Name: western snowy plover

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G3T3
State: S2

General Habitat:

SANDY BEACHES, SALT POND LEVEES & SHORES OF LARGE ALKALI LAKES.

Micro Habitat:

NEEDS SANDY, GRAVELLY OR FRIABLE SOILS FOR NESTING.

Last Date Observed: 1978-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1978-XX-XX
Occurrence Rank: Unknown
Owner/Manager: USFWS-TIJUANA SLOUGH NWR
Trend: Unknown
Presence: Presumed Extant

Location:

TIJUANA RIVER MOUTH.

Detailed Location:

Ecological:

NESTING AREA IS A SAND SPIT, WHICH IS ALSO USED BY WINTERING BIRDS.

Threats:

General:

ONE NEST FOUND BY KRISTEN IN 1973; ONE NEST FOUND BY PAUL JORGENSEN IN 1977. 1978 STUDY FOUND APPROXIMATELY 19 PAIRS, ONE NEST, AND ONE BROOD.

PLSS: T18S, R02W, Sec. 31 (S)
Accuracy: non-specific area
Area (acres): 19
UTM: Zone-11 N3602185 E487823
Latitude/Longitude: 32.55700 / -117.12970
Elevation (feet): 5

County Summary:

San Diego, Pacific Ocean

Quad Summary:

Imperial Beach (3211751)

Sources:

FWS84R0009 U.S. FISH & WILDLIFE SERVICE - MANAGEMENT GUIDELINES FOR THE WESTERN SNOWY PLOVER. 1984-11-XX

PAG81R0001 PAGE, G. & L. STENZEL - THE BREEDING STATUS OF THE SNOWY PLOVER IN CALIFORNIA. WESTERN BIRDS, VOL. 12, NO. 1, PAGES 1-40. 1981-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03789
EO Index: 25767
Key Quad: Point Loma (3211762)
Element Code: ABNNB03031
Occurrence Number: 17
Occurrence Last Updated: 1989-08-10

Scientific Name: *Charadrius nivosus nivosus*
Common Name: western snowy plover

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G3T3
State: S2

General Habitat:
SANDY BEACHES, SALT POND LEVEES & SHORES OF LARGE ALKALI LAKES.

Micro Habitat:
NEEDS SANDY, GRAVELLY OR FRIABLE SOILS FOR NESTING.

Last Date Observed: 1979-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1979-XX-XX
Occurrence Rank: Unknown
Owner/Manager: SAN DIEGO INTERNATL AIRPORT
Trend: Unknown
Presence: Presumed Extant

Location:
LINDBERGH FIELD - SAN DIEGO INTL AIRPORT.

Detailed Location:

Ecological:

Threats:

General:
ONE NEST FOUND BY E. COOPER AND D. PARKER IN 1979.

PLSS: T16S, R03W, Sec. 33 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3621851 E481684
Latitude/Longitude: 32.73432 / -117.19548
Elevation (feet): 6

County Summary:
San Diego, Pacific Ocean

Quad Summary:
Point Loma (3211762)

Sources:

PAG81R0001 PAGE, G. & L. STENZEL - THE BREEDING STATUS OF THE SNOWY PLOVER IN CALIFORNIA. WESTERN BIRDS, VOL. 12, NO. 1, PAGES 1-40. 1981-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04103
EO Index: 25768
Key Quad: National City (3211761)
Element Code: ABNNB03031
Occurrence Number: 18
Occurrence Last Updated: 1989-08-10

Scientific Name: *Charadrius nivosus nivosus*
Common Name: western snowy plover

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G3T3
State: S2

General Habitat:

SANDY BEACHES, SALT POND LEVEES & SHORES OF LARGE ALKALI LAKES.

Micro Habitat:

NEEDS SANDY, GRAVELLY OR FRIABLE SOILS FOR NESTING.

Last Date Observed: 1978-06-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1978-06-XX
Occurrence Rank: Unknown
Owner/Manager: USFWS-SAN DIEGO BAY NWR
Trend: Unknown
Presence: Presumed Extant

Location:

MOUTH OF SWEETWATER RIVER.

Detailed Location:

Ecological:

NESTING AREA IS ESTUARINE MARGIN, WHICH IS ALSO USED BY WINTERING BIRDS.

Threats:

General:

3 MUSEUM EGG SETS COLLECTED FROM 1931-38. ADULTS REPORTED BY KRISTEN BENDER IN MAY-JUNE OF 1973 (9 PAIRS) AND BY PAUL JORGENSEN IN MAY-JUNE OF 1977. 20 ADULTS AND 5 BROODS REPORTED BY DENNIS PARKER IN 1978.

PLSS: T18S, R02W, Sec. 05 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3611631 E489333
Latitude/Longitude: 32.64223 / -117.11373
Elevation (feet): 1

County Summary:

San Diego, Pacific Ocean

Quad Summary:

National City (3211761)

Sources:

FWS84R0009 U.S. FISH & WILDLIFE SERVICE - MANAGEMENT GUIDELINES FOR THE WESTERN SNOWY PLOVER. 1984-11-XX

PAG81R0001 PAGE, G. & L. STENZEL - THE BREEDING STATUS OF THE SNOWY PLOVER IN CALIFORNIA. WESTERN BIRDS, VOL. 12, NO. 1, PAGES 1-40. 1981-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04130
EO Index: 13037
Key Quad: Imperial Beach (3211751)
Element Code: ABNNB03031
Occurrence Number: 19
Occurrence Last Updated: 2002-10-17

Scientific Name: *Charadrius nivosus nivosus*
Common Name: western snowy plover

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G3T3
State: S2

General Habitat:

SANDY BEACHES, SALT POND LEVEES & SHORES OF LARGE ALKALI LAKES.

Micro Habitat:

NEEDS SANDY, GRAVELLY OR FRIABLE SOILS FOR NESTING.

Last Date Observed: 1978-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1978-XX-XX
Occurrence Rank: Unknown
Owner/Manager: USFWS-SAN DIEGO BAY NWR, UNK
Trend: Unknown
Presence: Presumed Extant

Location:

SAN DIEGO BAY SALT WORKS.

Detailed Location:

Ecological:

NESTING AREA CONSISTS OF SALT EVAPORATORS.

Threats:

General:

ADULT BIRDS FOUND DURING MAY-JUNE 1973. TWO NESTS REPORTED BY B. MASSEY IN 1975. 20 NESTS (MAYBE SOME RE-NESTS) FOUND BY P. JORGENSEN DURING THE 1977 SURVEY. 16 PAIRS FOUND DURING THE 1978 SURVEY.

PLSS: T18S, R02W, Sec. 20 (S)
Accuracy: non-specific area
Area (acres): 1,332
UTM: Zone-11 N3606602 E490357
Latitude/Longitude: 32.59687 / -117.10276
Elevation (feet): 1

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

PAG81R0001 PAGE, G. & L. STENZEL - THE BREEDING STATUS OF THE SNOWY PLOVER IN CALIFORNIA. WESTERN BIRDS, VOL. 12, NO. 1, PAGES 1-40. 1981-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	99473	**EO Index:**	7439
Key Quad:	Point Loma (3211762)	**Element Code:**	ABNNB03031
Occurrence Number:	20	**Occurrence Last Updated:**	2016-03-25

Scientific Name: *Charadrius nivosus nivosus* **Common Name:** western snowy plover

Listing Status: **Federal:** Threatened

State: None

CNDDB Element Ranks: **Global:** G3T3

State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

General Habitat:

SANDY BEACHES, SALT POND LEVEES & SHORES OF LARGE ALKALI LAKES.

Micro Habitat:

NEEDS SANDY, GRAVELLY OR FRIABLE SOILS FOR NESTING.

Last Date Observed:	2016-01-27	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-01-27	**Occurrence Rank:**	Good
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH ISLAND NAVAL AIR STATION; INCLUDING BEACH ON SOUTH SIDE OF STATION AND PORTIONS OF AIRFIELD.

Detailed Location:

2015: BREEDING AREAS INCLUDED ALL BEACH ON THE OCEAN SIDE (NORTH ISLAND OCEANSIDE), PORTIONS OF THE AIRFIELD (NORTH ISLAND AIRFIELD) AND ONCE FENCED AREA INLAND (MAT SITE). MAPPED TO LOCATIONS GIVEN IN 2006 REPORT & 2015 FIELD SURVEY FORM.

Ecological:

OPEN SAND BEACH AND DUNES WITH ~30% VEGETATIVE COVER INCL. ICE PLANT, SAND VERBENA, & SEA ROCKET; AND PAVED, ACTIVE AIRFIELD. DISTURBANCE FROM MILITARY TRAINING & RECREATIONISTS. USED FOR BREEDING AND OVERWINTERING.

Threats:

HUMAN DISTURBANCE, PREDATORS (2015).

General:

TWO NESTS FOUND IN 1979. 3 NESTS HATCHED UP TO 8 CHICKS, 1994. 30 NESTS HATCHED 36 CHICKS, 2005. 27 ADULTS & 62 JUVENILES OBSERVED 2 MAR-15 SEP 2015. OVERWINTERING FLOCK OF ~67 OBS SEP 2015-JAN 2016.

PLSS:	T17S, R03W, Sec. 21 (S)	**Accuracy:**	non-specific area	**Area (acres):**	162
UTM:	Zone-11 N3616715 E480519	**Latitude/Longitude:**	32.68797 / -117.20780	**Elevation (feet):**	20

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

BOY15F0008	BOYLAN, J. - FIELD SURVEY FORM FOR CHARADRIUS ALEXANDRINUS NIVOSUS [SC-012995] 2015-09-15
BOY16F0001	BOYLAN, J. - FIELD SURVEY FORM FOR CHARADRIUS ALEXANDRINUS NIVOSUS 2016-01-27
COP06U0001	COPPER, E. - SUMMARY REPORT, BREEDING SEASON MONITORING OF CALIFORNIA LEAST TERNS AND WESTERN SNOWY PLOVERS AT SAN DIEGO NAVY SITES IN 2005. 2006-02-24
PAG81R0001	PAGE, G. & L. STENZEL - THE BREEDING STATUS OF THE SNOWY PLOVER IN CALIFORNIA. WESTERN BIRDS, VOL. 12, NO. 1, PAGES 1-40. 1981-XX-XX
POW95R0001	POWELL, A.N., C.L. COLLIER & B. PETERSON - THE STATUS OF WESTERN SNOWY PLOVERS (CHARADRIUS ALEXANDRINUS NIVOSUS) IN SAN DIEGO COUNTY, 1995. 1995-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04013
EO Index: 25714
Key Quad: Imperial Beach (3211751)
Element Code: ABNNB03031
Occurrence Number: 116
Occurrence Last Updated: 1995-12-12

Scientific Name: *Charadrius nivosus nivosus*
Common Name: western snowy plover

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G3T3
State: S2

General Habitat:

SANDY BEACHES, SALT POND LEVEES & SHORES OF LARGE ALKALI LAKES.

Micro Habitat:

NEEDS SANDY, GRAVELLY OR FRIABLE SOILS FOR NESTING.

Last Date Observed: 1988-06-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1988-06-15
Occurrence Rank: Unknown
Owner/Manager: DPR-SILVER STRAND SB
Trend: Unknown
Presence: Presumed Extant

Location:

SILVER STRAND NATURAL PRESERVE, LOCATED WITHIN SILVER STRAND STATE BEACH.

Detailed Location:

Ecological:

Threats:

THREATS INCLUDE RAVENS, FOOT TRAFFIC, AND FUTURE STORM DAMAGE.

General:

ONE ADULT AND THREE YOUNG OBSERVED APPROXIMATELY 100-200 YARDS SOUTH OF PARK ENTRANCE STATION. SITE DISTURBED BY OVERWASH FROM STORMS AND HIGH TIDES DURING JANUARY 1988. AREA LIGHTLY USED BY VISITORS FOR SUNBATHING.

PLSS: T18S, R03W, Sec. 12 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3609297 E487123
Latitude/Longitude: 32.62115 / -117.13726
Elevation (feet):

County Summary:

San Diego, Pacific Ocean

Quad Summary:

Imperial Beach (3211751)

Sources:

HAW88F0001 HAWLEY, R. & S. WESTOVER - FIELD SURVEY FORM FOR NEST OF SNOWY PLOVER ON SILVER STRAND STATE BEACH 1988-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 99535
EO Index: 101080
Key Quad: Imperial Beach (3211751)
Element Code: ABNNB03031
Occurrence Number: 145
Occurrence Last Updated: 2016-03-30

Scientific Name: *Charadrius nivosus nivosus*
Common Name: western snowy plover

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3T3
State: S2

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

General Habitat:

SANDY BEACHES, SALT POND LEVEES & SHORES OF LARGE ALKALI LAKES.

Micro Habitat:

NEEDS SANDY, GRAVELLY OR FRIABLE SOILS FOR NESTING.

Last Date Observed: 2016-01-27
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2016-01-27
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVAL BASE CORONADO
Trend: Unknown
Presence: Presumed Extant

Location:

OCEAN BEACH BETWEEN HWY 75 AT HOOPER BLVD & CARNATION AVE; SILVER STRAND TRAINING COMPLEX SOUTH, NAVAL BASE CORONADO.

Detailed Location:

MAPPED TO NESTING AREA, "ALL BEACH ADJACENT TO THE TRAINING COMPLEX ON THE OCEAN SIDE."

Ecological:

OPEN SAND BEACH AND DUNES WITH ABOUT 30% VEGETATIVE COVER IN ICE PLAND, SAND VERBENA, AND OTHER NATIVE AND NON-NATIVE PLANTS. AREA USED FOR MILITARY TRAINING & BEACH RECREATION.

Threats:

HUMAN DISTURBANCE, PREDATION BY RAPTORS (2015).

General:

1 NEST PRODUCED 3 EGGS IN 1994. NONE OBSERVED, 1995. 8 NESTS FLEDGED AN ESTIMATED 6 YOUNG IN 2005. BREEDING COLONY OF 8 ADULTS & 17 JUVENILES OBSERVED, MAR-SEP 2015. WINTERING FLOCKS FLUCTUATING FROM 0-57 OBSERVED IN 2015-16.

PLSS: T18S, R02W, Sec. 19 (S)
Accuracy: non-specific area
Area (acres): 74
UTM: Zone-11 N3606718 E487546
Latitude/Longitude: 32.59788 / -117.13271
Elevation (feet): 10

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

BOY15F0010	BOYLAN, J. - FIELD SURVEY FORM FOR CHARADRIUS ALEXANDRINUS NIVOSUS [SC-012995] 2015-09-14
BOY16F0002	BOYLAN, J. - FIELD SURVEY FORM FOR CHARADRIUS ALEXANDRINUS NIVOSUS [SC-012995] 2016-01-27
COP06U0001	COPPER, E. - SUMMARY REPORT, BREEDING SEASON MONITORING OF CALIFORNIA LEAST TERNS AND WESTERN SNOWY PLOVERS AT SAN DIEGO NAVY SITES IN 2005. 2006-02-24
POW95R0001	POWELL, A.N., C.L. COLLIER & B. PETERSON - THE STATUS OF WESTERN SNOWY PLOVERS (CHARADRIUS ALEXANDRINUS NIVOSUS) IN SAN DIEGO COUNTY, 1995. 1995-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 99968
EO Index: 101515
Key Quad: Point Loma (3211762)
Element Code: ABNNB03031
Occurrence Number: 146
Occurrence Last Updated: 2016-05-10

Scientific Name: *Charadrius nivosus nivosus*
Common Name: western snowy plover

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G3T3
State: S2

General Habitat:

SANDY BEACHES, SALT POND LEVEES & SHORES OF LARGE ALKALI LAKES.

Micro Habitat:

NEEDS SANDY, GRAVELLY OR FRIABLE SOILS FOR NESTING.

Last Date Observed: 2015-09-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2015-09-14
Occurrence Rank: Unknown
Owner/Manager: DOD-CORONADO NAVAL AMPH BASE
Trend: Unknown
Presence: Presumed Extant

Location:

FROM ABOUT 0.1 MI NW OF CROWN COVE, NORTH TO DELTA BEACH, NAVAL AMPHIBIOUS BASE CORONADO, SAN DIEGO.

Detailed Location:

"US NAVY'S NAVAL AMPHIBIOUS BASE. WESTERN SNPL BREEDING AREAS INCLUDED ALL BEACH ON THE OCEAN SIDE (NAVAL AMPHIBIOUS BASE NORTH AND SOUTH) AND ONE FENCED BEACH ON THE BAY SIDE (DELTA BEACH SOUTH)."

Ecological:

OPEN SAND BEACH AND DUNES WITH ~30% VEGETATIVE COVER; PRIMARILY IN ICE PLANT (CARPOBROTUS EDULIS), SAND VERBENA (ABRONIA UMBELLATA), SEA ROCKET (CAKILE MARITIMA) AND OTHER NATIVE AND NON-NATIVE DUNE PLANTS.

Threats:

DISTURBANCE FROM MILITARY TRAINING & RECREATION.

General:

BREEDING COLONY OF ABOUT 54 ADULTS AND 140 JUVENILES MONITORED FROM 2 MAR TO 14 SEP 2015. AREA ALSO USED BY WINTERING FLOCKS.

PLSS: T17S, R03W, Sec. 36 (S)
Accuracy: non-specific area
Area (acres): 354
UTM: Zone-11 N3612784 E485755
Latitude/Longitude: 32.65259 / -117.1519
Elevation (feet): 16

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

BOY15F0005 BOYLAN, J. - FIELD SURVEY FORM FOR CHARADRIUS ALEXANDRINUS NIVOSUS [SC-012995] 2015-01-27

BOY15F0006 BOYLAN, J. - FIELD SURVEY FORM FOR CHARADRIUS ALEXANDRINUS NIVOSUS [SC-012995] 2015-09-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03719
EO Index: 25686
Key Quad: La Jolla (3211772)
Element Code: ABNNM08103
Occurrence Number: 29
Occurrence Last Updated: 1998-12-02

Scientific Name: *Sternula antillarum browni*
Common Name: California least tern

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G4T2T3Q
State: S2

General Habitat:

NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Micro Habitat:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.

Last Date Observed: 1996-07-10
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1996-07-10
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Fluctuating
Presence: Presumed Extant

Location:

F.A.A. ISLAND IN MISSION BAY.

Detailed Location:

Ecological:

Threats:

PREDATION FROM KESTRELS AND PEREGRINE FALCONS IS A CONTINUING AND SERIOUS PROBLEM.

General:

1973-84: MEAN OF 68 PRS/YR (UP TO 150 PRS IN SOME YRS); NO NESTING IN 1985; 1986: 49-61 PRS FLEDGED 18-25 YOUNG; 1987: 25 PRS FLEDGED 3 YOUNG; 1988: 37 PRS FLEDGED 50 YOUNG. 1991: 125 PRS, 124 FLEDGED; 1996: >188 PRS, <3 FLEDGED.

PLSS: T99X, R99X, Sec. UN (X)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3627157 E478912
Latitude/Longitude: 32.78214 / -117.22518
Elevation (feet):

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

ATW77R0001	ATWOOD, J.L. ET AL. - CALIFORNIA LEAST TERN CENSUS & NESTING SURVEY, 1977, CALIFORNIA DEPARTMENT OF FISH & GAME, 1977. 1977-XX-XX
CAF98R0001	CAFFREY, C. - CALIFORNIA LEAST TERN BREEDING SURVEY 1996 SEASON. BIRD AND MAMMAL CONSERVATION PROGRAM REPORT, 98-2. 1998-XX-XX
COL87R0001	COLLINS, C.T. - END OF SEASON REPORT, CALIFORNIA LEAST TERN FIELD STUDY, 1987 FIELD SEASON. (DRAFT) 1987-XX-XX
ERI85R0001	ERICKSON, R.A. - ECOLOGICAL CHARACTERISTICS OF LEAST TERN COLONY SITES IN CALIFORNIA. THESIS AT CSU HAYWARD. 1985-XX-XX
JOH92R0001	JOHNSTON, S.M. & B.S. OBST - CALIFORNIA LEAST TERN BREEDING SURVEY 1991 SEASON. NONGAME BIRD AND MAMMAL SECTION REPORT, 92-06. 1992-XX-XX
MAS88R0001	MASSEY, B.W. - CALIFORNIA LEAST TERN FIELD STUDY, 1988 BREEDING SEASON. 1988-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03740
EO Index: 25682
Key Quad: La Jolla (3211772)
Element Code: ABNNM08103
Occurrence Number: 30
Occurrence Last Updated: 1998-12-02

Scientific Name: *Sternula antillarum browni*
Common Name: California least tern

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G4T2T3Q
State: S2

General Habitat:

NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Micro Habitat:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.

Last Date Observed: 1996-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1996-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Fluctuating
Presence: Presumed Extant

Location:

NORTH END OF FIESTA ISLAND ON MISSION BAY.

Detailed Location:

1996: NUMBERS REMAIN LOW RELATIVE TO HISTORICAL USE & POTENTIAL OF THE SITE.

Ecological:

THIS AREA USED AS BOTH A NESTING AREA & AS A POST-BREEDING STAGING AREA. SITE NEEDS INTENSIFIED MONITORING & PREDATOR MANAGEMENT.

Threats:

PREDATORS AND ANTS.

General:

NESTING FROM 1973-83; 65 PRS IN 1983, BUT 0 FLEDGED DUE TO PREDATION & DISTURBANCE. NO NESTING UNTIL 1986, WHEN 4 PRS FLEDGED 0-4; NO NESTING 1987, 1988, 1990 OR 1991. 1992: 5 PRS FLEDGED 2. 1995: 12 PRS. 1996: 11 PRS, 4-5 FLEDGED.

PLSS: T16S, R03W, Sec. 17 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3627760 E479863
Latitude/Longitude: 32.78759 / -117.21504
Elevation (feet): 10

County Summary:

San Diego, Pacific Ocean

Quad Summary:

La Jolla (3211772)

Sources:

ATW77R0001 ATWOOD, J.L. ET AL. - CALIFORNIA LEAST TERN CENSUS & NESTING SURVEY, 1977, CALIFORNIA DEPARTMENT OF FISH & GAME, 1977. 1977-XX-XX

CAF93R0001 CAFFREY, C. - CALIFORNIA LEAST TERN BREEDING SURVEY 1992 SEASON. NONGAME BIRD AND MAMMAL SECTION REPORT, 93-11. 1993-XX-XX

CAF98R0001 CAFFREY, C. - CALIFORNIA LEAST TERN BREEDING SURVEY 1996 SEASON. BIRD AND MAMMAL CONSERVATION PROGRAM REPORT, 98-2. 1998-XX-XX

COL87R0001 COLLINS, C.T. - END OF SEASON REPORT, CALIFORNIA LEAST TERN FIELD STUDY, 1987 FIELD SEASON. (DRAFT) 1987-XX-XX

ERI85R0001 ERICKSON, R.A. - ECOLOGICAL CHARACTERISTICS OF LEAST TERN COLONY SITES IN CALIFORNIA. THESIS AT CSU HAYWARD. 1985-XX-XX

JOH92R0001 JOHNSTON, S.M. & B.S. OBST - CALIFORNIA LEAST TERN BREEDING SURVEY 1991 SEASON. NONGAME BIRD AND MAMMAL SECTION REPORT, 92-06. 1992-XX-XX

MAS88R0001 MASSEY, B.W. - CALIFORNIA LEAST TERN FIELD STUDY, 1988 BREEDING SEASON. 1988-XX-XX

OBS92R0001 OBST, B.S. & S.M. JOHNSTON - CALIFORNIA LEAST TERN BREEDING SURVEY 1990 SEASON. NONGAME BIRD AND MAMMAL SECTION REPORT, 92-05. 1992-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03760	**EO Index:**	8380
Key Quad:	Point Loma (3211762)	**Element Code:**	ABNNM08103
Occurrence Number:	31	**Occurrence Last Updated:**	1996-02-15

Scientific Name: *Sternula antillarum browni*

Common Name: California least tern

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank:

Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G4T2T3Q

State: S2

General Habitat:

NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Micro Habitat:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.

Last Date Observed:	1988-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1988-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVAL TRAINING CENTER	**Trend:**	Fluctuating
Presence:	Presumed Extant		

Location:

U.S. NAVAL TRAINING CENTER, JUST WEST OF THE SAN DIEGO INTERNATIONAL AIRPORT.

Detailed Location:

NESTING COLONY IS LOCATED ON A 10-ACRE SITE IN THE NE PORTION OF THE "SOUTH FORTY ACREAGE." PREVIOUSLY, THE TERNS NESTED SOUTH OF THIS LOCATION, JUST OFF HARBOR DRIVE.

Ecological:

NESTING HABITAT CREATED IN 1987 BY PLACING SANDY DREDGE MATERIAL ON THE SITE AND GRADING IT TO SIMULATE SANDY BEACH CONDITIONS. A 6-INCH HIGH CHICK BARRIER WAS INSTALLED AROUND THE SITE TO PREVENT CHICKS FROM ENTERING UNPROTECTED AREAS.

Threats:

THE MAIN THREATS ARE PREDATION BY FERAL CATS AND NATURAL AVIAN PREDATORS.

General:

35-40 PAIRS FLEDGED 25 YOUNG IN 1977; 8-12 PAIRS FLEDGED 5 IN 1978; NO NESTING 1979-1985; 6 PAIRS FLEDGED 6 IN 1986; 11 NESTING PAIRS NOTED IN 1987, BUT NO FLEDGLINGS WERE PRODUCED; IN 1988, ONE PAIR PRODUCED ONE FLEDGLING.

PLSS:	T16S, R03W, Sec. 33 (S)	**Accuracy:**	non-specific area	**Area (acres):**	15
UTM:	Zone-11 N3621891 E480691	**Latitude/Longitude:**	32.73467 / -117.20608	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

ATW77R0001	ATWOOD, J.L. ET AL. - CALIFORNIA LEAST TERN CENSUS & NESTING SURVEY, 1977, CALIFORNIA DEPARTMENT OF FISH & GAME, 1977. 1977-XX-XX
COP86R0001	COPPER, E. - A STUDY OF THE BREEDING BIOLOGY AND FORAGING OF THE CALIFORNIA LEAST TERN, SAN DIEGO BAY. CONTRACT #N62474-86-M-0997 FOR WES DIV NAV FAC ENG COM, SAN BRUNO, CA. 1986-03-XX
WAG90R0001	WAGONER, R.B. - EXCERPT FROM: "NATURAL RESOURCE MANAGEMENT PLAN, NAVAL TRAINING STATION, NAVAL TRAINING CENTER, SAN DIEGO, CALIFORNIA" 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03816	**EO Index:**	13022
Key Quad:	Point Loma (3211762)	**Element Code:**	ABNNM08103
Occurrence Number:	32	**Occurrence Last Updated:**	1998-01-16

Scientific Name: *Sternula antillarum browni*

Common Name: California least tern

Listing Status: **Federal:** Endangered

State: Endangered

CNDDB Element Ranks: **Global:** G4T2T3Q

State: S2

Rare Plant Rank:

Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

General Habitat:

NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Micro Habitat:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.

Last Date Observed:	1988-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1988-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	SAN DIEGO UNIFIED PORT DIST	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SAN DIEGO AIRPORT (AKA LINDBERGH FIELD).

Detailed Location:

Ecological:

Threats:

AIRPORT CONSTRUCTION AND PREDATION ARE PROBLEMS.

General:

TERNS HAVE NESTED HERE SINCE 1969; NUMBERS HAVE VARIED FROM 0 TO A HIGH OF 135 PAIRS, IN 1972. IN RECENT YEARS, BREEDING PAIRS WERE 0 IN 1985, AND INCREASED EVERY YEAR, WITH 80 PAIRS AND 30 YOUNG FLEDGED IN 1988.

PLSS:	T16S, R03W, Sec. 34 (S)	**Accuracy:**	1 mile	**Area (acres):**	0
UTM:	Zone-11 N3621768 E482682	**Latitude/Longitude:**	32.73359 / -117.18482	**Elevation (feet):**	15

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

ATW77R0001	ATWOOD, J.L. ET AL. - CALIFORNIA LEAST TERN CENSUS & NESTING SURVEY, 1977, CALIFORNIA DEPARTMENT OF FISH & GAME, 1977. 1977-XX-XX
ATW79R0001	ATWOOD, J.L. ET AL. - CALIFORNIA LEAST TERN CENSUS & NESTING SURVEY, 1978, CALIFORNIA DEPARTMENT OF FISH & GAME, 1979. 1979-XX-XX
COPNDR0001	COPPER, E. - SUMMARY OF BREEDING SEASONS 1978-1981, AND REPORT ON LEAST TERN BREEDING SEASON IN SAN DIEGO COUNTY, 1979. XXXX-XX-XX
ERI85R0001	ERICKSON, R.A. - ECOLOGICAL CHARACTERISTICS OF LEAST TERN COLONY SITES IN CALIFORNIA. THESIS AT CSU HAYWARD. 1985-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03872
EO Index: 25680
Key Quad: Point Loma (3211762)
Element Code: ABNNM08103
Occurrence Number: 33
Occurrence Last Updated: 1996-01-11

Scientific Name: *Sternula antillarum browni*
Common Name: California least tern

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G4T2T3Q
State: S2

General Habitat:

NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Micro Habitat:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.

Last Date Observed: 1977-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1977-XX-XX
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:

N SAN DIEGO BAY, FIFTH AVE MARINA, OFF OF HARBOR DR S OF THE MARKET ST POLICE STATION.

Detailed Location:

Ecological:

Threats:

SOME HUMAN DISTURBANCE, SONCE THIS IS A PUBLIC AREA.

General:

17 PAIRS FLEDGED 6 YOUNG FROM NESTS ON NW AREA OF SAND FILL; THERE WAS EXTENSIVE RENESTING. TERNS NESTED HERE ONLY ONE YEAR.

PLSS: T17S, R03W, Sec. 11 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3618848 E484063
Latitude/Longitude: 32.70727 / -117.17004
Elevation (feet):

County Summary:

San Diego, Pacific Ocean

Quad Summary:

Point Loma (3211762)

Sources:

ATW77R0001	ATWOOD, J.L. ET AL. - CALIFORNIA LEAST TERN CENSUS & NESTING SURVEY, 1977, CALIFORNIA DEPARTMENT OF FISH & GAME, 1977. 1977-XX-XX
ERI85R0001	ERICKSON, R.A. - ECOLOGICAL CHARACTERISTICS OF LEAST TERN COLONY SITES IN CALIFORNIA. THESIS AT CSU HAYWARD. 1985-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03771	**EO Index:**	25678
Key Quad:	Point Loma (3211762)	**Element Code:**	ABNNM08103
Occurrence Number:	34	**Occurrence Last Updated:**	2016-03-30

Scientific Name: *Sternula antillarum browni*

Common Name: California least tern

Listing Status: **Federal:** Endangered

State: Endangered

CNDDB Element Ranks: **Global:** G4T2T3Q

State: S2

Rare Plant Rank:

Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

General Habitat:

NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Micro Habitat:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.

Last Date Observed:	2015-08-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-08-26	**Occurrence Rank:**	Good
Owner/Manager:	DOD-NORTH ISLAND NAS	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

HELICOPTER MAT AT NW CORNER OF READ RD & MCCAIN W BLVD AND AIRFIELD TO THE W; NORTH ISLAND NAVAL AIR STATION, SAN DIEGO.

Detailed Location:

UP TO 1977, TERNS NESTED JUST N OF INTERSECTION OF THE MAIN RUNWAYS; SINCE, TERNS HAVE NESTED AT "MAT." 2015: BREEDING AREA INCLUDED FENCED "MAT SITE" (E POLYGON) & PORTIONS OF AIRFIELD "NIA18" IN TRS SEC 8 (W POLY, EXACT LOCATION UNKNOWN).

Ecological:

NEST SITE SINCE LATE 1960S. MAT: FENCED, SAND-COVERED AREA ADJACENT TO AIRFIELD; 10% VEGETATIVE COVER (SEA ROCKET); SUBSTRATE ENHANCEMENT, PREDATOR CONTROL & FENCING HAVE IMPROVED SITE. NIA18: PAVED, ACTIVE AIRFIELD.

Threats:

HUMAN DISTURBANCE, PREDATION (2015).

General:

PAIRS/# FLEDGLINGS/YEAR: 36/0/1978, 75/60/'79, 100/6/'80, 60/5/'81, 61/25/'82, 60/90/'83, 60/40/'84, 76/25/'85, 35/0/'86, 128/85/2000, 162/6/'04, 126/25/'05, 83/25/'11. 58 ADULTS & 25 JUVS OBSERVED 26 AUG 2015.

PLSS:	T17S, R03W, Sec. 09 (S)	**Accuracy:**	non-specific area	**Area (acres):**	303
UTM:	Zone-11 N3618564 E480845	**Latitude/Longitude:**	32.70465 / -117.20436	**Elevation (feet):**	18

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

ATW77R0001	ATWOOD, J.L. ET AL. - CALIFORNIA LEAST TERN CENSUS & NESTING SURVEY, 1977, CALIFORNIA DEPARTMENT OF FISH & GAME, 1977. 1977-XX-XX
BOY15F0007	BOYLAN, J. - FIELD SURVEY FORM FOR STERNULA ANTILLARUM BROWNI 2015-08-26
COP06U0001	COPPER, E. - SUMMARY REPORT, BREEDING SEASON MONITORING OF CALIFORNIA LEAST TERNS AND WESTERN SNOWY PLOVERS AT SAN DIEGO NAVY SITES IN 2005. 2006-02-24
COP86R0001	COPPER, E. - A STUDY OF THE BREEDING BIOLOGY AND FORAGING OF THE CALIFORNIA LEAST TERN, SAN DIEGO BAY. CONTRACT #N62474-86-M-0997 FOR WES DIV NAV FAC ENG COM, SAN BRUNO, CA. 1986-03-XX
JOR81R0001	JORGENSEN, P. - THE LEAST TERN NEST SEASON ON NAS NORTH ISLAND, 1981 AND PROPOSED MANAGEMENT FOR 1982; A YEARLY REPORT. 1981-08-XX
MAR05R0001	MARSCHALEK, D. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - CALIFORNIA LEAST TERN BREEDING SURVEY, 2004 SEASON 2005-02-28
MAR12R0005	MARSCHALEK, D. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - CALIFORNIA LEAST TERN BREEDING SURVEY, 2011 SEASON 2012-08-02
PAT01R0001	PATTON, R. - CALIFORNIA LEAST TERN BREEDING SURVEY, 2000 SEASON 2001-02-15
PAT84R0001	PATTON, R. & B. FOSTER - OBSERVATION AND MANAGEMENT OF THE CA LEAST TERN SITE, NAVAL AIR STATION, N. ISLAND, SAN DIEGO. REPORT PREPARED FOR THE NATURAL RESOURCES OFFICE, NASNI - CONTRACT NO. 0246-84M-1334. 1984-11-XX
PAT87R0001	PATTERSON, C. - A SURVEY OF VERNAL POOLS AT CAMP PENDLETON MARINE CORPS BASE, UNPUBLISHED REPORT PREPARED FOR NATURAL RESOURCES OFFICE, CAMP PENDLETON. RECON NO. R-1419A. 28 PAGES 1987-09-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04113
EO Index: 25677
Key Quad: National City (3211761)
Element Code: ABNNM08103
Occurrence Number: 35
Occurrence Last Updated: 2000-10-12

Scientific Name: *Sternula antillarum browni*
Common Name: California least tern

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G4T2T3Q
State: S2

General Habitat:

NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Micro Habitat:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.

Last Date Observed: 1997-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1997-XX-XX
Occurrence Rank: Unknown
Owner/Manager: USFWS-SAN DIEGO BAY NWR
Trend: Fluctuating
Presence: Presumed Extant

Location:

SWEETWATER RIVER MOUTH/D STREET FILL AREA.

Detailed Location:

Ecological:

Threats:

PREDATION BY NATIVE AND NON-NATIVE PREDATORS.

General:

1978 47 PR/15 FLEDGED; '79 24/15; '80 12/0; '81 NO NESTING; '82 1/2; '83 1/0; '84 16/15; '85 43/0; '86 5-6/7+; '87 28/10; '88 19/0; '90 NO NESTING; '91 45 -47/38-42; '92 135/14 -24; '95 26/22-28; '96 25/15-35; '97 38/7.

PLSS: T17S, R02W, Sec. 32 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3611850 E489628
Latitude/Longitude: 32.64421 / -117.11059
Elevation (feet):

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

ATW77R0001	ATWOOD, J.L. ET AL. - CALIFORNIA LEAST TERN CENSUS & NESTING SURVEY, 1977, CALIFORNIA DEPARTMENT OF FISH & GAME, 1977. 1977-XX-XX
ATW79R0001	ATWOOD, J.L. ET AL. - CALIFORNIA LEAST TERN CENSUS & NESTING SURVEY, 1978, CALIFORNIA DEPARTMENT OF FISH & GAME, 1979. 1979-XX-XX
CAF93R0001	CAFFREY, C. - CALIFORNIA LEAST TERN BREEDING SURVEY 1992 SEASON. NONGAME BIRD AND MAMMAL SECTION REPORT, 93-11. 1993-XX-XX
CAF98R0001	CAFFREY, C. - CALIFORNIA LEAST TERN BREEDING SURVEY 1996 SEASON. BIRD AND MAMMAL CONSERVATION PROGRAM REPORT, 98-2. 1998-XX-XX
COL87R0001	COLLINS, C.T. - END OF SEASON REPORT, CALIFORNIA LEAST TERN FIELD STUDY, 1987 FIELD SEASON. (DRAFT) 1987-XX-XX
COP86R0001	COPPER, E. - A STUDY OF THE BREEDING BIOLOGY AND FORAGING OF THE CALIFORNIA LEAST TERN, SAN DIEGO BAY. CONTRACT #N62474-86-M-0997 FOR WES DIV NAV FAC ENG COM, SAN BRUNO, CA. 1986-03-XX
ERI85R0001	ERICKSON, R.A. - ECOLOGICAL CHARACTERISTICS OF LEAST TERN COLONY SITES IN CALIFORNIA. THESIS AT CSU HAYWARD. 1985-XX-XX
JOH92R0001	JOHNSTON, S.M. & B.S. OBST - CALIFORNIA LEAST TERN BREEDING SURVEY 1991 SEASON. NONGAME BIRD AND MAMMAL SECTION REPORT, 92-06. 1992-XX-XX
JUR97U0001	JUREK, R. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - OWNERSHIP OF SITES OF CALIFORNIA LEAST TERN BREEDING COLONIES ACTIVE DURING 1991-1997. 1997-11-14
KEA97R0001	KEANE, K. - CALIFORNIA LEAST TERN BREEDING SURVEY 1997 SEASON. CALIF. DEPT. OF FISH & GAME, WILDLIFE MANAGEMENT DIV., BIRD AND MAMMAL CONSERVATION PROGRAM REP. 98-12, SACRAMENTO, CA 46 PP. 1997-XX-XX
MAS88R0001	MASSEY, B.W. - CALIFORNIA LEAST TERN FIELD STUDY, 1988 BREEDING SEASON. 1988-XX-XX
OBS92R0001	OBST, B.S. & S.M. JOHNSTON - CALIFORNIA LEAST TERN BREEDING SURVEY 1990 SEASON. NONGAME BIRD AND MAMMAL SECTION REPORT, 92-05. 1992-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 99467
EO Index: 29212
Key Quad: Point Loma (3211762)
Element Code: ABNNM08103
Occurrence Number: 36
Occurrence Last Updated: 2016-03-24

Scientific Name: *Sternula antillarum browni*
Common Name: California least tern

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G4T2T3Q
State: S2

General Habitat:

NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Micro Habitat:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.

Last Date Observed: 1979-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1979-XX-XX
Occurrence Rank: None
Owner/Manager: PVT
Trend: Unknown
Presence: Extirpated

Location:

CROWN ISLAND (=CROWN ISLE), CORONADO CAYS, SAN DIEGO.

Detailed Location:

MAPPED TO CROWN ISLAND, NOW LOEWS CORONADO BAY RESORT.

Ecological:

CROWN ISLE CREATED FROM FILL ~1978; USED FOR NESTING & POST-BREEDING STAGING AREA; ORIGINAL SITE BELIEVED LOST TO DEVELOPMENT IN 1980.

Threats:

DEVELOPMENT.

General:

IN 1978, 8-10 PAIRS FLEDGED 10 YOUNG. IN 1979, 38-40 PAIRS FLEDGED 7 YOUNG. SITE WAS LOST TO DEVELOPMENT BEFORE THE 1980 BREEDING SEASON.

PLSS: T99X, R99X, Sec. UN (X)
Accuracy: non-specific area
Area (acres): 16
UTM: Zone-11 N3610487 E487418
Latitude/Longitude: 32.63188 / -117.13413
Elevation (feet): 10

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

ATW79R0001	ATWOOD, J.L. ET AL. - CALIFORNIA LEAST TERN CENSUS & NESTING SURVEY, 1978, CALIFORNIA DEPARTMENT OF FISH & GAME, 1979. 1979-XX-XX
COPNDR0001	COPPER, E. - SUMMARY OF BREEDING SEASONS 1978-1981, AND REPORT ON LEAST TERN BREEDING SEASON IN SAN DIEGO COUNTY, 1979. XXXX-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04025
EO Index: 25676
Key Quad: Imperial Beach (3211751)
Element Code: ABNNM08103
Occurrence Number: 37
Occurrence Last Updated: 1996-01-11

Scientific Name: *Sternula antillarum browni*
Common Name: California least tern

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G4T2T3Q
State: S2

General Habitat:

NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Micro Habitat:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.

Last Date Observed: 1977-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1978-XX-XX
Occurrence Rank: None
Owner/Manager: PVT
Trend: Unknown
Presence: Extirpated

Location:

CORONADO CAYS IN HOUSING DEVELOPMENT EAST OF SILVER STRAND BLVD, NORTH OF US NAVAL RADIO STATION.

Detailed Location:

Ecological:

Threats:

General:

SITE WAS DISCOVERED IN 1974, WHEN 6 PAIRS NESTED; NO NESTING IN 1975 OR 1976; IN 1977, 17 PAIRS FLEDGED 7 YOUNG. SITE LOST TO DEVELOPMENT IN 1978.

PLSS: T18S, R02W, Sec. 07 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3609668 E487540
Latitude/Longitude: 32.62450 / -117.13282
Elevation (feet): 10

County Summary:

San Diego, Pacific Ocean

Quad Summary:

Imperial Beach (3211751), Point Loma (3211762)

Sources:

ATW77R0001	ATWOOD, J.L. ET AL. - CALIFORNIA LEAST TERN CENSUS & NESTING SURVEY, 1977, CALIFORNIA DEPARTMENT OF FISH & GAME, 1977. 1977-XX-XX
ATW79R0001	ATWOOD, J.L. ET AL. - CALIFORNIA LEAST TERN CENSUS & NESTING SURVEY, 1978, CALIFORNIA DEPARTMENT OF FISH & GAME, 1979. 1979-XX-XX
ERI85R0001	ERICKSON, R.A. - ECOLOGICAL CHARACTERISTICS OF LEAST TERN COLONY SITES IN CALIFORNIA. THESIS AT CSU HAYWARD. 1985-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04142
EO Index: 25674
Key Quad: Imperial Beach (3211751)
Element Code: ABNNM08103
Occurrence Number: 38
Occurrence Last Updated: 1996-01-02

Scientific Name: *Sternula antillarum browni*
Common Name: California least tern

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G4T2T3Q
State: S2

General Habitat:

NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Micro Habitat:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.

Last Date Observed: 1977-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1977-XX-XX
Occurrence Rank: Unknown
Owner/Manager: PVT-WESTERN SALT CO
Trend: Unknown
Presence: Presumed Extant

Location:

S SAN DIEGO BAY SALTWORKS, SALT POND DIKES NEAR CENTER OF SALTWORKS COMPLEX.

Detailed Location:

TERNS ARE KNOWN TO FORAGE IN THE SALT MARSH AND SALT PONDS ADJOINING THE U.S. NAVAL RADIO STATION.

Ecological:

Threats:

PREDATION IS A CONTINUAL PROBLEM.

General:

SITE USED SINCE 1969. 1973-84, AN AVERAGE OF 45 PAIRS/YR NESTED, WITH UP TO 69 PAIRS IN SOME YEARS. IN 1985, 30 PAIRS FLEDGED 6 YOUNG; IN 1986, 12 PAIRS FLEDGED 2 YOUNG; IN 1987, 21 PAIRS FLEDGED 4 YOUNG; IN 1988, 17 PAIRS FLEDGED 15 YOUNG.

PLSS: T18S, R02W, Sec. 20 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3606554 E490039
Latitude/Longitude: 32.59644 / -117.10614
Elevation (feet):

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

ATW77R0001	ATWOOD, J.L. ET AL. - CALIFORNIA LEAST TERN CENSUS & NESTING SURVEY, 1977, CALIFORNIA DEPARTMENT OF FISH & GAME, 1977. 1977-XX-XX
ERI85R0001	ERICKSON, R.A. - ECOLOGICAL CHARACTERISTICS OF LEAST TERN COLONY SITES IN CALIFORNIA. THESIS AT CSU HAYWARD. 1985-XX-XX
MAS88R0001	MASSEY, B.W. - CALIFORNIA LEAST TERN FIELD STUDY, 1988 BREEDING SEASON. 1988-XX-XX
WAG89R0002	WAGONER, R. - NATURAL RESOURCE MANAGEMENT PLAN, NAVAL RECEIVING FACILITY. 1989-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04036	**EO Index:**	25673
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABNNM08103
Occurrence Number:	39	**Occurrence Last Updated:**	1998-12-18

Scientific Name: *Sternula antillarum browni*

Common Name: California least tern

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank:

Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G4T2T3Q

State: S2

General Habitat:

NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Micro Habitat:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.

Last Date Observed:	1996-08-29	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1996-08-29	**Occurrence Rank:**	Unknown
Owner/Manager:	USFWS-TIJUANA SLOUGH NWR	**Trend:**	Fluctuating
Presence:	Presumed Extant		

Location:

MOUTH OF TIJUANA RIVER, BORDER FIELD STATE PARK & TIJUANA SLOUGH NWR.

Detailed Location:

TERNS NEST BOTH NORTH AND SOUTH OF THE RIVER MOUTH.

Ecological:

SITE USED AS BOTH A NESTING AND A POST-BREEDING STAGING AREA. RECORDS OF LEAST TERN NESTING GO BACK TO 1920.

Threats:

IN 1984, ESTUARY CLOSED TO TIDAL FLUSHING. PREDATION BY CATS & OTHER PREDATORS. HUMAN & DOG DISTURBANCE.

General:

1973-82, AVE. 20 PRS/YR. '83 60-65 PR, 50+ YNG; '84 66 PR, 12-20 YNG; '85 32 PR, 18-20 YNG. '86 35-41 PR, 25-40 YNG; '81 21 PR, 13-19 YNG; '88 40-47 PR, 12-16 YNG; '90 72 PR 16-39 YNG; '91 64 PR 28 YNG; '92 43 PR 38 YNG; '96 137 PR 26 YNG.

PLSS:	T18S, R02W, Sec. 31, S (S)	**Accuracy:**	non-specific area	**Area (acres):**	19
UTM:	Zone-11 N3602185 E487823	**Latitude/Longitude:**	32.55700 / -117.12970	**Elevation (feet):**	0

County Summary:	**Quad Summary:**
San Diego, Pacific Ocean	Imperial Beach (3211751)

Sources:

ATW77R0001	ATWOOD, J.L. ET AL. - CALIFORNIA LEAST TERN CENSUS & NESTING SURVEY, 1977, CALIFORNIA DEPARTMENT OF FISH & GAME, 1977. 1977-XX-XX
CAF93R0001	CAFFREY, C. - CALIFORNIA LEAST TERN BREEDING SURVEY 1992 SEASON. NONGAME BIRD AND MAMMAL SECTION REPORT, 93-11. 1993-XX-XX
CAF98R0001	CAFFREY, C. - CALIFORNIA LEAST TERN BREEDING SURVEY 1996 SEASON. BIRD AND MAMMAL CONSERVATION PROGRAM REPORT, 98-2. 1998-XX-XX
COL87R0001	COLLINS, C.T. - END OF SEASON REPORT, CALIFORNIA LEAST TERN FIELD STUDY, 1987 FIELD SEASON. (DRAFT) 1987-XX-XX
ERI85R0001	ERICKSON, R.A. - ECOLOGICAL CHARACTERISTICS OF LEAST TERN COLONY SITES IN CALIFORNIA. THESIS AT CSU HAYWARD. 1985-XX-XX
FWS86R0005	U.S. FISH & WILDLIFE SERVICE - THE ECOLOGY OF TIJUANA ESTUARY. BIOLOGICAL REPORT 85(7.5). 1986-06-XX
JOH92R0001	JOHNSTON, S.M. & B.S. OBST - CALIFORNIA LEAST TERN BREEDING SURVEY 1991 SEASON. NONGAME BIRD AND MAMMAL SECTION REPORT, 92-06. 1992-XX-XX
MAS88R0001	MASSEY, B.W. - CALIFORNIA LEAST TERN FIELD STUDY, 1988 BREEDING SEASON. 1988-XX-XX
OBS92R0001	OBST, B.S. & S.M. JOHNSTON - CALIFORNIA LEAST TERN BREEDING SURVEY 1990 SEASON. NONGAME BIRD AND MAMMAL SECTION REPORT, 92-05. 1992-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03618
EO Index: 25672
Key Quad: La Jolla (3211772)
Element Code: ABNNM08103
Occurrence Number: 40
Occurrence Last Updated: 1998-12-17

Scientific Name: *Sternula antillarum browni*
Common Name: California least tern

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G4T2T3Q
State: S2

General Habitat:

NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Micro Habitat:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.

Last Date Observed: 1978-08-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1978-08-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

SANDBARS AT LOWER END OF FLOOD CONTROL CHANNEL OF SAN DIEGO RIVER.

Detailed Location:

THE FLOODWAY BETWEEN THIS ROOST AREA AND INTERSTATE 5 WAS USED REGULARLY BY SMALL NUMBERS OF TERNS FOR FEEDING.

Ecological:

Threats:

THREATENED BY HEAVY VEHICLE USE, CLAM DIGGERS, AND DOGS.

General:

114 TERNS OBSERVED ROOSTING AND COURTING IN 1977. IN 1978, A MAXIMUM OF 46 TERNS USED THE SITE AS A POST-BREEDING AREA.

PLSS: T16S, R04W, Sec. 25 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3624217 E476306
Latitude/Longitude: 32.75556 / -117.25294
Elevation (feet): 0

County Summary:

San Diego, Pacific Ocean

Quad Summary:

La Jolla (3211772)

Sources:

ATW77R0001 ATWOOD, J.L. ET AL. - CALIFORNIA LEAST TERN CENSUS & NESTING SURVEY, 1977, CALIFORNIA DEPARTMENT OF FISH & GAME, 1977. 1977-XX-XX

ATW79R0001 ATWOOD, J.L. ET AL. - CALIFORNIA LEAST TERN CENSUS & NESTING SURVEY, 1978, CALIFORNIA DEPARTMENT OF FISH & GAME, 1979. 1979-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	22041	**EO Index:**	8318
Key Quad:	Point Loma (3211762)	**Element Code:**	ABNNM08103
Occurrence Number:	50	**Occurrence Last Updated:**	2016-04-07

Scientific Name: *Sternula antillarum browni* **Common Name:** California least tern

Listing Status: **Federal:** Endangered
State: Endangered

CNDDB Element Ranks: **Global:** G4T2T3Q
State: S2

Rare Plant Rank:

Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

General Habitat:

NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Micro Habitat:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.

Last Date Observed:	2015-09-14	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-09-14	**Occurrence Rank:**	Good
Owner/Manager:	DOD-CORONADO NAVAL AMPH BASE	**Trend:**	Increasing
Presence:	Presumed Extant		

Location:

FROM ABOUT 0.1 MI NW OF CROWN COVE, NORTH TO DELTA BEACH, NAVAL AMPHIBIOUS BASE CORONADO, SAN DIEGO.

Detailed Location:

2010: TERNS NESTED ON BEACHES TO EITHER SIDE OF HWY 75. INCLUDES NORTH DELTA BEACH & SOUTH DELTA BEACH SUBCOLONIES ON E SIDE OF PENINSULA, AND NAVAL AMPHIBIOUS BASE OCEAN SUBCOLONY ON OCEAN SIDE BEACH.

Ecological:

DELTA BEACH: NESTING FIRST DOCUMENTED IN 1978. NO NESTING DUE TO RECREATIONAL USE 1980-82; FENCE ERECTED IN 1983, TERNS RETURNED IN 1985.

Threats:

PREDATION, DISTURBANCE FROM RECREATION (1982, 2015).

General:

MAX EST. # PAIRS/# FLEDGED/YEAR: 4/4/1978, 10/2/'79, 20/16/'85, 64/30/'86, 30/10/'877/10/'88, 879/34/2004, 1009/145/'05, 976/147/'11. 1560 ADULTS & 1285 JUVS OBSERVED 14 SEP 2015.

PLSS:	T17S, R03W, Sec. 36 (S)	**Accuracy:**	non-specific area	**Area (acres):**	189
UTM:	Zone-11 N3612983 E485556	**Latitude/Longitude:**	32.65438 / -117.15401	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

BOY15F0004	BOYLAN, J. - FIELD SURVEY FORM FOR STERNULA ANTILLARUM BROWNI [SC-012995] 2015-09-14
COP06U0001	COPPER, E. - SUMMARY REPORT, BREEDING SEASON MONITORING OF CALIFORNIA LEAST TERNS AND WESTERN SNOWY PLOVERS AT SAN DIEGO NAVY SITES IN 2005. 2006-02-24
COP85R0001	COPPER, E. - A STUDY OF THE BREEDING BIOLOGY AND FORAGING ECOLOGY OF THE CALIFORNIA LEAST TERN, SAN DIEGO BAY. CONTRACT #N62474-85-5587 FOR WES DIV NAV FAC ENG COM, SAN BRUNO, CA. 1985-11-XX
COP86R0001	COPPER, E. - A STUDY OF THE BREEDING BIOLOGY AND FORAGING OF THE CALIFORNIA LEAST TERN, SAN DIEGO BAY. CONTRACT #N62474-86-M-0997 FOR WES DIV NAV FAC ENG COM, SAN BRUNO, CA. 1986-03-XX
MAR05R0001	MARSCHALEK, D. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - CALIFORNIA LEAST TERN BREEDING SURVEY, 2004 SEASON 2005-02-28
MAR12R0005	MARSCHALEK, D. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - CALIFORNIA LEAST TERN BREEDING SURVEY, 2011 SEASON 2012-08-02
MAS88R0001	MASSEY, B.W. - CALIFORNIA LEAST TERN FIELD STUDY, 1988 BREEDING SEASON. 1988-XX-XX
WAG89R0003	WAGONER, R.B. - EXCERPT FROM: "NATURAL RESOURCES MANAGEMENT PLAN FOR NAVAL AMPHIBIOUS BASE, CORONADO, CALIFORNIA" 1989-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03717
EO Index: 25660
Key Quad: La Jolla (3211772)
Element Code: ABNNM08103
Occurrence Number: 60
Occurrence Last Updated: 1998-12-02

Scientific Name: *Sternula antillarum browni*
Common Name: California least tern

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G4T2T3Q
State: S2

General Habitat:

NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Micro Habitat:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.

Last Date Observed: 1982-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1982-XX-XX
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:

SE OF THE INTERSECTION OF SOUTH MISSION BAY DR, & WEST MISSION BAY DR. BETWEEN MISSION BAY & SAN DIEGO RIVER CHANNEL.

Detailed Location:

Ecological:

Threats:

General:

SITE USED BETWEEN 1972 AND 1982; 24-25 PAIRS FLEDGED 0 YOUNG IN 1982. NO NESTING SINCE.

PLSS: T16S, R03W, Sec. 30 (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3624771 E478784
Latitude/Longitude: 32.76061 / -117.22650
Elevation (feet): 15

County Summary:

San Diego, Pacific Ocean

Quad Summary:

La Jolla (3211772)

Sources:

ERI85R0001 ERICKSON, R.A. - ECOLOGICAL CHARACTERISTICS OF LEAST TERN COLONY SITES IN CALIFORNIA. THESIS AT CSU HAYWARD. 1985-XX-XX

WIE82M0001 WIER, H. - MAP SHOWING LOCALITY OF NESTING CALIFORNIA LEAST TERNS. 1982-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04117
EO Index: 25648
Key Quad: Imperial Beach (3211751)
Element Code: ABNNM08103
Occurrence Number: 75
Occurrence Last Updated: 1998-01-16

Scientific Name: *Sternula antillarum browni*
Common Name: California least tern

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G4T2T3Q
State: S2

General Habitat:

NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Micro Habitat:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.

Last Date Observed: 1988-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1988-XX-XX
Occurrence Rank: Unknown
Owner/Manager: SAN DIEGO UNIFIED PORT DIST
Trend: Unknown
Presence: Presumed Extant

Location:

CHULA VISTA WILDLIFE REFUGE.

Detailed Location:

Ecological:

SITE IS AN ARTIFICIAL FILL AREA.

Threats:

CONTINUOUS PREDATOR MANAGEMENT NECESSARY.

General:

FIRST NESTING OCCURRED IN 1980, WHEN 55-60 PAIRS FLEDGED 31 YOUNG. 1981, 95-100 PAIRS FLEDGED 35 YOUNG; 1982, 73 PAIRS FLEDGED 12-16 YOUNG; 1983, 75 PAIRS FLEDGED 8-10 YOUNG; 1984, 19 PAIRS FLEDGED 4 YOUNG; NO NESTING IN 1985 OR 1986.

PLSS: T99X, R99X, Sec. UN (X)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3608618 E489676
Latitude/Longitude: 32.61505 / -117.11003
Elevation (feet):

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

COP86R0001	COPPER, E. - A STUDY OF THE BREEDING BIOLOGY AND FORAGING OF THE CALIFORNIA LEAST TERN, SAN DIEGO BAY. CONTRACT #N62474-86-M-0997 FOR WES DIV NAV FAC ENG COM, SAN BRUNO, CA. 1986-03-XX
COPNDR0001	COPPER, E. - SUMMARY OF BREEDING SEASONS 1978-1981, AND REPORT ON LEAST TERN BREEDING SEASON IN SAN DIEGO COUNTY, 1979. XXXX-XX-XX
ERI85R0001	ERICKSON, R.A. - ECOLOGICAL CHARACTERISTICS OF LEAST TERN COLONY SITES IN CALIFORNIA. THESIS AT CSU HAYWARD. 1985-XX-XX
MAS88R0001	MASSEY, B.W. - CALIFORNIA LEAST TERN FIELD STUDY, 1988 BREEDING SEASON. 1988-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03715
EO Index: 13018
Key Quad: La Jolla (3211772)
Element Code: ABNNM08103
Occurrence Number: 76
Occurrence Last Updated: 1998-12-02

Scientific Name: *Sternula antillarum browni*
Common Name: California least tern

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G4T2T3Q
State: S2

General Habitat:

NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Micro Habitat:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.

Last Date Observed: 1982-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1987-XX-XX
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Decreasing
Presence: Extirpated

Location:

STONY POINT ON FIESTA ISLAND IN MISSION BAY.

Detailed Location:

Ecological:

SITE IS A SEWAGE SLUDGE DISPOSAL AREA.

Threats:

General:

TERNS NESTED HERE BETWEEN 1969 AND 1982, WITH A MAXIMUM OF 23 PAIRS IN 1976. NO NESTING IN 1990, 1991, OR 1992. SITE IS NO LONGER MONITORED.

PLSS: T99X, R99X, Sec. UN (X)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3625893 E478635
Latitude/Longitude: 32.77073 / -117.22811
Elevation (feet): 10

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

CAF93R0001	CAFFREY, C. - CALIFORNIA LEAST TERN BREEDING SURVEY 1992 SEASON. NONGAME BIRD AND MAMMAL SECTION REPORT, 93-11. 1993-XX-XX
CAF98R0001	CAFFREY, C. - CALIFORNIA LEAST TERN BREEDING SURVEY 1996 SEASON. BIRD AND MAMMAL CONSERVATION PROGRAM REPORT, 98-2. 1998-XX-XX
COL87R0001	COLLINS, C.T. - END OF SEASON REPORT, CALIFORNIA LEAST TERN FIELD STUDY, 1987 FIELD SEASON. (DRAFT) 1987-XX-XX
ERI85R0001	ERICKSON, R.A. - ECOLOGICAL CHARACTERISTICS OF LEAST TERN COLONY SITES IN CALIFORNIA. THESIS AT CSU HAYWARD. 1985-XX-XX
KEL89U0001	KELLY, P. - CONVERSATION ABOUT LEAST TERN NESTING SITES, EO #053. 1989-XX-XX
OBS92R0001	OBST, B.S. & S.M. JOHNSTON - CALIFORNIA LEAST TERN BREEDING SURVEY 1990 SEASON. NONGAME BIRD AND MAMMAL SECTION REPORT, 92-05. 1992-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03746
EO Index: 13017
Key Quad: Point Loma (3211762)
Element Code: ABNNM08103
Occurrence Number: 77
Occurrence Last Updated: 1996-01-02

Scientific Name: *Sternula antillarum browni*
Common Name: California least tern

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G4T2T3Q
State: S2

General Habitat:

NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Micro Habitat:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.

Last Date Observed: 1988-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1988-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVAL TRAINING CENTER
Trend: Unknown
Presence: Presumed Extant

Location:

NAVAL TRAINING CENTER.

Detailed Location:

Ecological:

Threats:

General:

35 PAIRS NESTED HERE IN 1977; 1978, 8-12 PAIRS FLEDGED 5 YOUNG. NO FURTHER NESTING UNTIL 1987, WHEN 11 PAIRS NESTED (NO FLEDGING DUE TO HEAVY PREDATION AND DISTURBANCE). 1988, 1 PAIR PRODUCED 2 CHICKS (1 FLEDGED, OTHER WAS BADLY DEFORMED).

PLSS: T16S, R03W, Sec. 32 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3621917 E480119
Latitude/Longitude: 32.73489 / -117.21218
Elevation (feet):

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

ATW79R0001	ATWOOD, J.L. ET AL. - CALIFORNIA LEAST TERN CENSUS & NESTING SURVEY, 1978, CALIFORNIA DEPARTMENT OF FISH & GAME, 1979. 1979-XX-XX
COL87R0001	COLLINS, C.T. - END OF SEASON REPORT, CALIFORNIA LEAST TERN FIELD STUDY, 1987 FIELD SEASON. (DRAFT) 1987-XX-XX
ERI85R0001	ERICKSON, R.A. - ECOLOGICAL CHARACTERISTICS OF LEAST TERN COLONY SITES IN CALIFORNIA. THESIS AT CSU HAYWARD. 1985-XX-XX
MAS88R0001	MASSEY, B.W. - CALIFORNIA LEAST TERN FIELD STUDY, 1988 BREEDING SEASON. 1988-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 40286
EO Index: 35293
Key Quad: La Jolla (3211772)
Element Code: ABNNM08103
Occurrence Number: 80
Occurrence Last Updated: 1998-12-02

Scientific Name: *Sternula antillarum browni*
Common Name: California least tern

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: CDFW_FP-Fully Protected
NABCI_RWL-Red Watch List

CNDDB Element Ranks: **Global:** G4T2T3Q
State: S2

General Habitat:

NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Micro Habitat:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.

Last Date Observed: 1996-08-05
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1996-08-05
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Increasing
Presence: Presumed Extant

Location:

MARINERS POINT, BETWEEN MARINERS BASIN & MISSION BAY CHANNEL, MISSION BAY.

Detailed Location:

Ecological:

IN 1995 RIPRAP WAS INSTALLED TO CONTROL EROSIN & A CHICK FENCE WAS INSTALLED AROUND THE ENTIRE SITE. SITE WAS CLEARED OF NON-NATIVE VEGETATION IN FALL & SPRING. THIS HAS THE POTENTIAL TO BE A HIGHLY SUCCESSFUL & PRODUCTIVE BREEDING SITE.

Threats:

PREDATORS.

General:

1990: 19 PAIRS, 33-40 FLEDGED. 1991: 125 PAIRS, 130 FLEDGED. 1992: 120 PAIRS, 70 FLEDGED. 1996: 250 PAIRS, 100-150 FLEDGED.

PLSS: T16S, R04W, Sec. 24 (S)
Accuracy: non-specific area
Area (acres): 16
UTM: Zone-11 N3625347 E476973
Latitude/Longitude: 32.76577 / -117.24584
Elevation (feet): 0

County Summary:

San Diego, Pacific Ocean

Quad Summary:

La Jolla (3211772)

Sources:

CAF93R0001	CAFFREY, C. - CALIFORNIA LEAST TERN BREEDING SURVEY 1992 SEASON. NONGAME BIRD AND MAMMAL SECTION REPORT, 93-11. 1993-XX-XX
CAF98R0001	CAFFREY, C. - CALIFORNIA LEAST TERN BREEDING SURVEY 1996 SEASON. BIRD AND MAMMAL CONSERVATION PROGRAM REPORT, 98-2. 1998-XX-XX
JOH92R0001	JOHNSTON, S.M. & B.S. OBST - CALIFORNIA LEAST TERN BREEDING SURVEY 1991 SEASON. NONGAME BIRD AND MAMMAL SECTION REPORT, 92-06. 1992-XX-XX
OBS92R0001	OBST, B.S. & S.M. JOHNSTON - CALIFORNIA LEAST TERN BREEDING SURVEY 1990 SEASON. NONGAME BIRD AND MAMMAL SECTION REPORT, 92-05. 1992-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04323
EO Index: 25591
Key Quad: National City (3211761)
Element Code: ABNRB02022
Occurrence Number: 81
Occurrence Last Updated: 2015-05-13

Scientific Name: *Coccyzus americanus occidentalis*
Common Name: western yellow-billed cuckoo

Listing Status: **Federal:** Threatened
State: Endangered

CNDDB Element Ranks: **Global:** G5T2T3
State: S1

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
NABCI_RWL-Red Watch List
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:

RIPARIAN FOREST NESTER, ALONG THE BROAD, LOWER FLOOD-BOTTOMS OF LARGER RIVER SYSTEMS.

Micro Habitat:

NESTS IN RIPARIAN JUNGLES OF WILLOW, OFTEN MIXED WITH COTTONWOODS, WITH LOWER STORY OF BLACKBERRY, NETTLES, OR WILD GRAPE.

Last Date Observed: 1915-07-03
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1915-07-03
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:

SWEETWATER RIVER NEAR BONITA.

Detailed Location:

EXACT LOCATIONS UNKNOWN. NEST WITH EGGS FOUND "ON SWEETWATER RIVER, SAN DIEGO COUNTY;" SPECIMEN COLLECTED FROM "BONITA" (UNITT, 1984 ATTRIBUTES BOTH DETECTIONS TO CANFIELD, AGREEING W/ GAINES 1977: "SWEETWATER RIVER NEAR BONITA").

Ecological:

Threats:

THIS IS A HISTORICAL OCCURRENCE, LIKELY EXTIRPATED DUE TO DEVELOPMENT, FLOOD CONTROL PROJECTS, PESTICIDES.

General:

NEST WITH 2 EGGS FOUND ON SWEETWATER RIVER ON 1 JUL 1915. ADULT MALE COLLECTED FROM BONITA ON 3 JUL 1915.

PLSS: T17S, R02W, Sec. 25 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3613601 E496846
Latitude/Longitude: 32.66005 / -117.03363
Elevation (feet): 70

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

DIC15S0002	DICKEY, D. - DICKEY #543 UCLA #486, COLLECTED FROM BONITA. 1915-07-03
GAI77R0001	GAINES, D. - CURRENT STATUS AND HABITAT REQUIREMENTS OF THE YELLOW-BILLED CUCKOO IN CALIFORNIA. ENDANGERED WILDLIFE PROJECT. E-1-1. CALIFORNIA DEPARTMENT OF FISH AND GAME. 1977-XX-XX
UNI84A0001	UNITT, P. (SAN DIEGO NATURAL HISTORY MUSEUM) - THE BIRDS OF SAN DIEGO COUNTY. MEMOIRS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY 13. 1984-XX-XX
WIL33B0001	WILLETT, G. - A REVISED LIST OF THE BIRDS OF SOUTHWESTERN CALIFORNIA. PACIFIC COAST AVIFAUNA NO. 21. 1933-12-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68466
EO Index: 97228
Key Quad: Point Loma (3211762)
Element Code: ABNRB02022
Occurrence Number: 212
Occurrence Last Updated: 2015-05-12

Scientific Name: *Coccyzus americanus occidentalis*
Common Name: western yellow-billed cuckoo

Listing Status: **Federal:** Threatened
State: Endangered

CNDDB Element Ranks: **Global:** G5T2T3
State: S1

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
NABCI_RWL-Red Watch List
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:

RIPARIAN FOREST NESTER, ALONG THE BROAD, LOWER FLOOD-BOTTOMS OF LARGER RIVER SYSTEMS.

Micro Habitat:

NESTS IN RIPARIAN JUNGLES OF WILLOW, OFTEN MIXED WITH COTTONWOODS, WITH LOWER STORY OF BLACKBERRY, NETTLES, OR WILD GRAPE.

Last Date Observed: 1920-06-06
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1920-06-06
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:

SAN DIEGO.

Detailed Location:

MAPPED GENERALLY TO GIVEN LOCALITY; EXACT COLLECTION LOCATION UNKNOWN.

Ecological:

Threats:

EXTIRPATED DUE TO DEVELOPMENT, FLOOD CONTROL PROJECTS, AND POSSIBLY PESTICIDE USE.

General:

NEST WITH THREE EGGS COLLECTED ON 6 JUN 1920.

PLSS: T17S, R03W, Sec. 11 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3619708 E485384
Latitude/Longitude: 32.71505 / -117.15595
Elevation (feet): 50

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

FIE20S0001 FIELD, C. - CAS #6067 COLLECTED IN SAN DIEGO 1920-06-06

GAI77R0001 GAINES, D. - CURRENT STATUS AND HABITAT REQUIREMENTS OF THE YELLOW-BILLED CUCKOO IN CALIFORNIA. ENDANGERED WILDLIFE PROJECT. E-1-1. CALIFORNIA DEPARTMENT OF FISH AND GAME. 1977-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04131
EO Index: 29293
Key Quad: Imperial Beach (3211751)
Element Code: ABNSB10010
Occurrence Number: 56
Occurrence Last Updated: 1989-08-10

Scientific Name: *Athene cunicularia*
Common Name: burrowing owl

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G4
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

General Habitat:
OPEN, DRY ANNUAL OR PERENNIAL GRASSLANDS, DESERTS, AND SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.

Micro Habitat:
SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
TIJUANA RIVER VALLEY, SW SAN DIEGO.

Detailed Location:

Ecological:

Threats:

General:
APPARENTLY NESTS IN RIVER VALLEY NEAR THE COAST ACCORDING TO R. WEBSTER.

PLSS: T19S, R02W, Sec. 05, NE (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3601648 E489854
Latitude/Longitude: 32.55218 / -117.10806
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

JOH88U0001 JOHNSON, B. - JOHNSON'S PERSONAL DATA FOR BURROWING OWL. 1988-10-XX

WEB83U0001 WEBSTER, R.E. - LETTER TO JULES EVENS (PRBO), DETAILING BURROWING OWL LOCATIONS IN SOUTHEASTERN CALIFORNIA. 1983-07-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03758
Key Quad: Point Loma (3211762)
Occurrence Number: 57
EO Index: 8022
Element Code: ABNSB10010
Occurrence Last Updated: 1989-08-10

Scientific Name: *Athene cunicularia*
Common Name: burrowing owl

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4
State: S3
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

General Habitat:
OPEN, DRY ANNUAL OR PERENNIAL GRASSLANDS, DESERTS, AND SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.

Micro Habitat:
SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: DOD-NAVY
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NORTH ISLAND, NAVAL AIR STATION, SAN DIEGO.

Detailed Location:

Ecological:

Threats:

General:
NESTING COLONY OBSERVED BY WEBSTER; DATE OF OBSERVATION UNKNOWN.

PLSS: T17S, R03W, Sec. 17 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3618040 E480464
Latitude/Longitude: 32.69992 / -117.20842
Elevation (feet): 30

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

JOH88U0001 JOHNSON, B. - JOHNSON'S PERSONAL DATA FOR BURROWING OWL. 1988-10-XX

WEB83U0001 WEBSTER, R.E. - LETTER TO JULES EVENS (PRBO), DETAILING BURROWING OWL LOCATIONS IN SOUTHEASTERN CALIFORNIA. 1983-07-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36799
Key Quad: La Jolla (3211772)
Occurrence Number: 58
EO Index: 7267
Element Code: ABNSB10010
Occurrence Last Updated: 1998-12-02

Scientific Name: *Athene cunicularia*
Common Name: burrowing owl

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4
State: S3
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

General Habitat:
OPEN, DRY ANNUAL OR PERENNIAL GRASSLANDS, DESERTS, AND SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.

Micro Habitat:
SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
FIESTA ISLAND IN MISSION BAY, SAN DIEGO.

Detailed Location:

Ecological:

Threats:

General:
NESTING COLONY OBSERVED BY WEBSTER; DATE OF OBSERVATION UNKNOWN.

PLSS: T16S, R03W, Sec. 20 (S)
Accuracy: specific area
Area (acres): 452
UTM: Zone-11 N3626489 E479196
Latitude/Longitude: 32.77612 / -117.22214
Elevation (feet): 20

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

JOH88U0001 JOHNSON, B. - JOHNSON'S PERSONAL DATA FOR BURROWING OWL. 1988-10-XX

WEB83U0001 WEBSTER, R.E. - LETTER TO JULES EVENS (PRBO), DETAILING BURROWING OWL LOCATIONS IN SOUTHEASTERN CALIFORNIA. 1983-07-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 22042
Key Quad: Point Loma (3211762)
Occurrence Number: 143
EO Index: 21101
Element Code: ABNSB10010
Occurrence Last Updated: 1992-12-01

Scientific Name: *Athene cunicularia*
Common Name: burrowing owl

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4
State: S3
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

General Habitat:

OPEN, DRY ANNUAL OR PERENNIAL GRASSLANDS, DESERTS, AND SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.

Micro Habitat:

SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.

Last Date Observed: 1988-XX-XX
Last Survey Date: 1988-XX-XX
Owner/Manager: DOD-CORONADO NAVAL AMPH BASE
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SOUTHERN "DELTA BEACH," EAST OF HWY 75, CORONADO ISLAND.

Detailed Location:

OWLS ARE FREQUENTLY SIGHTED OUTSIDE BURROWS ON THE BEACH FILL AND BEACH HABITAT NEAR THE ROAD SHOULDER.

Ecological:

HABITAT IS UPPER BEACH HABITAT AND BEACH FILL.

Threats:

General:

EXACT DATE OF OBSERVATION UNKNOWN. IN 1988, THESE OWLS WERE CITED AS A POTENTIAL THREAT (AS PREDATORS) TO THE CALIFORNIA LEAST TERN COLONY AT DELTA BEACH.

PLSS: T17S, R03W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3613815 E485303
Latitude/Longitude: 32.66189 / -117.15673
Elevation (feet): 15

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

WAG89R0003 WAGONER, R.B. - EXCERPT FROM: "NATURAL RESOURCES MANAGEMENT PLAN FOR NAVAL AMPHIBIOUS BASE, CORONADO, CALIFORNIA" 1989-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	25618	**EO Index:**	5447
Key Quad:	La Mesa (3211771)	**Element Code:**	ABNSB10010
Occurrence Number:	216	**Occurrence Last Updated:**	1994-06-09

Scientific Name: *Athene cunicularia*

Common Name: burrowing owl

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G4
State: S3

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

General Habitat:

OPEN, DRY ANNUAL OR PERENNIAL GRASSLANDS, DESERTS, AND SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.

Micro Habitat:

SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.

Last Date Observed:	1993-10-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1993-10-XX	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

KEARNY MESA, 1.5 MILES NORTH OF MURPHY CANYON ROAD/FRIARS ROAD INTERSECTION, SAN DIEGO.

Detailed Location:

SITE IS LOCATED WITHIN MONTGOMERY FIELD AIRPORT PROPERTY, ADJACENT TO THE HEWLETT-PACKARD BUILDING.

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB AND BROOM BACCHARIS SCRUB. OTHER RARE TAXA FOUND AT THIS SITE INCLUDE ORANGE-THROATED WHIPTAIL, CALIF. GNATCATCHER, SELAGINELLA CINERASCENS, & VIQUIERA LACINIATA.

Threats:

THREATENED BY DEVELOPMENT & ISOLATION.

General:

UNKNOWN NUMBER OF BIRDS/BURROWS OBSERVED IN SEPTEMBER/OCTOBER 1993.

PLSS:	T16S, R02W (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3630283 E488420	**Latitude/Longitude:**	32.81048 / -117.12369	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), La Jolla (3211772)

Sources:

FAM93F0003 FAMOLARO, P. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA, ASPIDOSCELIS (=CNEMIDOPHORUS) HYPERYTHRA BELDINGI & ATHENE CUNICULARIA 1993-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17841
Key Quad: National City (3211761)
Occurrence Number: 1754
EO Index: 82768
Element Code: ABNSB10010
Occurrence Last Updated: 2011-02-16

Scientific Name: *Athene cunicularia*
Common Name: burrowing owl

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4
State: S3
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

General Habitat:
OPEN, DRY ANNUAL OR PERENNIAL GRASSLANDS, DESERTS, AND SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.

Micro Habitat:
SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.

Last Date Observed: 1895-05-17
Last Survey Date: 1895-05-17
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NATIONAL CITY.

Detailed Location:
MUSEUM RECORD STATES THAT THE LOCATION IS AT "NATIONAL CITY."

Ecological:

Threats:

General:
MVZ EGG SET #2176 COLLECTED BY W. B. JUDSON ON 17 MAY 1895.

PLSS: T17S, R02W (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3615016 E491044
Latitude/Longitude: 32.67278 / -117.09552
Elevation (feet): 60

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

MVZ24S0001 MUSEUM OF VERTEBRATE ZOOLOGY (UNIVERSITY OF CALIFORNIA, BERKELEY) - 20 EGG SPECIMEN RECORDS FOR ATHENE CUNICULARIA FROM THE MUSEUM OF VERTEBRATE ZOOLOGY FROM 25 APR 1879 - 10 MAY 1924. 1924-05-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68466
Key Quad: Point Loma (3211762)
Occurrence Number: 1762
EO Index: 82795
Element Code: ABNSB10010
Occurrence Last Updated: 2011-02-17

Scientific Name: *Athene cunicularia*
Common Name: burrowing owl

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4
State: S3

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

General Habitat:
OPEN, DRY ANNUAL OR PERENNIAL GRASSLANDS, DESERTS, AND SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.

Micro Habitat:
SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.

Last Date Observed: 1880-06-22
Last Survey Date: 1880-06-22
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SAN DIEGO.

Detailed Location:
CAS RECORD LOCALITY STATED AS "SAN DIEGO." MAPPED TO SAN DIEGO PO.

Ecological:

Threats:

General:
CAS EGG SPECIMEN #207254 OF 5 EGGS FROM UNKNOWN COLLECTOR ON 22 JUN 1880.

PLSS: T17S, R03W, Sec. 11 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3619708 E485384
Latitude/Longitude: 32.71505 / -117.15595
Elevation (feet): 80

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

CAS20S0001 CALIFORNIA ACADEMY OF SCIENCES - 16 EGG SPECIMEN RECORDS FOR ATHENE CUNICULARIA FROM THE CALIFORNIA ACADEMY OF SCIENCES FROM 22 JUN 1880 - 8 MAY 1920. 1920-05-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68224
Key Quad: Point Loma (3211762)
Occurrence Number: 74
EO Index: 68375
Element Code: ABPAT02011
Occurrence Last Updated: 2007-02-22

Scientific Name: *Eremophila alpestris actia*
Common Name: California horned lark

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T4Q
State: S4
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern

General Habitat:

COASTAL REGIONS, CHIEFLY FROM SONOMA COUNTY TO SAN DIEGO COUNTY. ALSO MAIN PART OF SAN JOAQUIN VALLEY AND EAST TO FOOTHILLS.

Micro Habitat:

SHORT-GRASS PRAIRIE, "BALD" HILLS, MOUNTAIN MEADOWS, OPEN COASTAL PLAINS, FALLOW GRAIN FIELDS, ALKALI FLATS.

Last Date Observed: 2005-09-01
Last Survey Date: 2005-09-01
Owner/Manager: DOD-NORTH ISLAND NAS
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

FIELD BETWEEN 3RD ST W AND THE RUNWAY. NORTH ISLAND NAVAL AIR STATION.

Detailed Location:

Ecological:

RUDERAL HABITAT.

Threats:

General:

6 OBSERVED IN JAN, 11 OBSERVED IN APR & 20 OBSERVED IN SEP 2005.

PLSS: T17S, R03W, Sec. 20 (S)
UTM: Zone-11 N3616801 E479401
Accuracy: 80 meters
Latitude/Longitude: 32.68872 / -117.21973
Area (acres): 0
Elevation (feet): 12

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

REC05D0002 RECON ENVIRONMENTAL, INC. - SHAPEFILES WITH SPECIES LOCATION DATA COLLECTED BY RECON FOR THE US NAVY AT NORTH ISLAND NAVAL AIR STATION (RECON PROJECT NUMBER 4050). 2005-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	33829	**EO Index:**	16503
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABPBG02095
Occurrence Number:	2	**Occurrence Last Updated:**	2004-01-21

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*

Common Name: coastal cactus wren

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G5T3Q

State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:

SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:

WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed:	1988-03-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1988-03-15	**Occurrence Rank:**	Good
Owner/Manager:	PVT, UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

S EDGE OTAY VALLEY, 0.5-1.6 MI S OF OTAY VALLEY RD, SOUTH ALONG DENNERY CANYON TO OTAY MESA RD, E OF I-805, SAN DIEGO.

Detailed Location:

1984: AREA SOUTH OF THE OTAY RIVER AND EXTENDING 0.8 MI WEST OF DENNERY CANYON. 1988: DENNERY CANYON, N OF OTAY MESA RD, W OF OTAY VALLEY ROAD, AND E OF I-805.

Ecological:

HABITAT AT NORTH END OF FEATURE IS DIEGAN COASTAL SAGE SCRUB DOMINATED BY OPUNTIA PROLIFERA, ERIOGONUM FASCICULATUM, VIGUIERA LACINIATA, ARTEMISIA CALIFORNICA, SIMMONDSIA CHINENSIS.

Threats:

THREAT OF POSSIBLE DEVELOPMENT; UPLANDS RECEIVE HEAVY ORV USE; RIVER VALLEY WAS PREVIOUSLY MINED FOR SAND AND GRAVEL.

General:

13 INDIVIDUALS OBSERVED IN TWO DAYS OF FIELDWORK (JULY 12 AND 13). 6 CACTUS WRENS, INCLUDING 3 TERRITORIAL MALES, OBSERVED BY HAROLD WIER ON 15 MARCH 1988.

PLSS:	T18S, R01W, Sec. 30 (S)	**Accuracy:**	non-specific area	**Area (acres):**	527
UTM:	Zone-11 N3604960 E498539	**Latitude/Longitude:**	32.58209 / -117.01556	**Elevation (feet):**	250

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

REA90R0001	REA, A.M. & K.L. WEAVER - THE TAXONOMY, DISTRIBUTION, AND STATUS OF COASTAL CALIFORNIA CACTUS WRENS. WESTERN BIRDS, VOL. 21(3): PP. 81-126. 1990-XX-XX
WIE84F0012	WIER, E.N. - FIELD SURVEY FORM FOR CAMPYLORHYNCHUS BRUNNEICAPILLUS SANDIEGENSIS 1984-07-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17558
EO Index: 11756
Key Quad: National City (3211761)
Element Code: ABPBG02095
Occurrence Number: 39
Occurrence Last Updated: 1991-10-09

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*
Common Name: coastal cactus wren

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T3Q
State: S3

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:
SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:
WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed: 1989-08-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1989-08-15
Occurrence Rank: Fair
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
EAST OF I-805, BETWEEN BONITA ROAD AND "H" STREET, CHULA VISTA.

Detailed Location:

Ecological:

Threats:
THREATENED BY PROPOSED DEVELOPMENT.

General:
5 CACTUS WRENS OBSERVED ON 15 AUGUST 1989, ACCORDING TO REA; NO PREVIOUS RECORDS OF CACTUS WRENS AT THIS SITE.

PLSS: T17S, R02W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3611867 E494965
Latitude/Longitude: 32.64440 / -117.05368
Elevation (feet): 150

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

REA90R0001 REA, A.M. & K.L. WEAVER - THE TAXONOMY, DISTRIBUTION, AND STATUS OF COASTAL CALIFORNIA CACTUS WRENS. WESTERN BIRDS, VOL. 21(3): PP. 81-126. 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17557
Key Quad: National City (3211761)
Occurrence Number: 40
EO Index: 11759
Element Code: ABPBG02095
Occurrence Last Updated: 1991-09-24

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*
Common Name: coastal cactus wren

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T3Q
State: S3
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:
SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:
WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed: 1988-12-27
Last Survey Date: 1988-12-27
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:
NW OF THE INTERSECTION OF "H" STREET AND RIDGEBACK ROAD, CHULA VISTA.

Detailed Location:

Ecological:

Threats:

General:
TWO CACTUS WRENS OBSERVED BY WEAVER, INCLUDING ONE TERRITORIAL MALE.

PLSS: T17S, R02W (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3611659 E496049
Latitude/Longitude: 32.64253 / -117.04212
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

REA90R0001 REA, A.M. & K.L. WEAVER - THE TAXONOMY, DISTRIBUTION, AND STATUS OF COASTAL CALIFORNIA CACTUS WRENS. WESTERN BIRDS, VOL. 21(3): PP. 81-126. 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17556
EO Index: 11760
Key Quad: National City (3211761)
Element Code: ABPBG02095
Occurrence Number: 41
Occurrence Last Updated: 1991-09-24

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*
Common Name: coastal cactus wren

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5T3Q
State: S3
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:
SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:
WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed: 1988-12-27
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1988-12-27
Occurrence Rank: Fair
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
LONG CANYON, WEST OF CORRAL CANYON ROAD, SUNNYSIDE.

Detailed Location:

Ecological:

Threats:
THREATENED BY PROPOSED DEVELOPMENT.

General:
3 CACTUS WRENS OBSERVED BY WEAVER, INCLUDING 2 TERRITORIAL MALES. THIS IS A KNOWN SITE, WITH PREVIOUS SIGHTINGS BUT NO ACTUAL COUNT DATA AVAILABLE.

PLSS: T17S, R01W (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3613067 E499601
Latitude/Longitude: 32.65523 / -117.00425
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
Jamul Mountains (3211668), National City (3211761)

Sources:

REA90R0001	REA, A.M. & K.L. WEAVER - THE TAXONOMY, DISTRIBUTION, AND STATUS OF COASTAL CALIFORNIA CACTUS WRENS. WESTERN BIRDS, VOL. 21(3): PP. 81-126. 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	17554	**EO Index:**	11758
Key Quad:	National City (3211761)	**Element Code:**	ABPBG02095
Occurrence Number:	42	**Occurrence Last Updated:**	2004-06-30

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*

Common Name: coastal cactus wren

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G5T3Q

State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:

SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:

WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed:	2004-02-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2004-02-24	**Occurrence Rank:**	Good
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NW OF THE INTERSECTION OF SWEETWATER ROAD AND QUARRY ROAD AND EXTENDING NE TO QUARRY, SUNNYSIDE.

Detailed Location:

4 MAY 1990: NW OF THE INTERSECTION OF SWEETWATER ROAD AND QUARRY ROAD. 2004: NEAR QUARRY.

Ecological:

HABITAT (NEAR QUARRY) CONSISTS OF MARITIME SUCCULENT SCRUB AND COASTAL SAGE SCRUB. DOMINANT PLANTS INCLUDE ARTEMISIA CALIFORNICA, SIMMONDSIA CHINENSIS AND ERIOGONUM FASCICULATUM. DISTURBANCE: CONSTRUCTION FROM SR-125.

Threats:

THREATENED BY PROPOSED DEVELOPMENT.

General:

4 MAY 1990: 1 CACTUS WREN OBSERVED BY PAM BEARE AND ELLEN BERRYMAN (CALTRANS); NOT PREVIOUSLY KNOWN FROM THIS SITE. 24 FEB 2004: 2 ADULTS, 1 JUVENILE DETECTED; SITE USED FOR BREEDING.

PLSS:	T17S, R01W, Sec. 18 (S)	**Accuracy:**	non-specific area	**Area (acres):**	86
UTM:	Zone-11 N3616726 E498335	**Latitude/Longitude:**	32.68824 / -117.01775	**Elevation (feet):**	260

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

REA90R0001	REA, A.M. & K.L. WEAVER - THE TAXONOMY, DISTRIBUTION, AND STATUS OF COASTAL CALIFORNIA CACTUS WRENS. WESTERN BIRDS, VOL. 21(3): PP. 81-126. 1990-XX-XX
SAU04F0001	SAUCEDO-ORTIZ, D. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR CAMPYLORHYNCHUS BRUNNEICAPILLUS COUESI (SANDIEGENSIS) 2004-02-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17555
EO Index: 11757
Key Quad: National City (3211761)
Element Code: ABPBG02095
Occurrence Number: 43
Occurrence Last Updated: 1991-09-25

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*
Common Name: coastal cactus wren

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5T3Q
State: S3
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:
SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:
WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed: 1989-08-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1989-08-XX
Occurrence Rank: Fair
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
HWY 54 AT BRIARWOOD DRIVE, PARADISE HILLS.

Detailed Location:

Ecological:

Threats:
THREATENED BY PROPOSED DEVELOPMENT.

General:
NEST(S) FOUND BY JOHN BEEZLEY.

PLSS: T17S, R01W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3615988 E497199
Latitude/Longitude: 32.68158 / -117.02988
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

REA90R0001 REA, A.M. & K.L. WEAVER - THE TAXONOMY, DISTRIBUTION, AND STATUS OF COASTAL CALIFORNIA CACTUS WRENS. WESTERN BIRDS, VOL. 21(3): PP. 81-126. 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17553
EO Index: 11761
Key Quad: National City (3211761)
Element Code: ABPBG02095
Occurrence Number: 44
Occurrence Last Updated: 2003-12-31

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*
Common Name: coastal cactus wren

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T3Q
State: S3

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:
SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:
WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed: 1994-05-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1994-05-17
Occurrence Rank: Excellent
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SWEETWATER RESERVOIR, SE OF THE DAM, NE OF SUNNYSIDE.

Detailed Location:

Ecological:
HABITAT CONSISTS OF COASTAL SAGE SCRUB. SURROUNDING AREAS COMPRISED OF A GOLF COURSE, RESERVOIR AND RESIDENTIAL.

Threats:
THREATENED BY PROPOSED DEVELOPMENT.

General:
13 (INC 8 TERRITORIAL MALES) OBS MAY '90. 4 NESTS OBS APR-MAY '94. NEST 1 W/NESTLINGS. NESTS 2, 3 W/4 EGGS, BUT NEST 2 ABANDONED, NEST 3 PREDATED. NEST 4 ABANDONED. FEATHERS (OF 4 NESTS)& EGG COLLECTED FOR DNA. 3 EGGS SENT TO SDNHM.

PLSS: T17S, R01W, Sec. 20 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3616214 E499323
Latitude/Longitude: 32.68362 / -117.00721
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
Jamul Mountains (3211668), National City (3211761)

Sources:

EGG94F0001	EGGERT, L. - FIELD SURVEY FORM FOR CAMPYLORHYNCHUS BRUNNEICAPILLUS COUESI (SANDIEGENSIS) 1994-04-21
EGG94F0002	EGGERT, L. - FIELD SURVEY FORM FOR CAMPYLORHYNCHUS BRUNNEICAPILLUS COUESI (SANDIEGENSIS) 1994-04-30
EGG94F0003	EGGERT, L. - FIELD SURVEY FORM FOR CAMPYLORHYNCHUS BRUNNEICAPILLUS COUESI (SANDIEGENSIS) 1994-05-17
EGG95U0001	EGGERT, L. - LETTER REGARDING MEMORANDUM OF UNDERSTANDING BY AND BETWEEN SAN DIEGO STATE UNIVERSITY AND CA DEPT. OF FISH AND GAME REGARDING SAN DIEGO CACTUS WREN. 1995-01-06
REA90R0001	REA, A.M. & K.L. WEAVER - THE TAXONOMY, DISTRIBUTION, AND STATUS OF COASTAL CALIFORNIA CACTUS WRENS. WESTERN BIRDS, VOL. 21(3): PP. 81-126. 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21262	**EO Index:**	7867
Key Quad:	Otay Mesa (3211658)	**Element Code:**	ABPBG02095
Occurrence Number:	54	**Occurrence Last Updated:**	2002-12-12

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*

Common Name: coastal cactus wren

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G5T3Q

State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:

SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:

WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed:	2000-11-29	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2000-11-29	**Occurrence Rank:**	Good
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

POGGI CANYON WEST OF LOWER OTAY RESERVOIR, RANCHO OTAY.

Detailed Location:

Ecological:

DENSE CHOLLA PATCHES IN THE COASTAL SAGE SCRUB ON THE SOUTH-FACING SLOPES SUPPORT CACTUS WRENS AND GNATCATCHERS. THE HABITAT HAS BEEN DEGRADED BY ORV'S AND GRAZING.

Threats:

THREATENED BY PROPOSED DEVELOPMENT AS WELL AS CONTINUED ORV USE AND GRAZING.

General:

12 CACTUS WRENS OBSERVED DURING 1986-88, ACCORDING TO NANCY GILBERT (USFWS). 11 CACTUS WRENS SEEN IN 1989 SURVEY. UNKNOWN NUMBER OBS DURING CAGN SURVEY, 14-29 NOV 2000. CALIFORNIA GNATCATCHERS AND A BADGER ALSO FOUND HERE.

PLSS:	T18S, R01W (S)	**Accuracy:**	non-specific area	**Area (acres):**	1,336
UTM:	Zone-11 N3609141 E500032	**Latitude/Longitude:**	32.61982 / -116.99966	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Jamul Mountains (3211668), Imperial Beach (3211751)

Sources:

DUD01U0001	PRIEST, J. (DUDEK AND ASSOCIATES) - CALIFORNIA GNATCATCHER SURVEY FOR THE OTAY RANCH VILLAGE ONE WEST, SOUTH PLANNING AREA OF OTAY RANCH, CITY OF CHULA VISTA, SAN DIEGO, CALIFORNIA 2001-01-31
REA90R0001	REA, A.M. & K.L. WEAVER - THE TAXONOMY, DISTRIBUTION, AND STATUS OF COASTAL CALIFORNIA CACTUS WRENS. WESTERN BIRDS, VOL. 21(3): PP. 81-126. 1990-XX-XX
SCH89R0001	SCHEID, G. ET AL. - BIOLOGICAL RESOURCES INVENTORY REPORT FOR THE OTAY RANCH PROPERTY 1989-10-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17588
EO Index: 11687
Key Quad: Imperial Beach (3211751)
Element Code: ABPBG02095
Occurrence Number: 56
Occurrence Last Updated: 1991-09-30

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*
Common Name: coastal cactus wren

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5T3Q
State: S3
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:
SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:
WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed: 1985-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1985-XX-XX
Occurrence Rank: Fair
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SPRING CANYON, SW OF THE INTERSECTION OF OTAY MESA ROAD AND CACTUS ROAD.

Detailed Location:

Ecological:

Threats:
THREATENED BY PROPOSED DEVELOPMENT.

General:
TWO CACTUS WRENS, INCLUDING ONE TERRITORIAL MALE, OBSERVED BY HAROLD WIER PRIOR TO 1986.

PLSS: T18S, R01W, Sec. 32, SW (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3602159 E499674
Latitude/Longitude: 32.55683 / -117.00347
Elevation (feet): 400

County Summary:	Quad Summary:
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

REA90R0001 REA, A.M. & K.L. WEAVER - THE TAXONOMY, DISTRIBUTION, AND STATUS OF COASTAL CALIFORNIA CACTUS WRENS. WESTERN BIRDS, VOL. 21(3): PP. 81-126. 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17589
EO Index: 11685
Key Quad: Imperial Beach (3211751)
Element Code: ABPBG02095
Occurrence Number: 57
Occurrence Last Updated: 1991-09-30

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*
Common Name: coastal cactus wren

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5T3Q
State: S3
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:
SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:
WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed: 1983-09-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1983-09-22
Occurrence Rank: Good
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
OTAY MESA, WEST OF BROWN FIELD AND SOUTH OF OTAY MESA ROAD.

Detailed Location:

Ecological:

Threats:
THREATENED BY PROPOSED DEVELOPMENT.

General:
TWO CACTUS WRENS, INCLUDING ONE TERRITORIAL MALE, OBSERVED BY RICHARD WEBSTER ON 22 SEPTEMBER 1983.

PLSS: T18S, R01W, Sec. 31, NE (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3602936 E498591
Latitude/Longitude: 32.56384 / -117.01501
Elevation (feet): 500

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

REA90R0001 REA, A.M. & K.L. WEAVER - THE TAXONOMY, DISTRIBUTION, AND STATUS OF COASTAL CALIFORNIA CACTUS WRENS. WESTERN BIRDS, VOL. 21(3): PP. 81-126. 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17605
EO Index: 11637
Key Quad: La Jolla (3211772)
Element Code: ABPBG02095
Occurrence Number: 62
Occurrence Last Updated: 1991-09-30

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*
Common Name: coastal cactus wren

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T3Q
State: S3

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:
SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:
WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed: 1990-05-20
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1990-05-20
Occurrence Rank: Fair
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
CANYON BETWEEN FORT STOCKTON DRIVE & WASHINGTON PLACE, MISSION HILLS, SAN DIEGO.

Detailed Location:

Ecological:

Threats:

General:
ONE TERRITORIAL MALE OBSERVED BY CLAUDE EDWARDS ON 20 MARCH 1986. ONE TERRITORIAL MALE OBSERVED BY STEVE HUEMNER ON 20 MAY 1990.

PLSS: T16S, R03W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3623615 E483414
Latitude/Longitude: 32.75026 / -117.17705
Elevation (feet): 250

County Summary:
San Diego

Quad Summary:
Point Loma (3211762), La Jolla (3211772)

Sources:

REA90R0001 REA, A.M. & K.L. WEAVER - THE TAXONOMY, DISTRIBUTION, AND STATUS OF COASTAL CALIFORNIA CACTUS WRENS. WESTERN BIRDS, VOL. 21(3): PP. 81-126. 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17591
Key Quad: El Cajon (3211678)
Occurrence Number: 63
EO Index: 11692
Element Code: ABPBG02095
Occurrence Last Updated: 2003-12-08

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*
Common Name: coastal cactus wren

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T3Q
State: S3

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:
SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:
WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed: 1998-04-26
Last Survey Date: 1998-04-26
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:
FANITA RANCH, EAST SIDE OF SYCAMORE CANYON, NE OF SANTEE LAKES, SANTEE.

Detailed Location:

Ecological:

Threats:
THREATENED BY PROPOSED DEVELOPMENT.

General:
10 CACTUS WRENS OBSERVED DURING A PREVIOUS SURVEY; 3 OBSERVED, INCLUDING 2 TERRITORIAL MALES, BY PHILIP UNITT ON 27 JULY 1990. UNKNOWN NUMBER OBSERVED IN GENERAL AREA DURING QUINO CHECKERSPOT SURVEY MAR-APR 1998.

PLSS: T15S, R01W, Sec. 16 (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3636636 E500567
Latitude/Longitude: 32.86784 / -116.99393
Elevation (feet): 600

County Summary:
San Diego

Quad Summary:
El Cajon (3211678), San Vicente Reservoir (3211688), La Mesa (3211771)

Sources:

DUD98R0001	DUDEK & ASSOCIATES, INC. - QUINO CHECKERSPOT SURVEY FOR FANITA RANCH, SAN DIEGO CO (INCLUDES DATA FROM PRIOR SURVEYS FOR OTHER SPECIES) 1998-06-05
REA90R0001	REA, A.M. & K.L. WEAVER - THE TAXONOMY, DISTRIBUTION, AND STATUS OF COASTAL CALIFORNIA CACTUS WRENS. WESTERN BIRDS, VOL. 21(3): PP. 81-126. 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04446
EO Index: 9873
Key Quad: Otay Mesa (3211658)
Element Code: ABPBG02095
Occurrence Number: 118
Occurrence Last Updated: 1992-09-10

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*
Common Name: coastal cactus wren

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T3Q
State: S3

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:
SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:
WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed: 1989-06-08
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1989-06-08
Occurrence Rank: Good
Owner/Manager: PVT-OTAY RANCH
Trend: Unknown
Presence: Presumed Extant

Location:
WOLF CANYON, NORTH OF OTAY VALLEY AND WEST OF LOWER OTAY RESERVOIR, OTAY RANCH.

Detailed Location:

Ecological:
COASTAL SAGE SCRUB AND MARITIME SUCCULENT SCRUB SERIOUSLY DEGRADED BY ORV USE AND GRAZING.

Threats:
DEVELOPMENT, ORV'S AND GRAZING.

General:
GNATCATCHERS AND ORANGE-THROATED WHIPTAILS ALSO KNOWN FROM HERE.

PLSS: T18S, R01W, Sec. 16 (S)
Accuracy: non-specific area
Area (acres): 797
UTM: Zone-11 N3607213 E500851
Latitude/Longitude: 32.60243 / -116.99093
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
Otay Mesa (3211658), Imperial Beach (3211751)

Sources:
SCH89R0001 SCHEID, G. ET AL. - BIOLOGICAL RESOURCES INVENTORY REPORT FOR THE OTAY RANCH PROPERTY 1989-10-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	17479	**EO Index:**	13728
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABPBG02095
Occurrence Number:	131	**Occurrence Last Updated:**	1994-07-15

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*

Common Name: coastal cactus wren

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G5T3Q

State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:

SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:

WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed:	1992-11-19	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1992-11-19	**Occurrence Rank:**	Good
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NE OF THE INTERSECTION OF I-805 & HWY 117, ALMOST TO PALM AVENUE TO THE NORTH, SAN DIEGO.

Detailed Location:

Ecological:

HABITAT IS COASTAL SAGE SCRUB & MARITIME SUCCULENT SCRUB. CALIFORNIA GNATCATCHERS ALSO FOUND HERE.

Threats:

PROPOSED URBAN DEVELOPMENT & ROAD CONSTRUCTION. ALSO ORV ACTIVITY & SOME DUMPING.

General:

PLSS:	T18S, R02W, Sec. 25, E (S)	**Accuracy:**	3/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3604197 E496672	**Latitude/Longitude:**	32.57521 / -117.03545	**Elevation (feet):**	350

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

FAM92F0005 FAMOLARO, P. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA & CAMPYLORHYNCHUS BRUNNEICAPILLUS 1992-11-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 30730
EO Index: 4191
Key Quad: National City (3211761)
Element Code: ABPBG02095
Occurrence Number: 132
Occurrence Last Updated: 1996-01-04

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*
Common Name: coastal cactus wren

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T3Q
State: S3

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:
SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:
WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed: 1994-10-06
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1994-10-06
Occurrence Rank: Unknown
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:
SPRING VALLEY OUTFALL SEWER, BETWEEN QUARRY ROAD AND SWEETWATER RESERVOIR, SOUTH OF LEMON GROVE.

Detailed Location:

Ecological:
HABITAT CONSISTS OF DIEGAN COASTAL SAGE SCRUB ON A ROCKY, EAST-FACING SLOPE; DOMINANTS INCLUDE OPUNTIA PROLIFERA, ARTEMISIA CALIFORNICA, BACCHARIS SAROTHRAE, AND ERIOGONUM FASCICULATUM. ADJACENT AREAS ARE DEVELOPED.

Threats:

General:
1 PAIR OBSERVED IN CACTUS ON 6 OCTOBER 1994. OWNED BY SAN DIEGO PUBLIC WORKS.

PLSS: T17S, R01W (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3617487 E498823
Latitude/Longitude: 32.69511 / -117.01255
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
MON94F0003 MONTIJO, R. - FIELD SURVEY FORM FOR CAMPYLORHYNCHUS BRUNNEICAPILLUS SANDIEGENSIS 1994-10-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 33305
EO Index: 1779
Key Quad: La Mesa (3211771)
Element Code: ABPBG02095
Occurrence Number: 133
Occurrence Last Updated: 1995-10-26

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*
Common Name: coastal cactus wren

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5T3Q
State: S3
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:

SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:

WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed: 1995-06-28
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1995-06-28
Occurrence Rank: Poor
Owner/Manager: CALTRANS
Trend: Unknown
Presence: Presumed Extant

Location:

JUST EAST OF FANITA ROAD, 0.3 MILE NORTH OF NAVAJO ROAD, EL CAJON.

Detailed Location:

LOCATED IN A 20 X 30 M PATCH OF OPUNTIA LITTORALIS.

Ecological:

HABITAT CONSISTS OF A PATCH OF OPUNTIA LITTORALIS ADJACENT TO AREAS OF DISTURBED COASTAL SAGE SCRUB, DOMINATED BY BACCHARIS SAROTHROIDES AND MALOSMA LAURINA. THIS AREA IS A NARROW CORRIDOR LEFT UNDEVELOPED FOR A FUTURE FREEWAY (SR-125).

Threats:

THREATENED BY FREEWAY CONSTRUCTION DUE TO BEGIN IN JANUARY 1996, WITH CLEARING OF THE SITE SCHEDULED FOR SEPTEMBER 1995.

General:

AREA WAS SURVEYED FOR CACTUS WRENS IN MARCH 1994; NO WRENS DETECTED. A PAIR WAS OBSERVED NESTING ON 28 JUNE 1995.

PLSS: T16S, R01W, Sec. 05, SE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3629895 E499550
Latitude/Longitude: 32.80704 / -117.00480
Elevation (feet): 800

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

APR95F0001 APRIL, B.L. (CALIFORNIA DEPARTMENT OF TRANSPORTATION) - FIELD SURVEY FORM FOR CAMPYLORHYNCHUS BRUNNEICAPILLUS SANDIEGENSIS 1995-06-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	33306	**EO Index:**	1781
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBG02095
Occurrence Number:	134	**Occurrence Last Updated:**	2002-11-26

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*

Common Name: coastal cactus wren

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G5T3Q

State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:

SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:

WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed:	2001-06-06	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-06-06	**Occurrence Rank:**	Good
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SE OF THE INTERSECTION OF PROSPECT AVENUE AND MESA ROAD, SANTEE.

Detailed Location:

LOCATED ON THE NORTH AND SOUTH SIDE OF THE CANYON, EAST OF THE INTERSECTION OF MESA ROAD AND RAMHAVEN LANE.

Ecological:

HABITAT CONSISTS OF DIEGAN COASTAL SAGE SCRUB, DOMINATED BY ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, MALOSMA LAURINA, OPUNTIA LITTORALIS, & OPUNTIA PROLIFERA; SOUTH-FACING SLOPE. SURROUNDING AREA: SCATTERED HOMES, UNDEVELOPED HABITAT.

Threats:

THREATENED BY DEVELOPMENT.

General:

15 NESTS AND 2 BIRDS OBSERVED AT THIS SITE ON 14 AUG 1995. 1 ADULT OBSERVED ON 30 MAY AND 3 ADULTS OBS ON 6 JUNE OF 2001. COOPER'S HAWK OBSERVED IN AREA.

PLSS:	T15S, R01W, Sec. 32 (S)	**Accuracy:**	non-specific area	**Area (acres):**	72
UTM:	Zone-11 N3631944 E498970	**Latitude/Longitude:**	32.82552 / -117.01100	**Elevation (feet):**	600

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

APR95F0002	APRIL, B.L. (CALIFORNIA DEPARTMENT OF TRANSPORTATION) - FIELD SURVEY FORM FOR CAMPYLORHYNCHUS BRUNNEICAPILLUS SANDIEGENSIS 1995-08-14
FIS01F0003	FISCHER, K. & L. HARGROVE (VARANUS BIOLOGICAL SERVICES) - 2001 GNATCATCHER SURVEY, MESA ROAD, SANTEE, SAN DIEGO COUNTY, CALIFORNIA 2001-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47435
EO Index: 53523
Key Quad: National City (3211761)
Element Code: ABPBG02095
Occurrence Number: 167
Occurrence Last Updated: 2003-12-09

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*
Common Name: coastal cactus wren

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T3Q
State: S3

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

General Habitat:
SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:
WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed: 2000-12-27
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2000-12-27
Occurrence Rank: Fair
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
NATIONAL CITY, SOUTH OF PARADISE VALLEY ROAD, ABOUT 0.15 - 0.5 MILE WEST OF HARBISON SCHOOL.

Detailed Location:
WESTERN-MOST PORTION OF PROPERTY.

Ecological:
HABITAT CONSISTS OF RELATIVELY UNDISTURBED COASTAL SAGE SCRUB. PLANTS INCLUDE OPUNTIA PROLIFERA, SIMMONDSIA CHINENSIS, PROSOPSIS GLANDULOSA, ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, OTHERS. SITE ISURROUNDED ON 3 SIDES BY DEVELOPMENT.

Threats:

General:
NESTS WERE OBSERVED ON 27 DEC 2000; HOWEVER, NO BIRDS WERE DETECTED. PORTION OF NESTING HABITAT TO BE CONSERVED IN BIOLOGICAL OPEN SPACE.

PLSS: T17S, R02W, Sec. 15 (S)
Accuracy: specific area
Area (acres): 25
UTM: Zone-11 N3616676 E493696
Latitude/Longitude: 32.68777 / -117.06724
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
SCH00F0025 SCHEIDT, V. - FIELD SURVEY FORM FOR CAMPYLORHYNCHUS BRUNNEICAPILLUS COUESI (SANDIEGENSIS) 2000-12-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A8123
EO Index: 109906
Key Quad: National City (3211761)
Element Code: ABPBG02095
Occurrence Number: 195
Occurrence Last Updated: 2018-01-19

Scientific Name: *Campylorhynchus brunneicapillus sandiegensis*
Common Name: coastal cactus wren

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G5T3Q
State: S3

General Habitat:
SOUTHERN CALIFORNIA COASTAL SAGE SCRUB.

Micro Habitat:
WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.

Last Date Observed: 2017-04-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2017-04-22
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO, UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
CHOLLAS RADIO SYSTEM/RADIO CANYON OPEN SPACE, ON THE NORTH SIDE OF MARKET ST BETWEEN 51ST ST AND PITTA ST IN SAN DIEGO.

Detailed Location:

Ecological:
MARITIME SUCCULENT SCRUB CHARACTERIZED BY COAST CHOLLA, PRICKLY PEAR AND BARREL CACTUS. OPEN SPACE PARK IS SURROUNDED BY URBAN RESIDENTIAL DEVELOPMENT.

Threats:

General:
ADULTS & JUVENILES OBSERVED IN 2009. AT LEAST 5 NESTS OBSERVED IN 2011. UP TO 8 PAIRS IN 2012. AT LEAST 3 PAIRS IN 2013. AT LEAST 3 PAIRS IN 2015. 1 ADULT HEARD SINGING & SEEN ON 22 APR 2017.

PLSS: T17S, R02W, Sec. 10, NW (S)
Accuracy: non-specific area
Area (acres): 88
UTM: Zone-11 N3619345 E492648
Latitude/Longitude: 32.71184 / -117.07844
Elevation (feet): 182

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

AEC14D0001	AECOM - TABULAR DETECTION DATA FOR RARE PLANTS AND ANIMALS FROM KERN, IMPERIAL, RIVERSIDE, SAN BERNARDINO, & SAN DIEGO COUNTIES, 2011-2014. 2014-XX-XX
FWS09D0003	FWS CARLSBAD FISH AND WILDLIFE OFFICE - CACTUS WREN SURVEY DETECTIONS FOR SAN DIEGO MSCP, 2009 2009-XX-XX
FWS11D0001	FWS CARLSBAD FISH AND WILDLIFE OFFICE - CACTUS WREN SURVEY DETECTIONS FOR SAN DIEGO MSCP, 2011 2011-XX-XX
HAR17F0008	HARVEY, C. - FIELD SURVEY FORM FOR CAMPYLORHYNCHUS BRUNNEICAPILLUS SANDIEGENSIS 2017-04-22
KUS12D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR NETTED CACTUS WREN LOCATIONS DURING NON-PROTOCOL SURVEYS IN 2012 2012-XX-XX
KUS15D0001	KUS, B. & R. POTTINGER (U.S. GEOLOGICAL SURVEY) - USGS GEODATABASE WITH 2 TABLES FOR 2015 CACTUS WREN RESEARCH AND MONITORING 2015-XX-XX
USG11D0001	U.S. GEOLOGICAL SURVEY - EXCEL TABLE OF USGS 2011 COASTAL CACTUS WREN SURVEYS 2011-XX-XX
USG12D0001	U.S. GEOLOGICAL SURVEY - EXCEL TABLE OF USGS 2012 COASTAL CACTUS WREN SURVEYS 2012-XX-XX
USG13D0001	U.S. GEOLOGICAL SURVEY - EXCEL TABLE OF USGS 2013 COASTAL CACTUS WREN SURVEYS 2013-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04323
EO Index: 25119
Key Quad: National City (3211761)
Element Code: ABPBJ08081
Occurrence Number: 21
Occurrence Last Updated: 1989-08-10

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 1918-04-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1918-04-07
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

BONITA.

Detailed Location:

Ecological:

Threats:

General:

EGG SET.

PLSS: T17S, R02W, Sec. 25 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3613601 E496846
Latitude/Longitude: 32.66005 / -117.03363
Elevation (feet): 100

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

HUE18S0004 HUEY, L. - WFVZ (EGG SET) 1918-04-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03944
EO Index: 13919
Key Quad: La Jolla (3211772)
Element Code: ABPBJ08081
Occurrence Number: 87
Occurrence Last Updated: 2007-12-07

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 2003-05-08
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-05-08
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN, PVT-SDGE
Trend: Unknown
Presence: Presumed Extant

Location:

NORTH OF FRIARS ROAD, WEST OF HWY 163 & ON BOTH SIDES OF I-805, IN THE VICINITY OF SAN DIEGO.

Detailed Location:

2000 SURVEY OCCURED IN AREA SOUTH OF GREYLING DRIVE, EAST OF I-805 & NORTH OF FRIARS ROAD. 2002: S OF GOWDY AVE TO EAST OF GREYLING DRIVE. 2003: SOUTH OF BARTEL STREET.

Ecological:

3 PATCHES OF COASTAL SAGE SCRUB HABITAT DOMINATED BY ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, AND SALVIA MELLIFERA. THE 3 PATCHES HAVE A TOTAL OF 364 ACRES WITH 244 ACRES OF COASTAL SAGE SCRUB. PATCHES HAVE BEEN ISOLATED 20-30 YEARS.

Threats:

POPULATION TOO SMALL?

General:

ATWOOD:2 INDIVIDUALS (5-10 PRS ESTIMATED). SWEETWATER ENV SURVEY: 1990-1992 NOTED PRESENCE OF GNATCATCHERS IN ALL 3 PATCHES. 2 NESTING PRS, 1 JUV OBS 22 FEB-22 AUG 2000. 2 PRS, 1 MALE, 1 INDIVIDUAL OBS 15 MAY-20 JUN 2002. MAY 2003:2 ADULTS.

PLSS: T16S, R03W, Sec. 13 (S)
Accuracy: non-specific area
Area (acres): 414
UTM: Zone-11 N3627480 E487082
Latitude/Longitude: 32.78517 / -117.13794
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

AFF02U0002	GROSS, M. (AFFINIS) - RESULTS OF PROTOCOL SURVEYS FOR THE CALIFORNIA GNATCATCHER, SERRA MESA SDGE PROPERTY. 2002-07-09
ATW80U0001	ATWOOD, J.L. - CALIFORNIA BLACK-TAILED GNATCATCHER POPULATION SURVEY, 1980. UCLA DEPT. OF BIOLOGY. 1980-XX-XX
KIM03F0029	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2003-05-08
QUO01U0001	QUON, L. (KEA ENVIRONMENTAL) - MEMO TO USFWS REGARDING POLIOPTILA CALIFORNICA CALIFORNICA. 2001-01-26
SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14
SWE92R0001	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - CALIFORNIA GNATCATCHER PATCH STUDY, SAN DIEGO, CA 1992-08-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	15996	**EO Index:**	8291
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	89	**Occurrence Last Updated:**	2003-03-20

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	1998-02-27	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1998-02-27	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO, UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

AREA NORTH OF MISSION GORGE BY OLD MISSION DAM & EAST OF FORTUNA MOUNTAIN, NORTH OF SAN DIEGO.

Detailed Location:

1998 OBS: EAST SIDE SPRING CREEK (FLOOD PLAIN) & ALSO JUST EAST OF OAK CANYON.

Ecological:

DIEGAN COASTAL SAGE SCRUB HABITAT DOMINATED BY ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, AND SALVIA MELLIFERA.

Threats:

THREAT CONSISTS OF PIPELINE/MULTI-PURPOSE TRAIL ALIGNMENT.

General:

15-30 PAIRS ESTIMATED BY ATWOOD IN 1980. 1 ADULT OBSERVED 8/16/90. 8 OBSERVATIONS BETWEEN 1990 & 1992. 2 PAIRS OBSERVED BETWEEN 13 - 27 FEB 1998.

PLSS:	T15S, R02W (S)	**Accuracy:**	non-specific area	**Area (acres):**	454
UTM:	Zone-11 N3634233 E496056	**Latitude/Longitude:**	32.84616 / -117.04214	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

ATW80U0001	ATWOOD, J.L. - CALIFORNIA BLACK-TAILED GNATCATCHER POPULATION SURVEY, 1980. UCLA DEPT. OF BIOLOGY. 1980-XX-XX
DUD98U0001	HAYWORTH, A. (DUDEK AND ASSOCIATES) - CALIFORNIA GNATCATCHER SURVEY FOR THE MWWD WATER REPURIFICATION PROJECT PIPELINE, CITY OF SAN DIEGO, CALIFORNIA 1998-03-06
PHI90F0003	PHILLIPS, J.R. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 1990-08-16
SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04108
EO Index: 25064
Key Quad: La Mesa (3211771)
Element Code: ABPBJ08081
Occurrence Number: 90
Occurrence Last Updated: 2004-07-01

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 2003-05-02
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-05-02
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVY
Trend: Stable
Presence: Presumed Extant

Location:

NORTH OF FRIARS ROAD, BETWEEN I-15 & THE NAVAL RECREATION FACILITY, SAN DIEGO.

Detailed Location:

1980: FRIARS ROAD NORTH TO SCULPIN STREET. 1998: EAST SIDE OF CENTRAL AND SOUTHERN PORTION OF GOLF COURSE. 2002: AREA ABOUT 0.5 MILE NORTH OF FRIARS ROAD. 2003: ALONG TRANSMISSION LINE, EAST SIDE CENTRAL PORTION OF GOLF COURSE.

Ecological:

COASTAL SAGE SCRUB HABITAT DOMINATED BY ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, AND SALVIA MELLIFERA. SURROUNDING LAND: HOUSING, UNDEVELOPED. ASPIDOSCELIS HYPERYTHRUS, ACCIPITER COOPERII AND AIMOPHILA RUFICEPS CANESCENS IN VICINITY.

Threats:

THREAT: CATS.

General:

1980: 2 INDIVIDUALS OBSERVED; 5-10 PAIRS ESTIMATED. 7 PAIRS, 3 MALES OBSERVED APRIL 1998 AND 4 PAIRS, 2 MALES OBSERVED JUNE 1998. 12 ADULTS AND 13 JUVENILES OBSERVED; CAGN PRESENT AUG - JUL '02. 2003: 2 BREEDING ADULTS OBSERVED.

PLSS: T16S, R02W, Sec. 08 (S)
Accuracy: non-specific area
Area (acres): 261
UTM: Zone-11 N3628912 E490207
Latitude/Longitude: 32.79813 / -117.10458
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

ATW80U0001	ATWOOD, J.L. - CALIFORNIA BLACK-TAILED GNATCATCHER POPULATION SURVEY, 1980. UCLA DEPT. OF BIOLOGY. 1980-XX-XX
BUR02F0011	BURTON, K. (GARCIA AND ASSOCIATES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2002-XX-XX
KIM03F0028	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2003-05-02
REC98U0002	AYERS, T. (RECON ENVIRONMENTAL, INC.) - 45-DAY REPORT ON PRESENCE OF COASTAL CALIFORNIA GNATCATCHERS AT NAVAL RECREATION CENTER - MISSION GORGE (ADMIRAL BAKER FIELD) 1998-07-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04545	**EO Index:**	21346
Key Quad:	Jamul Mountains (3211668)	**Element Code:**	ABPBJ08081
Occurrence Number:	91	**Occurrence Last Updated:**	2009-11-16

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2004-07-16	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2004-07-16	**Occurrence Rank:**	Unknown
Owner/Manager:	UNK,PVT-SDGE,OTAY MWD,OTHER	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

S SHORE SWEETWATER RESERVOIR & SWEETWATER RIVER BELOW DAM, EXTENDING PAST MOTHER MIGUEL MT TO N OF UPPER OTAY RESERVOIR.

Detailed Location:

NON-SPECIFIC POLYGON INCLUDES SIGHTINGS OVER LARGE AREA: SEC 10, NW PART SEC 14, SEC 15, SEC 16, SEC 20, N HALF SEC 21, NW & SE PARTS SEC 22, SEC 23, S PART SEC 24, N PART SEC 25, CENTER & N PART SEC 26, N HALF SEC 27, & N HALF SEC 28.

Ecological:

COASTAL SAGE SCRUB DOMINATED BY ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM & SALVIA MELLIFERA. DISTURBED HABITAT IN SEC 15, 21, 25. INCLUDES W PORTION OWD SAN MIGUEL HABITAT MGMT AREA. 2009 AERIAL PHOTO SHOWS DEVELOPMENT IN ~1/3 OF AREA.

Threats:

THREATENED BY BONITAS MEADOWS, RANCHO SAN MIGUEL HOUSING DEVELOPMENTS TO W & SALT CREEK RANCH, ROLLING HILLS RANCH TO E.

General:

4 OBS; 1980, ~5-15 PRS. '88:9 OBS RECON. '90:5 OBS,ERCE. 68 TERRITORIES (T) OBS BEFORE/INC '91. '90-92:>74 PR OBS,SWEETWATER ENV. MAR-AUG'98:7OBS. MAR-AUG'99:13 T,10OBS. '00:2 PRS,11 T. '01:10 T. '02:9 T. '03:3 ADULTS. '04:9 T, 4 NESTLINGS.

PLSS:	T17S, R01W, Sec. 21 (S)	**Accuracy:**	non-specific area	**Area (acres):**	3,813
UTM:	Zone-11 N3615581 E501484	**Latitude/Longitude:**	32.67791 / -116.98416	**Elevation (feet):**	700

County Summary:	**Quad Summary:**
San Diego	Jamul Mountains (3211668), National City (3211761)

Sources:

ATW80U0001	ATWOOD, J.L. - CALIFORNIA BLACK-TAILED GNATCATCHER POPULATION SURVEY, 1980. UCLA DEPT. OF BIOLOGY. 1980-XX-XX
CHU91U0001	CITY OF CHULA VISTA - LETTER FROM GORDON HOWARD AND MAPS FROM ERC AND P&D BIOLOGICAL RESOURCES FROM VARIOUS EIRS. 1991-XX-XX
FAM00R0001	FAMOLARO, P. (SWEETWATER AUTHORITY) - 1999 ENDANGERED AND THREATENED SPECIES MONITORING REPORT (OTHER SPECIES IN THE REPORT INCLUDE: EMPIDONAX TRAILLII EXTIMUS, POLIOPTILA CALIFORNICA CALIFORNICA) 2000-02-03
FAM04F0006	FAMOLARO, P. (SWEETWATER AUTHORITY) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2004-03-24
FAM99R0001	FAMOLARO, P. (SWEETWATER AUTHORITY) - 1998 ENDANGERED/THREATENED SPECIES MONITORING REPORT 1999-01-08
HEL00U0005	PUDOFF, D. (HELIX ENVIRONMENTAL PLANNING, INC.) - YEAR 2000 PROTOCOL GNATCATCHER SURVEY REPORT FOR NEIGHBORHOODS 1 AND 7. 2000-08-21
KIM03F0026	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2003-05-02
KIM03F0027	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2003-05-02
KIM04F0029	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2004-03-10
KIM04F0030	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2004-04-15
KIN04F0008	KING, D. (AMEC) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2004-06-07
KIN04F0009	KING, D. (AMEC) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2004-04-16
KIN04F0010	KING, D. (AMEC) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2004-06-07
KIN04F0011	KING, D. (AMEC) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2004-06-07
KIN04F0012	KING, D. (AMEC) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2004-06-07
KIN04F0013	KING, D. (AMEC) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2004-07-15
KIN04F0014	KING, D. (AMEC) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2004-07-15
KIN04F0015	KING, D. (AMEC) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2004-07-16
KIN04F0016	KING, D. (AMEC) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2004-03-05
MER01U0007	MERKEL & ASSOCIATES, INC. - FOCUSED CALIFORNIA GNATCATCHER SURVEYS AT THE OWD SAN MIGUEL HMA PROJECT SITE FOR THE YEAR 2000 2001-01-08
MER01U0008	GUTIERREZ, A. (MERKEL AND ASSOCIATES, INC.) - FOCUSED CALIFORNIA GNATCATCHER SURVEYS AT THE OWD SAN MIGUEL HMA PROJECT SITE FOR THE YEAR 2001 2001-07-26
MER02U0005	GUTIERREZ, A. (MERKEL AND ASSOCIATES, INC.) - FOCUSED CALIFORNIA GNATCATCHER SURVEYS AT THE OWD SAN MIGUEL HMA PROJECT SITE FOR THE YEAR 2002 2002-08-06
MER99U0006	MERKEL & ASSOCIATES, INC. - 1999 CALIFORNIA GNATCATCHER SURVEYS AT THE OWD SAN MIGUEL HMA 1999-08-20
SWE91M0001	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - VEGETATION MAP SHOWING PUBLIC AND PRIVATE LAND IN THE VICINITY OF SWEETWATER AND LOWER OTAY RESERVOIRS (CONTAINS GNATCATCHER LOCATIONAL DATA). 1991-10-21
SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04446	**EO Index:**	9854
Key Quad:	Otay Mesa (3211658)	**Element Code:**	ABPBJ08081
Occurrence Number:	92	**Occurrence Last Updated:**	1992-09-10

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	1989-06-08	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1989-06-08	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT-OTAY RANCH	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

WOLF CANYON, NORTH OF OTAY VALLEY AND WEST OF LOWER OTAY RESERVOIR, OTAY RANCH.

Detailed Location:

GNATCATCHERS OBSERVED THROUGHOUT THE CANYON BUT MORE NUMEROUS IN THE LOWER SECTIONS.

Ecological:

COASTAL SAGE SCRUB HABITAT DOMINATED BY ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, AND SALVIA MELLIFERA. HABITAT DEGRADED BY ORV'S AND GRAZING.

Threats:

DEVELOPMENT, ORV'S AND GRAZING.

General:

ONE INDIVIDUAL OBSERVED; 3-6 PAIRS ESTIMATED IN 1980. 1989 SURVEY FOUND 4 GNATCATCHERS, WITH PREVIOUS SIGHTINGS OF 7 BIRDS.

PLSS:	T18S, R01W, Sec. 16 (S)	**Accuracy:**	non-specific area	**Area (acres):**	797
UTM:	Zone-11 N3607213 E500851	**Latitude/Longitude:**	32.60243 / -116.99093	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

ATW80U0001	ATWOOD, J.L. - CALIFORNIA BLACK-TAILED GNATCATCHER POPULATION SURVEY, 1980. UCLA DEPT. OF BIOLOGY. 1980-XX-XX
SCH89R0001	SCHEID, G. ET AL. - BIOLOGICAL RESOURCES INVENTORY REPORT FOR THE OTAY RANCH PROPERTY 1989-10-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A2698	**EO Index:**	25058
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABPBJ08081
Occurrence Number:	95	**Occurrence Last Updated:**	2016-11-29

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2016-06-25	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-06-25	**Occurrence Rank:**	Good
Owner/Manager:	DPR, SDG COUNTY, UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

VICINITY OF SPOONERS MESA, WEST MESA & BUNKER HILL, SW OF MONUMENT RD AT HOLLISTER ST, JUST N OF THE CA/MEX BORDER.

Detailed Location:

NESTING ON SLOPES OF SMUGGLER'S CANYON, SPOONERS MESA, GOAT CANYON, WEST MESA, & BUNKER HILL. INCIDENTAL OBSERVATIONS ON SPOONERS MESA TOP & ACROSS MONUMENT RD ON CITY PARK PROPERTY.

Ecological:

DIEGAN COASTAL SAGE SCRUB & SOUTHERN MARITIME CHAPARRAL; SURROUNDED BY COASTAL SAGE SCRUB, RIPARIAN HABITAT, RESIDENTIAL TO SOUTH. # OF PAIRS REPORTED BELOW, UNPAIRED MALES & FEMALES ALSO SEEN. NEST FAILURE, BUT NOT ITS CAUSES, DOCUMENTED.

Threats:

HUMAN DISTURBANCE, COWBIRDS, BORDER PATROL, BORDER FENCE & ASSOCIATED ROAD CONSTRUCTION, POLLUTION.

General:

1980: 10-20 PAIRS (P). '93: 6P; 6 NESTS (N). '95: 2P; 3N. '96: 1P; 2N. '97: 1P W/JUV. '98: 2P; 2+ N. 2001: 3P, 3+ JUV. '03: 3P. '06: 1+ P. '08: 2+ P. '09: 8P. '10: 4P, 4 JUV. '11: 1+ P. '12: 4+ P. '13: PRESENT. '14: 9P. '16: 5P, 20+ YOUNG.

PLSS:	T19S, R02W, Sec. 4, SW (S)	**Accuracy:**	non-specific area	**Area (acres):**	468
UTM:	Zone-11 N3600323 E490715	**Latitude/Longitude:**	32.54023 / -117.09888	**Elevation (feet):**	319

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

AME02U0001	HOWARD, M. (AMEC) - BORDER INFRASTRUCTURE PROJECT - COASTAL CALIFORNIA GNATCATCHER (POLIOPTILA CALIFORNICA) & QUINO CHECKERSPOT BUTTERFLY (EUPHYDRYAS EDITHA QUINO) 45-DAY MONITORING PROGRAM REPORT 2002-08-08
ATW80U0001	ATWOOD, J.L. - CALIFORNIA BLACK-TAILED GNATCATCHER POPULATION SURVEY, 1980. UCLA DEPT. OF BIOLOGY. 1980-XX-XX
BEC12U0001	BECK, C. - EMAIL REGARDING DETECTIONS OF SPECIAL STATUS SPECIES RELATING TO SCP APPLICATION 2012-05-XX
BUR10F0014	BURG, R. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM AND SHAPEFILE OF CALIFORNIA GNATCATCHER DETECTIONS AT BORDER FIELD STATE PARK DURING 2010 2010-06-23
CLA11F0001	CLARK, K. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2011-02-01
FIS09R0001	FISHER, A. ET AL. (EDAW, INC.) - SUMMARY REPORT OF FOCUSED SURVEYS FOR THE LEAST BELL'S VIREO AT BORDER FIELD STATE PARK - GOAT CANYON ENHANCEMENT PROJECT, YEAR 3- 2008 2009-02-13
GRI01R0001	GRIFFITH, J. (GRIFFITH WILDLIFE BIOLOGY) - INS BORDER PROJECT: LEAST BELL'S VIREO, SOUTHWESTERN WILLOW FLYCATCHER AND CALIFORNIA GNATCATCHER PROTOCOL SURVEYS. 2001-07-18
KUS12D0002	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR NETTED CALIFORNIA GNATCATCHER LOCATIONS DURING NON-PROTOCOL SURVEYS IN 2012 2012-XX-XX
KUS93U0001	KUS, B. (SAN DIEGO STATE UNIVERSITY) - GNATCATCHER SURVEYS IN GOAT CANYON, SMUGGLER'S GULCH, AND SURROUNDING BORDER HIGHLANDS 1993-09-23
LID13U0001	LIDDICOAT, T. (DUDEK AND ASSOCIATES) - 2013 FOCUSED CALIFORNIA GNATCATCHER SURVEY REPORT FOR THE TIJUANA RIVER VALLEY CHANNEL MAINTENANCE PROJECT. 2013-04-03
LOH09U0002	LOHSTROH, B. ET AL. (URS CORPORATION) - 45 DAY REPORT FOR CALIFORNIA GNATCATCHER SURVEYS AT SMUGGLER'S GULCH AND GOAT CANYON. 2009-08-14
MAC12F0003	MACGREGOR, C. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2012-11-14
MIN04U0001	MINER, K. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - 45-DAY REPORT FOR THE GOAT CANYON ENHANCEMENT PROJECT AND THE DEVELOP AND REHABILITATE DAY USE FACILITIES PROJECT FOR THE COASTAL CALIFORNICA GNATCATCHER. 2004-01-15
OGD99R0001	OGDEN ENVIRONMENTAL AND ENERGY SERVICES COMPANY - COASTAL CALIFORNIA GNATCATCHER SURVEY RESULTS FOR THE BORDER FENCE PROJECT, SAN DIEGO, CALIFORNIA 1999-10-XX
RIL07R0001	RILEY, E. (EDAW, INC.) - 45-DAY SUMMARY REPORT OF FOCUSED SURVEYS FOR THE LEAST BELL'S VIREO AT BORDER FIELD STATE PARK GOAT CANYON ENHANCEMENT PROJECT 2007-02-14
SIM14U0002	SIMONSEN, J. - COASTAL CALIFORNIA GNATCATCHER 45-DAY SURVEY REPORT FOR BORDER FIELD STATE PARK, SAN DIEGO CALIFORNIA. 2014-08-28
SIM16F0002	SIMONSEN, J. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2016-06-25
TWB96R0001	WELLS, J. & J. TURNBULL (TW BIOLOGICAL SERVICES) - CALIFORNIA GNATCATCHER MONITORING AND TERRITORY MAPPING PROGRAM FINAL LETTER REPORT FOR 1995. 1996-01-30
TWB97R0001	WELLS, J. & J. TURNBULL (TW BIOLOGICAL SERVICES) - CALIFORNIA GNATCATCHER MONITORING AND TERRITORY MAPPING PROGRAM FINAL LETTER REPORT FOR 1996. 1997-02-15
TWB98R0001	WELLS, J. & J. TURNBULL (TW BIOLOGICAL SERVICES) - CALIFORNIA GNATCATCHER MONITORING AND TERRITORY MAPPING PROGRAM PRELIMINARY LETTER REPORT FOR 1997. 1998-02-07
TWB99R0001	WELLS, J. & J. TURNBULL (TW BIOLOGICAL SERVICES) - CALIFORNIA GNATCATCHER MONITORING AND TERRITORY MAPPING PROGRAM PRELIMINARY LETTER REPORT FOR 1998. 1999-03-07
VAR01F0001	VARANUS BIOLOGICAL SERVICES, INC. - SENSITIVE SPECIES 45-DAY REPORT FORM, 2001 COASTAL CALIFORNIA GNATCATCHER SURVEY, GOAT CANYON, TIJUANA RIVER VALLEY. 2001-05-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17516
EO Index: 25297
Key Quad: Imperial Beach (3211751)
Element Code: ABPBJ08081
Occurrence Number: 118
Occurrence Last Updated: 1995-04-13

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 1984-07-13
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1984-07-13
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

HILLS SOUTH OF OTAY RIVER VALLEY, APPROX 0.5 MI SOUTH OF OTAY VALLEY RD & JUST EAST OF I-805.

Detailed Location:

Ecological:

HABITAT IS COASTAL SAGE SCRUB VEGETATION.

Threats:

THREATS INCLUDE ORV USE OF UPLANDS & PREVIOUS SAND/GRAVEL MINING OF RIVER BOTTOM.

General:

RESIDENT BIRDS; CACTUS WREN IS ASSOCIATED SPECIES.

PLSS: T18S, R01W, Sec. 19, S (S)
Accuracy: specific area
Area (acres): 149
UTM: Zone-11 N3605486 E497620
Latitude/Longitude: 32.58684 / -117.02536
Elevation (feet): 250

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

SCH87F0038	SCHEIDT, V.N. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 1987-11-20
WIE84F0002	WIER, E. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA (POLIOPTILA MELANURA CALIFORNICA) 1984-07-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04395
EO Index: 25039
Key Quad: National City (3211761)
Element Code: ABPBJ08081
Occurrence Number: 125
Occurrence Last Updated: 1989-08-10

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 1986-08-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1986-08-15
Occurrence Rank: Good
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

NEAR THE END OF CAMINO ELEVADO ALONG OTAY LAKES RD IN THE BONITA AREA OF CHULA VISTA.

Detailed Location:

Ecological:

HABITAT IS INLAND SAGE SCRUB AND WEEDY PLANT COMMUNITIES, DOMINATED BY ARTEMISIA CALIFORNICA, SALVIA APIANA, BRASSICA NIGRA, AND STEPHANOMERIA VIRGATA, LOCATED ON AN OPEN, DRY, ROCKY CREST.

Threats:

General:

1-10 INDIVIDUALS OBSERVED BY SCHEIDT.

PLSS: T17S, R01W, Sec. 32 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3612727 E499229
Latitude/Longitude: 32.65217 / -117.00822
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

SCH86F0012 SCHEIDT, V. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 1986-08-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04322
EO Index: 25038
Key Quad: Imperial Beach (3211751)
Element Code: ABPBJ08081
Occurrence Number: 126
Occurrence Last Updated: 1989-08-10

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 1981-05-04
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1981-05-04
Occurrence Rank: Good
Owner/Manager: CITY OF SAN DIEGO, STATE
Trend: Unknown
Presence: Presumed Extant

Location:

S OF OTAY MESA RD, 0.7 MI NE OF SAN YSIDRO.

Detailed Location:

Ecological:

HABITAT CONSISTS OF OPEN AREAS IN DENSE COASTAL SAGE SCRUB AND MARITIME DESERT SCRUB, DOMINATED BY ENCELIA CALIFORNICA AND OPUNTIA PROLIFERA; FEROCACTUS VIRIDESCENS, PHRYNOSOMA CORONATUM BLAINVILLEI, AND CNEMIDOPHORUS HYPERYTHRUS ALSO HERE.

Threats:

THREATENED BY PROPOSED DEVELOPMENT.

General:

1-10 INDIVIDUALS OBSERVED HERE BY SCHEIDT.

PLSS: T18S, R02W, Sec. 36, SE (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3602637 E496607
Latitude/Longitude: 32.56114 / -117.03614
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

SCH81F0024 SCHEIDT, V.N. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 1981-05-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04406
EO Index: 25034
Key Quad: La Mesa (3211771)
Element Code: ABPBJ08081
Occurrence Number: 129
Occurrence Last Updated: 1993-01-14

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 1983-09-01
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1983-09-01
Occurrence Rank: Fair
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

ITE EAST OF NORTHERNMOST SANTEE LAKES POND IN THE CITY OF SANTEE.

Detailed Location:

Ecological:

HABITAT IS DENSE, WEEDY VEGETATION ADJACENT TO INLAND SAGE SCRUB, DOMINATED BY BRASSICA NIGRA, CENTAUREA MELITENSIS, AND FOENICULUM VULGARE.

Threats:

General:

1-10 INDIVIDUALS OBSERVED BY SCHEIDT; POSSIBLE FORAGING AREA. PROPOSED PARK SITE.

PLSS: T15S, R01W, Sec. 17 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3635986 E499814
Latitude/Longitude: 32.86198 / -117.00198
Elevation (feet): 100

County Summary:

San Diego

Quad Summary:

El Cajon (3211678), La Mesa (3211771)

Sources:

SCH83F0022 SCHEIDT, V.N. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 1983-09-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21968	**EO Index:**	8294
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	131	**Occurrence Last Updated:**	2002-11-26

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2000-09-27	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2000-09-27	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BETWEEN MURPHY CANYON AND ELANUS CANYON, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

INDIVIDUAL OBSERVED (27 SEP 2000) JUST WEST OF MURPHY CANYON ROAD.

Ecological:

HABITAT IS COASTAL SAGE SCRUB AND CHAPARRAL. NW AREA DOMINATED BY ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM AND ADENOSTOMA FASCICULATUM; SHRUB COVER VISUALLY ESTIMATED AT 75%.

Threats:

THREAT CONSISTS OF A DRAINAGE REPAIR PROJECT - MITIGATION PROPOSED.

General:

KNOWN TO OCCUR ON THIS SITE IN THE 1980'S. 5 OBSERVATIONS BETWEEN 1990 & 1992. AT LEAST 3 ADDITIONAL OBSERVATIONS; DATES UNKNOWN. 1 INDIVIDUAL OF UNKNOWN AGE OBSERVED ON 27 SEP 2000.

PLSS:	T15S, R02W (S)	**Accuracy:**	non-specific area	**Area (acres):**	337
UTM:	Zone-11 N3633351 E489274	**Latitude/Longitude:**	32.83816 / -117.11460	**Elevation (feet):**	350

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BRG92M0001	BUTLER ROACH GROUP, INC. - BIOLOGICAL RESOURCE MAPS FOR MIRAMAR NAVAL AIR STATION 1992-XX-XX
JAM00F0004	JAMES, R. (CALIFORNIA DEPARTMENT OF TRANSPORTATION) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2000-09-27
SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14
WES87R0002	WESTEC SERVICES, INC. - ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED LAND SALES AND EXCHANGES SOUTH OF CALIFORNIA STATE ROUTE 52, NAVAL AIR STATION, MIRAMAR, SAN DIEGO COUNTY, CA 1987-04-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21963	**EO Index:**	8292
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	137	**Occurrence Last Updated:**	2003-03-20

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	1998-02-27	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1998-02-27	**Occurrence Rank:**	Good
Owner/Manager:	DOD-MCAS MIRAMAR, SDG COUNTY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

AREA BETWEEN MISSION GORGE ON THE SOUTH & MARINE CORPS AIR STATION ON THE NORTH. INCLUDES MISSION TRAILS REGIONAL PARK.

Detailed Location:

1998 OBS: SOUTH OF SHEPHERD CANYON.

Ecological:

HABITAT IS COASTAL SAGE SCRUB DOMINATED BY ARTEMISIA CALIFORNICA, BACCHARIS SP, MIMULUS SP, & ERIOGONUM SP; SITE HAS SOME GENTLE SLOPES & SANDY AREAS.

Threats:

PROPOSED ALIGNMENT OF JACKSON DRIVE EXTENSION, PIPELINE, MULTI-PURPOSE TRAIL,SOME ORV USE. CONSTRUCTION OF NAVY HOUSING.

General:

INDIVIDUALS, PAIRS & FAMILY GROUPS OBSERVED JULY 1980 SURVEYS FOR USN HOUSING PROJECT. 1 NEST OBS 5/17/90. 35 OBS INCLUDING GROUP W/9 PAIRS BETWEEN 1990 & 1992. 2 PRS OBS BETWEEN 13-27 FEB 1998. MISSION TRAILS REGIONAL PARK IS PART OF SITE.

PLSS:	T15S, R02W (S)	**Accuracy:**	non-specific area	**Area (acres):**	2,220
UTM:	Zone-11 N3633047 E493008	**Latitude/Longitude:**	32.83545 / -117.07471	**Elevation (feet):**	700

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

DUD98U0001	HAYWORTH, A. (DUDEK AND ASSOCIATES) - CALIFORNIA GNATCATCHER SURVEY FOR THE MWWD WATER REPURIFICATION PROJECT PIPELINE, CITY OF SAN DIEGO, CALIFORNIA 1998-03-06
PSB80R0001	PSBS - PACIFIC SOUTHWEST BIOLOGICAL SERVICES, INC. - BIOLOGICAL ASSESSMENT FOR MURPHY CANYON HEIGHTS, TIERRASANTA, AND CAMP ELLIOT SITES, SAN DIEGO 1980-10-01
SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14
VIS90F0001	VISSMAN, S.M. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA & ORANGE-THROATED WHIPTAIL IN MISSION TRAILS REGIONAL PARK. 1990-05-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17411
Key Quad: La Mesa (3211771)
Occurrence Number: 140
EO Index: 8435
Element Code: ABPBJ08081
Occurrence Last Updated: 2003-12-19

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 2002-07-03
Last Survey Date: 2002-07-03
Owner/Manager: CITY OF SAN DIEGO, UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

JUST WEST OF LAKE MURRAY, WITHIN THE CITY OF SAN DIEGO.

Detailed Location:

Ecological:

HABITAT IS DIEGAN COASTAL SAGE SCRUB, DOMINATED BY ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM FASCICULATUM, BARCCHARIS SAROTHROIDES AND MALOSMA LAURINA. SITE IS RELATIVELY UNDISTURBED OPEN SPACE-PART OF MISSION TRAILS REG PARK.

Threats:

General:

2 ADULTS OBSERVED ON 15 AUG 1990. 1-2 ADULTS OBSERVED ON 3 JUL 2002. AREA SURROUNDED BY DEVELOPMENT TO THE NORTH, WEST AND SOUTH. POSSIBLE DISTURBANCE TO HABITAT RESULTING FROM ACCESSING MANHOLES.

PLSS: T16S, R02W, Sec. 14 (S)
Accuracy: non-specific area
Area (acres): 94
UTM: Zone-11 N3627808 E495298
Latitude/Longitude: 32.78820 / -117.05021
Elevation (feet): 700

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

ALF02F0003	ALFARO, E. (TIERRA ENVIRONMENTAL SERVICES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2002-07-03
PHI90F0002	PHILLIPS, J.R. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 1990-08-15
SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14
SWE92R0001	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - CALIFORNIA GNATCATCHER PATCH STUDY, SAN DIEGO, CA 1992-08-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17413
EO Index: 11931
Key Quad: La Mesa (3211771)
Element Code: ABPBJ08081
Occurrence Number: 142
Occurrence Last Updated: 1991-02-14

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 1990-08-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1990-08-16
Occurrence Rank: Good
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

0.25 MI SW OF LAKE MURRAY, WITHIN THE CITY OF SAN DIEGO.

Detailed Location:

TWO ADULTS OBSERVED.

Ecological:

HABITAT IS DIEGAN COASTAL SAGE SCRUB DOMINATED BY ARTEMISIA CALIFORNICA AND ERIOGONUM FASCICULATUM FASCICULATUM.

Threats:

MINOR DISTURBANCE THREATS FROM ROADWAY & ILLEGAL DUMPING ACTIVITIES.

General:

SITE AND ASSOCIATED RIPARIAN AREA COULD BE PROTECTED AS PART OF MISSION TRAILS REGIONAL PARK. SITE IS CURRENTLY OWNED BY THE CITY DEPT OF WATER RESOURCES.

PLSS: T16S, R02W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3626910 E495244
Latitude/Longitude: 32.78010 / -117.05078
Elevation (feet): 450

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

PHI90F0004 PHILLIPS, J.R. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 1990-08-16

SWE92M0002 SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B2135	**EO Index:**	11894
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABPBJ08081
Occurrence Number:	163	**Occurrence Last Updated:**	2019-02-25

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2017-06-19	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-06-19	**Occurrence Rank:**	Fair
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NE OF THE INTERSECTION OF I-805 & OTAY MESA FWY, ALMOST TO PALM AVENUE TO THE NORTH, SAN DIEGO.

Detailed Location:

5 ADULT BIRDS AND ONE JUVENILE OBSERVED IN 3 SEPARATE GROUPS IN 1989, ON BOTH SLOPE ASPECTS (NORTH AND SOUTH) AND AT THE BOTTOM OF DRAINAGES.

Ecological:

1992: HABITAT WAS COASTAL SAGE SCRUB & MARITIME SUCCULENT SCRUB; CACTUS WRENS WERE ALSO OBSERVED. SINCE 1992, THE HABITAT ON THE MESA TOPS HAS BEEN DEVELOPED; THE STEEP CANYON HABITAT HAS BEEN SET ASIDE AS PARKS & PRESERVED LAND.

Threats:

PROPOSED DEVELOPMENT, ORVS, DUMPING (1992). MUCH OF THE HABITAT IN THIS AREA HAS BEEN DEVELOPED (2017).

General:

5 ADULTS & 1 JUVENILE OBSERVED IN 1989. UP TO 23 OBS, 1992. A FAMILY OF 4 & A PAIR OBS, 2001. 1 OBS, JAN 2003. 1 PAIR OBS, 2008. 2 SEEN & HEARD, 2009. AT LEAST 2 HEARD, APR 2015. 1 HEARD CALLING, NOV 2016. 2-5 SEEN & HEARD IN JUN 2017.

PLSS:	T18S, R01W, Sec. 30, W (S)	**Accuracy:**	non-specific area	**Area (acres):**	186
UTM:	Zone-11 N3604187 E497192	**Latitude/Longitude:**	32.57512 / -117.02992	**Elevation (feet):**	510

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

DAV08U0001	DAVERIN, C. - RESULTS OF CALIFORNIA GNATCATCHER SURVEYS ON THE SAN YSIDRO ELEMENTARY SCHOOL 8 SITE. 2008-06-20
FAM92F0005	FAMOLARO, P. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA & CAMPYLORHYNCHUS BRUNNEICAPILLUS 1992-11-19
KOZ16D0001	KOZIEL, O. (CITY OF SAN DIEGO) - SHAPEFILE OF ALL SENSITIVE SPECIES SIGHTINGS BY THE CITY OF SAN DIEGO. 2016-XX-XX
KUS15D0002	KUS, B. & R. POTTINGER (U.S. GEOLOGICAL SURVEY) - USGS GEODATABASE WITH 2 TABLES FOR 2015 COASTAL CALIFORNIA GNATCATCHER RESEARCH AND MONITORING 2015-XX-XX
MIL09F0081	MILLER, B. & T. CASS (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA & ROSA MINUTIFOLIA 2009-06-04
MOE01R0001	MOE, D. (REC CONSULTING, INC.) - SUMMARY REPORT OF CALIFORNIA GNATCATCHER SURVEYS FOR RIVIERA DEL SOL (USFWS TE009390-2). 2001-08-06
MOE03U0001	MOE, D. (REC CONSULTING, INC.) - CALIFORNIA GNATCATCHER SURVEY REPORT FOR SEVILLA PROPERTY 2003-01-29
NIC89F0004	NICOLAI, N. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 1989-07-03
SDG92R0001	CITY OF SAN DIEGO - PORTIONS OF AN ENVIRONMENTAL IMPACT REPORT FOR THE CALIFORNIA TERRACES PRECISE PLAN 1992-XX-XX
STO17F0021	STOLPE, R. ET AL. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2017-06-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	17481	**EO Index:**	11892
Key Quad:	National City (3211761)	**Element Code:**	ABPBJ08081
Occurrence Number:	164	**Occurrence Last Updated:**	1991-02-26

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	1989-06-14	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1989-06-14	**Occurrence Rank:**	Fair
Owner/Manager:	CALTRANS	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

JUST NORTH OF STATE RT 54, 0.3 MI SW OF THE SWEETWATER RD INTERSECTION, SOUTH OF LEMON GROVE.

Detailed Location:

TWO BIRDS OBSERVED ALONG A SMALL, SOUTH-RUNNING DRAINAGE SYSTEM, BETWEEN A RESIDENTIAL AREA ON THE NORTH AND HWY 54 ON THE SOUTH.

Ecological:

HABITAT IS DIEGAN COASTAL SAGE SCRUB, DOMINATED BY ARTEMISIA CALIFORNICA, RHUS INTEGRIFOLIA, AND BACCHARIS SAROTHROIDES, WITH SOME EXOTIC PLANTS IN THE VICINITY OF THE RESIDENCES.

Threats:

MAIN THREAT IS THE PROPOSED RIGHT-OF-WAY FOR THE FUTURE FREEWAY.

General:

PLSS:	T17S, R01W (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3616794 E498015	**Latitude/Longitude:**	32.68885 / -117.02117	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

BEE89F0007	BEEZLEY, J. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 1989-06-14
SWE92R0001	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - CALIFORNIA GNATCATCHER PATCH STUDY, SAN DIEGO, CA 1992-08-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17837
EO Index: 10072
Key Quad: Imperial Beach (3211751)
Element Code: ABPBJ08081
Occurrence Number: 204
Occurrence Last Updated: 2007-03-21

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 1986-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1986-XX-XX
Occurrence Rank: Good
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

0.6 MILE NORTH OF OTAY VALLEY ROAD & 1.7 MI EAST OF I-805, SAN DIEGO.

Detailed Location:

Ecological:

HABITAT IS COASTAL SAGE SCRUB, DOMINATED BY VIQUIERIA LACINIATA, ARTEMISIA CALIFORNICA, AND SIMMONDSIA CHINENSIS.

Threats:

THREATENED BY PROPOSED DEVELOPMENT OF A COUNTY JAIL AT THIS SITE.

General:

TWO GNATCATCHERS OBSERVED IN THE NORTHWEST PORTION OF THE AREA PROPOSED AS A COUNTY JAIL SITE.OOTHER SENSITIVE SPECIES AT THIS LOCATION ARE SAN DIEGO SUNFLOWER, SAN DIEGO BUR-SAGE, AND COAST BARREL CACTUS.

PLSS: T18S, R01W, Sec. 17, SW (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3607142 E499269
Latitude/Longitude: 32.60178 / -117.00778
Elevation (feet): 450

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

WES86R0004 WESTEC SERVICES, INC. - "PRELIMINARY SAN DIEGO COUNTY JAIL ENVIRONMENTAL ANALYSIS OF ALTERNATIVE SITES", PREPARED FOR THE COUNTY OF SAN DIEGO BY WESTEC. 1986-03-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21261	**EO Index:**	14346
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABPBJ08081
Occurrence Number:	274	**Occurrence Last Updated:**	2003-05-13

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2002-04-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2002-04-XX	**Occurrence Rank:**	Good
Owner/Manager:	PVT-OTAY RANCH	**Trend:**	Stable
Presence:	Presumed Extant		

Location:

PORTION OF POGGI CANYON WEST OF LOWER OTAY RESERVOIR, OTAY RANCH, EAST OF CHULA VISTA.

Detailed Location:

OBSERVATIONS FROM 2000 AND 2002 OCCURRED AT WEST END OF POLYGON.

Ecological:

COASTAL SAGE SCRUB WITH DENSE PATCHES OF CHOLLA ON SOUTH-FACING SLOPES (EAST PORTION). COASTAL SAGE SCRUB, MARITIME SUCCULENT SCRUB ALONG POGGI CYN. SOME NATIVE GRASSLAND IN SW PORTION SITE. AREAS SERIOUSLY DEGRADED BY ORV'S AND GRAZING.

Threats:

DEVELOPMENT, ORV'S AND GRAZING.

General:

1989: THREE GNATCATCHERS SEEN DURING THIS STUDY; THREE GNATCATCHERS SEEN HERE DURING PREVIOUS STUDIES. 3 PAIRS OBS 14-29 NOV 2000. 10 PAIRS OBS MAR-APR 2002. CACTUS WREN, BADGER, BLACK-TAILED JACKRABBIT, BURROWING OWL ALSO FOUND IN AREA.

PLSS:	T18S, R01W (S)	**Accuracy:**	non-specific area	**Area (acres):**	457
UTM:	Zone-11 N3609116 E499852	**Latitude/Longitude:**	32.61959 / -117.00157	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Jamul Mountains (3211668), Imperial Beach (3211751)

Sources:

DUD01U0001	PRIEST, J. (DUDEK AND ASSOCIATES) - CALIFORNIA GNATCATCHER SURVEY FOR THE OTAY RANCH VILLAGE ONE WEST, SOUTH PLANNING AREA OF OTAY RANCH, CITY OF CHULA VISTA, SAN DIEGO, CALIFORNIA 2001-01-31
DUD02U0004	DUDEK & ASSOCIATES, INC. - CALIFORNIA GNATCATCHER SURVEY FOR THE OTAY RANCH VILLAGE 2 PROJECT, CITY OF CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA 2002-05-30
SCH89R0001	SCHEID, G. ET AL. - BIOLOGICAL RESOURCES INVENTORY REPORT FOR THE OTAY RANCH PROPERTY 1989-10-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21297	**EO Index:**	13905
Key Quad:	La Jolla (3211772)	**Element Code:**	ABPBJ08081
Occurrence Number:	295	**Occurrence Last Updated:**	2003-12-24

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2002-11-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2002-11-26	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO, UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

TECOLOTE CREEK AREA, 1.25 MILES EAST OF I-5 BETWEEN MT HERBERT AVE (N OF BALBOA STREET) AND FRIARS ROAD, SAN DIEGO.

Detailed Location:

1998 OBS: SOUTH OF VIA BELLO. PAIRS (2001 SURVEY) OBSERVED ALONG EAST SIDE OF CREEK (IN ARTEMISIA CALIFORNICA) BETWEEN MT HERBERT AVE & VIA BELLO. PAIR NEAR VIA BELLO USING REVEGETATED SLOPE. 2002: CYN SW OF THE SAN DIEGO MENS COLLEGE.

Ecological:

2 HABITAT PATCHES; TOTAL OF 697 ACRES W/ABOUT 205 ACRES OF COASTAL SAGE SCRUB. PATCHES ISOLATED 20-40 YEARS. SLOPE GRADUAL TO STEEP. SITE IS CLOSE TO OTHER HABITAT PATCHES. INC EASTERN SEGMENT OF TECOLOTE PRESERVE (MHPA, HABITAT EXCELLENT).

Threats:

THREAT CONSISTS OF DISTURBANCE DUE TO OFF-ROAD BICYCLE ACTIVITY NEAR VIA BELLO.

General:

GNATCATCHERS PRESENT BETWEEN 1990 & 1992. THERE WERE AT LEAST 10 OBSERVATIONS BUT NO ATTEMPT TO CENSUS BIRDS. 1 PAIR & 2 JUVENILES OBS 22 JUN 5 1998. 5 PAIRS OBS DURING 3 SURVEYS BETWEEN 22 MAR-5 APR 2001. 4 ADULTS OBSERVED 26 NOV 2002.

PLSS:	T16S, R03W, Sec. 10 (S)	**Accuracy:**	non-specific area	**Area (acres):**	1,025
UTM:	Zone-11 N3628213 E482491	**Latitude/Longitude:**	32.79172 / -117.18698	**Elevation (feet):**	250

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

ALF02F0009	ALFARO, M. (TIERRA ENVIRONMENTAL SERVICES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2002-11-26
PSW98U0002	ALLEN, D. (PACIFIC SOUTHWEST BIOLOGICAL SERVICES) - COASTAL CALIFORNIA GNATCATCHER REPORT (AREA OF TECOLOTE CANYON PARK) 1998-06-24
SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14
SWE92R0001	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - CALIFORNIA GNATCATCHER PATCH STUDY, SAN DIEGO, CA 1992-08-13
VAN01U0001	VANDERWIER, J. (DUDEK AND ASSOCIATES) - MEMO TO USFWS REGARDING POLIOPTILA CALIFORNICA CALIFORNICA SURVEYS AT TECOLOTE CREEK. 2001-11-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21296	**EO Index:**	13896
Key Quad:	La Jolla (3211772)	**Element Code:**	ABPBJ08081
Occurrence Number:	296	**Occurrence Last Updated:**	2016-04-25

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2015-04-14	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-04-14	**Occurrence Rank:**	Good
Owner/Manager:	UNKNOWN, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

STEVENSON CANYON; EAST OF I-5, SOUTH & WEST OF CLAIREMONT STREET & NORTH OF BALBOA STREET, SAN DIEGO.

Detailed Location:

2002: CENTRAL TO SOUTHERN PORTION OF FEATURE. 2015: DETECTION ON "STEVENSON PROPERTY" WHICH APPEARS TO BE ON E SIDE OF POCAHONTAS AVE N OF JOPLIN AVE, ADJACENT TO THE CANYON.

Ecological:

2002: 168-ACRE FRAGMENT W/DIEGAN COASTAL SAGE SCRUB; DOMINANT PLANTS INCLUDED ARTEMISIA CALIFORNICA & ERIOGONUM FASCICULATUM; GRADUAL TO STEEP SLOPE; SITE ISOLATED FOR 20-30 YEARS (2002), SURROUNDED BY DEVELOPMENT. 2015: 4-ACRE FRAGMENT.

Threats:

ISOLATION; ORNAMENTAL PLANTS FROM SURROUNDING DEVELOPMENT INVADING SOME PARTS OF CANYON (2002). COWBIRDS (2010).

General:

PRESENCE OF GNATCATCHERS NOTED IN 1990S. 2 ADULTS OBSERVED ON 11 DEC 2002. 2 MALES DETECTED 23 MAY - 15 JUL 2010. 1 MALE HEARD AND SEEN CALLING 14 APR 2015.

PLSS:	T16S, R03W, Sec. 5 (S)	**Accuracy:**	non-specific area	**Area (acres):**	101
UTM:	Zone-11 N3631352 E480516	**Latitude/Longitude:**	32.82001 / -117.20815	**Elevation (feet):**	310

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

ALF02F0006	ALFARO, E. (TIERRA ENVIRONMENTAL SERVICES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2002-12-11
BIL10R0002	BILLINGS, M. (LSA ASSOCIATES, INC.) - PROTOCOL LEAST BELL'S VIREO AND COASTAL CALIFORNIA GNATCATCHER SURVEY RESULTS, STEVENSON CANYON, CITY OF SAN DIEGO 2010-09-21
HAY15F0004	HAYWORTH, A. (DUDEK AND ASSOCIATES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2015-04-14
SWE92R0001	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - CALIFORNIA GNATCATCHER PATCH STUDY, SAN DIEGO, CA 1992-08-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21295	**EO Index:**	13712
Key Quad:	La Jolla (3211772)	**Element Code:**	ABPBJ08081
Occurrence Number:	297	**Occurrence Last Updated:**	2007-12-17

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2006-07-19	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2006-07-19	**Occurrence Rank:**	Good
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

KATE O. SESSIONS MEMORIAL PARK AND AN AREA TO THE NW, WEST OF SOLEDAD ROAD & EAST OF CASTEJON DRIVE, EAST OF LA JOLLA.

Detailed Location:

CANYON IS PROPOSED FOR HABITAT RESTORATION.

Ecological:

2 PATCHES WITH A TOTAL OF 175 ACRES AND 131 ACRES OF COASTAL SAGE SCRUB. GRADUAL TO STEEP SLOPE. PATCHES HAVE BEEN ISOLATED FROM 10-20 YEARS. SURROUNDED BY SUBURBAN DEVELOPMENT AND ROADS.

Threats:

General:

PRESENCE OF GNATCATCHERS NOTED SOMETIME BETWEEN 1990 & 1992 BUT NO ATTEMPT WAS MADE TO CENSUS BIRD NUMBERS. 1 INDIVIDUAL OBSERVED DURING A MONITORING SURVEY ON 19 JUL 2006.

PLSS:	T15S, R04W (S)	**Accuracy:**	non-specific area	**Area (acres):**	172
UTM:	Zone-11 N3631861 E477151	**Latitude/Longitude:**	32.82453 / -117.24410	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

HON06F0002	HONGOLA, S. (MICHAEL BRANDMAN ASSOCIATES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2006-07-19
SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14
SWE92R0001	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - CALIFORNIA GNATCATCHER PATCH STUDY, SAN DIEGO, CA 1992-08-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21294	**EO Index:**	14207
Key Quad:	La Jolla (3211772)	**Element Code:**	ABPBJ08081
Occurrence Number:	298	**Occurrence Last Updated:**	2001-11-27

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2001-10-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-10-24	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

AREA JUST SOUTH OF UNIVERSITY OF CALIFORNIA, SAN DIEGO, WEST OF TORREY PINES ROAD, AND EAST OF LA JOLLA DRIVE, LA JOLLA.

Detailed Location:

Ecological:

108-ACRE FRAGMENT WITH 32 ACRES OF COASTAL SAGE SCRUB. STEEP EAST- AND WEST-FACING SLOPES. SURROUNDED BY SUBURBAN DEVELOPMENT. SITE HAS BEEN ISOLATED TO 30-40 YEARS.

Threats:

General:

PRESENCE OF GNATCATCHERS NOTED BETWEEN 1990 AND 1992 BUT NO ATTEMPT WAS MADE TO CENSUS BIRD NUMBERS. 1 ADULT OBSERVED JAN 2001. 1 JUVENILE AND 2 OF UNKNOWN AGE OBSERVED DURING 9 SURVEYS BETWEEN 27 JUN-24 OCT 2001.

PLSS:	T15S, R04W (S)	**Accuracy:**	non-specific area	**Area (acres):**	81
UTM:	Zone-11 N3636646 E476900	**Latitude/Longitude:**	32.86769 / -117.24691	**Elevation (feet):**	250

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

PUD01R0001	PUDOFF, D. (HELIX ENVIRONMENTAL PLANNING, INC.) - YEAR 2001 PROTOCOL GNATCATCHER PRESENCE/ABSENCE SURVEY REPORT FOR THE UNIVERSITY OF CALIFORNIA, SAN DIEGO. 2001-12-03
SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14
SWE92R0001	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - CALIFORNIA GNATCATCHER PATCH STUDY, SAN DIEGO, CA 1992-08-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21374
EO Index: 8471
Key Quad: National City (3211761)
Element Code: ABPBJ08081
Occurrence Number: 303
Occurrence Last Updated: 2003-06-30

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 2002-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2002-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVY, UNKNOWN
Trend: Stable
Presence: Presumed Extant

Location:

CHOLLAS PARK AND THE CHOLLAS HEIGHTS NAVAL RADIO STATION, ABOUT 2.5 MILES NE OF JUNCTION OF I-805 AND HWY 94, SAN DIEGO.

Detailed Location:

Ecological:

GRADUAL, S-FACING SLOPE; PATCH SURROUNDS CHOLLAS RESERVOIR. PATCH (ISOLATED FOR 20-30 YRS) IS 55 ACRES WITH 15 ACRES OF COASTAL SAGE SCRUB AND SOME MARITIME SUCCULENT SCRUB. SURROUNDING AREA: DISTURBED HABITAT, OPEN SPACE/PARKS, HOUSING.

Threats:

THREATENED BY PROPOSED MILITARY HOUSING PROJECT AND CATS.

General:

OBS SOMETIME IN 1990'S-NO ATTEMPT MADE TO CENSUS NUMBERS. 2 OBS MOVING IN & OUT OF SCRUB 14 FEB 1991. 6 ADULTS, 6 JUV OBS JUL 2002. BIRDS PRESENT CONTINUOUSLY FROM 8-91 TO 7-02. ~9 ACRES OF HIGH QUALITY HABITAT S TO SE OF RADIO STATION.

PLSS: T16S, R02W (S)
Accuracy: specific area
Area (acres): 72
UTM: Zone-11 N3622140 E494026
Latitude/Longitude: 32.73707 / -117.06376
Elevation (feet): 380

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

BUR02F0009 BURTON, K. (GARCIA AND ASSOCIATES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2002-XX-XX

DUN91R0001 DUNHAM, K. - BIOLOGICAL TECHNICAL REPORT FOR MILITARY HOUSING PROJECT CHOLLAS HEIGHTS TRANSMITTER STATION. SEVERAL RARE PLANTS, ANIMALS, AND NC'S. 1991-04-01

SWE92R0001 SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - CALIFORNIA GNATCATCHER PATCH STUDY, SAN DIEGO, CA 1992-08-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21375
EO Index: 8438
Key Quad: National City (3211761)
Element Code: ABPBJ08081
Occurrence Number: 304
Occurrence Last Updated: 2016-02-19

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 2015-06-05
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2015-06-05
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO, UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

CHOLLAS RADIO SYSTEM/RADIO CANYON OPEN SPACE; FROM 0.1 - 0.8 MI NE OF MARKET ST AT 51ST ST & S OF ROSWELL ST, SAN DIEGO.

Detailed Location:

1990-92: EXACT DETECTION LOCATIONS UNKNOWN, MAPPED TO OCCUPIED HABITAT. E-MOST POLYGON REPRESENTS 2014 DETECTION IN RADIO CANYON RESTORATION AREA.

Ecological:

1990-92: 34-ACRE FRAGMENT OF COASTAL SAGE SCRUB ON GRADUAL TO STEEP SLOPES, SURROUNDED BY ROADS & SUBURBAN DEVELOPMENT; SITE HAD BEEN ISOLATED 20-30 YEARS. 2014: SIGNIFICANT FIRST DETECTION OF CAGN IN RADIO CANYON HABITAT RESTORATION AREA.

Threats:

HABITAT FRAGMENTATION & ISOLATION (1992).

General:

UNKNOWN # DETECTED DURING SURVEY SOMETIME BETWEEN 1990 & 1992. 2 AURAL DETECTIONS, 1 PAIR OBSERVED ON 29 MAR 2013. PAIR DETECTED 10 OCT 2014. 1 MALE DETECTED 28 APR; 1 HEARD CALLING ON 5 JUN 2015.

PLSS: T17S, R02W, Sec. 10 (S)
Accuracy: specific area
Area (acres): 63
UTM: Zone-11 N3619313 E492641
Latitude/Longitude: 32.71155 / -117.07851
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

AEC14D0001	AECOM - TABULAR DETECTION DATA FOR RARE PLANTS AND ANIMALS FROM KERN, IMPERIAL, RIVERSIDE, SAN BERNARDINO, & SAN DIEGO COUNTIES, 2011-2014. 2014-XX-XX
DUN15F0004	DUNN, C. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2015-06-05
GRO14F0002	GROEBNER, J. ET AL. (AECOM) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2014-10-10
KUS15D0002	KUS, B. & R. POTTINGER (U.S. GEOLOGICAL SURVEY) - USGS GEODATABASE WITH 2 TABLES FOR 2015 COASTAL CALIFORNIA GNATCATCHER RESEARCH AND MONITORING 2015-XX-XX
SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14
SWE92R0001	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - CALIFORNIA GNATCATCHER PATCH STUDY, SAN DIEGO, CA 1992-08-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21376	**EO Index:**	8437
Key Quad:	National City (3211761)	**Element Code:**	ABPBJ08081
Occurrence Number:	305	**Occurrence Last Updated:**	2016-02-19

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2015-06-05	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-06-05	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO, UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

VALENCIA CANYON OPEN SPACE, FROM 0.1 TO 0.3 MI SSE OF VALENCIA PKWY AT IMPERIAL AVE, SAN DIEGO.

Detailed Location:

Ecological:

14-ACRE FRAGMENT OF COASTAL SAGE SCRUB. MODERATE TO STEEP EAST-FACING SLOPE; SURROUNDED BY ROADS AND SUBURBAN DEVELOPMENT. ACCORDING TO 1992 ANALYSIS, THE SITE HAD BEEN ISOLATED FOR 20-30 YEARS.

Threats:

HABITAT FRAGMENTATION (1992).

General:

SURVEY CONDUCTED SOMETIME BETWEEN 1990 & 1992; PRESENCE OF GNATCATCHERS WAS NOTED BUT NO ATTEMPT WAS MADE TO CENSUS BIRD NUMBERS. 1 FEMALE OBSERVED AND ONE MALE HEARD CALLING ON 5 JUN 2015.

PLSS:	T17S, R02W, Sec. 10, SE (S)	**Accuracy:**	non-specific area	**Area (acres):**	18
UTM:	Zone-11 N3618634 E493196	**Latitude/Longitude:**	32.70543 / -117.07258	**Elevation (feet):**	260

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

DUN15F0001	DUNN, C. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2015-06-05
SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14
SWE92R0001	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - CALIFORNIA GNATCATCHER PATCH STUDY, SAN DIEGO, CA 1992-08-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21377
Key Quad: National City (3211761)
Occurrence Number: 306
EO Index: 8470
Element Code: ABPBJ08081
Occurrence Last Updated: 1992-09-15

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:
OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:
LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 199X-XX-XX
Last Survey Date: 199X-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
AREA JUST NORTH OF JUNCTION OF HWY 54 AND SWEETWATER ROAD, WEST OF SWEETWATER RESERVOIR.

Detailed Location:

Ecological:
13-ACRE FRAGMENT, WITH 9 ACRES OF COASTAL SAGE SCRUB; GRADUAL TO MODERATE SOUTH-FACING SLOPE.

Threats:

General:
PRESENCE OF GNATCATCHERS NOTED, BUT NO ATTEMPT WAS MADE TO CENSUS BIRD NUMBERS.

PLSS: T17S, R01W (S)
Accuracy: specific area
Area (acres): 19
UTM: Zone-11 N3617391 E498546
Latitude/Longitude: 32.69424 / -117.01551
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
SWE92R0001 SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - CALIFORNIA GNATCATCHER PATCH STUDY, SAN DIEGO, CA 1992-08-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21366	**EO Index:**	8436
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	307	**Occurrence Last Updated:**	2003-12-22

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2002-07-08	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2002-07-08	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF SAN DIEGO, UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

AREA NORTH OF CALIFORNIA STATE UNIVERSITY, SAN DIEGO, BORDERED BY I-8, WARING ROAD AND COLLEGE AVENUE.

Detailed Location:

1980: SOUTH OF ADOBE FALLS ROAD, WEST OF MILL PEAK ROAD AND NORTH OF I-8. 2002: 1 ADULT OBSERVED SOUTH OF ADOBE FALLS ROAD AND 1 ADULT OBSERVED IN CYN EAST OF WARING ROAD AND NORTH OF ADOBE FALLS ROAD.

Ecological:

173-ACRE FRAGMENT W/DIEGAN COASTAL SAGE SCRUB. GOOD CONDITION DCSS IN CYN RUNNING ALONG WEST OF SITE. PLANTS INC ARTEMISIA CALIFORNICA, ERIOGONIM FASCICULATUM. SITE SURROUNDED BY ROADS, SURBURBAN DEVELOPMENT. SITE ISOLATED FOR 10-20 YEARS.

Threats:

General:

5-10 PRS EST TO OCCUR IN 1980. UNK NUMBER OBS IN 1 LOCATION,1990-92. CAGN NOTED, NO ATTEMPT MADE TO CENSUS BIRD NUMBERS (SAN DIEGO PATCH STUDY, SWEETWATER ENV). 2 ADULTS OBS DURING JUN, JUL 2002. SOME DISTURBANCE DUE TO ACCESSING MANHOLES.

PLSS:	T16S, R02W, Sec. 15 (S)	**Accuracy:**	non-specific area	**Area (acres):**	268
UTM:	Zone-11 N3627686 E492515	**Latitude/Longitude:**	32.78708 / -117.07993	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

ALF02F0004	ALFARO, M. (TIERRA ENVIRONMENTAL SERVICES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2002-07-08
ALF02F0005	ALFARO, E. (TIERRA ENVIRONMENTAL SERVICES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2002-06-08
ATW80U0001	ATWOOD, J.L. - CALIFORNIA BLACK-TAILED GNATCATCHER POPULATION SURVEY, 1980. UCLA DEPT. OF BIOLOGY. 1980-XX-XX
SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14
SWE92R0001	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - CALIFORNIA GNATCATCHER PATCH STUDY, SAN DIEGO, CA 1992-08-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21367
Key Quad: La Mesa (3211771)
Occurrence Number: 308
EO Index: 8460
Element Code: ABPBJ08081
Occurrence Last Updated: 1992-09-15

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 199X-XX-XX
Last Survey Date: 199X-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

TWO SITES; 0.5 MI NORTHWEST AND 0.5 MI WEST OF THE JUNCTION OF MURPHY CANYON ROAD AND FRIARS ROAD EXTENSION, SAN DIEGO.

Detailed Location:

Ecological:

77-ACRE FRAGMENT WITH 53 ACRES OF COASTAL SAGE SCRUB; GRADUAL TO STEEP SLOPES. SITE HAS BEEN ISOLATED FOR 10-30 YEARS. TO THE WEST, THERE IS A CORRIDOR TO OCC #87.

Threats:

General:

THE PRESENCE OF GNATCATCHERS WAS NOTED, BUT NO ATTEMPT WAS MADE TO CENSUS BIRD NUMBERS.

PLSS: T16S, R02W (S)
Accuracy: non-specific area
Area (acres): 88
UTM: Zone-11 N3628646 E488818
Latitude/Longitude: 32.79571 / -117.11942
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

La Mesa (3211771), La Jolla (3211772)

Sources:

SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14
SWE92R0001	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - CALIFORNIA GNATCATCHER PATCH STUDY, SAN DIEGO, CA 1992-08-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21365	**EO Index:**	8472
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	309	**Occurrence Last Updated:**	1992-11-16

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	199X-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	199X-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ABOUT 0.75 MILE WEST OF JUNCTION OF SPRING STREET AND HWY 125, LA MESA.

Detailed Location:

Ecological:

61-ACRE COASTAL SAGE SCRUB FRAGMENT; MODERATE TO STEEP NORTH- AND SOUTH-FACING SLOPES. SITE IS SURROUNDED BY SUBURBAN DEVELOPMENT AND HAS BEEN ISOLATED FOR 20-30 YEARS.

Threats:

General:

PRESENCE OF GNATCATCHERS WAS NOTED BUT NO ATTEMPT WAS MADE TO CENSUS BIRD NUMBERS. 11 PRS NOTED IN NORTHEAST CORNER BETWEEN 1990 & 1992.

PLSS:	T16S, R01W (S)	**Accuracy:**	non-specific area	**Area (acres):**	130
UTM:	Zone-11 N3623578 E497346	**Latitude/Longitude:**	32.75005 / -117.02833	**Elevation (feet):**	600

County Summary:	**Quad Summary:**
San Diego	National City (3211761), La Mesa (3211771)

Sources:

SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14
SWE92R0001	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - CALIFORNIA GNATCATCHER PATCH STUDY, SAN DIEGO, CA 1992-08-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21674	**EO Index:**	22002
Key Quad:	Point Loma (3211762)	**Element Code:**	ABPBJ08081
Occurrence Number:	311	**Occurrence Last Updated:**	2016-04-25

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2016-02-29	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-02-29	**Occurrence Rank:**	Good
Owner/Manager:	DOD-NAVY, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

POWERHOUSE CANYON AREA (FLORIDA DRIVE), BETWEEN PARK BOULEVARD AND PERSHING DRIVE, BALBOA PARK, SAN DIEGO.

Detailed Location:

THIS FRAGMENT HAS BEEN ISOLATED FOR MORE THAN 50 YEARS; 2+ MILES TO NEAREST HABITAT. INCLUDES NAVAL MEDICAL CENTER SITE.

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB, DOMINATED BY ARTEMISIA CALIFORNICA AND ERIOGONUM FASCICULATUM ON EAST AND WEST FACING SLOPES; GRADUAL TO MODERATE SLOPE. ENCELIA CALIFORNICA, SALVIA MELLIFERA FOUND TO S OF CANYON. HEAVY REC IN AREA.

Threats:

THREATENED BY GEOGRAPHIC ISOLATION AND DEVELOPMENT TO THE NORTH, SOUTH, AND WEST; DISTURBED HABITAT TO THE EAST.

General:

DETECTED AT 3 LOCATIONS IN THE 1990S. 1 PAIR OBS 17 APR 1997. 1 PAIR & SINGLE FEMALE OBSERVED JUN-JUL 2000. 1 MALE, 1 FEMALE, 1 NEST OBS DEC 2000-APR 2001. 3 PAIRS OBS 19 FEB 2002. 2-3 OBS SEP 2004. 1-2 DET, APR 2009. 1 PAIR OBS FEB 2016.

PLSS:	T16S, R03W, Sec. 36 (S)	**Accuracy:**	non-specific area	**Area (acres):**	159
UTM:	Zone-11 N3621946 E486620	**Latitude/Longitude:**	32.73525 / -117.14280	**Elevation (feet):**	200

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

CLA09R0001	CLARK, K. (CLARK BIOLOGICAL SERVICES) - 45-DAY REPORT ON SURVEYS CONDUCTED FOR THE COASTAL CALIFORNIA GNATCATCHER (POLIOPTILA CALIFORNICA CALIFORNICA) AT NAVAL MEDICAL CENTER, SAN DIEGO, CA 2009-09-25
FAL04F0003	FALCONE, J. (U.S. GEOLOGICAL SURVEY) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2004-09-19
HAR16F0001	HARVEY, C. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2016-02-15
HOD01U0001	HODGE, J. (RECON ENVIRONMENTAL, INC.) - FOCUSED SURVEY RESULTS FOR THE COASTAL CALIFORNIA GNATCATCHER ON THE POWERHOUSE CANYON SEWER REALIGNMENT PHASE II. SAN DIEGO, CALIFORNIA 2001-03-21
HOD02F0001	HODGE, J. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2002-02-19
HOW97R0001	HOWARD, J. (CITY OF SAN DIEGO) - CALIFORNIA GNATCATCHER SURVEY AT THE CITY OF SAN DIEGO'S ARIZONA STREET LANDFILL SITE 1997-06-XX
MAR01R0001	MARQUEZ, V. (MARQUEZ AND ASSOCIATES) - CALIFORNIA GNATCATCHER REPORT, NAVAL MEDICAL CENTER, SAN DIEGO, CA 2001-XX-XX
SWE92R0001	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - CALIFORNIA GNATCATCHER PATCH STUDY, SAN DIEGO, CA 1992-08-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04441	**EO Index:**	7866
Key Quad:	San Vicente Reservoir (3211688)	**Element Code:**	ABPBJ08081
Occurrence Number:	333	**Occurrence Last Updated:**	2008-05-30

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2004-04-14	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2004-04-14	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT, UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

FANITA RANCH AND SURROUNDING AREA, W OF HIGHWAY 67, E OF WEST SYCAMORE CANYON, NW PORTION CITY OF SANTEE.

Detailed Location:

2 SIGHTINGS JUST EAST OF HWY 67, 1 SIGHTING SE CORNER SEC 9, 1 SW CORNER SEC 9, 1 NORTH-CENTRAL PART SEC 16, VICINITY POWAY CK & 1 IN SE PART OF SEC 17. INCLUDES 4 NESTS, 27 TERRITORIES, MANY SIGHTINGS. 1 PAIR W OF NORTH MANOLIA. SEC9: 1PR.

Ecological:

HABITAT IN ORDER OF ABUNDANCE IS DIEGAN COASTAL SAGE SCRUB, CHAMISE CHAPARRAL, BURNED COASTAL SAGE SCRUB, MIXED CHAPARRAL, NON-NATIVE GRASSLAND, SYCAMORE-OAK WOODLAND, OAK WOODLAND, SYCAMORE-WILLOW WOODLAND & DISTURBED. ELV=500-1770 FEET.

Threats:

PORTION OF AREA PLANNED FOR RESIDENTIAL DEVELOPMENT (FANITA RANCH PROJECT).

General:

1989, 25-30 PAIRS. AFTER FIRE (1990) EST 20 PAIRS & 9 SINGLES, ALSO 6 SIGHTINGS 1990-91 NUMBERS NOT GIVEN. 1992, 34-38 PAIRS. 1 PAIR OBS 28 OCT 1994. 10 PR OBS 1996, 9 PR IN 1997. 1 OBS MAR 2000. 2 OBS 29 NOV 2001. 2 PR, APR 2002. 2004:1 PR

PLSS:	T15S, R01W, Sec. 09 (S)	**Accuracy:**	non-specific area	**Area (acres):**	3,298
UTM:	Zone-11 N3639158 E500939	**Latitude/Longitude:**	32.89060 / -116.98996	**Elevation (feet):**	1,200

County Summary:	**Quad Summary:**
San Diego	El Cajon (3211678), San Vicente Reservoir (3211688), La Mesa (3211771), Poway (3211781)

Sources:

DUD98R0001	DUDEK & ASSOCIATES, INC. - QUINO CHECKERSPOT SURVEY FOR FANITA RANCH, SAN DIEGO CO (INCLUDES DATA FROM PRIOR SURVEYS FOR OTHER SPECIES) 1998-06-05
ERC91R0003	ERC ENVIRONMENTAL AND ENERGY SERVICES COMPANY - FOCUSED CALIFORNIA GNATCATCHER RESOURCE STUDY FOR THE CITY OF POWAY 1991-09-XX
KIM04F0031	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2004-04-14
OGD92R0001	OGDEN ENVIRONMENTAL AND ENERGY SERVICES COMPANY - BIOLOGICAL TECHNICAL REPORT FOR FANITA RANCH 1992-06-12
PAC01U0001	BEAUCHAMP, R.M. (PACIFIC SOUTHWEST BIOLOGICAL SERVICES) - DAKOTA RANCH SUBDIVISION-SOUTH, CITY OF SANTEE, SAN DIEGO COUNTY, CALIFORNIA. BIOLOGICAL ASSESSMENT, WETLANDS DELINEATION, AND COASTAL CALIFORNIA GNATCATCHER SURVEY. 2001-01-07
REC02U0004	RADTKEY, J. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION FOR COASTAL CALIFORNIA GNATCATCHER ON THE MARSH PROPERTY, CITY OF SANTEE. 2002-05-02
RIG02R0001	RIGGAN, R. (R.B. RIGGAN AND ASSOCIATES) - A BIOLOGICAL ASSESSMENT OF THE PROPOSED BRAUN LOT SPLIT, CITY OF SANTEE, CALIFORNIA. 2002-01-10
SCH94F0043	SCHEIDT, V.N. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 1994-10-28
SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21443
EO Index: 12766
Key Quad: National City (3211761)
Element Code: ABPBJ08081
Occurrence Number: 356
Occurrence Last Updated: 2008-04-08

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 2004-09-18
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2004-09-18
Occurrence Rank: Good
Owner/Manager: PVT, CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:

AREA BETWEEN TELEGRAPH CANYON AND RICE CANYON, EAST OF INTERSTATE 805, AND NORTH OF TELEGRAPH CANYON ROAD.

Detailed Location:

SITE INCLUDES GNATCATCHER TERRITORIES COVERING AREA NORTH OF TELEGRAPH CANYON AND SOUTH OF RICE CANYON.

Ecological:

HABITAT IS DIEGAN COASTAL SAGE SCRUB ON A MODERATE SLOPE; DOMINANTS INCLUDE FEROCACTUS VIRIDESCENS, SELAGINELLA CINERACENS, VIGUIERA LACINITATA. STREAM IN NORTH PART OF SITE, RUNNING EAST-WEST. DIRT ROADS OVER MUCH OF SITE.

Threats:

THREATENED BY RESIDENTIAL/COMMERCIAL DEVELOPMENT.

General:

13 TERRITORIES OBS IN SURVEYS BY CINTI & ASSOC. IN 1993, 5 PRS & 10 JUVS OBS S OF EAST H STREET & E/W OF PASCO DEL REY; 2 PAIR OBS N OF H STREET/PASCO DEL REY. 1 OBS BETWEEN 14 AUG & 30 AUG 1999 JUST N TELEGRAPH CYN. 1-2 FORAGING SEP 2004.

PLSS: T18S, R01W (S)
Accuracy: non-specific area
Area (acres): 899
UTM: Zone-11 N3610874 E498285
Latitude/Longitude: 32.63545 / -117.01828
Elevation (feet): 300

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

CHU91U0001	CITY OF CHULA VISTA - LETTER FROM GORDON HOWARD AND MAPS FROM ERC AND P&D BIOLOGICAL RESOURCES FROM VARIOUS EIRS. 1991-XX-XX
FAL04F0004	FALCONE, J. (U.S. GEOLOGICAL SURVEY) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2004-09-18
FAM93F0001	FAMOLARO, P. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 1993-05-XX
FAM93F0002	FAMOLARO, P. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 1993-05-XX
MER99R0004	REISER, C. (MERKEL AND ASSOCIATES, INC.) - 45-DAY LETTER REPORT OF FOCUSED COASTAL CALIFORNIA GNATCATCHER PRESENCE/ABSENCE SURVEYS FOR THE SPRINT PCS/TELEGRAPH CANYON PROJECT LOCATED IN CHULA VISTA, SAN DIEGO COUNTY 1999-09-22
SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21961	**EO Index:**	8289
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	381	**Occurrence Last Updated:**	2002-02-14

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2001-04-25	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-04-25	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALONG QUAIL CANYON AND JUST WEST OF SYCAMORE CANYON. EAST OF MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

MATED PAIR OBSERVED WITHIN QUAIL CANYON, ALONG SOUTHWESTERN BOUNDARY OF NORTHERN PROPOSED PRESERVE AREA.

Ecological:

QUAIL CANYON HABITAT CONSISTS OF MODERATELY DENSE BROOM BACCHARIS AND SAGE SCRUB.

Threats:

THREAT CONSISTS OF POSSIBLE DISTURBANCE DUE TO DEVELOPMENT ACTIVITY.

General:

ONE OBSERVATION BETWEEN QUAIL CANYON AND SYCAMORE CANYON DURING TIME PERIOD OF 1990 & 1992. 25 APR 2001: ONE MATED PAIR OBSERVED.

PLSS:	T15S, R01W, Sec. 17 (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3636607 E498760	**Latitude/Longitude:**	32.86758 / -117.01325	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

KLE01R0002	KLEIN, M. & C. EDWARDS (KLEIN-EDWARDS PROFESSIONAL SERVICES) - RESULTS OF PROTOCOL SURVEYS PERFORMED FOR COASTAL CALIFORNIA GNATCATCHER AT THE EAST ELLIOTT SITE, CITY OF SAN DIEGO, SAN DIEGO COUNTY, CALIFORNIA. 2001-08-25
SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21962	**EO Index:**	8290
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	383	**Occurrence Last Updated:**	2003-06-12

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2002-04-03	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2002-04-03	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT-SYCAMORE LANDFILL, UNKNOWN	**Trend:**	Stable
Presence:	Presumed Extant		

Location:

BETWEEN LITTLE SYCAMORE CANYON AND SPRING CANYON. EAST OF MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

Ecological:

HABITAT CONSISTS OF DIEGAN COASTAL SAGE SCRUB (MAINLY SOUTH-FACING SLOPES) DOMINATED BY ARTEMISIA CALIFORNICA AND ERIOGONUM FASCICULATUM WITH SOME MALOSMA LAURINA. DENSER SAGE SCRUB AND CHAPARRAL VEGETATION MAINLY ON NORTH-FACING SLOPES.

Threats:

AN ACTIVE LANDFILL IS ADJACENT TO THE EAST SIDE.

General:

4 PAIRS AND 1 OBSERVATION BETWEEN 1990 & 1992. 9 TERRITORIES OBSERVED BETWEEN 23 MAR AND 20 JUL 2000. 2 PAIRS, 2 MALES AND 1 FEMALE OBSERVED BETWEEN 21 MAR AND 3 APR 2002.

PLSS:	T15S, R02W, Sec. 24 (S)	**Accuracy:**	non-specific area	**Area (acres):**	344
UTM:	Zone-11 N3635763 E496905	**Latitude/Longitude:**	32.85997 / -117.03307	**Elevation (feet):**	700

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), Poway (3211781)

Sources:

MER00R0003	GUTIERREZ, A. (MERKEL AND ASSOCIATES, INC.) - 45-DAY LETTER REPORT OF FOCUSED COASTAL CALIFORNIA GNATCATCHER SURVEYS FOR THE SYCAMORE LANDFILL EXPANSION PROJECT LOCATED IN THE CITY OF SANTEE, SAN DIEGO COUNTY. 2000-09-21
MER02U0001	MERKEL & ASSOCIATES, INC. - LETTER REPORT OF FOCUSED COASTAL CALIFORNIA GNATCATCHER (POLIOPTILA CALIFORNICA CALIFORNICA) SURVEYS FOR THE SYCAMORE LANDFILL, STAGE III DEVELOPMENT PROJECT, CITY OF SAN DIEGO 2002-04-29
SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21965	**EO Index:**	8293
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	384	**Occurrence Last Updated:**	1992-11-16

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	199X-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	199X-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

RIDGE WEST OF MURPHY CANYON. WEST OF I-15. SOUTH OF MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

Ecological:

Threats:

General:

3 PAIRS OBSERVED BETWEEN 1990 & 1992.

PLSS:	T15S, R02W (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3631654 E488533	**Latitude/Longitude:**	32.82284 / -117.12250	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21964
Key Quad: La Mesa (3211771)
Occurrence Number: 385

EO Index: 11840
Element Code: ABPBJ08081
Occurrence Last Updated: 1992-11-16

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 199X-XX-XX
Last Survey Date: 199X-XX-XX
Owner/Manager: DOD-NAVY, UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

MURPHY CANYON ABOUT 1.75 MILES NORTH OF THE JUNCTION OF I-15 & I-8. SAN DIEGO.

Detailed Location:

Ecological:

Threats:

General:

2 PAIRS OBSERVED BETWEEN 1990 AND 1992.

PLSS: T16S, R02W (S)
UTM: Zone-11 N3629324 E489300

Accuracy: 1/5 mile
Latitude/Longitude: 32.80183 / -117.11428

Area (acres): 0
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

SWE92M0002 SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21974
Key Quad: Poway (3211781)
Occurrence Number: 386
EO Index: 25833
Element Code: ABPBJ08081
Occurrence Last Updated: 2008-07-08

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 2006-09-06
Last Survey Date: 2006-09-06
Owner/Manager: DOD-MCAS MIRAMAR, SANTEE LAKES
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

IN THE VICINITY OF THE JUNCTION OF WEST SYCAMORE CANYON AND EAST SYCAMORE CANYON, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

2006 OBSERVATION NEAR THE NORTH END OF SANTEE LAKES REGIONAL PARK AT THE JUNCTION OF EAST AND WEST SYCAMORE CANYONS.

Ecological:

HABITAT IS COASTAL SAGE SCRUB AND SOUTHERN WILLOW SCRUB.

Threats:

General:

AT LEAST 8 GNATCATCHER OBSERVATIONS; OBSERVATION DATES UNKNOWN. 3 OBSERVED FORAGING ON 6 SEP 2006.

PLSS: T15S, R01W (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3637528 E499322
Latitude/Longitude: 32.87589 / -117.00724
Elevation (feet): 600

County Summary:

San Diego

Quad Summary:

San Vicente Reservoir (3211688), La Mesa (3211771), Poway (3211781)

Sources:

BRG92M0001 BUTLER ROACH GROUP, INC. - BIOLOGICAL RESOURCE MAPS FOR MIRAMAR NAVAL AIR STATION 1992-XX-XX

REC06F0001 RECON ENVIRONMENTAL, INC. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2006-09-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21969
Key Quad: La Mesa (3211771)
Occurrence Number: 388

EO Index: 8287
Element Code: ABPBJ08081
Occurrence Last Updated: 1993-01-07

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

ELANUS CANYON, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

Ecological:

HABITAT IS COASTAL SAGE SCRUB.

Threats:

General:

AT LEAST 4 OBSERVATIONS; DATE OF OBSERVATIONS UNKNOWN.

PLSS: T15S, R02W (S)
UTM: Zone-11 N3634441 E491075

Accuracy: 1/5 mile
Latitude/Longitude: 32.84801 / -117.09537

Area (acres): 0
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

BRG92M0001 BUTLER ROACH GROUP, INC. - BIOLOGICAL RESOURCE MAPS FOR MIRAMAR NAVAL AIR STATION 1992-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21972	**EO Index:**	8286
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	389	**Occurrence Last Updated:**	2003-03-18

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	1998-05-20	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1998-06-15	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

0.8 MILE EAST OF I-15 AND JUST SE OF GREEN FARMS ROAD, MURPHY CANYON AREA, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

1998 OBSERVATIONS: VICINITY OF DUFFYTOWN, 150-250 METERS NW DUFFYTOWN, WAREHOUSES, SMALL ARMS BUILDINGS AND DISASTER TRAINING AREA.

Ecological:

HABITAT IN AREA IS COASTAL SAGE SCRUB, CHAMISE CHAPARRAL, DISTURBED CHAMISE CHAPARRAL, MIXED CHAPARRAL AND NON-NATIVE GRASSLAND.

Threats:

POSSIBLE THREAT DUE TO USE AS TRAINING FACILITY (FIRING RANGE, CANINE TRAINING, URBAN DISASTER TRAINING FACILITY ETC.)

General:

AT LEAST 3 GNATCATCHER OBSERVATIONS; OBSERVATION DATES UNKNOWN. 4-5 PAIRS AND 2-3 MALES OBSERVED/DETECTED 3 MAR - 20 MAY 1998.

PLSS:	T15S, R02W, Sec. 21 (S)	**Accuracy:**	2/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3635833 E490883	**Latitude/Longitude:**	32.86056 / -117.09744	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

AFF98U0001	GROSS, M. (AFFINIS) - RESULTS OF GNATCATCHER SURVEYS, SHERIFF'S LEASE, MCAS MIRAMAR, CALIFORNIA. 1998-02-26
BRG92M0001	BUTLER ROACH GROUP, INC. - BIOLOGICAL RESOURCE MAPS FOR MIRAMAR NAVAL AIR STATION 1992-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21967	**EO Index:**	8288
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	390	**Occurrence Last Updated:**	2003-03-18

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2002-03-18	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2002-03-18	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALONG AND NW OF MURPHY CANYON, EAST OF INTERSTATE 15, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

2002 OBSERVATIONS: NORTHWESTERN PORTION OF POLYGON.

Ecological:

HABITAT THROUGHOUT AREA IS COASTAL SAGE SCRUB. DISTURBED DIEGAN CSS TO NW-MAINLY BACCHARIS SAROTHROIDES, SOME ARTEMISIA CALIFORNICA & ERIOGONUM FASCICULATUM. NW HEAVILY DISTURBED - CONCRETE FOUNDATIONS, ASPHALT UNDERLYING LARGE AREAS.

Threats:

General:

AT LEAST 5 GNATCATCHERS OBSERVED; DATE OF OBSERVATIONS UNKNOWN. 1 PAIR OBSERVED ON 11, 18 MAR 2002.

PLSS:	T15S, R02W (S)	**Accuracy:**	non-specific area	**Area (acres):**	127
UTM:	Zone-11 N3635055 E489875	**Latitude/Longitude:**	32.85354 / -117.10820	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BRG92M0001	BUTLER ROACH GROUP, INC. - BIOLOGICAL RESOURCE MAPS FOR MIRAMAR NAVAL AIR STATION 1992-XX-XX
FLY02R0001	FLYNN, D. - PRESENCE/ABSENCE SURVEYS FOR COASTAL CALIFORNIA GNATCATCHER (POLIOPTILA CALIFORNICA CALIFORNICA) AT FORMER CAMP ELLIOTT MARINE CORPS AIR STATION, MIRAMAR. 2002-04-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21966
Key Quad: La Mesa (3211771)
Occurrence Number: 391

EO Index: 8284
Element Code: ABPBJ08081
Occurrence Last Updated: 1993-01-22

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 19XX-XX-XX
Last Survey Date: 19XX-XX-XX
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SAN CLEMENTE CANYON, EAST AND WEST OF I-15, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

Ecological:

Threats:

General:

AT LEAST 9 GNATCATCHER OBSERVATIONS; OBSERVATION DATES UNKNOWN.

PLSS: T15S, R02W (S)
UTM: Zone-11 N3636878 E489667

Accuracy: non-specific area
Latitude/Longitude: 32.86998 / -117.11045

Area (acres): 200
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

BRG92M0001 BUTLER ROACH GROUP, INC. - BIOLOGICAL RESOURCE MAPS FOR MIRAMAR NAVAL AIR STATION 1992-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21976
Key Quad: La Jolla (3211772)
Occurrence Number: 392

EO Index: 11839
Element Code: ABPBJ08081
Occurrence Last Updated: 1993-01-11

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 19XX-XX-XX
Last Survey Date: 19XX-XX-XX
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SAN CLEMENTE CANYON, ON THE EAST SIDE OF I-805, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

Ecological:

HABITAT IS COASTAL SAGE SCRUB.

Threats:

General:

AT LEAST 6 GNATCATCHER OBSERVATIONS; OBSERVATION DATES UNKNOWN.

PLSS: T15S, R03W (S)
UTM: Zone-11 N3634789 E484329

Accuracy: non-specific area
Latitude/Longitude: 32.85107 / -117.16747

Area (acres): 313
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

BRG92M0001 BUTLER ROACH GROUP, INC. - BIOLOGICAL RESOURCE MAPS FOR MIRAMAR NAVAL AIR STATION 1992-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21975
EO Index: 13621
Key Quad: La Jolla (3211772)
Element Code: ABPBJ08081
Occurrence Number: 393
Occurrence Last Updated: 2003-05-09

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 1999-04-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1999-04-XX
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:

NORTH AND JUST SOUTH OF ROSE CANYON AND EAST OF I-805, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

1999: PAIR OBSERVED ON EAST-FACING SLOPE.

Ecological:

HABITAT IS COASTAL SAGE SCRUB.

Threats:

General:

AT LEAST 3 OBSERVATIONS; DATE OF OBSERVATIONS UNKNOWN. 1 PAIR OBSERVED BETWEEN 22 MAR AND 19 APR 1999.

PLSS: T15S, R03W (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3636823 E482465
Latitude/Longitude: 32.86939 / -117.18743
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

BRG92M0001	BUTLER ROACH GROUP, INC. - BIOLOGICAL RESOURCE MAPS FOR MIRAMAR NAVAL AIR STATION 1992-XX-XX
KEN99U0001	KENNEY, G. - POST-SURVEY NOTIFICATION FOR FOCUSED COASTAL CALIFORNIA GNATCATCHER SURVEYS AT THE PROPOSED MIRAMAR TRAP AND SKEET CLUB RELOCATION SITE. 1999-06-02
SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21977
Key Quad: La Jolla (3211772)
Occurrence Number: 395
EO Index: 17504
Element Code: ABPBJ08081
Occurrence Last Updated: 1993-01-08

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:
OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:
LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 19XX-XX-XX
Last Survey Date: 19XX-XX-XX
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SOUTH OF ROSE CANYON, 2 MILES EAST OF I-805, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

Ecological:

Threats:

General:
AT LEAST ONE GNATCATCHER OBSERVATION; OBSERVATION DATE UNKNOWN.

PLSS: T15S, R03W (S)
UTM: Zone-11 N3637229 E485347
Accuracy: 1/5 mile
Latitude/Longitude: 32.87310 / -117.15663
Area (acres): 0
Elevation (feet): 430

County Summary:
San Diego

Quad Summary:
La Jolla (3211772), Del Mar (3211782)

Sources:
BRG92M0001 BUTLER ROACH GROUP, INC. - BIOLOGICAL RESOURCE MAPS FOR MIRAMAR NAVAL AIR STATION 1992-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	22046	**EO Index:**	14442
Key Quad:	La Jolla (3211772)	**Element Code:**	ABPBJ08081
Occurrence Number:	411	**Occurrence Last Updated:**	2003-04-03

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	1998-06-25	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1998-06-25	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ABOUT 2 MILES SOUTHWEST OF JUNCTION OF I-5 AND HWY 52. BETWEEN LA JOLLA MESA AND PACIFIC BEACH.

Detailed Location:

1990-1992: 2 PAIRS LOCATED EAST OF STREAM. 1998: PAIR OBSERVED NORTH OF THE NORTHERN TERMINUS OF CASS STREET AND VAN NUYS STREET.

Ecological:

Threats:

General:

2 PAIRS OBSERVED SOMETIME BETWEEN 1990 & 1992. 1 CALLING BIRD, 1 FEMALE AND 1 JUVENILE(?) OBSERVED ON 25 JUN 1998.

PLSS:	T16S, R04W, Sec. 01 (S)	**Accuracy:**	non-specific area	**Area (acres):**	55
UTM:	Zone-11 N3630674 E476221	**Latitude/Longitude:**	32.81381 / -117.25401	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

PSW98U0001	PACIFIC SOUTHWEST BIOLOGICAL SERVICES, INC. - RESULTS OF NESTING BIRDS AND COVERED SPECIES SURVEYS FOR SAN DIEGO GAS AND ELECTRIC COMPANY SITES IN PACIFIC BEACH AND CARMEL VALLEY. 1998-06-26
SWE92M0002	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - MAPS OF PUBLIC 1990-1992 CALIFORNIA GNATCATCHER LOCATIONS WITHIN THE SAN DIEGO REGION. 1992-08-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21718
EO Index: 15182
Key Quad: Poway (3211781)
Element Code: ABPBJ08081
Occurrence Number: 441
Occurrence Last Updated: 1995-12-15

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 19XX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 19XX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:

JUST NORTH OF SAN CLEMENTE CANYON, EAST OF I-15, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

Ecological:

Threats:

General:

ONE GNATCATCHER OBSERVATION; OBSERVATION DATE UNKNOWN.

PLSS: T15S, R02W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3637457 E489321
Latitude/Longitude: 32.87520 / -117.11415
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

La Mesa (3211771), Poway (3211781)

Sources:

BRG92M0001 BUTLER ROACH GROUP, INC. - BIOLOGICAL RESOURCE MAPS FOR MIRAMAR NAVAL AIR STATION 1992-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 23092
Key Quad: La Jolla (3211772)
Occurrence Number: 445
EO Index: 7713
Element Code: ABPBJ08081
Occurrence Last Updated: 2003-05-12

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 2002-03-28
Last Survey Date: 2002-03-28
Owner/Manager: CITY OF SAN DIEGO, UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Stable

Location:

WEST OF I-805, FROM LA JOLLA VILLAGE DRIVE SOUTH TO ROSE CANYON, APPROXIMATELY 2 MILES EAST OF UC, SAN DIEGO.

Detailed Location:

2001: DIRECTLY NORTH OF RR BRIDGE, VICINITY OF MALE MARKER 255.1 AND 255.3, NORTH OF TRACKS (ROSE CANYON OPEN SPACE).

Ecological:

COASTAL SAGE SCRUB - ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, SALVIA SP., BACCHARIS SAROTHROIDES, RHUS INTEGRIFOLIA, ENCELIA CALIFORNICA, ISOMERIS ARBOREA & I. MENZIESII. ALSO, CHAMISE CHAPARRAL, WILLOW RIPARIAN WOODLAND.

Threats:

THREATENED BY DEVELOPMENT, CONSTRUCTION STAGING AND INSTALLATION OF RECLAIMED WATER PIPELINE.

General:

2 ADULTS OBS 16, 26 OCT & 2 NOV 1992. 4 ADULTS OBS 18 AUG 1995. MAR-APR 1998: 2 PAIRS, 1 JUV, 3 SINGLE MALES & 1 UNKNOWN. 28 AUG-16 SEP 1998:4 OBS. JAN-FEB 1999:3 PAIRS, 1FEMALE. 9 FEB-5 JUL 2000:1 PAIR, 1 JUV. 28 MAR 2002:VOCALIZATION.

PLSS: T15S, R03W, Sec. 16 (S)
Accuracy: non-specific area
Area (acres): 185
UTM: Zone-11 N3636781 E481642
Latitude/Longitude: 32.86900 / -117.19622
Elevation (feet): 360

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

AFF92F0001	AFFINIS - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 1992-11-02
AFF95F0005	AFFINIS - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 1995-08-18
JOH02F0001	JOHNSON, M. (BRG CONSULTING, INC.) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2002-07-15
KEA00U0003	KEA ENVIRONMENTAL, INC. - BIOLOGICAL MONITORING SUMMARY REPORT FOR NOBEL DRIVE/I-805 INTERCHANGE AND EXTENSION PROJECT. 2000-10-04
MAR98U0002	MARQUEZ, V. (MARQUEZ AND ASSOCIATES) - 45-DAY CALIFORNIA GNATCATCHER REPORT (NOBEL DRIVE COASTER STATION) 1998-10-09
MER99U0004	REISER, C. (MERKEL AND ASSOCIATES, INC.) - 45-DAY LETTER REPORT OF FOCUSED COASTAL CALIFORNIA GNATCATCHER (POLIOPTILA CALIFORNICA CALIFORNICA) SURVEYS FOR THE HELEN SMITH PROPERTY, LA JOLLA, SAN DIEGO COUNTY. 1999-06-29
REC98U0004	JONES, C. (RECON ENVIRONMENTAL, INC.) - RESULTS OF CALIFORNIA GNATCATCHER SURVEYS ON THE NOBEL DRIVE SITE IN SAN DIEGO. 1998-10-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 25618
EO Index: 5448
Key Quad: La Mesa (3211771)
Element Code: ABPBJ08081
Occurrence Number: 456
Occurrence Last Updated: 1994-06-09

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 1993-10-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1993-10-XX
Occurrence Rank: Fair
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

KEARNY MESA, 1.5 MILES NORTH OF MURPHY CANYON ROAD/FRIARS ROAD INTERSECTION, SAN DIEGO.

Detailed Location:

SITE IS LOCATED WITHIN MONTGOMERY FIELD AIRPORT PROPERTY, ADJACENT TO THE HEWLETT-PACKARD BUILDING.

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB AND BROOM BACCHARIS SCRUB. OTHER RARE TAXA FOUND AT THIS SITE INCLUDE ORANGE-THROATED WHIPTAIL, BURROWING OWL, SELAGINELLA CINERASCENS, AND VIQUIERA LACINIATA.

Threats:

THREATENED BY DEVELOPMENT & ISOLATION.

General:

3 INDIVIDUALS OBSERVED SEPTEMBER/OCTOBER 1993.

PLSS: T16S, R02W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3630283 E488420
Latitude/Longitude: 32.81048 / -117.12369
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

La Mesa (3211771), La Jolla (3211772)

Sources:

FAM93F0003 FAMOLARO, P. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA, ASPIDOSCELIS (=CNEMIDOPHORUS) HYPERYTHRA BELDINGI & ATHENE CUNICULARIA 1993-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 25617
Key Quad: La Jolla (3211772)
Occurrence Number: 457
EO Index: 5457
Element Code: ABPBJ08081
Occurrence Last Updated: 1994-06-03

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 1993-10-XX
Last Survey Date: 1993-10-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:

EAST OF SOLEDAD CANYON ROAD AND WEST OF I-5, 0.75 MILE SE OF SOLEDAD MOUNTAIN, LA JOLLA.

Detailed Location:

SITE IS AN ABANDONED DEVELOPMENT PROJECT SURROUNDED BY RESIDENTIAL AREAS AND NATURAL HABITAT.

Ecological:

HABITAT CONSISTS OF DIEGAN COASTAL SAGE SCRUB AND DISTURBED, RECOLONIZING VEGETATION. OTHER RARE TAXA INCLUDE FEROCACTUS VIRIDESCENS, SELAGINELLA CINERACENS, AND AIMOPHILA RUFICEPS CANESCENS.

Threats:

THREATENED BY DEVELOPMENT.

General:

4 INDIVIDUALS OBSERVED IN 1993.

PLSS: T15S, R03W (S)
UTM: Zone-11 N3632604 E477632
Accuracy: non-specific area
Latitude/Longitude: 32.83125 / -117.23899
Area (acres): 117
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

FAM93F0004 FAMOLARO, P. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 1993-10-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	30727	**EO Index:**	4188
Key Quad:	National City (3211761)	**Element Code:**	ABPBJ08081
Occurrence Number:	469	**Occurrence Last Updated:**	2009-11-09

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2004-03-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2004-03-24	**Occurrence Rank:**	Good
Owner/Manager:	SDG COUNTY, SWEETWATER AUTH	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EAST OF STATE HIGHWAY 125 AND WEST OF SWEETWATER RESERVOIR, SOUTH OF LEMON GROVE.

Detailed Location:

2 PAIRS LOCATED ON THE EAST-FACING SLOPE, IN UNDISTURBED HABITAT, AND 1 PAIR FOUND FORAGING IN DISTURBED HABITAT ON THE WEST-FACING SLOPE. 2 ADULTS FOUND JUST N OF SWEETWATER RIVER. 2004: PAIRS THROUGHOUT, BUT MOST N OF FILTRATION PLANT.

Ecological:

HABITAT CONSISTS OF MARITIME SUCCULENT & DIEGAN COASTAL SAGE SCRUB; DOMINANTS: ARTEMISIA CALIFORNICA, BACCHARIS SAROTHRAE, MALOSMA LAURINA, ERIOGONUM FASCICULATUM. DISTURBED HABITAT DOMINATED BY FOENICULUM VULGARE. ADJACENT AREAS DEVELOPED.

Threats:

THREAT INCLUDES LOSS OF HABITAT DUE TO FACILITY UPGRADES.

General:

3 PAIRS OBSERVED ON 6 OCTOBER 1994. 3 INDIVIDUALS OBSERVED, 1998. 2 INDIVIDUALS OBSERVED MAR-AUG 1999. 2 ADULTS OBSERVED ON 17 FEB AND APPROX 8-11 PAIRS DETECTED MAR 2004. DISTURBANCE: CONSTRUCTION NOISE FROM SR 125.

PLSS:	T17S, R01W, Sec. 17, W (S)	**Accuracy:**	non-specific area	**Area (acres):**	69
UTM:	Zone-11 N3617346 E499018	**Latitude/Longitude:**	32.69383 / -117.01047	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

FAM00R0001	FAMOLARO, P. (SWEETWATER AUTHORITY) - 1999 ENDANGERED AND THREATENED SPECIES MONITORING REPORT (OTHER SPECIES IN THE REPORT INCLUDE: EMPIDONAX TRAILLII EXTIMUS, POLIOPTILA CALIFORNICA CALIFORNICA) 2000-02-03
FAM04F0006	FAMOLARO, P. (SWEETWATER AUTHORITY) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2004-03-24
FAM99R0001	FAMOLARO, P. (SWEETWATER AUTHORITY) - 1998 ENDANGERED/THREATENED SPECIES MONITORING REPORT 1999-01-08
MON94F0001	MONTIJO, R. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 1994-10-06
SAU04F0002	SAUCEDO-ORTIZ, D. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2004-02-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	33171	**EO Index:**	2966
Key Quad:	Otay Mesa (3211658)	**Element Code:**	ABPBJ08081
Occurrence Number:	480	**Occurrence Last Updated:**	1995-05-31

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	1995-05-17	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1995-05-17	**Occurrence Rank:**	Excellent
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH EDGE OF OTAY MESA, ADJACENT TO THE NORTH EDGE OF WRUCK CANYON, SAN DIEGO.

Detailed Location:

2 MALES OBSERVED ON OPPOSITE SIDES OF THIS 35-ACRE SITE.

Ecological:

HABITAT CONSISTS OF DISTURBED MARITIME SUCCULENT SCRUB, DOMINATED BY SIMMONDSIA CHINENSIS, AMBROSIA CHENOPODIIFOLIA, RHUS INTEGRIFOLIA, ERIOGONUM FASCICULATUM, AND ARTEMISIA CALIFORNICA.

Threats:

THREATS INCLUDE VEHICULAR TRAFFIC (INCLUDING INS VEHICLES) & GRAZING BY GOATS.

General:

2 MALES IN BREEDING PLUMAGE RESPONDED TO TAPED CALLS ON 17 MAY 1995.

PLSS:	T19S, R01W, Sec. 05, NE (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3601624 E499997	**Latitude/Longitude:**	32.55201 / -117.00003	**Elevation (feet):**	440

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

RIG95F0001 RIGGAN, R.B. (R.B. RIGGAN AND ASSOCIATES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 1995-05-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	33304	**EO Index:**	1780
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	484	**Occurrence Last Updated:**	2007-03-22

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2006-11-13	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2006-11-13	**Occurrence Rank:**	Good
Owner/Manager:	PVT, CALTRANS, UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH AND EAST OF GROSSMONT COLLEGE, EL CAJON.

Detailed Location:

VICINITY OF GROSSMONT COLLEGE DRIVE/SR125 NORTH TO JUST EAST OF THE MESA ROAD/RAMHAVEN LANE INTERSECTION. 2001: OCCURRENCES LOCATED AT NORTHERN MOST END OF POLYGON. 2006: JUST EAST OF MESA ROAD.

Ecological:

DIEGAN COASTAL SAGE SCRUB, DOMINATED BY ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, OPUNTIA LITTORALIS, MALOSMA LAURINA, BACCHARIS SAROTHROIDES, MIMULUS AURANTIACUS, AND VIGUIERA LACINIATA; INTERSPERSED WITH SOME CHAMISE CHAPARRAL.

Threats:

THE EASTERN PORTION OF THIS SITE IS THREATENED BY CONSTRUCTION OF PROPOSED STATE ROUTE 125. ORV USE.

General:

6 PAIRS & 3 YOUNG OBS IN NORTH PORTION OF SITE JULY 1994; 6 PAIRS OBS IN EAST PORTION OF SITE 1-31 MARCH 1994. 3-4 PAIRS, 1 MALE, 1 JUV OBS MAY-JUNE 2001. 2 ADULTS OBS NOV 2006. PART OF NORTH PORTION OF SITE ZONED FOR LOW-DENSITY HOUSING.

PLSS:	T15S, R01W, Sec. 32 (S)	**Accuracy:**	specific area	**Area (acres):**	209
UTM:	Zone-11 N3631562 E499430	**Latitude/Longitude:**	32.82207 / -117.00608	**Elevation (feet):**	600

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

APR94F0001	APRIL, B.L. (CALIFORNIA DEPARTMENT OF TRANSPORTATION) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 1994-03-31
APR94F0002	APRIL, B.L. (CALIFORNIA DEPARTMENT OF TRANSPORTATION) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA & PHRYNOSOMA CORONATUM (BLAINVILLII POPULATION) 1994-07-22
FIS01F0003	FISCHER, K. & L. HARGROVE (VARANUS BIOLOGICAL SERVICES) - 2001 GNATCATCHER SURVEY, MESA ROAD, SANTEE, SAN DIEGO COUNTY, CALIFORNIA 2001-06-XX
FIS06F0007	FISCHER, K. (JONES AND STOKES ASSOCIATES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2006-11-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	40510	**EO Index:**	35517
Key Quad:	La Jolla (3211772)	**Element Code:**	ABPBJ08081
Occurrence Number:	523	**Occurrence Last Updated:**	2004-01-27

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2003-01-02	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-01-02	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EAST SIDE OF I-805, BETWEEN HWY 63 & I-8, SAN DIEGO.

Detailed Location:

SOUTH OF KEARNY VILLA ROAD AND NORTH OF MISSION CENTER ROAD.

Ecological:

DIEGAN COASTAL SAGE SCRUB & CHAPARRAL PATCHES, ALONG A NORTH/SOUTH CANYON, DOMINATED BY BACCHARIS SAROTHROIDES, IN THE CANYON, & BY ADENOSTOMA FASCICULATUM, SALVIA SP, & ARTEMISIA CALIFORNICA ON THE SLOPES. SITE SURROUNDED BY DEVELOPMENT.

Threats:

THREATENED BY HABITAT LOSS & DISTURBANCE FROM SEWER LINE MAINTENANCE. ENCROACHING ORNAMENTAL VEGETATION.

General:

4 INDIVIDUALS OBSERVED ON 23 NOV 1998. 5 ADULTS OBSERVED ON 2 JAN 2003.

PLSS:	T16S, R03W, Sec. 12, W (S)	**Accuracy:**	non-specific area	**Area (acres):**	110
UTM:	Zone-11 N3628847 E486116	**Latitude/Longitude:**	32.79749 / -117.14828	**Elevation (feet):**	280

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

ALF03F0002	ALFARO, M. (TIERRA ENVIRONMENTAL SERVICES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2003-01-02
JAM98F0001	JAMES, R. (CALIFORNIA DEPARTMENT OF TRANSPORTATION) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 1998-11-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47197
EO Index: 47197
Key Quad: Jamul Mountains (3211668)
Element Code: ABPBJ08081
Occurrence Number: 581
Occurrence Last Updated: 2002-06-20

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 1999-08-02
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1999-08-02
Occurrence Rank: Unknown
Owner/Manager: SWEETWATER AUTHORITY
Trend: Unknown
Presence: Presumed Extant

Location:

NW SIDE OF SWEETWATER RESERVOIR; 3 MILES WNW OF SAN MIGUEL MOUNTAIN.

Detailed Location:

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB.

Threats:

General:

1998: 18 INDIVIDUALS OBSERVED. 16 MAR 1999 - 2 AUG 1999: 18 INDIVIDUALS OBSERVED.

PLSS: T17S, R01W, Sec. 09 (S)
Accuracy: non-specific area
Area (acres): 210
UTM: Zone-11 N3618308 E500941
Latitude/Longitude: 32.70251 / -116.98996
Elevation (feet): 260

County Summary:

San Diego

Quad Summary:

Jamul Mountains (3211668), National City (3211761)

Sources:

FAM00R0001 FAMOLARO, P. (SWEETWATER AUTHORITY) - 1999 ENDANGERED AND THREATENED SPECIES MONITORING REPORT (OTHER SPECIES IN THE REPORT INCLUDE: EMPIDONAX TRAILLII EXTIMUS, POLIOPTILA CALIFORNICA CALIFORNICA) 2000-02-03

FAM99R0001 FAMOLARO, P. (SWEETWATER AUTHORITY) - 1998 ENDANGERED/THREATENED SPECIES MONITORING REPORT 1999-01-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47223
EO Index: 47223
Key Quad: La Mesa (3211771)
Element Code: ABPBJ08081
Occurrence Number: 586
Occurrence Last Updated: 2002-02-13

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 2001-04-25
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-04-25
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

SANTEE; 0.4 MILE DIRECTLY WEST OF SYCAMORE CANYON SCHOOL.

Detailed Location:

LOCATED ON SLOPE WEST OF EAST BOUNDARY ACCESS TRAIL, SW OF ARTIFICIAL WATER IMPOUNDMENT.

Ecological:

HABITAT CONSISTS OF SAGE SCRUB AND BACCHARIS.

Threats:

PROPOSED FOR DEVELOPMENT (EAST ELLIOTT SITE).

General:

25 APR 2001: 1 INDIVIDUAL IDENTIFIED BY VOCALIZATION.

PLSS: T15S, R01W, Sec. 17, SW (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3636080 E498917
Latitude/Longitude: 32.86283 / -117.01157
Elevation (feet): 425

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

KLE01R0002 KLEIN, M. & C. EDWARDS (KLEIN-EDWARDS PROFESSIONAL SERVICES) - RESULTS OF PROTOCOL SURVEYS PERFORMED FOR COASTAL CALIFORNIA GNATCATCHER AT THE EAST ELLIOTT SITE, CITY OF SAN DIEGO, SAN DIEGO COUNTY, CALIFORNIA. 2001-08-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	47224	**EO Index:**	47224
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	587	**Occurrence Last Updated:**	2002-02-13

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2001-05-09	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-05-09	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SANTEE; 0.2 MILE WEST OF SYCAMORE CYN, 0.95 MILE EAST OF LITTLE SYCAMORE CYN AND 1.5 MILES NORTH OF MISSION GORGE RD.

Detailed Location:

PAIR OBSERVED WITHIN MIXED COASTAL SAGE SCRUB/GRASSLAND AND TO WEST OF ROCKY OUTCROP, SOUTH-FACING SLOPE WEST OF END OF GRASS VALLEY LANE. SINGLE MALE DETECTED ON NORTH-FACING SLOPE ACROSS CANYON AND TO SOUTH OF PAIR.

Ecological:

HABITAT CONSISTS OF A CANYON VEGETATED WITH MIXED COASTAL SAGE SCRUB AND GRASSLAND.

Threats:

THREAT CONSISTS OF POSSIBLE DISTURBANCE DUE TO DEVELOPMENT ACTIVITY.

General:

25 APR 2001 AND 2 MAY 2001: PAIR OBSERVED. 9 MAY 2001: SINGLE MALE DETECTED. LOCATION OF SIGHTINGS WITHIN CENTRAL PROPOSED PRESERVE AREA.

PLSS:	T15S, R01W, Sec. 20 (S)	**Accuracy:**	non-specific area	**Area (acres):**	29
UTM:	Zone-11 N3635598 E498700	**Latitude/Longitude:**	32.85848 / -117.01389	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

KLE01R0002	KLEIN, M. & C. EDWARDS (KLEIN-EDWARDS PROFESSIONAL SERVICES) - RESULTS OF PROTOCOL SURVEYS PERFORMED FOR COASTAL CALIFORNIA GNATCATCHER AT THE EAST ELLIOTT SITE, CITY OF SAN DIEGO, SAN DIEGO COUNTY, CALIFORNIA. 2001-08-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47225
EO Index: 47225
Key Quad: La Mesa (3211771)
Element Code: ABPBJ08081
Occurrence Number: 588
Occurrence Last Updated: 2002-02-13

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 2001-05-09
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-05-09
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

SANTEE; 0.2 MILE WEST OF SYCAMORE CANYON, 1 MILE EAST OF LITTLE SYCAMORE CANYON AND 1.1 MILES NORTH OF MISSION GORGE RD.

Detailed Location:

MALE OBSERVED WITHIN SAGE SCRUB ON EAST-FACING SLOPE SW OF FENCED POWER SUBSTATION. FEMALE OBSERVED (400 FT SOUTH OF MALE) WITHIN COASTAL SAGE SCRUB ON EAST-FACING SLOPE, WEST FROM END OF PECAN VALLEY ROAD.

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB.

Threats:

PROPOSED FOR DEVELOPMENT (EAST ELLIOTT SITE).

General:

9 MAY 2001: SINGLE MALE AND FEMALE OBSERVED. MALE LOCATED WITHIN PROPOSED PROJECT AREA.

PLSS: T15S, R01W, Sec. 20 (S)
Accuracy: non-specific area
Area (acres): 26
UTM: Zone-11 N3634891 E498792
Latitude/Longitude: 32.85210 / -117.01291
Elevation (feet): 560

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

KLE01R0002 KLEIN, M. & C. EDWARDS (KLEIN-EDWARDS PROFESSIONAL SERVICES) - RESULTS OF PROTOCOL SURVEYS PERFORMED FOR COASTAL CALIFORNIA GNATCATCHER AT THE EAST ELLIOTT SITE, CITY OF SAN DIEGO, SAN DIEGO COUNTY, CALIFORNIA. 2001-08-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	47226	**EO Index:**	47226
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	589	**Occurrence Last Updated:**	2002-02-13

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2001-05-09	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-05-09	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SANTEE; 0.6 MILE WEST OF SYCAMORE CANYON, 0.6 MILE EAST OF LITTLE SYCAMORE CANYON & 1.4 MILES NORTH OF MISSION GORGE RD.

Detailed Location:

INDIVIDUAL LOCATED ON SOUTHWEST-FACING SLOPE ABOVE CANYON NEAR SAN DIEGO GAS & ELECTRIC POWER-LINE ACCESS ROAD. LOCATION IS WITHIN SOUTHERN PROPOSED PRESERVE AREA.

Ecological:

HABITAT CONSISTS OF DISTURBED SAGE SCRUB.

Threats:

THREAT CONSISTS OF POSSIBLE DISTURBANCE DUE TO DEVELOPMENT ACTIVITY (EAST ELLIOTT SITE).

General:

9 MAY 2001: 1 MALE OBSERVED.

PLSS:	T15S, R01W, Sec. 19, NE (S)	**Accuracy:**	1/10 mile	**Area (acres):**	0
UTM:	Zone-11 N3635293 E498218	**Latitude/Longitude:**	32.85573 / -117.01904	**Elevation (feet):**	600

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

KLE01R0002 KLEIN, M. & C. EDWARDS (KLEIN-EDWARDS PROFESSIONAL SERVICES) - RESULTS OF PROTOCOL SURVEYS PERFORMED FOR COASTAL CALIFORNIA GNATCATCHER AT THE EAST ELLIOTT SITE, CITY OF SAN DIEGO, SAN DIEGO COUNTY, CALIFORNIA. 2001-08-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	47227	**EO Index:**	47227
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	590	**Occurrence Last Updated:**	2016-02-04

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2015-06-04	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-06-04	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

FROM 0.25 MI N TO 0.5 MI NE OF MAST BLVD AT W HILLS PKWY AND 0.5 TO 0.8 MI SW OF MEDINA DR AT PECAN VALLEY DR, SANTEE.

Detailed Location:

2001 LOCATION WITHIN SOUTHERN PROPOSED PRESERVE AREA. 2 PAIRS OBSERVED IN 2010 & 4 TERRITORIES IN 2012 ON CASTLEROCK PROJECT SITE, EXACT LOCATIONS UNKNOWN.

Ecological:

HABITAT CONSISTS OF SAGE SCRUB.

Threats:

THREAT CONSISTS OF POSSIBLE DISTURBANCE DUE TO DEVELOPMENT ACTIVITY (EAST ELLIOTT SITE, 2001).

General:

E: 1 MALE OBSERVED 9 MAY 2001; 2 DETECTIONS IN VICINITY IN 2012. MIDDLE: 1 FORAGING ADULT OBSERVED 4 JUN 2015. W: "FAMILY" OF 3 OBSERVED FORAGING 4 JUN 2015.

PLSS:	T15S, R01W, Sec. 19 (S)	**Accuracy:**	non-specific area	**Area (acres):**	26
UTM:	Zone-11 N3634798 E497882	**Latitude/Longitude:**	32.85126 / -117.02263	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

KLE01R0002	KLEIN, M. & C. EDWARDS (KLEIN-EDWARDS PROFESSIONAL SERVICES) - RESULTS OF PROTOCOL SURVEYS PERFORMED FOR COASTAL CALIFORNIA GNATCATCHER AT THE EAST ELLIOTT SITE, CITY OF SAN DIEGO, SAN DIEGO COUNTY, CALIFORNIA. 2001-08-25
REC15D0001	RECON ENVIRONMENTAL, INC. - POINT SHAPEFILE OF COASTAL CALIFORNIA GNATCATCHER AND LEAST BELL'S VIREO 2015-06-04
REC15D0002	RECON ENVIRONMENTAL, INC. - POLYGON SHAPEFILE OF COASTAL CALIFORNIA GNATCATCHER 2015-06-04
SDG13R0001	CITY OF SAN DIEGO - FINAL ENVIRONMENTAL IMPACT REPORT FOR THE CASTLEROCK PROJECT 2013-06-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47787
EO Index: 47787
Key Quad: La Mesa (3211771)
Element Code: ABPBJ08081
Occurrence Number: 594
Occurrence Last Updated: 2003-03-19

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 2001-05-01
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-05-25
Occurrence Rank: Good
Owner/Manager: CALTRANS
Trend: Unknown
Presence: Presumed Extant

Location:

MURPHY CANYON, ON THE WEST SIDE OF I-15, SOUTH OF MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB AND CHAPARRAL, LYING ALONG A NORTH-SOUTH CANYON, WITHIN A FREEWAY RIGHT-OF-WAY. DOMINANT SHRUBS ARE COASTAL BUCKWHEAT, LAUREL SUMAC, CALIFORNIA SAGBRUSH, BLACK SAGE, AND CHAMISE.

Threats:

THREATENED BY INVASIVE, NON-NATIVE VEGETATION (E.G, PAMPAS GRASS).

General:

1 FEMALE OBSERVED ON 1 MAY 2001.

PLSS: T15S, R02W, Sec. 30 (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3633556 E488489
Latitude/Longitude: 32.84000 / -117.12300
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

JAM01F0001 JAMES, R. (CALIFORNIA DEPARTMENT OF TRANSPORTATION) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2001-05-01

JAM02U0001 JAMES, R. - YEAR 2001 45-DAY REPORT, CALIFORNIA GNATCATCHER SURVEYS ALONG INTERSTATE 15. 2002-03-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	48314	**EO Index:**	48314
Key Quad:	La Jolla (3211772)	**Element Code:**	ABPBJ08081
Occurrence Number:	612	**Occurrence Last Updated:**	2003-12-22

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2002-06-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2002-06-26	**Occurrence Rank:**	Fair
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NE OF UNIVERSITY CITY; NORTH OF ROSE CANYON, 0.3 MILE EAST OF GENESEE AVE.

Detailed Location:

2001: DIRECTLY EAST OF RR MILEMARKER 256, NORTH OF TRACKS. 2002: SOUTHERN WILLOW SCRUB NEAR DIEGAN CSS.

Ecological:

SOUTHERN WILLOW SCRUB & DIEGAN COASTAL SAGE SCRUB VEG BY ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, BACCHARIS SAROTHROIDES, RHUS INTEGRIFOLIA & ENCELIA CALIFORNICA. OPEN SPACE W/HIKING TRAIL TO N & RR TRACKS TO S; RESIDENTIAL TO N & S.

Threats:

ORNAMENTAL PLANT SPECIES ARE ENCROACHING ON NATIVE HABITAT.

General:

1 INDIVIDUAL OBSERVED VOCALIZING ON 28 OCT 2001. 2 ADULTS AND 2 JUVENILES OBSERVED 26 JUN 2002.

PLSS:	T15S, R03W, Sec. 17 (S)	**Accuracy:**	specific area	**Area (acres):**	9
UTM:	Zone-11 N3636167 E480630	**Latitude/Longitude:**	32.86344 / -117.20703	**Elevation (feet):**	240

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

ALF02F0007	ALFARO, M. (TIERRA ENVIRONMENTAL SERVICES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2002-06-26
JOH02F0001	JOHNSON, M. (BRG CONSULTING, INC.) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2002-07-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	49483	**EO Index:**	49483
Key Quad:	National City (3211761)	**Element Code:**	ABPBJ08081
Occurrence Number:	616	**Occurrence Last Updated:**	2016-02-17

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2015-05-30	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-05-30	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO, UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

CHOLLAS CREEK, FROM 0.2 MILE NW TO 1.5 MILES NE OF THE INTERSECTION OF I-805 & STATE ROUTE 94 IN SAN DIEGO.

Detailed Location:

MAPPED TO PROVIDED LOCATIONS AND COORDINATES. INCLUDES MID CITY ATHLETIC AREA AND CHOLLAS PARKWAY OPEN SPACE.

Ecological:

DIEGAN COASTAL SAGE SCRUB/MARITIME SUCCULENT SCRUB W/SAGEBRUSH, BACCHARIS, SUMAC, AND CHOLLA. SURROUNDED BY DEVELOPMENT: SHOOTING RANGE, BUSINESS, RESIDENTIAL. CANYON BOTTOM GRADED, DEVELOPED INTO BASEBALL FIELD.

Threats:

DISTURBANCE FROM DEVELOPED AREAS, RECREATION, POSSIBLE IMPACTS FROM SEWER ALIGNMENT PROJECTS (1999-2004).

General:

2 PAIRS(P), 3 ADULTS(A) DETECTED NOV-DEC 1999. 3P OBS 23 APR, 2P WITH 2 FLEDGLINGS(F) 30 MAY, 2P W/1F 6 JUN, & 1P W/3 JUVENILES(J) 8 AUG 2001. 1A DET 10 JUN 2002. 6P, 2A, & 2J DET JUN-JUL 2003. 1P DET APR 2004. 1P W/2J DET 30 MAY 2015.

PLSS:	T17S, R02W, Sec. 04 (S)	**Accuracy:**	specific area	**Area (acres):**	74
UTM:	Zone-11 N3620837 E490892	**Latitude/Longitude:**	32.72529 / -117.09719	**Elevation (feet):**	180

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

ALF02F0001	ALFARO, E. (TIERRA ENVIRONMENTAL SERVICES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2002-06-10
DUN15F0002	DUNN, C. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2015-05-30
ECO04R0018	ECOLOGICAL VENTURES - RESULTS OF THE FOCUSED COASTAL CALIFORNIA GNATCATCHER SURVEYS CONDUCTED WITHIN THE 4-ACRE CHOLLAS CREEK SITE, CITY OF SAN DIEGO, CALIFORNIA 2004-05-03
EIS03U0001	EISENBART, R. - POST-SURVEY NOTIFICATION FOR FOCUSED COASTAL CALIFORNIA GNATCATCHER SURVEYS AT CHOLLAS VALLEY TRUNK SEWER (PHASE 2) PROJECT SITE [PERMIT NUMBER TE-843449-1] 2003-07-09
FIS01F0001	FISCHER, K. & E. ROBBINS (VARANUS BIOLOGICAL SERVICES) - 2001 CALIFORNIA GNATCATCHER SURVEY, FEDERAL BLVD EAST SIDE OF I-805, CHOLLAS CREEK, SAN DIEGO, CALIFORNIA. 2001-04-23
FIS01F0002	FISCHER, K. & L. HARGROVE (VARANUS BIOLOGICAL SERVICES) - 2001 CALIFORNIA GNATCATCHER SURVEY, FEDERAL BLVD EAST SIDE OF I-805, CHOLLAS CREEK, SAN DIEGO, CALIFORNIA. 2001-08-08
LOE00U0001	LOEFFLER, W. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION - FOCUSED SURVEY RESULTS FOR THE COASTAL CALIFORNIA GNATCATCHER ON THE CHOLLAS VALLEY TRUNK SEWER, PHASE II. 2000-02-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	49494	**EO Index:**	49494
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	617	**Occurrence Last Updated:**	2002-11-26

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2000-08-09	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2000-08-09	**Occurrence Rank:**	Unknown
Owner/Manager:	CALTRANS	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

0.5 MILE SOUTH OF SAN CLEMENTE CANYON, NEAR I-15; KEARNY MESA, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB DOMINATED BY ERIOGONUM FASCICULATUM AND BACCHARIS SAROTHOIDES. VERNAL POOLS IN VICINITY. SURROUNDING AREA COMPRISED OF OPEN SPACE, FREEWAY AND ACTIVE/ABANDONED MILITARY BUILDINGS.

Threats:

THREAT CONSISTS OF CALTRANS SUPPORT FACILITIES FOR I-15.

General:

2 ADULTS OBSERVED ON 9 AUG 2000. ORANGE-THROATED WHIPTAIL IN VICINITY.

PLSS:	T15S, R02W, Sec. 17 (S)	**Accuracy:**	1/10 mile	**Area (acres):**	0
UTM:	Zone-11 N3636160 E489407	**Latitude/Longitude:**	32.86350 / -117.11322	**Elevation (feet):**	480

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

JAM00F0005	JAMES, R. (CALIFORNIA DEPARTMENT OF TRANSPORTATION) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2000-08-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	49506	**EO Index:**	49506
Key Quad:	Del Mar (3211782)	**Element Code:**	ABPBJ08081
Occurrence Number:	618	**Occurrence Last Updated:**	2008-05-22

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2001-10-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-10-24	**Occurrence Rank:**	Unknown
Owner/Manager:	UCNR-SCRIPPS COASTAL RESERVE	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SCRIPPS COASTAL CRESERVE; WEST OF NORTH TORREY PINES ROAD, SAN DIEGO.

Detailed Location:

ADULT PAIR WITH 3 FLEDGLINGS OBSERVED ALONG DISCOVERY WAY.

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB.

Threats:

General:

ADULT PAIR WITH 3 FLEDGLINGS, 2 JUVENILES AND 1 OF UNKNOWN AGE OBSERVED DURING 9 SURVEYS BETWEEN 27 JUN-24 OCT 2001.

PLSS:	T15S, R04W, Sec. 12 (S)	**Accuracy:**	specific area	**Area (acres):**	18
UTM:	Zone-11 N3637706 E476827	**Latitude/Longitude:**	32.87725 / -117.24772	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772), Del Mar (3211782)

Sources:

PUD01R0001 PUDOFF, D. (HELIX ENVIRONMENTAL PLANNING, INC.) - YEAR 2001 PROTOCOL GNATCATCHER PRESENCE/ABSENCE SURVEY REPORT FOR THE UNIVERSITY OF CALIFORNIA, SAN DIEGO. 2001-12-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	50355	**EO Index:**	50355
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABPBJ08081
Occurrence Number:	628	**Occurrence Last Updated:**	2003-03-17

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	1998-09-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1998-09-11	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EAST SIDE OF MOODY CANYON, 1.1 MILES EAST OF INTERSTATE 805 AND 1.3 MILES NORTH OF THE CA-MEXICO BORDER, SE SAN DIEGO.

Detailed Location:

Ecological:

HABITAT CONSISTS OF MARITIME SUCCULENT SCRUB. PLANTS INCLUDE VIGUIERA LACINIATA, ERIOGONUM FASCICULATUM, AMBROSIA CHENOPODIIFOLIA, EUPHORBIA MISERA & MALOSMA LAURINA. POCKETS OF NATIVE GRASSLAND (STIPA PULCHRA, STIPA LEPIDA) AMONG SCRUB.

Threats:

THREATENED BY PROPOSED RESIDENTIAL SUBDIVISION.

General:

1 PAIR OBSERVED FORAGING AND 1 INDIVIDUAL HEARD BETWEEN 20 AUG - 11 SEP 1998.

PLSS:	T18S, R01W, Sec. 31 (S)	**Accuracy:**	specific area	**Area (acres):**	21
UTM:	Zone-11 N3602764 E497813	**Latitude/Longitude:**	32.56229 / -117.02329	**Elevation (feet):**	440

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

MER98U0001 EMLET, D. (MERKEL AND ASSOCIATES, INC.) - CALIFORNIA GNATCATCHER SURVEY REPORT FOR THE CANDLELIGHT PROPERTY PROJECT 1998-09-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	50589	**EO Index:**	50589
Key Quad:	National City (3211761)	**Element Code:**	ABPBJ08081
Occurrence Number:	638	**Occurrence Last Updated:**	2003-03-13

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	1997-05-29	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1997-05-29	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH CHOLLAS LANDFILL, 0.3 MILE EAST OF 54TH STREET AND 0.6 MILE SW OF CHOLLAS RESERVOIR, SAN DIEGO.

Detailed Location:

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB AND SOUTHERN MIXED CHAPARRAL. THIS AREA IS A FLAT MESA WITH SLOPING PERIMETER. RESIDENTIAL EXISTS TO EAST, SOUTH AND WEST; LANDFILL LOCATED TO THE NORTH.

Threats:

BIRDS MAY BE DIRECTLY OR INDIRECTLY IMPACTED BY MAINTENANCE ACTIVITIES.

General:

1 PAIR AND A NEST (W/3 EGGS) OBSERVED BETWEEN 14 APR AND 29 MAY 1997. NEST WAS ABANDONED BY PAIR BETWEEN 19 - 29 MAY 1997.

PLSS:	T16S, R02W, Sec. 34 (S)	**Accuracy:**	1/10 mile	**Area (acres):**	0
UTM:	Zone-11 N3621578 E493015	**Latitude/Longitude:**	32.73199 / -117.07454	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

HOW97R0002	HOWARD, J. (CITY OF SAN DIEGO) - CALIFORNIA GNATCATCHER SURVEY AT THE CITY OF SAN DIEGO'S SOUTH CHOLLAS LANDFILL SITE 1997-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	50590	**EO Index:**	50590
Key Quad:	National City (3211761)	**Element Code:**	ABPBJ08081
Occurrence Number:	639	**Occurrence Last Updated:**	2003-03-13

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	1997-05-02	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1997-05-02	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH SIDE OF LONG CANYON, DIRECTLY EAST OF BONITA.

Detailed Location:

AREA IS LOCATED 1.1 MILES EAST ON ACACIA AVE FROM BONITA ROAD, TO THE NORTH.

Ecological:

Threats:

General:

1 PAIR DETECTED BETWEEN 18 APR AND 2 MAY 1997.

PLSS:	T17S, R01W, Sec. 29 (S)	**Accuracy:**	specific area	**Area (acres):**	4
UTM:	Zone-11 N3613424 E499161	**Latitude/Longitude:**	32.65846 / -117.00894	**Elevation (feet):**	350

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

DOD97U0001 DODD, S. (S.C. DODD BIOLOGICAL CONSULTING) - CALIFORNIA GNATCATCHER (POLIOPTILA CALIFORNICA) SURVEYS PERFORMED ON THE BONITA GRADING SITE, IN BONITA, CALIFORNIA. FORMERLY CALLED THE CHULA VISTA GRADING SITE. 1997-06-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	50664	**EO Index:**	50664
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	641	**Occurrence Last Updated:**	2003-03-20

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	1997-05-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1997-05-26	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

LOWER SHEPHERD CANYON, JUST SOUTH OF CLAIREMONT MESA BLVD AND 0.7 MILE EAST OF I-15, SAN DIEGO.

Detailed Location:

RIDGETOP AND NORTH/SOUTH-FACING SLOPES JUST SOUTH CLAIREMONT MESA BLVD.

Ecological:

HABITAT CONSISTS OF HIGH QUALITY COASTAL SAGE SCRUB (ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM) & BROOM BACCHARIS SCRUB (BACCHARIS SAROTHROIDES). AREA ALSO VEGETATED WITH SALVIA MELLIFERA, RHUS INTEGRIFOLIA & MALOSMA LAURINA.

Threats:

General:

1 PAIR OBSERVED BETWEEN 12 - 26 MAY 1997.

PLSS:	T15S, R02W, Sec. 32 (S)	**Accuracy:**	1/10 mile	**Area (acres):**	0
UTM:	Zone-11 N3632317 E490077	**Latitude/Longitude:**	32.82884 / -117.10601	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

DUD97U0002 HAYWORTH, A. (DUDEK AND ASSOCIATES) - SURVEY FOR THE CALIFORNIA GNATCATCHER FOR THE LOWER SHEPARD CANYON AREA, CLAIREMONT MESA BLVD/SANTO ROAD EMERGENCY SEWER REPAIR PROJECT, CITY OF SAN DIEGO, CALIFORNIA. 1997-06-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 50674
EO Index: 50674
Key Quad: La Mesa (3211771)
Element Code: ABPBJ08081
Occurrence Number: 642
Occurrence Last Updated: 2003-03-21

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 2002-01-02
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2002-01-02
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVY
Trend: Unknown
Presence: Presumed Extant

Location:

MURPHY CANYON NAVY FAMILY HOUSING OPEN SPACE, JUST NE OF THE INTERSECTION OF I-15 AND AERO DRIVE, SAN DIEGO.

Detailed Location:

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB DOMINATED BY ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM VAR. FOLIOSUM, SALVIA MELLIFERA AND BACCHARIS SAROTHROIDES. OTHER PLANTS INCLUDE RHUS INTEGRIFOLIA, MALOSMA LAURINA AND MIMULUS AURANTIACUS.

Threats:

General:

1 INDIVIDUAL OBSERVED FORAGING WITHIN COASTAL SAGE SCRUB BETWEEN 6 SEP 2001 AND 2 JAN 2002.

PLSS: T16S, R02W, Sec. 05 (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3630395 E489449
Latitude/Longitude: 32.81150 / -117.11270
Elevation (feet): 250

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

REC02U0005 CLARK, A. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION - FOCUSED SURVEY RESULTS FOR THE COASTAL CALIFORNIA GNATCATCHER ON THREE OPEN SPACE AREAS ON MURPHY CANYON NAVY FAMILY HOUSING IN SAN DIEGO, CALIFORNIA. 2002-08-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	50679	**EO Index:**	50679
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	643	**Occurrence Last Updated:**	2003-03-21

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	1998-06-25	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1998-07-02	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MISSION GORGE (ADMIRAL BAKER FIELD), NW OF MISSION GORGE ROAD AND 0.7-0.8 MILE EAST OF INTERSTATE 15, SAN DIEGO.

Detailed Location:

EAST SIDE OF CENTRAL AND SOUTHERN PORTION OF GOLF COURSE.

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB COMPRISED OF ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM VAR. FASCICULATUM, SALVIA MELLIFERA & VIGUIERA LACINIATA. SOME MALOSMA LAURINA, SALVIA APIANA, ENCELIA CALIFORNICA, OPUNTIA PROLIFERA PRESENT.

Threats:

General:

7 PAIRS, 3 MALES OBSERVED APRIL 1998 AND 4 PAIRS, 2 MALES OBSERVED JUNE 1998.

PLSS:	T16S, R02W, Sec. 09 (S)	**Accuracy:**	specific area	**Area (acres):**	52
UTM:	Zone-11 N3629499 E490702	**Latitude/Longitude:**	32.80343 / -117.09931	**Elevation (feet):**	200

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

REC98U0002 AYERS, T. (RECON ENVIRONMENTAL, INC.) - 45-DAY REPORT ON PRESENCE OF COASTAL CALIFORNIA GNATCATCHERS AT NAVAL RECREATION CENTER - MISSION GORGE (ADMIRAL BAKER FIELD) 1998-07-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	50681	**EO Index:**	50681
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	644	**Occurrence Last Updated:**	2003-03-21

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	1998-07-02	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1998-07-02	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MISSION GORGE (ADMIRAL BAKER FIELD), NW OF MISSION GORGE ROAD AND 1.2-1.9 MILES EAST OF INTERSTATE 15, SAN DIEGO.

Detailed Location:

NORTH TO NORTHEAST EDGE OF GOLF COURSE.

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB COMPRISED OF ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM VAR. FASCICULATUM, SALVIA MELLIFERA & VIGUIERA LACINIATA. SOME MALOSMA LAURINA, SALVIA APIANA, ENCELIA CALIFORNICA, OPUNTIA PROLIFERA PRESENT.

Threats:

General:

2 PAIRS, 1 MALE AND 1 UNKNOWN SEX OBSERVED/DETECTED APRIL 1998. 1 PAIR, 3 MALES, 1 FEMALE AND 3 JUVENILES OBSERVED JUNE 1998. 2 PAIRS, 1 MALE AND 1 FEMALE OBSERVED JULY 1998.

PLSS:	T16S, R02W, Sec. 04 (S)	**Accuracy:**	specific area	**Area (acres):**	52
UTM:	Zone-11 N3630558 E491861	**Latitude/Longitude:**	32.81299 / -117.08694	**Elevation (feet):**	180

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

REC98U0002 AYERS, T. (RECON ENVIRONMENTAL, INC.) - 45-DAY REPORT ON PRESENCE OF COASTAL CALIFORNIA GNATCATCHERS AT NAVAL RECREATION CENTER - MISSION GORGE (ADMIRAL BAKER FIELD) 1998-07-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	50682	**EO Index:**	50682
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	645	**Occurrence Last Updated:**	2019-07-18

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2017-06-28	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-06-28	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MISSION GORGE QUARRY, ON BOTH SIDES OF COLINA DORADA DR, 0.4-0.7 MI NNW OF MISSION GORGE RD AT CONESTOGA WAY, SAN DIEGO.

Detailed Location:

NORTH SIDE OF MISSION GORGE. MAPPED TO PROVIDED COORDINATES AND MAPPED LOCATIONS. 2017: BOTH DETECTIONS WITHIN TIERRASANTA OPEN SPACE (CITY OF SAN DIEGO).

Ecological:

COASTAL SAGE SCRUB DOMINATED BY ARTEMISIA CALIFORNICA, SALVIA MELLIFERA, MALOSMA LAURINA, LOTUS SCOPARIUS AND ERIOGONUM FASCICULATUM. ACTIVE MINING OPERATION TO SW (2002).

Threats:

QUARRY OPERATIONS (2002).

General:

1 PAIR OBSERVED FEEDING 3 FLEDGLINGS, 24 MAY & 25 JUN 2002. 1 NESTING PAIR & 1 FORAGING PAIR OBSERVED IN MAY 2008. 2 ADULT MALES & 1 PAIR DETECTED ON 28 JUN 2017.

PLSS:	T16S, R02W, Sec. 3, N (S)	**Accuracy:**	specific area	**Area (acres):**	18
UTM:	Zone-11 N3630740 E492741	**Latitude/Longitude:**	32.81463 / -117.07754	**Elevation (feet):**	488

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

ALL17F0020	ALLEN, D. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2017-06-28
ALL17F0021	ALLEN, D. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2017-06-28
MCK08U0001	MCKINNEY, E. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION - FOCUSED SURVEY RESULTS FOR THE COASTAL CALIFORNIA GNATCATCHER ON THE SUPERIOR READY MIX MISSION GORGE QUARRY SITE. 2008-07-16
REC02U0006	CLARK, A. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION - FOCUSED SURVEY RESULTS FOR THE COASTAL CALIFORNIA GNATCATCHER ON THE SUPERIOR READY MIX MISSION GORGE QUARRY SITE IN SAN DIEGO, CALIFORNIA. 2002-10-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 50687
EO Index: 50687
Key Quad: La Jolla (3211772)
Element Code: ABPBJ08081
Occurrence Number: 646
Occurrence Last Updated: 2003-04-03

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 1996-02-08
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1996-02-08
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

TRIBUTARY CANYON OF SAN CLEMENTE CANYON, EAST OF CLAIREMONT MESA, WEST OF GENESEE AVE & SOUTH OF STATE ROUTE 52.

Detailed Location:

UPPER PORTION OF WEST-TO SOUTH-FACING SLOPE.

Ecological:

HABITAT CONSISTS OF A CANYON VEGETATED WITH RELATIVELY UNDISTURBED DIEGAN COASTAL SAGE SCRUB. PLANTS INCLUDE ARTEMISIA CALIFORNICA (70%), ERIOGONUM FASCICULATUM (30%) AND CACTUS. SHRUB COVER ~80%, SHRUB HEIGHT ~0.75 METERS. SLOPE = 2.5:1.

Threats:

General:

1 PAIR OBSERVED BETWEEN 23 JAN AND 8 FEB 1996. THE AREA SURROUNDING THE CANYON IS COMPRISED OF RESIDENTIAL DEVELOPMENT.

PLSS: T15S, R03W, Sec. 29 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3633744 E480152
Latitude/Longitude: 32.84158 / -117.21209
Elevation (feet): 240

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

DUD96U0001 HAYWORTH, A. (DUDEK AND ASSOCIATES) - CITY OF SAN DIEGO WATER UTILITIES AS-NEEDED TASK ORDER NO. 26 CALIFORNIA GNATCATCHER SURVEY FOR THE MANHOLE REPAIR PROJECT SITE 1996-02-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04115	**EO Index:**	51672
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	687	**Occurrence Last Updated:**	2003-06-30

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2002-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2002-XX-XX	**Occurrence Rank:**	Good
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

APPROXIMATELY 0.7 MILE NE THE INTERSECTION OF HWY 15 AND FRIARS ROAD EXTENSION, US NAVAL RECREATION FACILITY.

Detailed Location:

FEATURE MAPPED ACCORDING TO UTM COORDINATES.

Ecological:

HABITAT CONSISTS OF COASTAL SCRUB. OTHER SPECIES IN AREA INCLUDE, ASPIDOSCELIS HYPERYTHRUS, ACCIPITER COOPERII AND AIMOPHILA RUFICEPS CANESCENS.

Threats:

THREAT: CATS.

General:

12 ADULTS AND 13 JUVENILES OBSERVED. GNATCATCHERS PRESENT CONTINUOUSLY FROM AUG 2001 THROUGH JUL 2002.

PLSS:	T16S, R02W, Sec. 08 (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3628786 E490010	**Latitude/Longitude:**	32.79699 / -117.10670	**Elevation (feet):**	350

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BUR02F0011 BURTON, K. (GARCIA AND ASSOCIATES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2002-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	53652	**EO Index:**	53652
Key Quad:	Point Loma (3211762)	**Element Code:**	ABPBJ08081
Occurrence Number:	824	**Occurrence Last Updated:**	2008-04-08

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2004-09-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2004-09-11	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EAST OF PERSHING DRIVE (N END OF SWITZER CANYON EAST OF GOLF COURSE), BALBOA PARK, SAN DIEGO.

Detailed Location:

2002: ADULT OBSERVED ON NORTH-FACING SLOPE. 2004: OBSERVED ON SOUTH-FACING SLOPE.

Ecological:

HABITAT CONSISTS OF ISOLATED PATCHES OF DIEGAN COASTAL SAGE SCRUB. CONDITION OF DCSS IS GOOD, BUT OVERALL CONDITION IS FAIR DUE TO ISOLATION OF PATCHES. AREA SURROUNDED BY DEVELOPMENT TO N, S & E. GOLF COURSE LOCATED TO THE WEST OF SITE.

Threats:

THREATENED BY ORNAMENTAL PLANTS ENCROACHING ON DIEGAN COASTAL SAGE SCRUB AND URBAN ENCROACHMENT.

General:

1 ADULT OBSERVED 10 JUL 2002. FORAGING MALE IN BREEDING PLUMAGE OBSERVED WITH 1-2 OTHER INDIVIDUALS ON 1 AUG 2004. 1-2 INDIVIDUALS FORAGING ON 11 SEPT 2004. SURVEYS DURING 2004 WERE INFORMAL SURVEYS.

PLSS:	T16S, R02W, Sec. 31, SW (S)	**Accuracy:**	specific area	**Area (acres):**	10
UTM:	Zone-11 N3621585 E487507	**Latitude/Longitude:**	32.73200 / -117.13333	**Elevation (feet):**	230

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

ALF02F0002	ALFARO, M. (TIERRA ENVIRONMENTAL SERVICES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2002-07-10
FAL04F0001	FALCONE, J. (U.S. GEOLOGICAL SURVEY) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2004-08-01
FAL04F0002	FALCONE, J. (U.S. GEOLOGICAL SURVEY) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2004-09-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	53677	**EO Index:**	53677
Key Quad:	National City (3211761)	**Element Code:**	ABPBJ08081
Occurrence Number:	825	**Occurrence Last Updated:**	2003-12-22

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2002-11-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2002-11-15	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

CANYON NW OF THE I-15/HWY 94 INTERSECTION AND EAST OF 34TH STREET IN THE COMMUNITY OF SOUTH PARK, SAN DIEGO.

Detailed Location:

HOME AVENUE CANYON.

Ecological:

HABITAT CONSISTS OF DIEGAN COASTAL SAGE SCRUB ON A SW-FACING SLOPE. EXOTIC VEGETATION FROM SURROUNDING AREAS IS BEGINNING TO ENCROACH ON NATIVE VEGETATION.

Threats:

General:

2 ADULTS OBSERVED ON 15 NOV 2002. PARCEL IS LOCATED WITHIN THE MHPA.

PLSS:	T17S, R02W, Sec. 06 (S)	**Accuracy:**	non-specific area	**Area (acres):**	91
UTM:	Zone-11 N3620828 E488710	**Latitude/Longitude:**	32.72519 / -117.12047	**Elevation (feet):**	130

County Summary:	**Quad Summary:**
San Diego	National City (3211761), Point Loma (3211762)

Sources:

ALF02F0008 ALFARO, M. (TIERRA ENVIRONMENTAL SERVICES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2002-11-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	54103	**EO Index:**	54103
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBJ08081
Occurrence Number:	831	**Occurrence Last Updated:**	2004-01-27

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2003-12-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-12-10	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

3 MILES NE OF THE I-8/I-15 INTERCHANGE AND 1.8 MILES NW OF LAKE MURRAY, COMMUNITY OF NAVAJO, CITY OF SAN DIEGO.

Detailed Location:

SOUTH OF MISSION GORGE ROAD, NORTH OF FONTAIN STREET AND EAST OF CONESTOGA WAY; SOUTH-EAST FACING SLOPE.

Ecological:

HABITAT CONSISTS OF DIEGAN COASTAL SAGE SCRUB DOM BY ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM. SOILS: MOD DEEP TO DEEP CLAYS, STEEP GRAVELLY LOAMS W/A GRAVELLY CLAY SUBSOIL & HARDPAN. AREA IS COMPLETELY SURROUNDED BY DEVELOPMENT.

Threats:

General:

2 ADULTS OBSERVED ON 10 DEC 2003.

PLSS:	T16S, R02W, Sec. 10 (S)	**Accuracy:**	non-specific area	**Area (acres):**	37
UTM:	Zone-11 N3629532 E493366	**Latitude/Longitude:**	32.80374 / -117.07085	**Elevation (feet):**	275

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

ALF03F0003 ALFARO, E. (TIERRA ENVIRONMENTAL SERVICES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2003-12-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	64331	**EO Index:**	64410
Key Quad:	National City (3211761)	**Element Code:**	ABPBJ08081
Occurrence Number:	843	**Occurrence Last Updated:**	2006-03-23

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2006-02-22	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2006-02-22	**Occurrence Rank:**	Good
Owner/Manager:	PVT, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH OF PARADISE VALLEY ROAD, IN THE VICINITY OF PARADISE HILLS PARK, SAN DIEGO.

Detailed Location:

THIS BIRD'S TERRITORY INCLUDED UNDEVELOPED PRIVATE PROPERTY AND ADJACENT CITY PROPERTY WITHIN PARADISE HILLS PARK.

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB, DOMINATED BY RHUS INTEGRIFOLIA, ARTEMISIA CALIFORNICA, OPUNTIA LITTORALIS, ERIOGONUM FASCICULATUM, ISOMERIS ARBOREA, MALOSMA LAURINA, AND CYLINDROPUNTIA PROLIFERA; NORTH-FACING SLOPE.

Threats:

THREAT OF DEVELOPMENT ON THE PORTION LYING ON PRIVATE LAND.

General:

1 ADULT OBSERVED ON 22 FEB 2006.

PLSS:	T17S, R02W, Sec. 14 (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3616581 E494811	**Latitude/Longitude:**	32.68692 / -117.05534	**Elevation (feet):**	375

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

TUM06F0001 TUMA, M.W. (SWCA ENVIRONMENTAL CONSULTANTS) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2006-02-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 67254
EO Index: 67415
Key Quad: Point Loma (3211762)
Element Code: ABPBJ08081
Occurrence Number: 848
Occurrence Last Updated: 2006-11-29

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 2005-06-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-06-15
Occurrence Rank: Excellent
Owner/Manager: NPS-CABRILLO NM, DOD-NAVY
Trend: Unknown
Presence: Presumed Extant

Location:

CABRILLO NATIONAL MONUMENT, JUST SE OF THE OLD LIGHTHOUSE, POINT LOMA.

Detailed Location:

LOCATED IN OPEN SPACE, SURROUNDED BY POINT LOMA NAVAL BASE AND CABRILLO NATIONAL MONUMENT.

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB.

Threats:

General:

1 JUVENILE OBSERVED ON 15 JUN 2005.

PLSS: T17S, R03W, Sec. 30 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3614807 E477561
Latitude/Longitude: 32.67070 / -117.23931
Elevation (feet): 327

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

FIS05F0024 FISCHER, K. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2005-06-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68655
EO Index: 69063
Key Quad: Imperial Beach (3211751)
Element Code: ABPBJ08081
Occurrence Number: 852
Occurrence Last Updated: 2007-03-21

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 2006-06-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-06-07
Occurrence Rank: Fair
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

APPROXIMATELY 0.7 MILE NORTH OF OTAY VALLEY ROAD AND 1.15 MILES EAST OF I-805, SOUTH OF POGGI CANYON, SAN DIEGO.

Detailed Location:

Ecological:

HABITAT IS DISTURBED COASTAL SAGE SCRUB DOMINATED BY ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, VIGUIERA LACINIATA, ENCELIA CALIFORNICA, LOTUS SCOPARIUS & CYLINDROPUNTIA PROLIFERA. SURROUNDING LAND USE IS OPEN SPACE & OTAY LANDFILL.

Threats:

General:

2 ADULTS AND 4 JUVENILES OBSERVED ON 7 JUN 2006. CALIFORNIA HORNED LARK AND SOUTHERN CALIFORNIA RUFOUS-CROWNED SPARROW ALSO IN VICINITY.

PLSS: T18S, R01W, Sec. 18, SE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3607400 E498499
Latitude/Longitude: 32.60411 / -117.01598
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

FIS06F0006 FISCHER, K. (JONES AND STOKES ASSOCIATES) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2006-06-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	99241	**EO Index:**	100768
Key Quad:	National City (3211761)	**Element Code:**	ABPBJ08081
Occurrence Number:	932	**Occurrence Last Updated:**	2016-02-17

Scientific Name: *Polioptila californica californica*

Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q

State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed:	2015-06-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-06-15	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EMERALD HILLS PARK/CHOLLAS RADIO SYSTEM OPEN SPACE, FROM ABOUT 0.1 TO 0.3 MILE SW OF FEDERAL BLVD AT 60TH ST, SAN DIEGO.

Detailed Location:

MAPPED TO PROVIDED LOCATIONS. 2004 DETECTION LOCATIONS ARE A LITTLE UNCLEAR.

Ecological:

COASTAL SAGE & SAGE-CHAPARRAL SCRUB SURROUNDED BY RESIDENTIAL LAND USE.

Threats:

General:

2 PAIRS DETECTED IN 2003. 1 PAIR & 1 UNMATED MALE DETECTED DURING SURVEYS IN 2004. PAIR DETECTED ON 29 APR & 14 JUL 2015; 1 PAIR WITH A FLEDGLING OBSERVED ON 15 JUN 2015.

PLSS:	T17S, R02W, Sec. 03, NE (S)	**Accuracy:**	specific area	**Area (acres):**	22
UTM:	Zone-11 N3620873 E493292	**Latitude/Longitude:**	32.72563 / -117.07158	**Elevation (feet):**	250

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

DUN15F0005	DUNN, C. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2015-06-15
FIS07U0004	FISCHER, K. - CALIFORNIA GNATCATCHER 45-DAY REPORT: 2004 PROTOCOL SURVEYS FOR CALIFORNIA GNATCATCHER, OTAY II PIPELINE, UNIVERSITY HEIGHTS TO CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA. 2007-03-14
FIS07U0005	FISCHER, K. - 2003 CALIFORNIA GNATCATCHER 45-REPORT: 2003 PROTOCOL SURVEYS FOR CALIFORNIA GNATCATCHER, OTAY 2 PIPELINE, UNIVERSITY HEIGHTS TO CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA. 2007-05-14
KUS15D0002	KUS, B. & R. POTTINGER (U.S. GEOLOGICAL SURVEY) - USGS GEODATABASE WITH 2 TABLES FOR 2015 COASTAL CALIFORNIA GNATCATCHER RESEARCH AND MONITORING 2015-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 99243
EO Index: 100770
Key Quad: National City (3211761)
Element Code: ABPBJ08081
Occurrence Number: 933
Occurrence Last Updated: 2016-02-17

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 2015-06-05
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2015-06-05
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

CHOLLAS RADIO SYSTEM OPEN SPACE, JUST W OF ZIRCON ST AT AMETHYST ST & 0.7 MI SW OF FEDERAL BLVD AT 60TH ST, SAN DIEGO.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

OPEN SPACE.

Threats:

General:

1 PAIR WITH 1 FLEDGLING DETECTED ON 5 JUN 2015.

PLSS: T17S, R02W, Sec. 03, SW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3620299 E492734
Latitude/Longitude: 32.72045 / -117.07752
Elevation (feet): 240

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

DUN15F0003 DUNN, C. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2015-06-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A2448
EO Index: 104057
Key Quad: La Jolla (3211772)
Element Code: ABPBJ08081
Occurrence Number: 947
Occurrence Last Updated: 2017-09-15

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 2017-08-25
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2017-08-25
Occurrence Rank: Good
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

BETWEEN COUNTY CLUB DRIVE AND VIA VALVERDE, JUST NW OF PASEO LAREDO, LA JOLLA.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

SMALL (18 ACRE) ISOLATED COASTAL SAGE SCRUB PATCH USED FOR FORAGING. AREA INCLUDED SOUTHERN MARITIME & SCRUB OAK CHAPARRAL AND ORNAMENTAL PLANTINGS.

Threats:

SURROUNDED BY RESIDENTIAL LAND USE.

General:

1 ADULT MALE SEEN AND HEARD FORAGING AND CALLING ON 4 VISITS DURING MIGRATORY BIRD SURVEYS JUN-JUL 2016. ADULT PAIR WITH A RECENT FLEDGLING FOUND ON 25 AUG 2017.

PLSS: T15S, R04W, Sec. 25, SW (S)
Accuracy: specific area
Area (acres): 13
UTM: Zone-11 N3633246 E475863
Latitude/Longitude: 32.83699 / -117.25791
Elevation (feet): 550

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

HAR16F0017 HARVEY, C. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2016-06-17

HAR17F0012 HARVEY, C. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2017-08-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B2563
Key Quad: La Mesa (3211771)
Occurrence Number: 964

EO Index: 114493
Element Code: ABPBJ08081
Occurrence Last Updated: 2019-03-13

Scientific Name: *Polioptila californica californica*
Common Name: coastal California gnatcatcher

Listing Status: **Federal:** Threatened
State: None

CNDDB Element Ranks: **Global:** G4G5T3Q
State: S2

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
NABCI_YWL-Yellow Watch List

General Habitat:

OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA.

Micro Habitat:

LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.

Last Date Observed: 2017-05-01
Last Survey Date: 2017-05-01
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

ALONG THE SAN DIEGO RIVER, ABOUT 0.5 MI SE OF FRIARS RD AT NORTHSIDE DR & 0.6 MI NE OF THE I-8/I-805 INTERCHANGE.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

COASTAL SAGE SCRUB ON MITIGATION SITE ADJACENT TO TRANSPORTATION CORRIDOR.

Threats:

General:

2 ADULTS EXHIBITING TERRITORIAL BEHAVIOR WERE OBSERVED ON 1 MAY 2017.

PLSS: T16S, R02W, Sec. 18, SE (S)
UTM: Zone-11 N3626607 E488425

Accuracy: 80 meters
Latitude/Longitude: 32.77731 / -117.1236

Area (acres): 5
Elevation (feet): 65

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

MAR17F0013 MARCON, J. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 2017-05-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04359	**EO Index:**	9115
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBW01114
Occurrence Number:	1	**Occurrence Last Updated:**	2014-03-11

Scientific Name: *Vireo bellii pusillus*

Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2012-06-12	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-06-12	**Occurrence Rank:**	Excellent
Owner/Manager:	SDG COUNTY, PVT	**Trend:**	Stable
Presence:	Presumed Extant		

Location:

SAN DIEGO RIVER, FROM MAGNOLIA AVE TO ABOUT 6 RIVER MILES WEST, N AND NW OF SANTEE, NE OF SAN DIEGO.

Detailed Location:

MAPPED TO PROVIDED COORDINATES AND MAPS. SITE DESCRIBED AS "SAN DIEGO RIVER (PARK) (SANTEE)," "MISSION DAM TO SR 67," AND "PADRE DAM." 1 EGG SET COLLECTED IN 1911 (WFVZ #9609). ADDITIONAL SINGLE ADULTS AND MALES ALSO REPORTED EACH YEAR.

Ecological:

WILLOW-SYCAMORE-COTTONWOOD RIPARIAN; DOMINANTS: RED WILLOW, ARROYO WILLOW, BLACK WILLOW, FREMONT COTTONWOOD, MULEFAT, GIANT REED, BLACK MUSTARD, TREE TOBACCO, PALM SPECIES, TAMARISK SPECIES.

Threats:

BROWN-HEADED COWBIRD PARASITISM, FLOODING, HOMELESS CAMPS, RECREATION, FIRE, DEVELOPMENT, AND MINING.

General:

1970-78: 3-14 TERRITORIAL MALES. 1984: 33 TERR. 1987-93, '95-97: 21-37 PAIRS (P) & 45-125 JUVENILES (J). 1999: 1 MALE. 2002: 3 TERR. '04: 4 TERR. '07: 3 MALES. '08: 30P & 16 (J). '09: 34P/42J. '10: 28P/34J. '11: 28P/44J. '12: 23P/33J.

PLSS:	T15S, R01W, Sec. 29 (S)	**Accuracy:**	non-specific area	**Area (acres):**	661
UTM:	Zone-11 N3633172 E498744	**Latitude/Longitude:**	32.83659 / -117.01341	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	El Cajon (3211678), La Mesa (3211771)

Sources:

BAT08R0002	BATES, R. ET AL. (NATURAL RESOURCE CONSULTANTS) - RESULTS OF PRESENCE/ABSENCE SURVEYS FOR THE LEAST BELL'S VIREO AND SOUTHWESTERN WILLOW FLYCATCHER AT THE CASTLEROCK OFF-SITE IMPROVEMENT LOCATION, IN THE CITY OF SAN DIEGO 2008-09-09
CAL08R0003	CALANTAS, B. ET AL. (EDAW, INC.) - 45-DAY SUMMARY REPORT OF FOCUSED SURVEYS FOR THE LEAST BELL'S VIREO FOR THE STATE ROUTE 52 INSIDE WIDENING PROJECT, COUNTY OF SAN DIEGO, CALIFORNIA 2008-10-21
CLA04R0001	CLARK, A. (RECON ENVIRONMENTAL, INC.) - FOCUSED SURVEY RESULTS FOR SOUTHWESTERN WILLOW FLYCATCHER AND LEAST BELL'S VIREO ON THE RYAN PROPERTY IN SANTEE, CALIFORNIA 2004-07-26
FIS07R0002	FISHER, A. (EDAW, INC.) - 45-DAY SUMMARY REPORT OF FOCUSED SURVEYS FOR THE LEAST BELL'S VIREO FOR THE STATE ROUTE 52 MANAGED LANES PROJECT, COUNTY OF SAN DIEGO, CALIFORNIA 2007-10-15
FWS85U0002	U.S. FISH & WILDLIFE SERVICE - TABLES FOR LEAST BELL'S VIREO DATA UP TO 1984. 1985-XX-XX
GOL78R0001	GOLDWASSER, S. - DISTRIBUTION, REPRODUCTIVE SUCCESS AND IMPACT OF NEST PARASITISM BY BROWN-HEADED COWBIRDS ON LEAST BELL'S VIREOS. FINAL REPORT. CALIFORNIA DEPT OF FISH AND GAME. 1978-07-XX
GRI99F0006	GRIFFITH, J. (GRIFFITH WILDLIFE BIOLOGY) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1999-08-31
HUE11S0004	HUEY, L. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #9609 1911-05-07
JON84M0002	JONES, B. - COPIES OF SURVEY MAPS FOR LEAST BELL'S VIREO SENT TO PETE SORENSON USFWS. MAPS NOT YET PUBLISHED IN FINAL APPROVED REPORT (AS OF 3/13/85). 1984-XX-XX
KUR08R0001	KURNOW, J. (HELIX ENVIRONMENTAL PLANNING, INC.) - YEAR 2008 LEAST BELL'S VIREO PRE-CONSTRUCTION SURVEY REPORT FOR THE SANTEE RIVERVIEW PROJECT 2008-07-29
KUS08D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR LEAST BELL'S VIREO IN SAN DIEGO COUNTY FROM USGS-WERC, 2008. 2008-07-23
KUS09D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2009-07-07
KUS10D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2010-07-12
KUS11D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2011-08-25
KUS12D0003	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2012-XX-XX
KUS87F0001	KUS, B.E. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1987-07-31
KUS88F0001	KUS, B.E. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1988-08-31
KUS89F0003	KUS, B.E. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1989-08-15
KUS90F0006	KUS, B.E. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1990-08-15
KUS91F0005	KUS, B.E. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1991-07-31
KUS91F0006	KUS, B.E. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1991-07-31
KUS92F0004	KUS, B. (SAN DIEGO STATE UNIVERSITY) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1992-08-15
KUS93F0005	KUS, B. (SAN DIEGO STATE UNIVERSITY) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1993-08-15
KUS95F0001	KUS, B. (U.S. GEOLOGICAL SURVEY) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1995-07-31
KUS96F0001	KUS, B. (U.S. GEOLOGICAL SURVEY) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1996-07-31
KUS97F0003	KUS, B. & P. BECK (SAN DIEGO STATE UNIVERSITY) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1997-08-29
MER02U0006	ROGERS, G. (MERKEL AND ASSOCIATES, INC.) - 45-DAY LETTER REPORT OF FOCUSED LEAST BELL'S VIREO (VIREO BELLII PUSILLUS) SURVEY FOR THE EDGEMOOR PROPERTY LOCATED IN SANTEE, COUNTY OF SAN DIEGO. 2002-07-23
QUO07R0001	QUON, L. ET AL. (EDAW, INC.) - 45-DAY SUMMARY REPORT OF FOCUSED SURVEYS FOR THE SOUTHWESTERN WILLOW FLYCATCHER FOR THE STATE ROUTE 52 MANAGED LANES PROJECT, COUNTY OF SAN DIEGO, CALIFORNIA 2007-11-27
SDG13R0001	CITY OF SAN DIEGO - FINAL ENVIRONMENTAL IMPACT REPORT FOR THE CASTLEROCK PROJECT 2013-06-20
UNI84A0001	UNITT, P. (SAN DIEGO NATURAL HISTORY MUSEUM) - THE BIRDS OF SAN DIEGO COUNTY. MEMOIRS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY 13. 1984-XX-XX
WIL81U0003	WILBUR, S. - RECOMMENDED CRITICAL HABITAT FOR THE LEAST BELL'S VIREO, USFWS, OJAI, CALIFORNIA. 1981-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04027	**EO Index:**	24992
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBW01114
Occurrence Number:	55	**Occurrence Last Updated:**	2013-11-06

Scientific Name: *Vireo bellii pusillus*

Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2010-06-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-06-18	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SAN DIEGO RIVER, MISSION VALLEY, N OF I-8 BETWEEN I-805 AND I-15, SAN DIEGO.

Detailed Location:

SITE REFERRED TO AS "SAN DIEGO RIVER (VALLEY)." SURVEYS CONDUCTED BETWEEN MAR-JUL DURING ANY GIVEN YEAR. BREEDING STATUS OF 2009, 2011, AND 2012 ADULTS UNDETERMINED. HABITAT WAS SEVERELY DAMAGED DURING THE 1979-80 WINTER FLOODS.

Ecological:

VEGETATION COMMUNITIES WERE SOUTHERN COTTONWOOD WILLOW FOREST, COASTAL AND VALLEY FRESHWATER MARSH, & OPEN WATER. DOMINANT PLANTS WERE BLACK WILLOW, RED WILLOW, ARROYO WILLOW, BLACK MUSTARD THISTLE SPECIES, EUCALYPTUS SPECIES, & GIANT REED.

Threats:

HOMELESS CAMP ACTIVITY, HUMAN RECREATION, EXOTIC PLANTS, RIVERSIDE DEVELOPMENT, AND NEST PARASITISM BY COWBIRDS.

General:

1-2 TERRITORIAL MALES IN 1975/1977. 1 TERRITORIAL MALE IN 1978 & 1984. 2 PAIRS DETECTED IN 1992. 1 DETECTED IN 1999. 3 OBSERVED (1 TERRITORIAL) IN 2001. 2 ADULTS IN 2009. 1 PAIR & 1 SINGLE ADULT IN 2010. 2 ADULTS IN 2011. 1 ADULT IN 2012.

PLSS:	T16S, R02W, Sec. 18, S (S)	**Accuracy:**	non-specific area	**Area (acres):**	41
UTM:	Zone-11 N3626679 E488330	**Latitude/Longitude:**	32.77796 / -117.12460	**Elevation (feet):**	50

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), La Jolla (3211772)

Sources:

FWS85U0002	U.S. FISH & WILDLIFE SERVICE - TABLES FOR LEAST BELL'S VIREO DATA UP TO 1984. 1985-XX-XX
GOL78R0001	GOLDWASSER, S. - DISTRIBUTION, REPRODUCTIVE SUCCESS AND IMPACT OF NEST PARASITISM BY BROWN-HEADED COWBIRDS ON LEAST BELL'S VIREOS. FINAL REPORT. CALIFORNIA DEPT OF FISH AND GAME. 1978-07-XX
KUS09D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2009-07-07
KUS10D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2010-07-12
KUS11D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2011-08-25
KUS12D0003	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2012-XX-XX
MER01U0010	REISER, C. (MERKEL AND ASSOCIATES, INC.) - 45-DAY LETTER REPORT OF FOCUSED LEAST BELL'S VIREO (VIREO BELLII PUSILLUS) & SOUTHWESTERN WILLOW FLYCATCHER (EMPIDONAX TRAILLII EXTIMUS) SURVEYS FOR THE MISSION CITY PARKWAY BRIDGE 2001-08-09
MER99U0007	BOOKER, M.A. (MERKEL AND ASSOCIATES, INC.) - 45-DAY LETTER REPORT OF FOCUSED LEAST BELL'S VIREO (VIREO BELLII PUSILLUS) PRESENCE/ABSENCE SURVEYS FOR THE MISSION CITY PARKWAY BRIDGE PROJECT LOCATED IN MISSION VALLEY, SAN DIEGO 1999-08-10
SWE92F0009	SWEETWATER CORPORATION - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1992-09-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04371
EO Index: 13277
Key Quad: Imperial Beach (3211751)
Element Code: ABPBW01114
Occurrence Number: 76
Occurrence Last Updated: 2013-10-17

Scientific Name: *Vireo bellii pusillus*
Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed: 2008-06-26
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2008-06-26
Occurrence Rank: Good
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

OTAY RIVER, ON SOUTH SIDE OF MAIN ST BETWEEN I-805 AND HERITAGE RD, SOUTH OF CHULA VISTA.

Detailed Location:

MAPPED TO PROVIDED COORDINATES AND MAPS ALONG RIPARIAN AREA VISISBLE IN 2001-2009 AERIAL PHOTOS. SITE BORDERED BY HIGHWAYS AND RESIDENTIAL DEVELOPMENT.

Ecological:

HABITAT CONSISTED OF BLACK WILLOW, RED WILLOW, ARROYO WILLOW, SANDBAR WILLOW, MULEFAT, CALIFORNIA SYCAMORE, FREMONT COTTONWOOD, COYOTE BRUSH, BLACK MUSTARD, CASTOR BEAN, COCKLEBUR, GIANT REED, PALM SPECIES, TAMARISK SPECIES, & TREE TABACCO.

Threats:

ORV USE ON UPLANDS, PREVIOUS SAND & GRAVEL MINING IN RIVER BOTTOM, DEVELOPMENT, AND INVASIVE GIANT REED.

General:

2 MALES OBSERVED IN 1984; BREEDING UNCONFIRMED. 5 PAIRS & 1 TERRITORIAL MALE DETECTED IN 2002. 3 SINGING VIREOS DETECTED APR-MAY & 4 DETECTED JUN-JUL 2004. 3 DETECTED IN 2006. PAIR DETECTED IN 2007. 2 PAIRS & 6 TERRITORIAL MALES IN 2008.

PLSS: T18S, R01W, Sec. 19, N (S)
Accuracy: non-specific area
Area (acres): 189
UTM: Zone-11 N3606007 E497896
Latitude/Longitude: 32.59154 / -117.02241
Elevation (feet): 100

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

KUS08D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR LEAST BELL'S VIREO IN SAN DIEGO COUNTY FROM USGS-WERC, 2008. 2008-07-23
LEO04R0016	LEONARD, D. (HELIX ENVIRONMENTAL PLANNING, INC.) - COSTAL CALIFORNIA GNATCATCHER AND LEAST BELL'S VIREO PRE-CONSTRUCTION SURVEY REPORT FOR THE BORST PROPERTY 2004-06-02
LOH06R0001	LOHSTROH, B. (URS CORPORATION) - 45 DAY REPORT FOR SOUTHWESTERN WILLOW FLYCATCHER SURVEYS ALONG I-805 AT LOS PENASQUITOS, SWEETWATER RIVER, AND OTAY RIVER, SAN DIEGO COUNTY, CALIFORNIA 2006-08-29
LOH07R0001	LOHSTROH, B. (URS CORPORATION) - 45-DAY REPORT FOR SOUTHWESTERN WILLOW FLYCATCHER SURVEYS ALONG I-805 AT THE OTAY RIVER, SAN DIEGO COUNTY, CALIFORNIA 2007-08-20
TAY02R0001	TAYLOR, S. (HELIX ENVIRONMENTAL PLANNING, INC.) - PROTOCOL LEAST BELL'S VIREO SURVEY RESULTS FOR THE BORST PROPERTY 2002-09-27
TRU04R0001	TRUMBO, D. (AMEC) - 45-DAY MONITORING REPORT FOR FEDERALLY-LISTED LEAST BELL'S VIREO SURVEY FOR THE OTAY WATER DISTRICT'S RECYCLED WATER PIPELINE PROJECT 2004-09-24
WIE84F0001	WIER, E. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1984-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04290
EO Index: 24977
Key Quad: Imperial Beach (3211751)
Element Code: ABPBW01114
Occurrence Number: 83
Occurrence Last Updated: 1989-08-10

Scientific Name: *Vireo bellii pusillus*
Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed: 1984-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1984-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

TIJUANA RIVER NEAR LARSEN FIELD.

Detailed Location:

Ecological:

Threats:

General:

TWO TERRITORIAL MALES OBSERVED IN 1984.

PLSS: T19S, R02W, Sec. 01, W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3600915 E495667
Latitude/Longitude: 32.54560 / -117.04614
Elevation (feet): 40

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

FWS85U0002 U.S. FISH & WILDLIFE SERVICE - TABLES FOR LEAST BELL'S VIREO DATA UP TO 1984. 1985-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04252	**EO Index:**	24975
Key Quad:	National City (3211761)	**Element Code:**	ABPBW01114
Occurrence Number:	88	**Occurrence Last Updated:**	2014-02-25

Scientific Name: *Vireo bellii pusillus*

Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2010-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2010-XX-XX	**Occurrence Rank:**	Excellent
Owner/Manager:	SDG COUNTY, UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SWEETWATER RIVER, FROM 2ND AVE TO ABOUT 2 RIVER MILES E, BETWEEN NATIONAL CITY AND CHULA VISTA, W OF SWEETWATER RES.

Detailed Location:

SITE/LOCATION DESCRIPTIONS WAS "SWEETWATER RIVER, BONITA."1913-1931 EGG COLLECTIONS (WFVZ #65009, 72367 & 74021) AT "SWEETWATER JUNCTION, NEAR SAN DIEGO." EXPANSION OF BIKE PATH AND I-805 EXPECTED TO HAVE MINIMAL IMPACT ON HABITAT.

Ecological:

SOUTHERN WILLOW RIPARIAN FOREST DOMINATED BY BACCHARIS SALICIFOLIA & SALIX SPECIES, NON-NATIVE GRASSLAND. SOME AREAS DEVELOPED, DISTURBED. BREEDING COOPER'S HAWK PAIR, 4 BREEDING PRS OF YELLOW WARBLER ALSO IN VICINITY.

Threats:

POTENTIAL THREAT FROM ROAD CONSTRUCTION ACTIVITIES SUCH AS NOISE, LIGHT, AND CONTAMINANT RUN-OFF.

General:

EGGS COLLECTED IN MAY OF 1913, 1915, & 1931. 1 TERRITORIAL MALE OBSERVED ON IN 1978. 3 TRANSIENT MALES DETECTED IN 2003. AT LEAST 2 MALES DETECTED APR-MAY 2006; CONSIDERED BREEDING INDIVIDUALS BY THE REPORTER. SINGING MALE OBSERVED IN 2010.

PLSS:	T17S, R02W, Sec. 35, NW (S)	**Accuracy:**	non-specific area	**Area (acres):**	126
UTM:	Zone-11 N3612650 E493785	**Latitude/Longitude:**	32.65146 / -117.06627	**Elevation (feet):**	70

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

CAL11R0002	CALIFORNIA DEPARTMENT OF TRANSPORTATION - INTERSTATE 805 MANAGED LANES SOUTH PROJECT, FINAL EIR/EA WITH FONSI 2011-06-XX
CAN13S0001	CANFIELD, M. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #72367 1913-05-21
FAM04R0001	FAMOLARO, P. (SWEETWATER AUTHORITY) - 2003 THREATENED AND ENDANGERED SPECIES MONITORING REPORT 2004-01-19
FIE31S0001	FIELD, P. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #74021 1931-05-15
FIS06F0008	FISCHER, K. (JONES AND STOKES ASSOCIATES) - FIELD SURVEY FORM FOR ACCIPITER COOPERII & VIREO BELLII PUSILLUS & DENDROICA PETECHIA BREWSTERI 2006-05-16
FIS06U0001	FISCHER, K. (JONES AND STOKES ASSOCIATES) - 2006 LEAST BELL'S VIREO 45-DAY REPORT FOR PLAZA BONITA BIKE PATH PROJECT, BONITA, SAN DIEGO COUNTY, CALIFORNIA 2006-05-16
FWS85U0002	U.S. FISH & WILDLIFE SERVICE - TABLES FOR LEAST BELL'S VIREO DATA UP TO 1984. 1985-XX-XX
GOL78R0001	GOLDWASSER, S. - DISTRIBUTION, REPRODUCTIVE SUCCESS AND IMPACT OF NEST PARASITISM BY BROWN-HEADED COWBIRDS ON LEAST BELL'S VIREOS. FINAL REPORT. CALIFORNIA DEPT OF FISH AND GAME. 1978-07-XX
HUE15S0001	HUEY, L. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #65009 1915-05-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04236	**EO Index:**	9613
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABPBW01114
Occurrence Number:	95	**Occurrence Last Updated:**	2014-05-02

Scientific Name: *Vireo bellii pusillus*

Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2012-06-01	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-06-01	**Occurrence Rank:**	Excellent
Owner/Manager:	CITY OF SAN DIEGO, OTAY WD	**Trend:**	Fluctuating
Presence:	Presumed Extant		

Location:

TIJUANA RIVER, FROM ABOUT 0.6 MILE E OF OCEAN TO DAIRY MART RD, 1 MILE N OF CALIFORNIA-MEXICO BORDER, W OF I-5.

Detailed Location:

LOCATION DESCRIPTIONS WERE "TIJUANA RIVER" FROM "0.5 MILES EAST OF MOUTH" TO "WEST OF DAIRY MART RD." 2 EGG/NEST SETS COLLECTED IN MAY 1920 (WFVZ #52775 & 73177); LOCATIONS WERE "TIJUAN RIVER" AND "EXTREME SOUTHERN PART, SAN DIEGO."

Ecological:

WELL-DEVELOPED RIPARIAN HABITAT CONSISTING OF ARROYO WILLOW, BLACK WILLOW, MULEFAT, MEXICAN ELDERBERRY, WILD RADISH, GARDEN NASTURTIUM, AND CROWN DAISY. TOPOGRAPHY WAS LEVEL WITH LOAMY SOILS.

Threats:

DEVELOPMENT, SAND MINING, AGRICULTURE, POLLUTION, DUMPING, HEAVY FOOT TRAFFIC, EXOTIC PLANTS, COWBIRDS, & FERAL CATS.

General:

1978: 2 TERRITORIES (T). '80: 1 PAIR (P). '84: 2 T. '90: 9 P/15 FLEDGLINGS (F). '91-'93: 9-29 P/15-67 FLEDGLINGS (F). '95-'96: 80-90 P. 2001: 15 T/6 NESTS. '04: 114 P/100 F. '05: ~150T. '06: 3 BIRDS. '09: 23 P/17+ F. '10: 2 P/5 F. '12: 2 P.

PLSS:	T18S, R02W, Sec. 33 (S)	**Accuracy:**	non-specific area	**Area (acres):**	1,242
UTM:	Zone-11 N3601914 E490490	**Latitude/Longitude:**	32.55458 / -117.10129	**Elevation (feet):**	20

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

ALB12F0006	ALBERTS, K. (CHAMBERS GROUP, INC.) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2012-05-30
ALB12F0007	ALBERTS, K. (CHAMBERS GROUP, INC.) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2012-05-30
BUR10F0014	BURG, R. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - FIELD SURVEY FORM AND SHAPEFILE OF CALIFORNIA GNATCATCHER DETECTIONS AT BORDER FIELD STATE PARK DURING 2010 2010-06-23
BUR20S0002	BURNHAM, J. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #52775 1920-05-22
CLA10R0001	CLARK, K. (CLARK BIOLOGICAL SERVICES) - ANNUAL REPORT FOR ACTIVITIES CONDUCTED IN 2009 FOR LEAST BELL'S VIREO, COASTAL CALIFORNIA GNATCATCHER, SOUTHWESTERN WILLOW FLYCATCHER, AND FLAT-TAILED HORNED LIZARD 2010-02-06
FWS06U0002	U.S. FISH AND WILDLIFE SERVICE-CARLSBAD - LEAST BELL'S VIREO (VIREO BELLII PUSILLUS) 5-YEAR REVIEW: SUMMARY AND EVALUATION. 2006-10-XX
FWS85U0002	U.S. FISH & WILDLIFE SERVICE - TABLES FOR LEAST BELL'S VIREO DATA UP TO 1984. 1985-XX-XX
ING20S0001	INGERSOLL, A. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #73177 1920-05-11
JON84M0002	JONES, B. - COPIES OF SURVEY MAPS FOR LEAST BELL'S VIREO SENT TO PETE SORENSON USFWS. MAPS NOT YET PUBLISHED IN FINAL APPROVED REPORT (AS OF 3/13/85). 1984-XX-XX
KIN04F0024	KING, D. (AMEC) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2004-07-09
KIN04F0027	KING, D. (AMEC) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2004-07-15
KIN04F0029	KING, D. (AMEC) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2004-07-15
KUS90F0005	KUS, B.E. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1990-08-31
KUS91F0004	KUS, B.E. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1991-07-31
KUS92F0005	KUS, B. (SAN DIEGO STATE UNIVERSITY) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1992-08-16
KUS93F0007	KUS, B. (SAN DIEGO STATE UNIVERSITY) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1993-08-31
KUS95F0010	KUS, B. (SAN DIEGO STATE UNIVERSITY) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1995-08-31
KUS96F0004	KUS, B. (SAN DIEGO STATE UNIVERSITY) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1996-08-31
PRI06R0001	PRIEST, J. (DUDEK AND ASSOCIATES) - FOCUSED LEAST BELL'S VIREO AND SOUTHWESTERN WILLOW FLYCATCHER SURVEYS FOR THE COUNTY WATER AUTHORITY TIJUANA RIVER VALLEY WETLANDS MITIGATION PROJECT, CITY OF SAN DIEGO 2006-09-01
ROM04F0002	ROMICH, M. (P&D CONSULTANTS) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2004-07-14
ROM04R0002	ROMICH, M. ET AL. (ECOSYSTEMS RESTORATION ASSOCIATES) - LEAST BELL'S VIREO AND SOUTHWESTERN WILLOW FLYCATCHER SURVEYS AT THE TIJUANA RIVER VALLEY REGIONAL PARK, SAN DIEGO COUNTY, CALIFORNIA 2004-07-24
SDG10D0001	SAN DIEGO COUNTY - SPECIES POINT OBSERVATIONS BY COUNTY OF SAN DIEGO (SANBIOS DATABASE). 2010-06-23
TRU04R0001	TRUMBO, D. (AMEC) - 45-DAY MONITORING REPORT FOR FEDERALLY-LISTED LEAST BELL'S VIREO SURVEY FOR THE OTAY WATER DISTRICT'S RECYCLED WATER PIPELINE PROJECT 2004-09-24
UNI84A0001	UNITT, P. (SAN DIEGO NATURAL HISTORY MUSEUM) - THE BIRDS OF SAN DIEGO COUNTY. MEMOIRS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY 13. 1984-XX-XX
VAR01U0003	VARANUS BIOLOGICAL SERVICES - 2001 LEAST BELL'S VIREO SURVEYS AND SPOT MAPPING, SATURN BLVD, IMPERIAL BEACH, SAN DIEGO COUNTY, CALIFORNIA 2001-07-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04447	**EO Index:**	24957
Key Quad:	El Cajon (3211678)	**Element Code:**	ABPBW01114
Occurrence Number:	132	**Occurrence Last Updated:**	2013-12-27

Scientific Name: *Vireo bellii pusillus*

Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	1922-04-29	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1922-04-29	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

GROSSMONT, BETWEEN LA MESA AND SPRING VALLEY, NE OF SAN DIEGO.

Detailed Location:

MAPPED GENERALLY TO PROVIDED LOCATION DESCRIPTION OF "GROSSMONT, EL CAJON." NEST LOCATED 4 FEET FROM THE GROUND (1922).

Ecological:

AERIAL PHOTOS (1994-2013) SHOW THAT THE AREA IS HIGHLY DEVELOPED.

Threats:

General:

1 EGG SET COLLECTED ON 14 MAY 1917 (WFVZ #115561) BY D. DEGROOT. 1 EGG SET COLLECTED ON 29 APR 1922 (WFVZ #73182) BY J. BURNHAM.

PLSS:	T16S, R01W, Sec. 16 (S)	**Accuracy:**	1 mile	**Area (acres):**	0
UTM:	Zone-11 N3626267 E500665	**Latitude/Longitude:**	32.77431 / -116.99290	**Elevation (feet):**	850

County Summary:	**Quad Summary:**
San Diego	El Cajon (3211678), La Mesa (3211771)

Sources:

BUR22S0002 BURNHAM, J. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #73182 1922-04-29

DEG17S0003 DEGROOT, D. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #115561 1917-05-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	20421	**EO Index:**	9445
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBW01114
Occurrence Number:	158	**Occurrence Last Updated:**	2013-11-06

Scientific Name: *Vireo bellii pusillus*

Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2012-06-12	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-06-12	**Occurrence Rank:**	Good
Owner/Manager:	MISSION TRAILS RP, UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SAN DIEGO RIVER, IN MISSION GORGE, JUST N OF MISSION GORGE RD AND MARGERUM AVE INTERSECTION, NE OF SAN DIEGO.

Detailed Location:

MAPPED TO PROVIDED MAPS & COORDINATES. INCLUDES UNNAMED TRIBUTARY TO THE SAN DIEGO RIVER. SITE NAME WAS "SAN DIEGO RIVER (GORGE)." 6 JUVINILES DETECTED IN 2010 & 3 JUVENILES DETECTED IN 2012; DETECTIONS SHARED WITH OCC #158.

Ecological:

HABITAT CONSISTED OF SOUTHERN COTTONWOOD-WILLOW RIPARIAN FOREST. DOMINANT SPECIES INCLUDED POPULUS FREMONTII SSP. FREMONTII, PLATANUS RACEMOSA, SALIX GOODDINGII, & S. LAEVIGATA. OTHER SPECIES INCLUDED BACCHARIS SALICIFOLIA & SALIX EXIGUA.

Threats:

RIVER CHANNEL ALTERATION, MINING, EXOTICS PLANTS, FIRE, FLOOD, BHCO, RECREATION, TRAFFIC NOISE, AND INDUSTRIAL ACTIVITY.

General:

1991: 5 PAIRS & 2 SINGLE ADULTS (SA). 2002: 3 TERRITORIES (2 WITH FEMALES). 2005: 3 PAIRS, 4 FLEDGLINGS, & 2 SA. 2008: 3 PAIRS, 1 SA, & 2 TRANSIENTS. 2009: 2 PAIRS & 5 SA. 2010: 9 PAIRS & 3 SA. 2011: 4 PAIRS & 2 SA. 2012: 2 PAIRS & 4 SA.

PLSS:	T16S, R02W, Sec. 02 (S)	**Accuracy:**	specific area	**Area (acres):**	156
UTM:	Zone-11 N3631068 E493728	**Latitude/Longitude:**	32.81760 / -117.06700	**Elevation (feet):**	200

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

ALF05F0004	ALFARO, E. (TIERRA ENVIRONMENTAL SERVICES) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2005-04-02
KUS08D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR LEAST BELL'S VIREO IN SAN DIEGO COUNTY FROM USGS-WERC, 2008. 2008-07-23
KUS09D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2009-07-07
KUS10D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2010-07-12
KUS11D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2011-08-25
KUS12D0003	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2012-XX-XX
NOR05R0001	NORDBY, C. (TIERRA ENVIRONMENTAL SERVICES) - 2005 LEAST BELL'S VIREO FOCUSED SURVEYS FOR THE SAN DIEGO COUNTY WATER AUTHORITY MISSION TRAILS FLOW REGULATORY II, PIPELINE TUNNEL AND VENT DEMOLITION PROJECT 2005-07-18
REC02U0013	CLARK, A. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION - FOCUSED SURVEY RESULTS FOR SOUTHWESTERN WILLOW FLYCATCHER AND LEAST BELL'S VIREO ON THE SUPERIOR READY MIX MISSION GORGE QUARRY SITE, SAN DIEGO. 2002-07-31
SWE91F0007	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1991-07-XX
SWE91F0008	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1991-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	20424	**EO Index:**	9272
Key Quad:	La Jolla (3211772)	**Element Code:**	ABPBW01114
Occurrence Number:	161	**Occurrence Last Updated:**	2013-12-24

Scientific Name: *Vireo bellii pusillus* **Common Name:** least Bell's vireo

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	1991-06-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1991-06-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO, UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

TECOLOTE CREEK, ABOUT 1.4 MILES ENE OF I-5 AT TECOLOTE RD, BETWEEN BAY PARK AND LINDA VISTA, SAN DIEGO.

Detailed Location:

MAPPED GENERALLY TO PROVIDED MAP AND COORDINATES. SITE JUST SOUTH OF TECOLOTE CANYON GOLF COURSE.

Ecological:

Threats:

General:

1 TERRITORIAL MALE OBSERVED BETWEEN APR-JUN 1991. UNKNOWN NUMBER OF LEAST BELL'S VIREOS DETECTED IN 2004; NO ADDITIONAL DATE, POPULATION, AND/OR NESTING DATA PROVIDED.

PLSS:	T16S, R03W, Sec. 15, SW (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3626802 E482749	**Latitude/Longitude:**	32.77900 / -117.18420	**Elevation (feet):**	100

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

SDG04D0001	CITY OF SAN DIEGO - SHAPEFILE OF BASELINE SURVEY DATA FOR TECOLOTE CANYON 2004-XX-XX
SWE91F0009	SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1991-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	48769	**EO Index:**	48769
Key Quad:	National City (3211761)	**Element Code:**	ABPBW01114
Occurrence Number:	211	**Occurrence Last Updated:**	2016-12-14

Scientific Name: *Vireo bellii pusillus*

Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2015-08-13	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-08-13	**Occurrence Rank:**	Fair
Owner/Manager:	SWEETWATER AUTHORITY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SWEETWATER RIVER, JUST BELOW SWEETWATER RESERVOIR DAM, ABOUT 1 MILE N OF SUNNYSIDE, SAN DIEGO.

Detailed Location:

NE FEATURE REPRESENTS 1 BREEDING PAIR IN 2005 AND REFERRED TO AS "AIR QUALITY MONITORING STATION." SURVEYS (2003-2007) CONDUCTED ALONG STATE ROUTE 125 SOUTH PROJECT RIGHT-OF-WAY. TERRITORIES DETECTED IN 7 PREVIOUS YEARS TO 2010.

Ecological:

HABITAT COMPOSED OF SOUTHERN WILLOW/SYCAMORE WOODLAND, DOMINATED BY WILLOWS & WESTERN SYCAMORE WITH UNDERSTORY OF MULE FAT. DOMINANT NON-NATIVE SPECIES INCLUDED GIANT REED & PERUVIAN PEPPER TREE. NEARBY LAND USE: RESIDENTIAL & OPEN SPACE.

Threats:

SR 125 CONSTRUCTION ALIGNMENT (SOUND WALLS INSTALLED), GRAVEL MINING, PIPELINE & DAM MAINTENANCE, & INVASIVE SPECIES.

General:

1992: 1 ADULT DETECTED. '98: 1 TERRITORY (T). 2003: 1 SUCCESSFUL BREEDING PAIR. '04: 1 PAIR, 3 FLEDGLINGS. '05: 2+ P & 1 YOUNG. '06: 2P, 3 FLEDGLINGS. '07: 2T. '08: 2 DETECTIONS. '10: 2T. '11: 1T. '14: AT LEAST 1P. '15: AT LEAST 2P.

PLSS:	T17S, R01W, Sec. 17, SW (S)	**Accuracy:**	non-specific area	**Area (acres):**	57
UTM:	Zone-11 N3616896 E498815	**Latitude/Longitude:**	32.68977 / -117.01263	**Elevation (feet):**	120

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

FAM03F0004	FAMOLARO, P. (SWEETWATER CORPORATION) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2003-05-22
FAM04F0003	FAMOLARO, P. (SWEETWATER AUTHORITY) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2004-06-14
FAM04F0006	FAMOLARO, P. (SWEETWATER AUTHORITY) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 2004-03-24
FAM05F0003	FAMOLARO, P. (SWEETWATER AUTHORITY) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2005-04-06
FAM05R0001	FAMOLARO, P. (SWEETWATER AUTHORITY) - BIOLOGICAL RESOURCES TECHNICAL REPORT FOR THE ROBERT A. PERDUE WATER TREATMENT PLANT AND SWEETWATER RESERVOIR DAM MASTER PLAN 2005-07-11
FAM14F0003	FAMOLARO, P. (SWEETWATER AUTHORITY) - FIELD SURVEY FORM FOR EMPIDONAX TRAILLII & VIREO BELLII PUSILLUS 2014-05-06
FAM15F0003	FAMOLARO, P. (SWEETWATER AUTHORITY) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2015-04-23
FAM99R0001	FAMOLARO, P. (SWEETWATER AUTHORITY) - 1998 ENDANGERED/THREATENED SPECIES MONITORING REPORT 1999-01-08
GAR11R0001	GARROD, M. (SWEETWATER AUTHORITY) - 36-INCH RAW WATER PIPELINE REPLACEMENT PROJECT: INITIAL STUDY 2011-05-XX
KON10U0001	KONECNY, J. (KONECNY BIOLOGICAL SERVICES) - RESULTS OF A FOCUSED SURVEY FOR THE LEAST BELL'S VIREO, SW WILLOW FLYCATCHER & COASTAL CALIFORNIA GNATCATCHER FOR THE RAW WATER PIPELINE REPLACEMENT PROJECT AT THE SWEETWATER DAM. 2010-09-13
KON11U0001	KONECNY, J. - RESULTS OF A FOCUSED DURVEY FOR THE LEAST BELL'S VIREO, SW WILLOW FLYCATCHER, & COASTAL CALIFORNIA GNATCATCHER FOR THE RAW WATER PIPELINE REPLACEMENT PROJECT, SWEETWATER DAM. 2011-09-20
LEO11U0001	LEONARD, D. ET AL. (HELIX ENVIRONMENTAL PLANNING, INC.) - YEAR 2011 LEAST BELL'S VIREO SURVEY REPORT FOR THE OTAY WATER DISTRICT NORTH-SOUTH DISTRICT INTERCONNECTION SYSTEM PROJECT. 2011-08-18
REC11D0003	RECON ENVIRONMENTAL, INC. - TWO SHAPEFILES OF SENSITIVE SPECIES OBSERVED DURING SURVEYS FOR THREE SAN DIEGO PUBLIC WORKS PROJECTS, 2005-2011. 2011-10-20
SDG08U0001	COUNTY OF SAN DIEGO - DRAFT HABITAT LOSS PERMIT FOR THE SWEETWATER RESERVOIR LOOP TRAIL 2008-07-25
SWE92F0016	SWEETWATER CORPORATION - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1992-09-XX
WIL04R0003	WILSON, K. (ESSEX ENVIRONMENTAL) - LEAST BELL'S VIREO (VIREO BELLII PUSILLUS) SURVEY REPORT FOR THE STATE ROUTE 125 SOUTH PROJECT 2004-08-23
WIL05U0006	WILSON, K. (ESSEX ENVIRONMENTAL) - 2005 LEAST BELL'S VIREO SURVEY REPORT FOR THE STATE ROUTE 125 SOUTH PROJECT 2005-11-29
WIL06U0004	WILSON, K. (TRC SOLUTIONS) - 2006 LEAST BELL'S VIREO PROTOCOL SURVEYS FOR STATE ROUTE 125 SOUTH PROJECT. 2006-09-18
WIL07U0004	WILSON, K. (TRC SOLUTIONS) - 2007 LEAST BELL'S VIREO PROTOCOL SURVEYS FOR THE STATE ROUTE 125 SOUTH PROJECT 2007-08-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	90732	**EO Index:**	49481
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABPBW01114
Occurrence Number:	212	**Occurrence Last Updated:**	2019-06-10

Scientific Name: *Vireo bellii pusillus*

Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2016-07-19	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-07-19	**Occurrence Rank:**	Fair
Owner/Manager:	DPR-BORDER FIELD SP	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MOUTH OF GOAT CANYON, W OF SPOONERS MESA, JUST N OF MEXICAN BORDER, S OF TIJUANA RIVER, BORDER FIELD STATE PARK.

Detailed Location:

MAPPED TO INCLUDE BORDER FIELD STATE PARK-GOAT CANYON SURVEY SITES IN MOUTH OF GOAT CANYON, AT BASE OF BUNKER HILL, AND ADDITIONAL DETECTIONS IN TIJUANA RIVER VALLEY REGIONAL PARK.

Ecological:

HABITAT CONSISTS OF SOUTHERN WILLOW SCRUB (SALIX SPECIES, BACCHARIS SALICIFOLIA) AND DISTURBED RIPARIAN AND EXOTICS (CASTOR BEAN, GIANT CANE, BRAZILIAN PEPPER TREE, FENNEL, COMMON COCKLEBUR, MUSTARD). ICTERIA VIRENS IN VICINITY.

Threats:

DISTURBANCE FROM FACILITY MAINTENANCE (2014). COWBIRDS, ROAD RENOVATION, SHOT HOLE BORER, INVASIVE PLANTS (2016).

General:

1996: 1 PAIR (P) & 1 MALE. 2001: 9 TERRITORIES (T), 3P, 3-7 EGGS (DEPREDATED). '03: 7T, 6P, 15 YOUNG (Y). '04: 2P, 1 MALE. '05: 4-7 ADULTS, 1-3Y. '06: 3P, 6 MALES. '08: 10T, 2Y. '09: 10T. '14: 18 ADS, 3+ Y. '15: 11T, 5P. '16: 9P, 7+Y.

PLSS:	T19S, R02W, Sec. 5 (S)	**Accuracy:**	non-specific area	**Area (acres):**	270
UTM:	Zone-11 N3600412 E489662	**Latitude/Longitude:**	32.54103 / -117.11011	**Elevation (feet):**	24

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

ALF16F0007	ALFARO, M. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2016-07-19
ALF16F0008	ALFARO, M. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2016-07-19
ALF16F0009	ALFARO, M. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2016-07-19
ALF16F0010	ALFARO, M. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2016-07-19
ALF16F0011	ALFARO, M. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2016-07-19
ALF16U0001	ALFARO, M. - 2016 LEAST BELL'S VIREO PROTOCOL SURVEY RESULTS FOR THE MONUMENT ROAD RENOVATION PROJECT, BORDER FIELD STATE PARK. 2016-09-19
FIE14U0001	FIELDS, L. - LEAST BELL'S VIREO SURVEY AS BORDER FIELD STATE PARK. 2014-10-02
FIS05F0047	FISCHER, K. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2005-05-19
FIS05F0048	FISCHER, K. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2005-05-20
FIS05F0049	FISCHER, K. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2005-06-09
FIS05F0050	FISCHER, K. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2005-06-14
FIS05F0051	FISCHER, K. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2005-06-23
FIS05F0052	FISCHER, K. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2005-07-21
FIS05F0053	FISCHER, K. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2005-07-27
FIS09R0001	FISHER, A. ET AL. (EDAW, INC.) - SUMMARY REPORT OF FOCUSED SURVEYS FOR THE LEAST BELL'S VIREO AT BORDER FIELD STATE PARK - GOAT CANYON ENHANCEMENT PROJECT, YEAR 3- 2008 2009-02-13
GRI01R0001	GRIFFITH, J. (GRIFFITH WILDLIFE BIOLOGY) - INS BORDER PROJECT: LEAST BELL'S VIREO, SOUTHWESTERN WILLOW FLYCATCHER AND CALIFORNIA GNATCATCHER PROTOCOL SURVEYS. 2001-07-18
HAA03R0002	HAAS, W. ET AL. (VARANUS BIOLOGICAL SERVICES) - 2003 LEAST BELL'S VIREO SURVEY AND SPOT MAPPING GOAT CANYON ENHANCEMENT PROJECT, GOAT CANYON, SAN YSIDRO, SAN DIEGO COUNTY, CALIFORNIA 2003-06-24
MCM14U0001	MCMORRAN, J. (AECOM) - 2014 TIJUANA RIVER VALLEY REGIONAL PARK - SOUTHERN TRAILS PROJECT FOCUSED SPECIES SERVICES SURVEYS SUMMARY REPORT. 2014-10-06
RIL07R0001	RILEY, E. (EDAW, INC.) - 45-DAY SUMMARY REPORT OF FOCUSED SURVEYS FOR THE LEAST BELL'S VIREO AT BORDER FIELD STATE PARK GOAT CANYON ENHANCEMENT PROJECT 2007-02-14
ROM04R0002	ROMICH, M. ET AL. (ECOSYSTEMS RESTORATION ASSOCIATES) - LEAST BELL'S VIREO AND SOUTHWESTERN WILLOW FLYCATCHER SURVEYS AT THE TIJUANA RIVER VALLEY REGIONAL PARK, SAN DIEGO COUNTY, CALIFORNIA 2004-07-24
SIM15U0003	SIMONSEN, J. - LEAST BELL'S VIREO 45-DAY SURVEY REPORT FOR BORDER FIELD STATE PARK. 2015-08-17
TWB97R0001	WELLS, J. & J. TURNBULL (TW BIOLOGICAL SERVICES) - CALIFORNIA GNATCATCHER MONITORING AND TERRITORY MAPPING PROGRAM FINAL LETTER REPORT FOR 1996. 1997-02-15
URS09U0002	URS (URS CORPORATION) - 45-DAY REPORT FOR LEAST BELL'S VIREO SURVEYS AT SMUGGLER'S GULCH AND GOAT CANYON. 2009-09-03
VAR01U0002	HAAS, W.E. ET AL. (VARANUS BIOLOGICAL SERVICES) - 2001 LEAST BELL'S VIREO SURVEYS AND SPOT MAPPING, GOAT CANYON, SAN YSIDRO, SAN DIEGO COUNTY. 2001-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	49482	**EO Index:**	49482
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABPBW01114
Occurrence Number:	213	**Occurrence Last Updated:**	2013-10-15

Scientific Name: *Vireo bellii pusillus*

Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2004-07-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2004-07-24	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SMUGGLERS GULCH, EAST BASE OF SPOONERS MESA, BETWEEN MONUMENT ROAD AND THE CALIFORNIA-MEXICO BORDER.

Detailed Location:

MAPPED TO PROVIDED MAP LOCATIONS. AERIAL PHOTOS (2000-2006) DEPICT CONSISTENT PRESENCE OF VEGETATION.

Ecological:

HABITAT CONSISTED OF MULEFAT SCRUB AND SOUTHERN WILLOW SCRUB. DOMINANT PLANT SPECIES WERE MULEFAT, FREMONT COTTONWOOD, SYCAMORE, AND BLACK COTTONWOOD.

Threats:

General:

A SINGLE MALE AND 1 PAIR OBSERVED BETWEEN 9 MAY-14 JUL 2001; PAIR PRODUCED 2 FLEDGLINGS AROUND 6 JUN. 5 SINGLE MALES AND 2 BREEDING PAIRS DETECTED BETWEEN 12 APR-24 JUL 2004.

PLSS:	T19S, R02W, Sec. 04, SE (S)	**Accuracy:**	non-specific area	**Area (acres):**	13
UTM:	Zone-11 N3600360 E491851	**Latitude/Longitude:**	32.54057 / -117.08678	**Elevation (feet):**	55

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

GRI01R0001	GRIFFITH, J. (GRIFFITH WILDLIFE BIOLOGY) - INS BORDER PROJECT: LEAST BELL'S VIREO, SOUTHWESTERN WILLOW FLYCATCHER AND CALIFORNIA GNATCATCHER PROTOCOL SURVEYS. 2001-07-18
ROM04R0002	ROMICH, M. ET AL. (ECOSYSTEMS RESTORATION ASSOCIATES) - LEAST BELL'S VIREO AND SOUTHWESTERN WILLOW FLYCATCHER SURVEYS AT THE TIJUANA RIVER VALLEY REGIONAL PARK, SAN DIEGO COUNTY, CALIFORNIA 2004-07-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	56241	**EO Index:**	56257
Key Quad:	National City (3211761)	**Element Code:**	ABPBW01114
Occurrence Number:	296	**Occurrence Last Updated:**	2017-09-26

Scientific Name: *Vireo bellii pusillus*

Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered

State: Endangered

CNDDB Element Ranks: **Global:** G5T2

State: S2

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2016-07-18	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-07-18	**Occurrence Rank:**	Good
Owner/Manager:	SDG COUNTY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

JUST WEST OF THE BONITA ROAD BRIDGE OVER THE SWEETWATER RIVER, SUNNYSIDE.

Detailed Location:

2003 SITE NAME = SWEETWATER REGIONAL PARK.

Ecological:

2003: SALIX GOODDINGII AND BACCHARIS SALICIFOLIA, CANOPY HEIGHT 7 M; SURFACE WATER/SATURATED SOIL PRESENT AT SITE; SURROUNDING LAND RESIDENTIAL & COMMERCIAL. 2016: SOUTHERN ARROYO WILLOW RIPARIAN, SOME UNOFFICIAL TRAILS THROUGH HABITAT.

Threats:

DISTURBANCE FROM TRAILS, TRASH, VEGETATION CLEARING, ENCAMPMENTS (2016).

General:

INCIDENTAL OBSERVATIONS OF 1 TERRITORIAL, NON-BANDED MALE OCCURRED ON 22 APR AND 19 MAY 2003. ADULT MALE HEARD SINGING FOR EXTENDED PERIODS AND SEEN DURING 5 OF 8 PROTOCOL SURVEYS IN 2016.

PLSS:	T17S, R01W, Sec. 19, SE (S)	**Accuracy:**	1/10 mile	**Area (acres):**	0
UTM:	Zone-11 N3615316 E498265	**Latitude/Longitude:**	32.67551 / -117.01849	**Elevation (feet):**	100

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

AME16R0001	AMEC (AMEC) - FINAL LEAST BELL'S VIREO SURVEY REPORT FOR THE 36 INCH TRANSMISSION MAIN REPLACEMENT PROJECT. 2016-07-31
EID16F0001	EIDSON, E. - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2016-06-27
FAM03F0005	FAMOLARO, P. (SWEETWATER CORPORATION) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2003-05-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	90619	**EO Index:**	91753
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABPBW01114
Occurrence Number:	452	**Occurrence Last Updated:**	2013-10-15

Scientific Name: *Vireo bellii pusillus*

Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2004-07-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2004-07-24	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BETWEEN MONUMENT RD AND TIJUANA RIVER, ABOUT 0.25 MILE NW OF MONUMENT RD AND HOLLISTER ST INTERSECTION, S OF PALM CITY.

Detailed Location:

MAPPED TO PROVIDED MAP LOCATIONS. AERIAL PHOTOS (2002-2006) DEPICT SMALL PATCH THAT HAS CONSISTENTLY MAINTAINED VEGETATION. SURROUNDING LAND APPEARS TO BE AGRICULTURAL WITH SOME SCATTERED RESIDENCES.

Ecological:

HABITAT COMPOSED OF MULEFAT SCRUB, SOUTHERN WILLOW SCRUB, AND SOUTHERN COTTONWOOD-WILLOW RIPARIAN FOREST.

Threats:

General:

2 SINGLE MALE LEAST BELL'S VIREOS AND 2 BREEDING PAIRS DETECTED BETWEEN 12 APR-24 JUL 2004.

PLSS:	T19S, R02W, Sec. 04, E (S)	**Accuracy:**	1/10 mile	**Area (acres):**	0
UTM:	Zone-11 N3601028 E491811	**Latitude/Longitude:**	32.54660 / -117.08720	**Elevation (feet):**	27

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

ROM04R0002 ROMICH, M. ET AL. (ECOSYSTEMS RESTORATION ASSOCIATES) - LEAST BELL'S VIREO AND SOUTHWESTERN WILLOW FLYCATCHER SURVEYS AT THE TIJUANA RIVER VALLEY REGIONAL PARK, SAN DIEGO COUNTY, CALIFORNIA 2004-07-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	90627	**EO Index:**	91760
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABPBW01114
Occurrence Number:	453	**Occurrence Last Updated:**	2013-10-16

Scientific Name: *Vireo bellii pusillus* **Common Name:** least Bell's vireo

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2013-05-21	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2013-05-21	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY RIVER ABOUT 0.4 MILE WEST OF I-805, SOUTH OF CHULA VISTA, EAST OF IMPERIAL BEACH.

Detailed Location:

MAPPED TO PROVIDED COORDINATES AND MAP LOCATIONS. RIVER LIES BETWEEN MAIN ST AND OCEAN VIEW HILLS PARKWAY.

Ecological:

HABITAT CONSISTED OF SOUTHERN WILLOW SCRUB RIPARIAN.

Threats:

General:

2 LEAST BELL'S VIREO TERRITORIES DETECTED BETWEEN 11 MAY-28 JUL 2004; TERRITORIALITY BASED ON PRESENCE OF SINGING MALES. 1 VIREO DETECTED AURALLY ON 21 MAY 2013.

PLSS:	T18S, R02W, Sec. 24, SW (S)	**Accuracy:**	specific area	**Area (acres):**	18
UTM:	Zone-11 N3605773 E496031	**Latitude/Longitude:**	32.58942 / -117.04228	**Elevation (feet):**	70

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

MIL13F0008	MILLER, B. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2013-05-21
PET04R0001	PETERSON, B. ET AL. (MERKEL AND ASSOCIATES, INC.) - 45-DAY FOCUSED LEAST BELL'S VIREO AND SOUTHWESTERN WILLOW FLYCATCHER SURVEYS, OTAY VALLEY REGIONAL PARK TRAILS PROJECT, LOCATED IN THE CITY OF SAN DIEGO, SAN DIEGO COUNTY 2004-08-31

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	90628	**EO Index:**	91761
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABPBW01114
Occurrence Number:	454	**Occurrence Last Updated:**	2014-05-12

Scientific Name: *Vireo bellii pusillus*

Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2008-07-02	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2008-07-02	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY RIVER FROM I-5 TO JUST EAST OF BEYER WAY, SOUTH OF CHULA VISTA, EAST OF IMPERIAL BEACH.

Detailed Location:

MAPPED TO PROVIDED COORDINATES & MAP LOCATIONS. 1977-78 DATA AT "LOWER OTAY RIVER." 3+ TERRITORIES (KON08R01) WERE DETECTED AT FENTON PARK AT W END OF FEATURE. 1997 DETECTIONS WERE MADE ALONG OTAY RIVER (4.5 MILES) INCLUDING OCC #76 & 453.

Ecological:

HABITAT CONSISTED OF BLACK WILLOW, RED WILLOW, ARROYO WILLOW, SANDBAR WILLOW, MULEFAT, CALIFORNIA SYCAMORE, FREMONT COTTONWOOD, COYOTE BRUSH, BLACK MUSTARD, CASTOR BEAN, COCKLEBUR, GIANT REED, PALM SPECIES, TAMARISK SPECIES, & TREE TABACCO.

Threats:

NON-NATIVE GIANT REED AND AGGREGATE MINING.

General:

4 TERRITORIES IN 1977. 0 IN 1978. 14 TERR IN 1997. 29 TERR & 2 JUVS DETECTED BTWN MAY-JUL 2004; TERRITORIALITY BASED ON PRESENCE OF SINGING MALES. LOCATED AT 10 LOCATIONS JUN-JUL 2007. AT LEAST 6 TERR & 2 PAIRS DETECTED MAY-JUL 2008.

PLSS:	T18S, R02W, Sec. 22 (S)	**Accuracy:**	non-specific area	**Area (acres):**	241
UTM:	Zone-11 N3605720 E493295	**Latitude/Longitude:**	32.58894 / -117.07144	**Elevation (feet):**	30

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

GAI77R0002	GAINES, D. - THE STATUS OF SELECTED RIPARIAN FOREST BIRDS IN CALIFORNIA - A PRELIMINARY SURVEY AND REVIEW. UNPUBLISHED REPORT TO NONGAME WILDLIFE INVESTIGATIONS, CALIFORNIA DEPT OF FISH & GAME. 1977-XX-XX
GOL78R0001	GOLDWASSER, S. - DISTRIBUTION, REPRODUCTIVE SUCCESS AND IMPACT OF NEST PARASITISM BY BROWN-HEADED COWBIRDS ON LEAST BELL'S VIREOS. FINAL REPORT. CALIFORNIA DEPT OF FISH AND GAME. 1978-07-XX
KON08R0001	KONECNY, J. (KONECNY BIOLOGICAL SERVICES) - RESULTS OF A FOCUSED SURVEY FOR THE LIGHT-FOOTED CLAPPER RAIL AT FENTON POND, SAN DIEGO COUNTY, CALIFORNIA, 2008 2008-07-06
KUS08D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR LEAST BELL'S VIREO IN SAN DIEGO COUNTY FROM USGS-WERC, 2008. 2008-07-23
KUS97F0020	KUS, B. & P. BECK (SAN DIEGO STATE UNIVERSITY) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 1997-05-24
PET04R0001	PETERSON, B. ET AL. (MERKEL AND ASSOCIATES, INC.) - 45-DAY FOCUSED LEAST BELL'S VIREO AND SOUTHWESTERN WILLOW FLYCATCHER SURVEYS, OTAY VALLEY REGIONAL PARK TRAILS PROJECT, LOCATED IN THE CITY OF SAN DIEGO, SAN DIEGO COUNTY 2004-08-31
PET07R0003	PETTIGREW, K. (HELIX ENVIRONMENTAL PLANNING, INC.) - 2007 LEAST BELL'S VIREO SURVEY REPORT FOR THE HANSON AGGREGATE'S HOLLISTER PLANT 2007-09-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90840
EO Index: 91876
Key Quad: National City (3211761)
Element Code: ABPBW01114
Occurrence Number: 462
Occurrence Last Updated: 2013-11-01

Scientific Name: *Vireo bellii pusillus*
Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed: 2003-07-28
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-07-28
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:

ALONG LONG CANYON JUST BEHIND CANYON DR DAM, TRIBUTARY TO SWEETWATER RIVER, ABOUT 1.5 E OF BONITA, E OF CHULA VISTA.

Detailed Location:

SITE PART OF 4 PRESERVE MANAGEMENT AREAS (PMA) FOR TH CITY OF CHULA VISTA'S CENTER CITY HABITAT PRESERVE. LEAST BELL'S VIREO DETECTED IN PMA 4.

Ecological:

HABITAT CONSISTED OF MARITIME SUCCULENT SCRUB, DIEGAN COASTAL SAGE SCRUB, SOUTHERN WILLOW SCRUB, MULE FAT SCRUB, COASTAL AND FRESHWATER MARSH, TAMARISK SCRUB, AND NON-NATIVE GRASSLAND.

Threats:

General:

1 LEAST BELL'S VIREO DETECTED BETWEEN 23 APR-28 JUL 2003; SUITABLE NESTING HABITAT WAS PRESENT AND SPECIES IS EXPECTED TO BREED IN THE AREA.

PLSS: T17S, R01W, Sec. 32, NE (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3613108 E499549
Latitude/Longitude: 32.65560 / -117.00480
Elevation (feet): 258

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

CLA04R0002	CLARK, A. (RECON ENVIRONMENTAL, INC.) - FOCUSED SURVEY RESULTS FOR LEAST BELL'S VIREO AND SOUTHWESTERN WILLOW FLYCATCHER WITHIN THE FOUR CENTRAL CITY PRESERVE MANAGEMENT AREAS IN THE CITY OF CHULA VISTA 2004-04-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90841
EO Index: 91877
Key Quad: National City (3211761)
Element Code: ABPBW01114
Occurrence Number: 463
Occurrence Last Updated: 2013-12-26

Scientific Name: *Vireo bellii pusillus*
Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed: 2012-07-03
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-07-03
Occurrence Rank: Poor
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

JUST SE OF STATE ROUTE 15 AND STATE ROUTE 94 INTERCHANGE, ALONG CHOLLAS CREEK, E OF MOUNT HOPE (TOWN), SAN DIEGO.

Detailed Location:

MAPPED TO PROVIDED COORDINATES. LOCATION DESCRIPTION WAS "ALONG CHOLLAS CREEK, IMMEDIATELY SOUTHEAST OF STATE ROUTE (SR) 15 AND SR 94 INTERCHANGE IN THE CITY OF SAN DIEGO." FORMER CALTRANS WETLAND MITIGATION SITE, ABOUT 2.5 ACRES.

Ecological:

HABITA WAS SOUTHERN WILLOW RIPARIAN DOMINATED BY SALIX LASIOLEPIS, SALIX GOODDINGII, & BACCHARIS SALICIFOLIA. ASSOCIATED SPECIES ARE POPULUS FREMONTII & PLATANUS RACEMOSA. COMMON INVASIVES ARE ARUNDO DONAX, TAMARIX SPP., & RICINUS COMMUNIS.

Threats:

INVASIVE PLANTS AND HUMAN DISTURBANCE (TRESPASSING). AREA PROPOSED FOR RESTORATION AND ENHANCEMENT FOR SR 94 PROJECT.

General:

1 MALE LEAST BELL'S VIREO OBSERVED DURING USFWS PROTOCOL SURVEYS FROM 17 APR-3 JUL 2012; BIRD REGULARLY HEARD VOCALIZING, CLASSIFIED AS BREEDING/TERRITORIAL BY REPORTER.

PLSS: T17S, R02W, Sec. 08, NW (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3619765 E489062
Latitude/Longitude: 32.71560 / -117.11670
Elevation (feet): 171

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

JAM12F0001 JAMES, R. (CALIFORNIA DEPARTMENT OF TRANSPORTATION) - FIELD SURVEY FORM FOR VIREO BELLII PUSILLUS 2012-07-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	90842	**EO Index:**	91878
Key Quad:	National City (3211761)	**Element Code:**	ABPBW01114
Occurrence Number:	464	**Occurrence Last Updated:**	2013-11-04

Scientific Name: *Vireo bellii pusillus*

Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2009-08-05	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-08-05	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

WITHIN CHOLLAS PARK, JUST N OF CHOLLAS RESERVOIR, BETWEEN THORN ST (NORTH) AND COLLEGE GROVE WAY (SOUTH), SAN DIEGO.

Detailed Location:

SITE NAME WAS CHOLLAS HEIGHTS; PART OF 35 NAVY FAMILY HOUSING AREAS AFFILIATED WITH NAVAL BASE SAN DIEGO. WILLOW TREE WAS BETWEEN THE RESIDENTIAL DEVELOPMENT AND THE NORTHERN OPEN SPACE AREA.

Ecological:

SEVERAL GNATCATCHER PAIRS DETECTED IN THE VICINITY. VIREO DETECTION WAS INCIDENTAL DURING CALIFORNIA GNATCATCHER SURVEYS.

Threats:

General:

1 LEAST BELL'S VIREO MALE OBSERVED AND HEARD SINGING ON 5 AUG 2009; SITE SURVEYED MULTIPLE TIMES DURING THE SEASON. DETECTION MADE WITHING EXPECTED BREEDING SEASON. BIRD OBSERVED IN WILLOW TREE. SURVEYS FROM 12 JUN-3 SEP 2009.

PLSS:	T16S, R02W, Sec. 35, NW (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3622554 E494172	**Latitude/Longitude:**	32.74080 / -117.06220	**Elevation (feet):**	470

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

LOE09R0002	LOEFFLER, W. ET AL. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY REPORT OF COASTAL CALIFORNIA GNATCATCHER FOCUSED SURVEYS FOR THE NAVY METRO FAMILY HOUSING AREA BASELINE STUDY, SAN DIEGO, CALIFORNIA (RECON NUMBER 4896) 2009-11-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68466
Key Quad: Point Loma (3211762)
Occurrence Number: 465
EO Index: 91879
Element Code: ABPBW01114
Occurrence Last Updated: 2014-05-07

Scientific Name: *Vireo bellii pusillus*
Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered
State: Endangered
CNDDB Element Ranks: **Global:** G5T2
State: S2
Rare Plant Rank:
Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed: 1923-05-21
Last Survey Date: 1923-05-21
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

SAN DIEGO.

Detailed Location:

MAPPED GENERALLY TO MAIN SAN DIEGO POST OFFICE. GIVEN LOCALITIES WERE "SAN DIEGO," "NEAR SAN DIEGO," & "SAN DIEGO CO," EXACT LOCATION UNKNOWN. WFVZ#S 73105-09, 73183, 73178-80, 115327-28, 72366, 115326, 141039-40, & 142367.

Ecological:

MOST OF THE AREA HAS BEEN DEVELOPED (AERIAL PHOTOS 1994-2013). NEARBY EXTANT LBVI ALONG SAN DIEGO RIVER AND CHOLLAS CREEK. NUMBER OF EGGS COLLECTED WAS UNKNOWN UNLESS OTHERWISE STATED IN PARENTHESES.

Threats:

General:

DET. APR 1884 (MALE SHOT) & APR 1885 (SEVERAL). EGGS COLL. IN APR 1890 (3 EGGS), APR 1891 (4), MAY 1894, MAY 1895, MAY 1902 (3), MAY 1912 (4), MAY 1915, MAY 1917, MAY 1918 (3),15-16 JUN 1921 (10), 18-19 MAY 1922, AND 16 & 21 MAY 1923 (4).

PLSS: T17S, R03W, Sec. 11 (S)
UTM: Zone-11 N3619708 E485384
Accuracy: 1 mile
Latitude/Longitude: 32.71505 / -117.15595
Area (acres): 0
Elevation (feet): 80

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

BAN21S0002	BANCROFT, G. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #73106 1921-06-15
BAN21S0003	BANCROFT, G. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #73107 1921-06-16
BAN21S0004	BANCROFT, G. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #73108 1921-06-16
BAN23S0001	BANCROFT, G. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #73105 1923-05-21
BAN23S0002	BANCROFT, G. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #73109 1923-05-16
BEL90B0001	BELDING, L. (CALIFORNIA ACADEMY OF SCIENCES) - LAND BIRDS OF THE PACIFIC DISTRICT. OCCASIONAL PAPERS OF THE CALIFORNIA ACADEMY OF SCIENCES VOL II, 1890. 274 PP. 1890-09-XX
BOO15S0001	BOOTH, E. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #142367 1915-05-23
FIE17S0001	FIELD, C. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #115326 1917-05-27
HEA22S0001	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #141039 1922-05-19
HEA22S0002	HEATON, H. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #141040 1922-05-18
HUE12S0001	HUEY, L. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #72366 1912-05-28
ING18S0001	INGERSOLL, A. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #73179 1918-05-23
ING90S0005	INGERSOLL, A. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #73178 1890-04-25
ING91S0001	INGERSOLL, A. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #73180 1891-04-30
MOO02S0002	MOORE, C. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #73183 1902-05-17
SCO94S0001	SCOTT, C. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #115328 1894-05-30
SCO95S0003	SCOTT, M. - WFVZ #115327 1895-05-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	90843	**EO Index:**	91880
Key Quad:	La Jolla (3211772)	**Element Code:**	ABPBW01114
Occurrence Number:	466	**Occurrence Last Updated:**	2013-11-05

Scientific Name: *Vireo bellii pusillus*

Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2003-07-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-06-09	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SAN DIEGO RIVER, ABOUT 0.9 MILE E OF I-8 AND I-5 INTERCHANGE, N OF MISSION HILL, SAN DIEGO.

Detailed Location:

MAPPED TO PROVIDED MAP LOCATIONS. VIREOS DETECTED JUST N OF HOTEL CIRCLE PL AND RECREATION (BASEBALL) FIELDS.

Ecological:

HABITAT CONSISTED OF GOODDINGS BLACK WILLOW, ARROYO WILLOW, LANCE-LEAF WILLOW, FREMONT COTTONWOOD, MULEFAT, & NON-NATIVE SPECIES (CA FAN PALM, EUCALYPTUS, BRAZILIAN PEPPER, & TAMARISK). SURROUNDING LAND USE WAS RESIDENTIAL & GOLF COURSE.

Threats:

HOMELESS, DEVELOPMENT, AND POTENTIAL NEST PARASITISM BY BROWN-HEADED COWBIRD.

General:

1 LEAST BELL'S VIREO MALE OBSERVED FORAGING & CALLING AT THREE LOCATIONS BETWEEN 30 MAR-30 JUN 2003. 1 MALE HEARD & OBSERVED ON 7 & 30 MAY & 24 JUN, 2 ADULTS & 1 FLEDGLING (BEING FED BY ADULT) OBSERVED ON 10 JUL 2003. 1 TRANSIENT IN 2009.

PLSS:	T16S, R03W, Sec. 27 (S)	**Accuracy:**	non-specific area	**Area (acres):**	24
UTM:	Zone-11 N3624826 E482440	**Latitude/Longitude:**	32.76117 / -117.18746	**Elevation (feet):**	15

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

KUS09D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2009-07-07
REC03R0002	RECON ENVIRONMENTAL, INC. - FOCUSED SURVEY RESULTS FOR THE LEAST BELL'S VIREO AT THE AUTOMOBILE CLUB OF SOUTHERN CALIFORNIA SITE IN THE COMMUNITY OF MISSION VALLEY IN SAN DIEGO, CALIFORNIA 2003-08-11
ROG03R0001	ROGERS, G. ET AL. (MERKEL AND ASSOCIATES, INC.) - FOCUSED LEAST BELL'S VIREO AND SOUTHWESTERN WILLOW FLYCATCHER PRESENCE/ABSENCE SURVEYS FOR THE OCEAN BEACH BIKE PATH PROJECT LOCATED IN SAN DIEGO, COUNTY OF SAN DIEGO 2003-08-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	90844	**EO Index:**	91881
Key Quad:	La Jolla (3211772)	**Element Code:**	ABPBW01114
Occurrence Number:	467	**Occurrence Last Updated:**	2013-11-05

Scientific Name: *Vireo bellii pusillus* **Common Name:** least Bell's vireo

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2011-06-01	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-06-18	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALONG SAN DIEGO RIVER BETWEEN QUALCOMM WAY (W) & I-805 (E), ABOUT 0.3 MILE WNW OF I-8 & I-805 INTERCHANGE, SAN DIEGO.

Detailed Location:

SITE REFERRED TO AS SAN DIEGO RIVER (VALLEY); SURVEY AREA INCLUDES THIS OCCURRENCE AND OCCURRENCE #55 EAST OF I-805. MAPPED TO PROVIDED COORDINATES.

Ecological:

HABITAT COMPOSED OF BLACK WILLOW, RED WILLOW, ARROYO WILLOW, TAMARISK, GIANT REED, EUCALYPTUS, THISTLE SPECIES AND BLACK MUSTARD.

Threats:

THREATS INCLUDED DEVELOPMENT, EXOTIC PLANTS, RECREATION, MINING, HOMELESS CAMP ACTIVITY.

General:

1 PAIR & 5 JUVENILES DETECTED IN 2008. 1 VIREO DETECTED BTWN APR-JUN 2009; BREEDING STATUS UNDETERMINED. 1 PAIR & 2 SINGLE VIREOS DETECTED BTWN MAR-JUN 2010. 1 PAIR & 1 SINGLE VIREO DETECTED APR-JUN 2011. 1 VIREO DETECTED APR-JUN 2012.

PLSS:	T16S, R03W, Sec. 24, NE (S)	**Accuracy:**	non-specific area	**Area (acres):**	6
UTM:	Zone-11 N3626130 E487102	**Latitude/Longitude:**	32.77299 / -117.13771	**Elevation (feet):**	35

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

KUS08D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR LEAST BELL'S VIREO IN SAN DIEGO COUNTY FROM USGS-WERC, 2008. 2008-07-23
KUS09D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2009-07-07
KUS10D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2010-07-12
KUS11D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2011-08-25
KUS12D0003	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2012-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	90847	**EO Index:**	91884
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBW01114
Occurrence Number:	469	**Occurrence Last Updated:**	2013-11-06

Scientific Name: *Vireo bellii pusillus*

Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2010-06-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2010-06-10	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SAN DIEGO RIVER, JUST NE OF I-8 AND I-15 INTERCHANGE, S OF SAN DIEGO MISSION RD, SAN DIEGO.

Detailed Location:

MAPPED TO PROVIDED COORDINATES. SITE REFERRED TO AS "SAN DIEGO RIVER (VALLEY)." WESTERN FEATURE REPRESENTS SINGLE BIRD AND EASTERN FEATURE REPRESENTS PAIR. DETECTIONS ALONG SAN DIEGO RIVER WERE CLASSIFIED AS BREEDING/NESTING.

Ecological:

DOMINANT PLANT SPECIES INCLUDED BLACK WILLOW, RED WILLOW, ARROYO WILLOW, AND BLACK MUSTARD. SURROUNDING LAND WAS URBAN.

Threats:

DEVELOPMENT AND HOMELESS CAMPS.

General:

1 PAIR AND 1 SINGLE LEAST BELL'S VIREO WERE DETECTED 31 MAR-10 JUN 2010 OVER THE COURSE OF 3 SURVEYS.

PLSS:	T16S, R02W, Sec. 17, E (S)	**Accuracy:**	specific area	**Area (acres):**	10
UTM:	Zone-11 N3627207 E490261	**Latitude/Longitude:**	32.78275 / -117.10399	**Elevation (feet):**	60

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

KUS10D0001 KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2010-07-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	90848	**EO Index:**	91885
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBW01114
Occurrence Number:	470	**Occurrence Last Updated:**	2013-11-06

Scientific Name: *Vireo bellii pusillus* **Common Name:** least Bell's vireo

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2012-06-12	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-06-12	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF SAN DIEGO, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SAN DIEGO RIVER FROM FRIARS RD TO ABOUT 1 MILE NORTH, WEST OF LAKE MURRAY, SAN DIEGO.

Detailed Location:

MAPPED TO PROVIDED COORDINATES AND MAP, ALONG RIPARIAN AREA. SITE NAME WAS "SAN DIEGO RIVER (GORGE)." SITE ADJACENT TO ADMIRAL BAKER GOLF COURSE. 6 JUVINILES DETECTED IN 2010 & 3 JUVENILES DETECTED IN 2012; DETECTIONS SHARED WITH OCC #158.

Ecological:

BLACK WILLOW, RED WILLOW, ARROYO WILLOW, COTTONWOOD, CALIFORNIA SYCAMORE, MULE FAT, EUCALYPTUS, & GIANT REED. SURROUNDING LAND USE INCLUDED COASTAL SAGE SCRUB, GOLF COURSE, AND GRAVEL QUARRY.

Threats:

EXOTIC PLANTS, FIRE, PESTICIDES (GOLF COURSE), BHCO, DEVELOPMENT, RIVER CHANNEL ALTERATION, RECREATION, & TRAFFIC NOISE.

General:

2 TERRITORIES & 1 PAIR W/ FLEDGLINGS DETECTED IN 2007. 3 PAIRS & 2 SINGLE ADULTS (SA) DETECTED IN 2008. 3 PAIRS & 2 SA DETECTED IN 2009. 2 PAIRS & 3 SA DETECTED IN 2010. 3 PAIRS & 5 SA DETECTED IN 2011. 2 PAIRS & 4 SA DETECTED IN 2012.

PLSS:	T16S, R02W, Sec. 09, W (S)	**Accuracy:**	non-specific area	**Area (acres):**	43
UTM:	Zone-11 N3628505 E490820	**Latitude/Longitude:**	32.79445 / -117.09804	**Elevation (feet):**	70

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

KUS08D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR LEAST BELL'S VIREO IN SAN DIEGO COUNTY FROM USGS-WERC, 2008. 2008-07-23
KUS09D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2009-07-07
KUS10D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2010-07-12
KUS11D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2011-08-25
KUS12D0003	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2012-XX-XX
MAC07R0001	MACALLER, J. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION OF FOCUSED SURVEYS FOR COASTAL CALIFORNIA GNATCATCHER, SOUTHWESTERN WILLOW FLYCATCHER, AND LEAST BELL'S VIREO (RECON NUMBER 4209B) 2007-11-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	90849	**EO Index:**	91886
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBW01114
Occurrence Number:	471	**Occurrence Last Updated:**	2013-11-06

Scientific Name: *Vireo bellii pusillus* **Common Name:** least Bell's vireo

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2011-06-07	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2011-06-07	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF SAN DIEGO, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SAN DIEGO RIVER, JUST WEST OF MISSION GORGE RD AND PRINCESS VIEW DR INTERSECTION, SOUTH OF TIERRASANTA RD, SAN DIEGO.

Detailed Location:

MAPPED TO PROVIDED MAP LOCATIONS AND COORDINATES. SITE ADJACENT TO NORTHERN END OF ADMIRAL BAKER GOLF COURSE. 2 TRANSIENT VIREOS DETECTED ABOUT 0.3 MILE N OF OCCURRENCE IN 2002.

Ecological:

HABITAT COMPOSED OF DIEGAN COASTAL SAGE SCRUB, SOUTHERN WILLOW SCRUB, MULEFAT SCRUB, PONDS, FRESHWATER MARSH, AND RUDERAL. DOMINANT PLANT SPECIES INCLUDED BLACK WILLOW, RED WILLOW, ARROYO WILLOW, COTTONWOOD, MULEFAT, AND GIANT REED.

Threats:

NOISE DISTURBANCE.

General:

3 TERRITORIES DETECTED BETWEEN 7 MAY-10 JUN 2002; LAST SURVEY DATE WAS 25 JUL. 1 SINGING MALE DETECTED ON 20 MAR 2007. 1 ADULT DETECTED BETWEEN 29 APR-7 JUN 2011; BREEDING STATUS UNCONFIRMED BUT LIKELY.

PLSS:	T16S, R02W, Sec. 04, S (S)	**Accuracy:**	non-specific area	**Area (acres):**	42
UTM:	Zone-11 N3629816 E491757	**Latitude/Longitude:**	32.80629 / -117.08804	**Elevation (feet):**	100

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

KON02R0005	KONECNY, J. (KONECNY BIOLOGICAL SERVICES) - RESULTS OF A YEAR 2002 FOCUSED SURVEY FOR THE SOUTHWESTERN WILLOW FLYCATCHER, LEAST BELL'S VIREO, AND COASTAL CALIFORNIA GNATCATCHER AT THE ADMIRAL BAKER FIELD, SAN DIEGO COUNTY 2002-08-27
KUS11D0001	KUS, B. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - GEODATABASE FOR VIREO BELLII PUSILLUS IN SAN DIEGO 2011-08-25
MAC07R0001	MACALLER, J. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION OF FOCUSED SURVEYS FOR COASTAL CALIFORNIA GNATCATCHER, SOUTHWESTERN WILLOW FLYCATCHER, AND LEAST BELL'S VIREO (RECON NUMBER 4209B) 2007-11-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	90881	**EO Index:**	91915
Key Quad:	Poway (3211781)	**Element Code:**	ABPBW01114
Occurrence Number:	475	**Occurrence Last Updated:**	2013-11-14

Scientific Name: *Vireo bellii pusillus* **Common Name:** least Bell's vireo

Listing Status: **Federal:** Endangered
State: Endangered

CNDDB Element Ranks: **Global:** G5T2
State: S2

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2008-07-16	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2008-07-16	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALONG SYCAMORE CANYON, NEAR THE MOUTH OF WEST SYCAMORE CANYON, ADJACENT TO SANTEE RECREATIONAL LAKES, NW OF SANTEE.

Detailed Location:

FOCUSED SURVEYS IN 1999 & 2002. SITE PART OF THE MARINE CORPS AIR STATION (MCAS) MIRAMAR. DESCRIBED AS EASTERN MCAS AT THE CONFLUENCE OF SYCAMORE & W SYCAMORE CANYONS. 6 JUN 2008 DETECTION "S OF CONLUENCE BTWN PADRE DAM GATE & SANTEE PARK."

Ecological:

VEGETATION COMMUNITIES IN GENERAL AREA WERE DIEGAN COASTAL SAGE SCRUB, COASTAL SAGE CHAPARRAL SCRUB, SCUB OAK CHAPARRAL, SOUTHERN MIXED CHAPARRAL, NATIVE & NON-NATIVE GRASSLAND, COAST LIVE OAK FOREST, AND COTTONWOOD WILLOW RIPARIAN FOREST.

Threats:

POTENTIAL THREAT OF FIRE; CEDAR FIRE BURNED LARGE AREA IN 2003.

General:

1 TERRITORIAL MALE & 1 PAIR DETECTED IN 1998. 1 NESTING PAIR WITH 3 EGGS DETECTED IN 2002. 1 SINGING MALE (SM) DETECTED ON 10 & 24 MAY, 3 SM ON 6 JUN, AND 5 SM DETECTED ON 16 & 27 JUN AND 6 JUL, AND 4 VIREOS DETECTED ON 16 JUL 2008.

PLSS:	T15S, R01W, Sec. 08 (S)	**Accuracy:**	non-specific area	**Area (acres):**	307
UTM:	Zone-11 N3637619 E499713	**Latitude/Longitude:**	32.87670 / -117.00306	**Elevation (feet):**	460

County Summary:	**Quad Summary:**
San Diego	San Vicente Reservoir (3211688), La Mesa (3211771), Poway (3211781)

Sources:

GEN06R0001	GENE STOUT AND ASSOCIATES & GEOMORPH INFORMATION SYSTEMS - INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN FOR MARINE CORPS AIR STATION MIRAMAR, CALIFORNIA 2006-2010. BIOLOGICAL RESOURCES. 2006-10-XX
HAA02R0003	HAAS, W. (VARANUS BIOLOGICAL SERVICES) - 2002 LEAST BELL'S VIREO AND WILLOW FLYCATCHER ANNUAL REPORT, MCAS MIRAMAR 2002-04-12
KON08R0002	KONECNY, J. (KONECNY BIOLOGICAL SERVICES) - RESULTS OF A FOCUSED SURVEY FOR THE LEAST BELL'S VIREO AND SOUTHWESTERN WILLOW FLYCATCHER AT MARINE CORPS AIR STATION MIRAMAR, SAN DIEGO COUNTY, CALIFORNIA, 2008 2008-09-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 91677
EO Index: 92751
Key Quad: La Mesa (3211771)
Element Code: ABPBW01114
Occurrence Number: 526
Occurrence Last Updated: 2014-02-25

Scientific Name: *Vireo bellii pusillus*
Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank:
Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed: 1916-06-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1916-06-16
Occurrence Rank: None
Owner/Manager: CITY OF LA MESA
Trend: Unknown
Presence: Possibly Extirpated

Location:

VICINITY OF LA MESA, JUST SOUTH OF LA MURRAY, NE OF SAN DIEGO.

Detailed Location:

PROVIDED LOCATION WAS "LA MESA HEIGHTS." MAPPED TO HISTORIC AREA OF LA MESA HEIGHTS BASED ON INTERNET SEARCH. CENTRAL POINT OF LA MESA HEIGHTS WAS AT THE INTERSECTION OF 70TH ST AND EL CAJON BLVD; WWW.ROLANDOVILLAGE.COM/HISTORY.

Ecological:

Threats:

AREA HAS BEEN HEAVILY DEVELOPED SINCE TIME OF COLLECTION (AERIAL PHOTOS 1994-2013).

General:

1 EGG SET COLLECTED (WFVZ #115591) ON 16 JUN 1916 BY J. HASLAM.

PLSS: T16S, R02W, Sec. 24 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3625646 E495587
Latitude/Longitude: 32.76870 / -117.04710
Elevation (feet): 510

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

HAS16S0001 HASLAM, J. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #115591 1916-06-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	91680	**EO Index:**	92755
Key Quad:	La Jolla (3211772)	**Element Code:**	ABPBW01114
Occurrence Number:	527	**Occurrence Last Updated:**	2014-04-18

Scientific Name: *Vireo bellii pusillus* **Common Name:** least Bell's vireo

Listing Status: **Federal:** Endangered
State: Endangered

CNDDB Element Ranks: **Global:** G5T2
State: S2

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	1921-06-19	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1921-06-19	**Occurrence Rank:**	Poor
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MISSION VALLEY, ALONG SAN DIEGO RIVER, VICINITY OF I-8 AND HIGHWAY 163 INTERSECTION, N OF SAN DIEGO.

Detailed Location:

LOCATION DESCRIPTIONS WERE "MISSION VALLEY, SAN DIEGO" & "NEAR SAN DIEGO; MISSION VALLEY, 2-3 MILES NORTH OF CITY." MAPPED GENERALLY TO PORTION OF MISSION VALLEY ABOUT 2 MILES NORTH FROM HISTORICAL DOWNTOWN SAN DIEGO.

Ecological:

MUCH OF THE AREA HAS BEEN HEAVILY DEVELOPED (AERIAL PHOTOS 1994-2013). COMMERCIAL AND RESIDENTIAL BUILDINGS BORDER MISSION VALLEY AND MUCH OF THE SAN DIEGO RIVER. SCATTERED PATCHES OF RIPARIAN HABITAT STILL PRESENT.

Threats:

POSSIBLY THREATENED BY DEVELOPMENT.

General:

UNKNOWN NUMBER OF EGGS COLLECTED ON 27 APR (WFVZ #73184) AND 4 MAY (WFVZ #73185) 1895 BY C. SCOTT, 14 MAY 1905 (WFVZ #73186) BY C. SCOTT, 5 JUN 1914 (WFVZ #65010) BY L. HUEY, AND ON 19 JUN 1921 (WFVZ #141036) BY F. HEATON.

PLSS:	T16S, R03W, Sec. 23 (S)	**Accuracy:**	1 mile	**Area (acres):**	0
UTM:	Zone-11 N3625369 E484647	**Latitude/Longitude:**	32.76610 / -117.16391	**Elevation (feet):**	30

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

HEA21S0002	HEATON, F. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #141036 1921-06-19
HUE14S0005	HUEY, L. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #65010 1914-06-05
SCO05S0001	SCOTT, C. (WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY) - WFVZ EGG COLLECTION #73186 1905-05-14
SCO95S0001	SCOTT, C. - WFVZ #73184 1895-04-27
SCO95S0002	SCOTT, C. - WFVZ #73185 1895-05-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B2773	**EO Index:**	114706
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABPBW01114
Occurrence Number:	613	**Occurrence Last Updated:**	2019-03-28

Scientific Name: *Vireo bellii pusillus*

Common Name: least Bell's vireo

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank:

Other Lists: IUCN_NT-Near Threatened
NABCI_YWL-Yellow Watch List

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro Habitat:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Last Date Observed:	2017-05-23	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-05-23	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BEYER COMMUNITY PARK, FROM ABOUT 300' SE TO 0.2 MILES ENE OF BEYER BLVD AT ENRIGHT DR, OTAY MESA.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

MULEFAT SCRUB WITH TAMARIX AND RICINUS COMMUNIS. SURROUNDING LAND USES INCLUDED DISTURBED OPEN SPACE AND URBAN/DEVELOPED LAND.

Threats:

SITE OF PROPOSED RECREATIONAL PARK, TO INCLUDE LIGHTING, SPORTS FIELDS, SKATE PARK, ETC. (2017)

General:

1 HEARD SINGING ON 14 JUN 2016. 1 HEARD SINGING ON 29 MAR 2017. ADULT MALE SEEN AND HEARD SINGING ON 23 MAY 2017, IT APPEARD TO BE CARRYING FOOD TO A CASTOR BEAN PLANT, THOUGH NO NEST WAS FOUND.

PLSS:	T18S, R02W, Sec. 36, SE (S)	**Accuracy:**	specific area	**Area (acres):**	12
UTM:	Zone-11 N3602290 E496647	**Latitude/Longitude:**	32.558 / -117.03571	**Elevation (feet):**	228

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BOH17D0004	BOHAC, S. (RECON ENVIRONMENTAL, INC.) - LEAST BELL'S VIREO DETECTIONS DURING RECON PROJECT AT BEYER PARK. 2017-XX-XX
BUS17R0006	BUSBY, D. ET AL. (RECON ENVIRONMENTAL, INC.) - RESULTS OF THE 2017 COASTAL CALIFORNIA GNATCATCHER PRESENCE/ABSENCE SURVEY FOR THE BEYER PARK DEVELOPMENT PROJECT (RECON NUMBER 8359) 2017-08-03
BUS17R0007	BUSBY, D. ET AL. (RECON ENVIRONMENTAL, INC.) - RESULTS OF THE 2017 LEAST BELL'S VIREO PRESENCE/ABSENCE SURVEY FOR THE BEYER PARK DEVELOPMENT PROJECT (RECON NUMBER 8359) 2017-09-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04296
EO Index: 12956
Key Quad: La Mesa (3211771)
Element Code: ABPBX03010
Occurrence Number: 7
Occurrence Last Updated: 1989-08-10

Scientific Name: *Setophaga petechia*
Common Name: yellow warbler

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G5
State: S3S4

General Habitat:

RIPARIAN PLANT ASSOCIATIONS IN CLOSE PROXIMITY TO WATER. ALSO NESTS IN MONTANE SHRUBBERY IN OPEN CONIFER FORESTS IN CASCADES AND SIERRA NEVADA.

Micro Habitat:

FREQUENTLY FOUND NESTING AND FORAGING IN WILLOW SHRUBS AND THICKETS, AND IN OTHER RIPARIAN PLANTS INCLUDING COTTONWOODS, SYCAMORES, ASH, AND ALDERS.

Last Date Observed: 1972-06-04
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1972-06-04
Occurrence Rank: Unknown
Owner/Manager: MISSION TRAILS RP
Trend: Unknown
Presence: Presumed Extant

Location:

OLD MISSION DAM, MISSION GORGE.

Detailed Location:

Ecological:

HABITAT IS RIPARIAN RIVER BOTTOM CONTAINING WILLOWS AND COTTONWOODS.

Threats:

General:

NEST WITH 3 EGGS OBSERVED IN A WILLOW; LOST TO PREDATION. FROM NORTH AMERICAN NEST RECORD CARD PROGRAM.

PLSS: T15S, R02W, Sec. 25 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3633650 E496274
Latitude/Longitude: 32.84090 / -117.03981
Elevation (feet): 410

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

SMI72F0001	SMITH, T.W. - FIELD SURVEY FORM FOR NORTH AMERICAN NEST RECORD CARD PROGRAM; CORNELL LAB. ORNITHOLOGY 1972-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B4396	**EO Index:**	117323
Key Quad:	National City (3211761)	**Element Code:**	ABPBX03010
Occurrence Number:	122	**Occurrence Last Updated:**	2019-11-14

Scientific Name: *Setophaga petechia*

Common Name: yellow warbler

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G5

State: S3S4

General Habitat:

RIPARIAN PLANT ASSOCIATIONS IN CLOSE PROXIMITY TO WATER. ALSO NESTS IN MONTANE SHRUBBERY IN OPEN CONIFER FORESTS IN CASCADES AND SIERRA NEVADA.

Micro Habitat:

FREQUENTLY FOUND NESTING AND FORAGING IN WILLOW SHRUBS AND THICKETS, AND IN OTHER RIPARIAN PLANTS INCLUDING COTTONWOODS, SYCAMORES, ASH, AND ALDERS.

Last Date Observed:	2017-04-17	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-04-17	**Occurrence Rank:**	Good
Owner/Manager:	SDG COUNTY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SWEETWATER RIVER CORRIDOR, IN THE VICINITY OF THE WILLOW STREET BRIDGE, CHULA VISTA.

Detailed Location:

MAPPED TO INCLUDE PROVIDED COORDINATES AND DETECTION LOCATIONS.

Ecological:

SOUTHERN RIPARIAN WOODLAND WITH WILLOW AND COTTONWOOD, HIGH-QUALITY NESTING HABITAT. SOME INVASIVE VEGETATION NOTED IN 2005. DISTURBANCE FROM BRIDGE REPLACEMENT PROJECT IN 2017.

Threats:

DEVELOPMENT, CONSTRUCTION ACTIVITY (2017).

General:

NESTING PAIR DETECTED IN 2005. DETECTED THROUGHOUT SURVEYS APR-JUL 2010, PRESUMED TO BE SUMMER RESIDENT. 2-5 ADULTS, INCLUDING PAIRS, OBSERVED MULTIPLE TIMES DURING NESTING SEASON IN 2017.

PLSS:	T17S, R02W, Sec. 25, SW (S)	**Accuracy:**	specific area	**Area (acres):**	21
UTM:	Zone-11 N3613526 E495965	**Latitude/Longitude:**	32.65936 / -117.04303	**Elevation (feet):**	63

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

ALF05F0013	ALFARO, E. (TIERRA ENVIRONMENTAL SERVICES) - FIELD SURVEY FORM FOR SETOPHAGA PETECHIA 2005-04-29
BUR17F0009	BURTON, D. - FIELD SURVEY FORM FOR SETOPHAGA PETECHIA 2017-04-17
CUM10R0002	CUMMINGS, G. (CUMMINGS AND ASSOCIATES) - AN ASSESSMENT OF THE LEAST BELL'S VIREO OVER THE WILLOW STREET BRIDGE PROJECT. 2010-08-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 25617
EO Index: 35093
Key Quad: La Jolla (3211772)
Element Code: ABPBX91091
Occurrence Number: 18
Occurrence Last Updated: 1998-11-05

Scientific Name: *Aimophila ruficeps canescens*
Common Name: southern California rufous-crowned sparrow

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:

RESIDENT IN SOUTHERN CALIFORNIA COASTAL SAGE SCRUB AND SPARSE MIXED CHAPARRAL.

Micro Habitat:

FREQUENTS RELATIVELY STEEP, OFTEN ROCKY HILLSIDES WITH GRASS AND FORB PATCHES.

Last Date Observed: 1993-10-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1993-10-XX
Occurrence Rank: Poor
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

EAST OF SOLEDAD CANYON ROAD AND WEST OF I-5, 0.75 MILE SE OF SOLEDAD MOUNTAIN, LA JOLLA.

Detailed Location:

SITE IS AN ABANDONED DEVELOPMENT PROJECT SURROUNDED BY RESIDENTIAL AREAS AND NATURAL HABITAT.

Ecological:

HABITAT CONSISTS OF DIEGAN COASTAL SAGE SCRUB & DISTURBED, RECOLONIZING VEGETATION. OTHER RARE TAXA INCLUDE FEROCACTUS VIRIDESCENS, SELAGINELLA CINERACENS, & POLIOPTILA CALIFORNICA CALIFORNICA.

Threats:

THREATENED BY DEVELOPMENT.

General:

UNKNOWN NUMBER OF INDIVIDUALS OBSERVED IN 1993.

PLSS: T15S, R03W (S)
Accuracy: non-specific area
Area (acres): 117
UTM: Zone-11 N3632604 E477632
Latitude/Longitude: 32.83125 / -117.23899
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

FAM93F0004 FAMOLARO, P. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA 1993-10-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 33306
EO Index: 49490
Key Quad: La Mesa (3211771)
Element Code: ABPBX91091
Occurrence Number: 48
Occurrence Last Updated: 2002-11-26

Scientific Name: *Aimophila ruficeps canescens*
Common Name: southern California rufous-crowned sparrow

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:

RESIDENT IN SOUTHERN CALIFORNIA COASTAL SAGE SCRUB AND SPARSE MIXED CHAPARRAL.

Micro Habitat:

FREQUENTS RELATIVELY STEEP, OFTEN ROCKY HILLSIDES WITH GRASS AND FORB PATCHES.

Last Date Observed: 2001-06-06
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-06-06
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

SE OF THE INTERSECTION OF PROSPECT AVENUE AND MESA ROAD, SANTEE.

Detailed Location:

Ecological:

HABITAT CONSISTS OF DIEGAN COASTAL SAGE SCRUB DOMINATED BY ARTEMISIA CALIFORNICA. SECONDARY COMMUNITY COMPRISED OF CHAMISE CHAPARRAL DOMINATED BY ADENOSTOMA FASCICULATUM. SURROUNDING AREA COMPRISED OF SCATTERED HOMES, UNDEVELOPED HABITAT.

Threats:

General:

2 ADULTS OBSERVED ON 23 MAY, 8 ADULTS OBSERVED ON BOTH 30 MAY & 6 JUNE 2001. COOPER'S HAWK OBSERVED IN AREA.

PLSS: T15S, R01W, Sec. 32 (S)
Accuracy: non-specific area
Area (acres): 72
UTM: Zone-11 N3631944 E498970
Latitude/Longitude: 32.82552 / -117.01100
Elevation (feet): 600

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

FIS01F0003 FISCHER, K. & L. HARGROVE (VARANUS BIOLOGICAL SERVICES) - 2001 GNATCATCHER SURVEY, MESA ROAD, SANTEE, SAN DIEGO COUNTY, CALIFORNIA 2001-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	51264	**EO Index:**	51264
Key Quad:	Otay Mesa (3211658)	**Element Code:**	ABPBX91091
Occurrence Number:	78	**Occurrence Last Updated:**	2003-05-13

Scientific Name: *Aimophila ruficeps canescens*

Common Name: southern California rufous-crowned sparrow

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_WL-Watch List

CNDDB Element Ranks: **Global:** G5T3

State: S3

General Habitat:

RESIDENT IN SOUTHERN CALIFORNIA COASTAL SAGE SCRUB AND SPARSE MIXED CHAPARRAL.

Micro Habitat:

FREQUENTS RELATIVELY STEEP, OFTEN ROCKY HILLSIDES WITH GRASS AND FORB PATCHES.

Last Date Observed:	2002-04-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2002-04-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT-OTAY RANCH	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH OF POGGI CANYON, EXTENDING SOUTH ALONG WEST SIDE OF WOLF CANYON; EAST OF CHULA VISTA.

Detailed Location:

Ecological:

HABITAT ON PROJECT SITE CONSISTS PRIMARILY OF ANNUAL GRASSLANDS AND AGRICULTURAL FIELDS, BUT SIGNIFICANT PORTIONS DO SUPPORT COASTAL SAGE SCRUB. SMALL PORTIONS OF PROPERTY CONTAIN NATIVE GRASSLAND AND MARITIME SUCCULENT SCRUB.

Threats:

THREAT CONSISTS OF DEVELOPMENT.

General:

UNKNOWN NUMBER DETECTED BETWEEN 29 MAR AND 19 APR 2002 DURING CALIFORNIA GNATCATCHER SURVEYS.

PLSS:	T18S, R01W, Sec. 09 (S)	**Accuracy:**	non-specific area	**Area (acres):**	731
UTM:	Zone-11 N3608393 E500534	**Latitude/Longitude:**	32.61307 / -116.99430	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

DUD02U0004 DUDEK & ASSOCIATES, INC. - CALIFORNIA GNATCATCHER SURVEY FOR THE OTAY RANCH VILLAGE 2 PROJECT, CITY OF CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA 2002-05-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 54772
EO Index: 54772
Key Quad: El Cajon (3211678)
Element Code: ABPBX91091
Occurrence Number: 144
Occurrence Last Updated: 2004-03-25

Scientific Name: *Aimophila ruficeps canescens*
Common Name: southern California rufous-crowned sparrow

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:

RESIDENT IN SOUTHERN CALIFORNIA COASTAL SAGE SCRUB AND SPARSE MIXED CHAPARRAL.

Micro Habitat:

FREQUENTS RELATIVELY STEEP, OFTEN ROCKY HILLSIDES WITH GRASS AND FORB PATCHES.

Last Date Observed: 1998-04-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1998-04-XX
Occurrence Rank: Unknown
Owner/Manager: PVT, UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

FANITA RANCH, W OF HIGHWAY 67 AND E OF WEST OF SYCAMORE CANYON, NW PORTION CITY OF SANTEE.

Detailed Location:

WEST OF EUCALYPTUS HILLS EXTENDING SOUTH TOWARD CARLTON HILLS.

Ecological:

HABITAT CONSISTS OF DISTURBED COASTAL SAGE SCRUB, COASTAL SAGE SCRUB, ANNUAL (NON-NATIVE) GRASSLAND AND RUDERAL.

Threats:

PROPOSED FOR DEVELOPMENT (FANITA RANCH).

General:

SPECIES OBSERVED AT 28 LOCATIONS DURING SURVEYS CONDUCTED IN MARCH AND APRIL OF 1998.

PLSS: T15S, R01W, Sec. 16 (S)
Accuracy: non-specific area
Area (acres): 721
UTM: Zone-11 N3637110 E501285
Latitude/Longitude: 32.87212 / -116.98625
Elevation (feet): 700

County Summary:

San Diego

Quad Summary:

El Cajon (3211678), San Vicente Reservoir (3211688), La Mesa (3211771)

Sources:

DUD98R0001 DUDEK & ASSOCIATES, INC. - QUINO CHECKERSPOT SURVEY FOR FANITA RANCH, SAN DIEGO CO (INCLUDES DATA FROM PRIOR SURVEYS FOR OTHER SPECIES) 1998-06-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 54781
EO Index: 54781
Key Quad: San Vicente Reservoir (3211688)
Element Code: ABPBX91091
Occurrence Number: 145
Occurrence Last Updated: 2004-06-30

Scientific Name: *Aimophila ruficeps canescens*
Common Name: southern California rufous-crowned sparrow

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:

RESIDENT IN SOUTHERN CALIFORNIA COASTAL SAGE SCRUB AND SPARSE MIXED CHAPARRAL.

Micro Habitat:

FREQUENTS RELATIVELY STEEP, OFTEN ROCKY HILLSIDES WITH GRASS AND FORB PATCHES.

Last Date Observed: 2003-05-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-05-07
Occurrence Rank: Good
Owner/Manager: PVT, PVT-SDGE
Trend: Unknown
Presence: Presumed Extant

Location:

FANITA RANCH, EAST SIDE OF SYCAMORE CANYON, NW PORTION CITY OF SANTEE.

Detailed Location:

EAST OF WHERE WEST SYCAMORE CANYON JOINS SYCAMORE CANYON.

Ecological:

HABITAT CONSISTS OF DISTURBED COASTAL SAGE SCRUB AND BROOM BACCHARIS SCRUB. RESIDENTIAL AND SANTEE LAKES TO THE WEST, UNDEVELOPED LAND TO THE SOUTH, EAST AND NORTH.

Threats:

PROPOSED DEVELOPMENT IN AREA (FANITA RANCH).

General:

SPECIES OBSERVED AT 1 LOCATION DURING SURVEYS CONDUCTED IN MARCH AND APRIL OF 1998. 1 ADULT DETECTED ON 7 MAY 2003.

PLSS: T15S, R01W, Sec. 08, SE (S)
Accuracy: non-specific area
Area (acres): 29
UTM: Zone-11 N3637547 E500072
Latitude/Longitude: 32.87606 / -116.99922
Elevation (feet): 480

County Summary:

San Diego

Quad Summary:

El Cajon (3211678), San Vicente Reservoir (3211688), La Mesa (3211771), Poway (3211781)

Sources:

DUD98R0001 DUDEK & ASSOCIATES, INC. - QUINO CHECKERSPOT SURVEY FOR FANITA RANCH, SAN DIEGO CO (INCLUDES DATA FROM PRIOR SURVEYS FOR OTHER SPECIES) 1998-06-05

KIM03F0023 KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR AIMOPHILA RUFICEPS CANESCENS 2003-05-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 55941
EO Index: 55957
Key Quad: La Mesa (3211771)
Element Code: ABPBX91091
Occurrence Number: 160
Occurrence Last Updated: 2004-06-30

Scientific Name: *Aimophila ruficeps canescens*
Common Name: southern California rufous-crowned sparrow

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:

RESIDENT IN SOUTHERN CALIFORNIA COASTAL SAGE SCRUB AND SPARSE MIXED CHAPARRAL.

Micro Habitat:

FREQUENTS RELATIVELY STEEP, OFTEN ROCKY HILLSIDES WITH GRASS AND FORB PATCHES.

Last Date Observed: 2003-04-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-04-22
Occurrence Rank: Good
Owner/Manager: PVT-SDGE
Trend: Unknown
Presence: Presumed Extant

Location:

JUST NORTH OF THE US NAVAL RECREATION FACILITY, 3 MILES NE OF THE INTERSECTION OF I-8 AND I-15, SAN DIEGO.

Detailed Location:

LOCATED ALONG THE SAN DIEGO GAS & ELECTRIC TRANSMISSION CORRIDOR. MAPPED ACCORDING TO UTM COORDINATES.

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB. RESIDENTIAL TO WEST AND SOUTH, UNDEVELOPED LAND TO EAST AND NORTH (MISSION TRAILS REGIONAL PARK).

Threats:

General:

1 ADULT OBSERVED ON 22 APR 2003.

PLSS: T16S, R02W, Sec. 04, NE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3631009 E492022
Latitude/Longitude: 32.81705 / -117.08522
Elevation (feet): 260

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

KIM03F0024 KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR AIMOPHILA RUFICEPS CANESCENS 2003-04-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 55942
EO Index: 55958
Key Quad: La Mesa (3211771)
Element Code: ABPBX91091
Occurrence Number: 161
Occurrence Last Updated: 2004-06-30

Scientific Name: *Aimophila ruficeps canescens*
Common Name: southern California rufous-crowned sparrow

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:

RESIDENT IN SOUTHERN CALIFORNIA COASTAL SAGE SCRUB AND SPARSE MIXED CHAPARRAL.

Micro Habitat:

FREQUENTS RELATIVELY STEEP, OFTEN ROCKY HILLSIDES WITH GRASS AND FORB PATCHES.

Last Date Observed: 2003-04-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-04-22
Occurrence Rank: Good
Owner/Manager: PVT-SDGE
Trend: Unknown
Presence: Presumed Extant

Location:

1.5 MILES NNE THE US NAVAL RECREATION FACILITY AND 3 MILES ESE OF THE INTERSECTION OF HWY 52 AND I-15, SAN DIEGO.

Detailed Location:

APPROXIMATELY 0.75 MILE NW OF MISSION GORGE. MAPPED ACCORDING TO UTM COORDIMATES.

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB. RESIDENTIAL TO WEST, UNDEVELOPED TO SOUTH, EAST AND NORTH (MISSION TRAILS REGIONAL PARK).

Threats:

General:

2 ADULTS DETECTED ON 22 APR 2003.

PLSS: T15S, R02W, Sec. 34, NE (S)
Accuracy: non-specific area
Area (acres): 39
UTM: Zone-11 N3632384 E493259
Latitude/Longitude: 32.82946 / -117.07201
Elevation (feet): 700

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

KIM03F0025 KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR AIMOPHILA RUFICEPS CANESCENS 2003-04-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03709	**EO Index:**	24637
Key Quad:	La Jolla (3211772)	**Element Code:**	ABPBX99015
Occurrence Number:	25	**Occurrence Last Updated:**	2002-10-17

Scientific Name: *Passerculus sandwichensis beldingi* **Common Name:** Belding's savannah sparrow

Listing Status:	**Federal:**	None	**Rare Plant Rank:**	
	State:	Endangered	**Other Lists:**	
CNDDB Element Ranks:	**Global:**	G5T3		
	State:	S3		

General Habitat:

INHABITS COASTAL SALT MARSHES, FROM SANTA BARBARA SOUTH THROUGH SAN DIEGO COUNTY.

Micro Habitat:

NESTS IN SALICORNIA ON AND ABOUT MARGINS OF TIDAL FLATS.

Last Date Observed:	2001-04-28	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-04-28	**Occurrence Rank:**	Poor
Owner/Manager:	UCNR-KENDALL-FROST,CITY OF SDG	**Trend:**	Fluctuating
Presence:	Presumed Extant		

Location:

KENDALL-FROST RESERVE, MISSION BAY.

Detailed Location:

IN 1986 SPARROWS OBS ALONG INLAND EDGE OF SALTMARSH. IN 1991 ALL SIGHTINGS WERE IN A SMALL AREA OF SALICORNIA ALONG THE INLAND EDGE OF THE MARSH ADJACENT TO PACIFIC BEACH DRIVE. 2001: BIRDS EVENLY DISTRIBUTED THROUGHOUT MARSH.

Ecological:

24 HA SALTMARSH W/FULL TIDAL ACTION. CORDGRASS ENCROACHED INTO WHAT WAS HIGHER MARSH (POSSIBLY RESULT OF NET SCOURING SINCE 1977). 1991: CORDGRASS DOMINATED MARSH - SMALL PICKLEWEED AREA ALONG INLAND EDGE. 2001: LESS TIDAL INFLUENCE.

Threats:

DOMESTIC CATS, HUMAN TRESPASS, INVASION OF MANGROVE.

General:

45 PAIRS EST IN 1977, ONLY 13 PARIS ESTIMATED IN 1986. AREA MANAGED TO REMOVE MANGROVE & REDUCE HUMAN IMPACT. 1991: 9 PRS ESTIMATED & MANGROVE & TRESPASS ARE STILL PROBLEMS. 1996: 28 PRS ESTIMATED. 2001: 38 PRS ESTIMATED.

PLSS:	T99X, R99X, Sec. UN (X)	**Accuracy:**	non-specific area	**Area (acres):**	36
UTM:	Zone-11 N3628354 E478535	**Latitude/Longitude:**	32.79293 / -117.22924	**Elevation (feet):**	0

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

FWS87R0003	U.S. FISH & WILDLIFE SERVICE - A SURVEY OF BELDING'S SAVANNAH SPARROWS IN CALIFORNIA, 1986. 1987-01-XX
JAM91R0001	JAMES, R. & D. STADTLANDER (U.S. FISH AND WILDLIFE SERVICE) - A SURVEY OF THE BELDING'S SAVANNAH SPARROW (PASSERCULUS SANDWICHENSIS BELDINGI) IN CALIFORNIA, 1991. 1991-11-XX
MAS77R0001	MASSEY, B.W. - A CENSUS OF THE BREEDING POPULATION OF THE BELDING'S SAVANNAH SPARROW IN CALIFORNIA. DEPT. OF FISH & GAME. 1977-XX-XX
ZEM02R0001	ZEMBAL, R. & S. HOFFMAN - A SURVEY OF THE BELDING'S SAVANNAH SPARROW (PASSERCULUS SANDWICHENSIS BELDINGI) IN CALIFORNIA, 2001. 2002-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03761	**EO Index:**	24636
Key Quad:	La Jolla (3211772)	**Element Code:**	ABPBX99015
Occurrence Number:	26	**Occurrence Last Updated:**	2002-10-17

Scientific Name: *Passerculus sandwichensis beldingi* **Common Name:** Belding's savannah sparrow

Listing Status:	**Federal:**	None	**Rare Plant Rank:**	
	State:	Endangered	**Other Lists:**	
CNDDB Element Ranks:	**Global:**	G5T3		
	State:	S3		

General Habitat:

INHABITS COASTAL SALT MARSHES, FROM SANTA BARBARA SOUTH THROUGH SAN DIEGO COUNTY.

Micro Habitat:

NESTS IN SALICORNIA ON AND ABOUT MARGINS OF TIDAL FLATS.

Last Date Observed:	2001-04-28	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-04-28	**Occurrence Rank:**	Poor
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Fluctuating
Presence:	Presumed Extant		

Location:

SAN DIEGO RIVER FLOOD CONTROL CHANNEL WEST OF I-5.

Detailed Location:

1991: 8 OF 9 PRS WERE FOUND ON THE SOUTH SIDE OF THE RIVER. 2001: SALICORNIA LUSH ENOUGH TO SUPPORT BELDINGS IS LIMITED TO THE FRINGE OF THE CHANNEL & A FEW HIGH SPOTS.

Ecological:

40 HA SALTMARSH W/FULL TIDAL ACTION & FRESHWATER INFLUENCE FROM U/S RESERVOIRS. HABITAT ALONG CHANNEL UNDERGOES DRASTIC SWINGS IN VEGETATIONAL DOMINANCE FROM YEAR TO YEAR. BECAUSE OF DYNAMIC HYDROLOGY, IT MAY BE HARD TO MANAGE FOR BELDINGS.

Threats:

General:

70 PAIRS ESTIMATED IN 1977, 28 PRS ESTIMATED IN 1986, 9 PRS ESTIMATED IN 1991, 8 PRS ESTIMATED IN 1996, 26 PRS ESTIMATED IN 2001.

PLSS:	T16S, R03W, Sec. 29 (S)	**Accuracy:**	non-specific area	**Area (acres):**	49
UTM:	Zone-11 N3624744 E480194	**Latitude/Longitude:**	32.76039 / -117.21144	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego, Pacific Ocean	La Jolla (3211772)

Sources:

FWS87R0003	U.S. FISH & WILDLIFE SERVICE - A SURVEY OF BELDING'S SAVANNAH SPARROWS IN CALIFORNIA, 1986. 1987-01-XX
JAM91R0001	JAMES, R. & D. STADTLANDER (U.S. FISH AND WILDLIFE SERVICE) - A SURVEY OF THE BELDING'S SAVANNAH SPARROW (PASSERCULUS SANDWICHENSIS BELDINGI) IN CALIFORNIA, 1991. 1991-11-XX
MAS77R0001	MASSEY, B.W. - A CENSUS OF THE BREEDING POPULATION OF THE BELDING'S SAVANNAH SPARROW IN CALIFORNIA. DEPT. OF FISH & GAME. 1977-XX-XX
ZEM02R0001	ZEMBAL, R. & S. HOFFMAN - A SURVEY OF THE BELDING'S SAVANNAH SPARROW (PASSERCULUS SANDWICHENSIS BELDINGI) IN CALIFORNIA, 2001. 2002-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03719
EO Index: 24635
Key Quad: La Jolla (3211772)
Element Code: ABPBX99015
Occurrence Number: 27
Occurrence Last Updated: 2002-09-26

Scientific Name: *Passerculus sandwichensis beldingi*
Common Name: Belding's savannah sparrow

Listing Status: **Federal:** None
State: Endangered
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:

INHABITS COASTAL SALT MARSHES, FROM SANTA BARBARA SOUTH THROUGH SAN DIEGO COUNTY.

Micro Habitat:

NESTS IN SALICORNIA ON AND ABOUT MARGINS OF TIDAL FLATS.

Last Date Observed: 2001-04-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-04-11
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

BEACON ISLAND (F.A.A. ISLAND), SAN DIEGO BAY.

Detailed Location:

2001: BIRDS FOUND IN VENEER OF PICKLEWEED AROUND THE EDGE OF THE ISLAND.

Ecological:

IN MID-LATE 1970'S ISLAND CLEARED OF VEG TO ENHANCE CALIF LEAST TERN NESTING. SUBSEQUENT WEED CONTROL REMOVED ALL POTENTIAL COVER FOR SPARROW & APPARENT LOSS OF THIS SITE. RECENTLY PICKLEWEED HAS BEEN SAVED & SPARROW HAS RETURNED.

Threats:

General:

1 PAIR ESTIMATED IN 1975, 4 PAIRS ESTIMATED IN 1977, 0 PAIRS IN 1986. THE SITE WAS NOT CENSUSED IN 1991. 0 PRS ESTIMATED IN 1996. 4 PRS ESTIMATED IN 2001.

PLSS: T99X, R99X, Sec. UN (X)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3627157 E478912
Latitude/Longitude: 32.78214 / -117.22518
Elevation (feet):

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

FWS87R0003	U.S. FISH & WILDLIFE SERVICE - A SURVEY OF BELDING'S SAVANNAH SPARROWS IN CALIFORNIA, 1986. 1987-01-XX
JAM91R0001	JAMES, R. & D. STADTLANDER (U.S. FISH AND WILDLIFE SERVICE) - A SURVEY OF THE BELDING'S SAVANNAH SPARROW (PASSERCULUS SANDWICHENSIS BELDINGI) IN CALIFORNIA, 1991. 1991-11-XX
MAS77R0001	MASSEY, B.W. - A CENSUS OF THE BREEDING POPULATION OF THE BELDING'S SAVANNAH SPARROW IN CALIFORNIA. DEPT. OF FISH & GAME. 1977-XX-XX
ZEM02R0001	ZEMBAL, R. & S. HOFFMAN - A SURVEY OF THE BELDING'S SAVANNAH SPARROW (PASSERCULUS SANDWICHENSIS BELDINGI) IN CALIFORNIA, 2001. 2002-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	33777	**EO Index:**	24634
Key Quad:	National City (3211761)	**Element Code:**	ABPBX99015
Occurrence Number:	28	**Occurrence Last Updated:**	2002-10-17

Scientific Name: *Passerculus sandwichensis beldingi* **Common Name:** Belding's savannah sparrow

Listing Status:	**Federal:**	None	**Rare Plant Rank:**	
	State:	Endangered	**Other Lists:**	
CNDDB Element Ranks:	**Global:**	G5T3		
	State:	S3		

General Habitat:

INHABITS COASTAL SALT MARSHES, FROM SANTA BARBARA SOUTH THROUGH SAN DIEGO COUNTY.

Micro Habitat:

NESTS IN SALICORNIA ON AND ABOUT MARGINS OF TIDAL FLATS.

Last Date Observed:	2001-04-14	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-04-14	**Occurrence Rank:**	Fair
Owner/Manager:	USFWS-SAN DIEGO BAY NWR	**Trend:**	Fluctuating
Presence:	Presumed Extant		

Location:

SWEETWATER MARSH, BETWEEN C & D STREETS WEST OF I-5 ON SAN DIEGO BAY.

Detailed Location:

SPARROWS LOCALLY ABUNDANT ALONG CHANNEL & CREEK MARGINS & MOST ABUNDANT ALONG INLAND HALF OF THE MARSH.

Ecological:

52 HA OF SALTMARSH WITH FULL TIDAL ACTION.

Threats:

HUMAN & PET TRESPASS ARE VERY FREQUENT, RESULTING IN TRAILING, TRASHING & LOSS OF HABITAT.

General:

40 PAIRS ESTIMATED IN 1977, 118 PAIRS ESTIMATED IN 1986, 141 PAIRS ESTIMATED IN 1991, 78 PAIRS ESTIMATED IN 1996, 93 PAIRS ESTIMATED IN 2001.

PLSS:	T17S, R02W, Sec. 32 (S)	**Accuracy:**	non-specific area	**Area (acres):**	102
UTM:	Zone-11 N3611781 E489873	**Latitude/Longitude:**	32.64359 / -117.10797	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego, Pacific Ocean	National City (3211761)

Sources:

FWS87R0003	U.S. FISH & WILDLIFE SERVICE - A SURVEY OF BELDING'S SAVANNAH SPARROWS IN CALIFORNIA, 1986. 1987-01-XX
MAS77R0001	MASSEY, B.W. - A CENSUS OF THE BREEDING POPULATION OF THE BELDING'S SAVANNAH SPARROW IN CALIFORNIA. DEPT. OF FISH & GAME. 1977-XX-XX
MAS85F0002	MASSEY, B. - FIELD SURVEY FORM FOR RALLUS LONGIROSTRIS LEVIPES & PASSERCULUS SANDWICHENSIS BELDINGI 1985-03-16
ZEM02R0001	ZEMBAL, R. & S. HOFFMAN - A SURVEY OF THE BELDING'S SAVANNAH SPARROW (PASSERCULUS SANDWICHENSIS BELDINGI) IN CALIFORNIA, 2001. 2002-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04129	**EO Index:**	24633
Key Quad:	National City (3211761)	**Element Code:**	ABPBX99015
Occurrence Number:	29	**Occurrence Last Updated:**	2002-10-17

Scientific Name: *Passerculus sandwichensis beldingi* **Common Name:** Belding's savannah sparrow

Listing Status: **Federal:** None **Rare Plant Rank:**

State: Endangered **Other Lists:**

CNDDB Element Ranks: **Global:** G5T3

State: S3

General Habitat:

INHABITS COASTAL SALT MARSHES, FROM SANTA BARBARA SOUTH THROUGH SAN DIEGO COUNTY.

Micro Habitat:

NESTS IN SALICORNIA ON AND ABOUT MARGINS OF TIDAL FLATS.

Last Date Observed:	2001-04-14	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-04-14	**Occurrence Rank:**	Fair
Owner/Manager:	PVT	**Trend:**	Fluctuating
Presence:	Presumed Extant		

Location:

"E" STREET SALT MARSH AT THE WEST END OF E ST, CHULA VISTA. ALSO KNOWN AS THE "F" STREET MARSH.

Detailed Location:

1986: SPARROWS WERE EVENLY SPACED ALONG THE BEACH EDGE & S SIDE OF THIS LITTLE MARSH.

Ecological:

12 HA SALTMARSH W/FULL TIDAL ACTION. HABITAT ON N EDGE LOOKS SUITABLE BUT NO SPARROWS WERE OBS IN 1986. THIS MARSH SHOULD BE CONNECTED TO SWEETWATER MARSH BY EXCAVATING UPLANDS BETWEEN THEM.

Threats:

PEOPLE AND PETS ARE AN ONGOING PROBLEM, BUT NOT AS BAD AS IN THE PAST. SITE IS TOO SMALL TO OFFER BIRDS MUCH SECURITY.

General:

18 PARIS ESTIMATED IN 1977, 8 PAIRS ESTIMATED IN 1986. 15 PAIRS ESTIMATED IN 1991, 12 PAIRS ESTIMATED IN 1996, 9 PAIRS ESTIMATED IN 2001.

PLSS:	T18S, R02W, Sec. 05 (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3611042 E489935	**Latitude/Longitude:**	32.63692 / -117.10730	**Elevation (feet):**	

County Summary:	**Quad Summary:**
San Diego, Pacific Ocean	National City (3211761)

Sources:

FWS87R0003	U.S. FISH & WILDLIFE SERVICE - A SURVEY OF BELDING'S SAVANNAH SPARROWS IN CALIFORNIA, 1986. 1987-01-XX
MAS77R0001	MASSEY, B.W. - A CENSUS OF THE BREEDING POPULATION OF THE BELDING'S SAVANNAH SPARROW IN CALIFORNIA. DEPT. OF FISH & GAME. 1977-XX-XX
MAS85F0003	MASSEY, B. - FIELD SURVEY FORM FOR RALLUS LONGIROSTRIS LEVIPES & PASSERCULUS SANDWICHENSIS BELDINGI 1985-03-XX
ZEM02R0001	ZEMBAL, R. & S. HOFFMAN - A SURVEY OF THE BELDING'S SAVANNAH SPARROW (PASSERCULUS SANDWICHENSIS BELDINGI) IN CALIFORNIA, 2001. 2002-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04130	**EO Index:**	24631
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABPBX99015
Occurrence Number:	30	**Occurrence Last Updated:**	2002-10-17

Scientific Name: *Passerculus sandwichensis beldingi* **Common Name:** Belding's savannah sparrow

Listing Status: **Federal:** None **Rare Plant Rank:**

State: Endangered **Other Lists:**

CNDDB Element Ranks: **Global:** G5T3

State: S3

General Habitat:

INHABITS COASTAL SALT MARSHES, FROM SANTA BARBARA SOUTH THROUGH SAN DIEGO COUNTY.

Micro Habitat:

NESTS IN SALICORNIA ON AND ABOUT MARGINS OF TIDAL FLATS.

Last Date Observed:	2001-05-12	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-05-12	**Occurrence Rank:**	Fair
Owner/Manager:	USFWS-SAN DIEGO BAY NWR, UNK	**Trend:**	Fluctuating
Presence:	Presumed Extant		

Location:

WESTERN SALT COMPANY DIKES / OTAY RIVER MOUTH.

Detailed Location:

1986: MOST BIRDS OBS ALONG STRIP OF SALICORNIA ON OUTERMOST DIKE & ALONG OUTERMOST OTAY RIVER CHANNEL. 2001: MOST BIRDS OBS ALONG OTAY RIVER, 18% OF TERRITORIES ALONG OUTER EDGE OF BAY, 13 PRS ALONG CHANNEL IN NE CORNER OF SALTWORKS.

Ecological:

ABOUT 30 HA TOTAL SALTMARSH VEGETATION ALL WITH FULL TIDAL ACTION. GOOD-LOOKING HABITAT INLAND WAS UNOCCUPIED. SALTMARSH SHOULD BE EXPANDED.

Threats:

General:

100 PAIRS ESTIMATED IN 1977, 70 PAIRS ESTIMATED IN 1986, 29 PAIRS ESTIMATED IN 1991, 71 PAIRS ESTIMATED IN 1996, 102 PAIRS ESTIMATED IN 2001.

PLSS:	T18S, R02W, Sec. 20 (S)	**Accuracy:**	non-specific area	**Area (acres):**	1,332
UTM:	Zone-11 N3606602 E490357	**Latitude/Longitude:**	32.59687 / -117.10276	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

FWS87R0003	U.S. FISH & WILDLIFE SERVICE - A SURVEY OF BELDING'S SAVANNAH SPARROWS IN CALIFORNIA, 1986. 1987-01-XX
MAS77R0001	MASSEY, B.W. - A CENSUS OF THE BREEDING POPULATION OF THE BELDING'S SAVANNAH SPARROW IN CALIFORNIA. DEPT. OF FISH & GAME. 1977-XX-XX
ZEM02R0001	ZEMBAL, R. & S. HOFFMAN - A SURVEY OF THE BELDING'S SAVANNAH SPARROW (PASSERCULUS SANDWICHENSIS BELDINGI) IN CALIFORNIA, 2001. 2002-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04068	**EO Index:**	24630
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABPBX99015
Occurrence Number:	31	**Occurrence Last Updated:**	2002-10-17

Scientific Name: *Passerculus sandwichensis beldingi* **Common Name:** Belding's savannah sparrow

Listing Status: **Federal:** None **Rare Plant Rank:**

State: Endangered **Other Lists:**

CNDDB Element Ranks: **Global:** G5T3

State: S3

General Habitat:

INHABITS COASTAL SALT MARSHES, FROM SANTA BARBARA SOUTH THROUGH SAN DIEGO COUNTY.

Micro Habitat:

NESTS IN SALICORNIA ON AND ABOUT MARGINS OF TIDAL FLATS.

Last Date Observed:	2001-04-14	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-04-14	**Occurrence Rank:**	Poor
Owner/Manager:	USFWS-SAN DIEGO BAY NWR, PVT	**Trend:**	Fluctuating
Presence:	Presumed Extant		

Location:

SOUTH BAY MARINE RESERVE. SW PORTION SAN DIEGO BAY, EAST OF SILVER STRAND BLVD, 1.5 MI N PALM AVENUE, IMPERIAL BEACH.

Detailed Location:

Ecological:

8 HA OF SALTMARSH W/FULL TIDAL ACTION. A MOAT-TYPE CHANNEL OR FENCE IS BADLY NEEDED. HIGH RESTORATION POTENTIAL ALONG ADJACENT SHORELINE.

Threats:

ABUNDANT FOOT TRAFFIC HAS BADLY DEGRADED THE HABITAT. DOMESTIC ANIMAL ENCROACHMENT IS ALSO A PROBLEM.

General:

25 PAIRS ESTIMATED IN 1977, 15 PAIRS ESTIMATED IN 1986, 42 PARIS ESTIMATED IN 1991, 31 PAIRS ESTIMATED IN 1996, 26 PAIRS ESTIMATED IN 2001.

PLSS:	T18S, R02W, Sec. 18 (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3607406 E488409	**Latitude/Longitude:**	32.60411 / -117.12353	**Elevation (feet):**	

County Summary:	**Quad Summary:**
San Diego, Pacific Ocean	Imperial Beach (3211751)

Sources:

FWS87R0003	U.S. FISH & WILDLIFE SERVICE - A SURVEY OF BELDING'S SAVANNAH SPARROWS IN CALIFORNIA, 1986. 1987-01-XX
MAS77R0001	MASSEY, B.W. - A CENSUS OF THE BREEDING POPULATION OF THE BELDING'S SAVANNAH SPARROW IN CALIFORNIA. DEPT. OF FISH & GAME. 1977-XX-XX
MAS85F0001	MASSEY, B. - FIELD SURVEY FORM FOR RALLUS LONGIROSTRIS LEVIPES 1985-03-15
WAG89R0002	WAGONER, R. - NATURAL RESOURCE MANAGEMENT PLAN, NAVAL RECEIVING FACILITY. 1989-XX-XX
ZEM02R0001	ZEMBAL, R. & S. HOFFMAN - A SURVEY OF THE BELDING'S SAVANNAH SPARROW (PASSERCULUS SANDWICHENSIS BELDINGI) IN CALIFORNIA, 2001. 2002-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04077	**EO Index:**	24629
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABPBX99015
Occurrence Number:	32	**Occurrence Last Updated:**	2002-10-17

Scientific Name: *Passerculus sandwichensis beldingi* **Common Name:** Belding's savannah sparrow

Listing Status:	**Federal:**	None	**Rare Plant Rank:**	
	State:	Endangered	**Other Lists:**	
CNDDB Element Ranks:	**Global:**	G5T3		
	State:	S3		

General Habitat:

INHABITS COASTAL SALT MARSHES, FROM SANTA BARBARA SOUTH THROUGH SAN DIEGO COUNTY.

Micro Habitat:

NESTS IN SALICORNIA ON AND ABOUT MARGINS OF TIDAL FLATS.

Last Date Observed:	2001-04-14	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-04-14	**Occurrence Rank:**	Good
Owner/Manager:	USFWS, DPR	**Trend:**	Increasing
Presence:	Presumed Extant		

Location:

TIJUANA MARSH (TIJUANA SLOUGH NATIONAL WILDLIFE REFUGE).

Detailed Location:

1986: 71% OBS IN ONEONTA SLOUGH SECTION OF MARSH ALONG NORTH CHANNEL WETLANDS & 29% OBS SOUTH OF RIVER. 1991: 68% OF TERRITORIES LOCATED SOUTH OF RIVER. 2001: 142 PRS IN ONEONTA SECTION & 147 PRS SOUTH OF TIJUANA RIVER.

Ecological:

157 HA SALTMARSH W/FULL-PARTIAL TIDAL ACTION.

Threats:

PROBLEMS WITH SEDIMENTATION/PROLONGED MOUTH CLOSURE, HIGH TRESPASS, TRASH, DOGS, POOR WATER QUALITY.

General:

100 PAIRS ESTIMATED IN 1973, 95 PRS ESTIMATED IN 1977, 81 PRS IN MIDDLE MARSH NORTH OF TIJUANA RIVER IN 1985, 225 PAIRS ESTIMATED IN 1986 (COVERAGE NOT COMPLETE). 303 PRS EST IN 1991. 250 PRS EST IN 1996. 289 PRS EST IN 2001.

PLSS:	T18S, R02W, Sec. 31, S (S)	**Accuracy:**	specific area	**Area (acres):**	497
UTM:	Zone-11 N3602218 E488441	**Latitude/Longitude:**	32.55731 / -117.12312	**Elevation (feet):**	0

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

FWS86R0005	U.S. FISH & WILDLIFE SERVICE - THE ECOLOGY OF TIJUANA ESTUARY. BIOLOGICAL REPORT 85(7.5). 1986-06-XX
FWS87R0003	U.S. FISH & WILDLIFE SERVICE - A SURVEY OF BELDING'S SAVANNAH SPARROWS IN CALIFORNIA, 1986. 1987-01-XX
JAM91R0001	JAMES, R. & D. STADTLANDER (U.S. FISH AND WILDLIFE SERVICE) - A SURVEY OF THE BELDING'S SAVANNAH SPARROW (PASSERCULUS SANDWICHENSIS BELDINGI) IN CALIFORNIA, 1991. 1991-11-XX
MAS77R0001	MASSEY, B.W. - A CENSUS OF THE BREEDING POPULATION OF THE BELDING'S SAVANNAH SPARROW IN CALIFORNIA. DEPT. OF FISH & GAME. 1977-XX-XX
ZEM02R0001	ZEMBAL, R. & S. HOFFMAN - A SURVEY OF THE BELDING'S SAVANNAH SPARROW (PASSERCULUS SANDWICHENSIS BELDINGI) IN CALIFORNIA, 2001. 2002-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04121
EO Index: 13272
Key Quad: National City (3211761)
Element Code: ABPBX99015
Occurrence Number: 38
Occurrence Last Updated: 2002-10-17

Scientific Name: *Passerculus sandwichensis beldingi*
Common Name: Belding's savannah sparrow

Listing Status: **Federal:** None
State: Endangered
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:

INHABITS COASTAL SALT MARSHES, FROM SANTA BARBARA SOUTH THROUGH SAN DIEGO COUNTY.

Micro Habitat:

NESTS IN SALICORNIA ON AND ABOUT MARGINS OF TIDAL FLATS.

Last Date Observed: 2001-04-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-04-14
Occurrence Rank: Fair
Owner/Manager: PVT
Trend: Decreasing
Presence: Presumed Extant

Location:

PARADISE MARSH; WEST OF I-5, SOUTH OF 30TH ST, AND NORTH OF C ST, IN CHULA VISTA.

Detailed Location:

1986: SPARROWS OBS ALONG MAIN CHANNEL EDGE FROM ABOUT THE OLD TRESTLE SOUTH TO WHERE THE CHANNEL & MARSH NARROW. 2001: A FEW HIGH SPOTS OF THICK PICKLEWEED & NESTING BELDING'S.

Ecological:

20 HA SALTMARSH W/PARTIAL TIDAL ACTION. SUITABLE LOOKIING HABITAT IN N 2/3 OF MARSH NOT USED IN 1986.

Threats:

MUCH HUMAN IMPACT: TRESPASS, DOGS AND CATS, DUMPING AND NOISE FROM I-5 WHICH IS LOUD ENOUGH TO MASK CUES FROM PREDATORS.

General:

16 PAIRS ESTIMATED IN 1977, 19 PAIRS ESTIMATED IN 1986, 14 PAIRS ESTIMATED IN 1991, 6 PAIRS ESTIMATED IN 1996, 7 PAIRS ESTIMATED IN 2001.

PLSS: T17S, R02W, Sec. 32 (S)
Accuracy: non-specific area
Area (acres): 33
UTM: Zone-11 N3613195 E489861
Latitude/Longitude: 32.65634 / -117.10811
Elevation (feet): 10

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

FWS86R0003	U.S. FISH & WILDLIFE SERVICE - BREEDING SEASON SURVEY OF SALT MARSH YELLOWTHROATS IN SAN FRANCISCO BAY REGION. 1986-XX-XX
MAS85F0004	MASSEY, B. - FIELD SURVEY FORM FOR RALLUS LONGIROSTRIS LEVIPES & PASSERCULUS SANDWICHENSIS BELDINGI 1985-03-XX
ZEM02R0001	ZEMBAL, R. & S. HOFFMAN - A SURVEY OF THE BELDING'S SAVANNAH SPARROW (PASSERCULUS SANDWICHENSIS BELDINGI) IN CALIFORNIA, 2001. 2002-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04173
EO Index: 24625
Key Quad: Imperial Beach (3211751)
Element Code: ABPBX99015
Occurrence Number: 41
Occurrence Last Updated: 2002-10-17

Scientific Name: *Passerculus sandwichensis beldingi*
Common Name: Belding's savannah sparrow

Listing Status: **Federal:** None
State: Endangered
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:

INHABITS COASTAL SALT MARSHES, FROM SANTA BARBARA SOUTH THROUGH SAN DIEGO COUNTY.

Micro Habitat:

NESTS IN SALICORNIA ON AND ABOUT MARGINS OF TIDAL FLATS.

Last Date Observed: 2001-05-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-05-12
Occurrence Rank: Fair
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

"J" STREET MARSH NEAR POWERPLANT AT SOUTH END OF SAN DIEGO BAY; JUST NORTH OF NE END WESTERN SALT PONDS.

Detailed Location:

Ecological:

MUCH OF THE HABITAT HERE IS LOW AND TOO FREQUENTLY INUNDATED FOR MANY BELDINGS. THERE IS SOME GOOD HABITAT, HOWEVER, ALONG THE INLAND EDGE.

Threats:

General:

8 PAIRS ESTIMATED ON TERRITORIES IN 1986. 4 TERRITORIES OBSERVED IN 2001.

PLSS: T18S, R02W, Sec. 09 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3609293 E491033
Latitude/Longitude: 32.62115 / -117.09558
Elevation (feet):

County Summary:

San Diego, Pacific Ocean

Quad Summary:

Imperial Beach (3211751)

Sources:

FWS87R0003	U.S. FISH & WILDLIFE SERVICE - A SURVEY OF BELDING'S SAVANNAH SPARROWS IN CALIFORNIA, 1986. 1987-01-XX
ZEM02R0001	ZEMBAL, R. & S. HOFFMAN - A SURVEY OF THE BELDING'S SAVANNAH SPARROW (PASSERCULUS SANDWICHENSIS BELDINGI) IN CALIFORNIA, 2001. 2002-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	95653	**EO Index:**	96792
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABPBXB0020
Occurrence Number:	457	**Occurrence Last Updated:**	2016-08-08

Scientific Name: *Agelaius tricolor*

Common Name: tricolored blackbird

Listing Status: **Federal:** None

State: Threatened

CNDDB Element Ranks: **Global:** G1G2

State: S1S2

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_EN-Endangered
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

General Habitat:

HIGHLY COLONIAL SPECIES, MOST NUMEROUS IN CENTRAL VALLEY & VICINITY. LARGELY ENDEMIC TO CALIFORNIA.

Micro Habitat:

REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, AND FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.

Last Date Observed:	1987-04-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2014-04-19	**Occurrence Rank:**	Unknown
Owner/Manager:	SDG COUNTY, UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

VICINITY OF OLD DAIRY MART RD & CAMINO DE LA PLAZA RD INTERSECTION, ~1.3 MI W OF SAN YSIDRO PO, ALONG TIJUANA RIVER.

Detailed Location:

1978 & 1987 LOCATION DESCRIBED AS "TIJUANA RIVER VALLEY (DAIRY MART ROAD PONDS)." COLONY DATA STORED IN UC DAVIS TRICOLORED BLACKBIRD PORTAL; SITE NAME "DAIRY MART ROAD." BIRDS NESTED IRREGULARLY AT THIS LOCATION (1978).

Ecological:

HABITAT GENERALLY DESCRIBED AS A POND DOMINATED BY WILLOW RIPARIAN, WITH BULRUSH AND CATTAIL MARSH ALONG THE EDGE OF THE OPEN WATER. RED-WINGED BLACKBIRDS OBSERVED MATING IN 2014.

Threats:

General:

NESTING COLONY COMPOSED OF ABOUT 150 INDIVIDUALS OBSERVED ON 19 MAY 1978; BIRDS OBS CARRYING FOOD. 40 ADULTS OBS FEEDING YOUNG ON 26 APR 1987. NONE DETECTED ON 22 APR 1995 & 21 APR 1996. NONE DETECTED DURING 30 MIN SURVEY ON 19 APR 2014.

PLSS:	T19S, R02W, Sec. 02 (S)	**Accuracy:**	2/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3601869 E493897	**Latitude/Longitude:**	32.55420 / -117.06500	**Elevation (feet):**	30

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BEE91R0001	BEEDY, E.C., S.D. SANDERS & D. BLOOM - BREEDING STATUS, DISTRIBURTION, AND HABITAT ASSOCIATIONS OF THE TRICOLORED BLACKBIRD (AGELAIUS TRICOLOR), 1850-1989. 1991-06-XX
JAM96F0001	JAMES, R. - FIELD SURVEY FORM FOR AGELAIUS TRICOLOR 1996-04-21
MOC95F0006	MOCK, P. - FIELD SURVEY FORM FOR AGELAIUS TRICOLOR 1995-04-22
TRI14D0001	TRICOLORED BLACKBIRD PORTAL - ICE (UNIVERSITY OF CALIFORNIA, DAVIS) - 1907-2014 TRICOLORED BLACKBIRD RECORDS FROM UC DAVIS TRICOLORED BLACKBIRD PORTAL, INFORMATION CENTER FOR THE ENVIRONMENT (ICE) 2014-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	95641	**EO Index:**	96781
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ABPBXB0020
Occurrence Number:	462	**Occurrence Last Updated:**	2015-06-17

Scientific Name: *Agelaius tricolor*

Common Name: tricolored blackbird

Listing Status:
Federal: None
State: Threatened

Rare Plant Rank:

CNDDB Element Ranks:
Global: G1G2
State: S1S2

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_EN-Endangered
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

General Habitat:

HIGHLY COLONIAL SPECIES, MOST NUMEROUS IN CENTRAL VALLEY & VICINITY. LARGELY ENDEMIC TO CALIFORNIA.

Micro Habitat:

REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, AND FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.

Last Date Observed:	1936-05-16	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1936-05-16	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Extirpated		

Location:

SE EDGE OF CHULA VISTA, ABOUT 1.8 MI NNW OF I-805 & OTAY RIVER INTERSECTION.

Detailed Location:

EXACT LOCATION UNK, MAPPED GENERALLY AS BEST GUESS FOR HISTORIC LOCATION DESCRIPTION OF "EAST EDGE OF CHULA VISTA" & "CATTAILS AROUND RESERVOIR." USED GEOREFERENCED TOPO MAPS FROM 1943-44 TO LOCATE JUDSON RESERVOIR ALONG SE EDGE OF CITY.

Ecological:

JUDSON RESERVOIR HAS SINCE BEEN PAVED OVER AND DEVELOPED ON. RESERVOIR WAS WAS THE CLOSEST TO CHULA VISTA THAT COULD BE FOUND PRIOR TO 1950. LOCATION COULD HAVE ALSO BEEN REFERENCING SWEETWATER (5 MI NE) AND OTAY RESERVOIRS (7 MI E).

Threats:

DEVELOPMENT HAS REMOVED HABITAT IN THIS AREA.

General:

750 NESTS OBSERVED ON 16 MAY 1936 (NEFF 1937).

PLSS:	T18S, R02W, Sec. 12 (S)	**Accuracy:**	1 mile	**Area (acres):**	0
UTM:	Zone-11 N3608531 E495384	**Latitude/Longitude:**	32.61430 / -117.04920	**Elevation (feet):**	200

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751), National City (3211761)

Sources:

BEE91R0001	BEEDY, E.C., S.D. SANDERS & D. BLOOM - BREEDING STATUS, DISTRIBURTION, AND HABITAT ASSOCIATIONS OF THE TRICOLORED BLACKBIRD (AGELAIUS TRICOLOR), 1850-1989. 1991-06-XX
TRI14D0001	TRICOLORED BLACKBIRD PORTAL - ICE (UNIVERSITY OF CALIFORNIA, DAVIS) - 1907-2014 TRICOLORED BLACKBIRD RECORDS FROM UC DAVIS TRICOLORED BLACKBIRD PORTAL, INFORMATION CENTER FOR THE ENVIRONMENT (ICE) 2014-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	95671	**EO Index:**	96812
Key Quad:	La Mesa (3211771)	**Element Code:**	ABPBXB0020
Occurrence Number:	465	**Occurrence Last Updated:**	2016-08-04

Scientific Name: *Agelaius tricolor* **Common Name:** tricolored blackbird

Listing Status: **Federal:** None

State: Threatened

CNDDB Element Ranks: **Global:** G1G2

State: S1S2

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_EN-Endangered
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

General Habitat:

HIGHLY COLONIAL SPECIES, MOST NUMEROUS IN CENTRAL VALLEY & VICINITY. LARGELY ENDEMIC TO CALIFORNIA.

Micro Habitat:

REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, AND FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.

Last Date Observed:	1997-04-20	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2000-04-22	**Occurrence Rank:**	Unknown
Owner/Manager:	PADRE DAM MWD	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SANTEE LAKES, ABOUT 1.6 MI NE OF HWY 52 & MAST BLVD INTERSECTION, 6 MI SW OF SAN VICENTE RESERVOIR DAM, CARLTON HILLS.

Detailed Location:

COLONY DATA STORED IN UC DAVIS TRICOLORED BLACKBIRD PORTAL; SITE NAMES "SANTEE LAKES #1" & "SANTEE LAKES #2." EXACT LOCATION OF COLOY UNKNOWN AND THEREFORE MAPPED TO ALL LAKES IN SANTEE LAKES COMPLEX.

Ecological:

CATTAILS. GRACKLES ALSO NESTING HERE.

Threats:

General:

0 OBSERVED IN APR 1994. 20 OBS NESTING & 8 FORAGING S OF NESTING AREA ON 22 APR 1995. 0 OBS IN 1996. 93 NESTING ON 20 APR 1997. ABOUT 30 CLASSIFIED AS "PROBABLY" NESTING ON 22 APR 2000. FURTHER RESEARCH IS NEEDED TO CONFIRM NESTING COLONY.

PLSS:	T15S, R01W, Sec. 17 (S)	**Accuracy:**	non-specific area	**Area (acres):**	318
UTM:	Zone-11 N3636374 E499253	**Latitude/Longitude:**	32.86548 / -117.00798	**Elevation (feet):**	370

County Summary:	**Quad Summary:**
San Diego	San Vicente Reservoir (3211688), La Mesa (3211771), Poway (3211781)

Sources:

BOW97F0005	BOWEN & HAMILTON - FIELD SURVEY FORM FOR AGELAIUS TRICOLOR 1997-04-20
DFG04U0002	CALIFORNIA DEPARTMENT OF FISH & GAME - TRICOLORED BLACKBIRD BREEDING OBSERVATIONS 1980-2000, BIOS DS20. 2004-XX-XX
EWI96F0001	EWING, A. - FIELD SURVEY FORM FOR AGELAIUS TRICOLOR 1996-04-20
HAM97F0010	HAMILTON - FIELD SURVEY FORM FOR AGELAIUS TRICOLOR 1997-04-20
MOC95F0002	MOCK, P. - FIELD SURVEY FORM FOR AGELAIUS TRICOLOR 1995-04-20
PRY00U0001	PRYDE, P. - PERSONAL COMMUNICATION FROM P. PRYDE TO B. HAMILTON REGARDING TRICOLORED BLACKBIRD OBSERVATIONS AT SANTEE LAKES, SANTEE CA 2000-04-25
TRI14D0001	TRICOLORED BLACKBIRD PORTAL - ICE (UNIVERSITY OF CALIFORNIA, DAVIS) - 1907-2014 TRICOLORED BLACKBIRD RECORDS FROM UC DAVIS TRICOLORED BLACKBIRD PORTAL, INFORMATION CENTER FOR THE ENVIRONMENT (ICE) 2014-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1378
Key Quad: La Jolla (3211772)
Occurrence Number: 916

EO Index: 102951
Element Code: ABPBXB0020
Occurrence Last Updated: 2016-09-01

Scientific Name: *Agelaius tricolor*
Common Name: tricolored blackbird

Listing Status: **Federal:** None
State: Threatened

CNDDB Element Ranks: **Global:** G1G2
State: S1S2

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_EN-Endangered
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

General Habitat:

HIGHLY COLONIAL SPECIES, MOST NUMEROUS IN CENTRAL VALLEY & VICINITY. LARGELY ENDEMIC TO CALIFORNIA.

Micro Habitat:

REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, AND FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.

Last Date Observed: 1990-XX-XX
Last Survey Date: 1997-04-26
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

ALONG SAN DIEGO RIVER, ABOUT 0.5 MI NNE OF I-8 & HWY 163 INTERSECTION, SE OF LINDA VISTA.

Detailed Location:

COLONY LOCATION DESCRIBED AS "BETWEEN HWY 163 AND MISSION CENTER ROAD." MAPPED ACCORDING TO PROVIDED MAP.

Ecological:

HABITAT COMPOSED OF CATTAILS, BULRUSHES, AND WILLOWS.

Threats:

General:

NESTING REPORTED IN 1989 AND 1990 (P. UNITT PERS. COMM.). 0 BIRDS OBSERVED ON 20 APR 1996 AND 26 APR 1997.

PLSS: T16S, R03W, Sec. 23, E (S)
UTM: Zone-11 N3625639 E485152

Accuracy: non-specific area
Latitude/Longitude: 32.76854 / -117.15853

Area (acres): 59
Elevation (feet): 23

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

CAM96F0002 CAMERON, S. - FIELD SURVEY FORM FOR AGELAIUS TRICOLOR 1996-04-20
CAM97F0007 CAMERON, S. - FIELD SURVEY FORM FOR AGELAIUS TRICOLOR 1997-04-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B2898	**EO Index:**	114834
Key Quad:	Imperial Beach (3211751)	**Element Code:**	AFCHA0209J
Occurrence Number:	20	**Occurrence Last Updated:**	2019-04-15

Scientific Name: *Oncorhynchus mykiss irideus pop. 10*

Common Name: steelhead - southern California DPS

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank:

Other Lists: AFS_EN-Endangered

CNDDB Element Ranks: **Global:** G5T1Q

State: S1

General Habitat:

FEDERAL LISTING REFERS TO POPULATIONS FROM SANTA MARIA RIVER SOUTH TO SOUTHERN EXTENT OF RANGE (SAN MATEO CREEK IN SAN DIEGO COUNTY).

Micro Habitat:

SOUTHERN STEELHEAD LIKELY HAVE GREATER PHYSIOLOGICAL TOLERANCES TO WARMER WATER AND MORE VARIABLE CONDITIONS.

Last Date Observed:	1927-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1927-XX-XX	**Occurrence Rank:**	None
Owner/Manager:	SDG COUNTY, USFWS, UNKNOWN	**Trend:**	Unknown
Presence:	Extirpated		

Location:

TIJUANA RIVER FROM INTERNATIONAL BORDER DOWNSTREAM (WNW) TO TIJUANA RIVER ESTUARY.

Detailed Location:

MAPPED TO HISTORIC AERIAL IMAGERY FROM 1939 AND WITH RESPECT TO 1943 TOPOGRAPHIC MAP.

Ecological:

THE RIVER APPEARS TO BE A CONCRETE CHANNEL IN TIJUANA, BAJA CALIFORNIA. AROUND THE 1970S THE RIVER CHANNEL WAS MOVED SIGNIFICANTLY WEST, ABOUT A MILE, AWAY FROM SAN YSIDRO, AND NOW THE HISTORIC FLOODPLAIN IS DEVELOPED.

Threats:

HISTORICALLY AREA WAS IMPACTED BY CONVERSION TO AGRICULTURE. BY THE 1970S RIVER CHANNEL MOVED W AWAY FROM SAN YSIDRO.

General:

WARDEN E. GLIDDEN SAW 2 THAT WERE TAKEN IN THE LOWER FLOWING PART OF TIJUANA RIVER, ON THE CALIFORNIA SIDE OF THE INTERNATIONAL BORDER ABOUT 1927. TITUS SUGGESTS THAT STEELHEAD ARE EXTINCT IN THE TIJUANA RIVER DRAINAGE.

PLSS:	T19S, R02W, Sec. 3 (S)	**Accuracy:**	non-specific area	**Area (acres):**	655
UTM:	Zone-11 N3601565 E492208	**Latitude/Longitude:**	32.55144 / -117.08299	**Elevation (feet):**	23

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

HUB46A0001	HUBBS, C. - WANDERING OF PINK SALMON AND OTHER SALMONID FISHES INTO SOUTHERN CALIFORNIA. CALIFORNIA FISH AND GAME 32(2): 81-86. 1946-XX-XX
SWI93R0001	SWIFT, C, ET AL. - THE STATUS AND DISTRIBUTION OF THE FRESHWATER FISHES OF SOUTHERN CALIFORNIA. BULLETIN OF THE SOUTHERN CALIFORNIA ACADEMY OF SCIENCE 92(3):101-167. 1993-12-XX
TIT02R0001	TITUS, R. ET AL. - HISTORY AND STATUS OF STEELHEAD IN CALIFORNIA COASTAL DRAINAGES SOUTH OF SAN FRANCISCO BAY (IN PREPARATION). 295 PP. 2002-XX-XX
TIT10R0002	TITUS, R. ET AL. - HISTORY AND STATUS OF STEELHEAD IN CALIFORNIA COASTAL DRAINAGES SOUTH OF SAN FRANCISCO BAY (IN PREPARATION, DRAFT). 283 PP. 2010-XX-XX
TIT94R0001	TITUS, R.G. & D.C. ERMAN - HISTORY AND STATUS OF STEELHEAD IN CALIFORNIA COASTAL DRAINAGES SOUTH OF SAN FRANCISCO BAY (IN REVIEW, HILGARDIA). 205 PP. 1994-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 43258
EO Index: 43258
Key Quad: Point Loma (3211762)
Element Code: AMACB02010
Occurrence Number: 3
Occurrence Last Updated: 2000-07-20

Scientific Name: *Choeronycteris mexicana*
Common Name: Mexican long-tongued bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3G4
State: S1
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened
WBWG_H-High Priority

General Habitat:

OCCASIONALLY FOUND IN SAN DIEGO COUNTY, WHICH IS ON THE PERIPHERY OF THEIR RANGE.

Micro Habitat:

FEEDS ON NECTAR AND POLLEN OF NIGHT-BLOOMING SUCCULENTS. ROOSTS IN RELATIVELY WELL-LIT CAVES, AND IN AND AROUND BUILDINGS.

Last Date Observed: 1996-10-02
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1996-10-02
Occurrence Rank: Unknown
Owner/Manager: SAN DIEGO ZOO
Trend: Unknown
Presence: Presumed Extant

Location:

MESA MAMMAL SHED, SAN DIEGO ZOO.

Detailed Location:

ROOST WAS LOCATED INSIDE A MAINTENANCE SHED AT THE SAN DIEGO ZOO.

Ecological:

FORAGING HABITAT WITHIN BALBOA PARK INCLUDES A VARIETY OLDER PLANT SPECIMENS, INCLUDING AGAVES AND OTHER NECTAR-PRODUCING PLANTS.

Threats:

POSSIBLE THREATS INCLUDE DISTURBANCE BY EMPLOYEES USING THE SHED AND ERADICATION FOR RABIES PREVENTION FOR ZOO ANIMALS.

General:

2 ADULT FEMALES AND 1 JUVENILE FEMALE DETECTED, 2 OCT 1996 (ROOSTED HERE FROM SEP-JAN).

PLSS: T16S, R03W, Sec. 36 (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3621715 E485821
Latitude/Longitude: 32.73316 / -117.15133
Elevation (feet): 320

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

MIN99U0001 MINER, K.L. - FIELD SURVEY REPORT FOR MULTIPLE BAT SPECIES 1999-01-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17693
Key Quad: Imperial Beach (3211751)
Occurrence Number: 7
EO Index: 59775
Element Code: AMACB02010
Occurrence Last Updated: 2005-01-31

Scientific Name: *Choeronycteris mexicana*
Common Name: Mexican long-tongued bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4
State: S1
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened
WBWG_H-High Priority

General Habitat:

OCCASIONALLY FOUND IN SAN DIEGO COUNTY, WHICH IS ON THE PERIPHERY OF THEIR RANGE.

Micro Habitat:

FEEDS ON NECTAR AND POLLEN OF NIGHT-BLOOMING SUCCULENTS. ROOSTS IN RELATIVELY WELL-LIT CAVES, AND IN AND AROUND BUILDINGS.

Last Date Observed: 1986-07-08
Last Survey Date: 1986-07-08
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

IMPERIAL BEACH.

Detailed Location:

EXACT LOCATION NOT KNOWN. LOCATION ONLY GIVEN AS "IMPERIAL BEACH." MAPPED IN THE GENERAL VICINTY OF IMPERIAL BEACH. LAT/LONG COORDINATES PROVIDED BY MANIS FALL IN THE WESTERN PORTION OF THE CIRCLE WITH A LOCATION UNCERTAINTY OF 0.7 MILE.

Ecological:

Threats:

General:

ONE FEMALE SPECIMEN COLLECTED 8 JUL 1986 BY D. CONSTANTINE AT "IMPERIAL BEACH." DEPOSITED AT MVZ #181847.

PLSS: T18S, R02W, Sec. 29 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3604660 E489427
Latitude/Longitude: 32.57934 / -117.11264
Elevation (feet): 30

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

MAN04S0018 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF CHOERONYCTERIS MEXICANA SPECIMEN RECORDS FROM MANIS. THIS INCLUDES RECORDS FROM MVZ, LACM, CAS & MSU. 2004-12-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 26650
Key Quad: La Jolla (3211772)
Occurrence Number: 9
EO Index: 59777
Element Code: AMACB02010
Occurrence Last Updated: 2005-01-31

Scientific Name: *Choeronycteris mexicana*
Common Name: Mexican long-tongued bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4
State: S1
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened
WBWG_H-High Priority

General Habitat:

OCCASIONALLY FOUND IN SAN DIEGO COUNTY, WHICH IS ON THE PERIPHERY OF THEIR RANGE.

Micro Habitat:

FEEDS ON NECTAR AND POLLEN OF NIGHT-BLOOMING SUCCULENTS. ROOSTS IN RELATIVELY WELL-LIT CAVES, AND IN AND AROUND BUILDINGS.

Last Date Observed: 1984-09-04
Last Survey Date: 1984-09-04
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SAN DIEGO.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED IN THE VICINITY OF OLD TOWN, SAN DIEGO.

Ecological:

Threats:

General:

ALL SPECIMENS COLLECTED AT "SAN DIEGO." ONE MALE COLLECTED 28 OCT 1946 BY W. HAMILTON III (MVZ #106100). ANOTHER MALE COLLECTED 4 SEP 1984 BY D. CONSTANTINE (MVZ #181849). ALSO ONE UNDATED SPECIMEN COLLECTED BY L. HUEY (MSU #MR.500).

PLSS: T16S, R03W (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3624318 E481402
Latitude/Longitude: 32.75657 / -117.19854
Elevation (feet): 200

County Summary:

San Diego, Pacific Ocean

Quad Summary:

Point Loma (3211762), La Jolla (3211772)

Sources:

MAN04S0018 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF CHOERONYCTERIS MEXICANA SPECIMEN RECORDS FROM MANIS. THIS INCLUDES RECORDS FROM MVZ, LACM, CAS & MSU. 2004-12-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 59742
EO Index: 59778
Key Quad: La Jolla (3211772)
Element Code: AMACB02010
Occurrence Number: 10
Occurrence Last Updated: 2005-01-31

Scientific Name: *Choeronycteris mexicana*
Common Name: Mexican long-tongued bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3G4
State: S1
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened
WBWG_H-High Priority

General Habitat:

OCCASIONALLY FOUND IN SAN DIEGO COUNTY, WHICH IS ON THE PERIPHERY OF THEIR RANGE.

Micro Habitat:

FEEDS ON NECTAR AND POLLEN OF NIGHT-BLOOMING SUCCULENTS. ROOSTS IN RELATIVELY WELL-LIT CAVES, AND IN AND AROUND BUILDINGS.

Last Date Observed: 1946-09-26
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1946-09-26
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

ARCADIA DRIVE, SAN DIEGO. ABOUT 0.6 MILE WSW OF I-8 & CABRILLO FREEWAY INTERCHANGE.

Detailed Location:

Ecological:

Threats:

General:

ONE MALE SPECIMEN COLLECTED 26 SEP 1946 BY A. OLSEN AT "SAN DIEGO, ARCADIA DRIVE." DEPOSITED AT MVZ #106108.

PLSS: T16S, R03W, Sec. 27, NE (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3624343 E483798
Latitude/Longitude: 32.75683 / -117.17296
Elevation (feet): 175

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

MAN04S0018 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF CHOERONYCTERIS MEXICANA SPECIMEN RECORDS FROM MANIS. THIS INCLUDES RECORDS FROM MVZ, LACM, CAS & MSU. 2004-12-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 59745
EO Index: 59781
Key Quad: National City (3211761)
Element Code: AMACB02010
Occurrence Number: 11
Occurrence Last Updated: 2005-01-31

Scientific Name: *Choeronycteris mexicana*
Common Name: Mexican long-tongued bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3G4
State: S1
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened
WBWG_H-High Priority

General Habitat:

OCCASIONALLY FOUND IN SAN DIEGO COUNTY, WHICH IS ON THE PERIPHERY OF THEIR RANGE.

Micro Habitat:

FEEDS ON NECTAR AND POLLEN OF NIGHT-BLOOMING SUCCULENTS. ROOSTS IN RELATIVELY WELL-LIT CAVES, AND IN AND AROUND BUILDINGS.

Last Date Observed: 1946-10-08
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1946-10-08
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

GREENWOOD & MOUNT HOPE CEMETERIES. CEMETERIES ARE BOUNDED BY IMPERIAL AVE ON THE SOUTH & MARKET STREET ON THE NORTH.

Detailed Location:

CYPRESS VIEW MAUSOLEUM IS LOCATED ON THE GROUNDS OF GREENWOOD AND MOUNT HOPE CEMETERIES. MAPPED LOCATION OF MAUSOLEUM BASED ON LAT/LONG COORDINATES PROVIDED BY MANIS, WITH AN UNCERTAINTY OF 1055 METERS (ABOUT 0.65 MILE).

Ecological:

Threats:

General:

ONE MALE SPECIMEN COLLECTED 8 OCT 1946 BY A. OLSON AT "SAN DIEGO, CYPRESS VIEW MAUSOLEUM." DEPOSITED AT MVZ #106109.

PLSS: T17S, R02W, Sec. 08 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3619068 E489742
Latitude/Longitude: 32.70932 / -117.10944
Elevation (feet): 100

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

MAN04S0018 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF CHOERONYCTERIS MEXICANA SPECIMEN RECORDS FROM MANIS. THIS INCLUDES RECORDS FROM MVZ, LACM, CAS & MSU. 2004-12-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 59743
EO Index: 59779
Key Quad: La Jolla (3211772)
Element Code: AMACB02010
Occurrence Number: 12
Occurrence Last Updated: 2005-01-31

Scientific Name: *Choeronycteris mexicana*
Common Name: Mexican long-tongued bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3G4
State: S1
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened
WBWG_H-High Priority

General Habitat:
OCCASIONALLY FOUND IN SAN DIEGO COUNTY, WHICH IS ON THE PERIPHERY OF THEIR RANGE.

Micro Habitat:
FEEDS ON NECTAR AND POLLEN OF NIGHT-BLOOMING SUCCULENTS. ROOSTS IN RELATIVELY WELL-LIT CAVES, AND IN AND AROUND BUILDINGS.

Last Date Observed: 1946-09-18
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1946-09-18
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
HERMOSA WAY, SAN DIEGO. HERMOSA WAY IS LOCATED NORTH OF WEST MONTECITO WAY & SOUTH OF I-8.

Detailed Location:

Ecological:

Threats:

General:
ONE MALE AND ONE FEMALE COLLECTED 18 SEP 1946 BY A. OLSON AT "SAN DIEGO, HERMOSA WAY." DEPOSITED AT MVZ #106026 & 106027.

PLSS: T16S, R03W, Sec. 27 (S)
Accuracy: non-specific area
Area (acres): 24
UTM: Zone-11 N3624087 E483105
Latitude/Longitude: 32.75451 / -117.18035
Elevation (feet): 275

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

MAN04S0018 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF CHOERONYCTERIS MEXICANA SPECIMEN RECORDS FROM MANIS. THIS INCLUDES RECORDS FROM MVZ, LACM, CAS & MSU. 2004-12-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71823
Key Quad: Imperial Beach (3211751)
Occurrence Number: 14
EO Index: 72703
Element Code: AMACB02010
Occurrence Last Updated: 2011-08-19

Scientific Name: *Choeronycteris mexicana*
Common Name: Mexican long-tongued bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4
State: S1
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened
WBWG_H-High Priority

General Habitat:
OCCASIONALLY FOUND IN SAN DIEGO COUNTY, WHICH IS ON THE PERIPHERY OF THEIR RANGE.

Micro Habitat:
FEEDS ON NECTAR AND POLLEN OF NIGHT-BLOOMING SUCCULENTS. ROOSTS IN RELATIVELY WELL-LIT CAVES, AND IN AND AROUND BUILDINGS.

Last Date Observed: 2002-10-08
Last Survey Date: 2002-10-08
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
PENISULA OF SAN DIEGO, 1 MI SOUTH OF CORONADO CAYS.

Detailed Location:

Ecological:

Threats:

General:
12 BATS OBSERVED IN 3 ALCOVE-STYLE PORCHES IN DAY-SEARCH ROOST SURVEY. BATS ROOSTING IN FAIRLY OPEN, DIMLY LIT SITUATION. CAPTURED WITH A HAND NET.

PLSS: T18S, R02W, Sec. 07 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3608664 E487530
Latitude/Longitude: 32.61545 / -117.13290
Elevation (feet): 12

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

USG06D0001 U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER - BAT DETECTIONS FROM SAN DIEGO COUNTY, 2002-2006 2006-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68468
EO Index: 72904
Key Quad: La Mesa (3211771)
Element Code: AMACC01020
Occurrence Number: 216
Occurrence Last Updated: 2008-09-04

Scientific Name: *Myotis yumanensis*
Common Name: Yuma myotis

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S4
Other Lists: BLM_S-Sensitive
IUCN_LC-Least Concern
WBWG_LM-Low-Medium Priority

General Habitat:

OPTIMAL HABITATS ARE OPEN FORESTS AND WOODLANDS WITH SOURCES OF WATER OVER WHICH TO FEED.

Micro Habitat:

DISTRIBUTION IS CLOSELY TIED TO BODIES OF WATER. MATERNITY COLONIES IN CAVES, MINES, BUILDINGS OR CREVICES.

Last Date Observed: 2003-10-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-10-22
Occurrence Rank: Unknown
Owner/Manager: MISSION TRAILS RP
Trend: Unknown
Presence: Presumed Extant

Location:

MISSION TRAILS REGIONAL PARK, ABOUT 2 MI WNW OF COWLES MOUNTAIN.

Detailed Location:

Ecological:

ABANDONED ROCK QUARRIES. OPEN HABITAT WITH RIPARIAN AND COASTAL SAGE SCRUB. AREAS ADJACENT TO THE RIVER ARE DOMINATED BO OAK WOODLAND THAT TRANSITIONS QUICKLY INTO STEEP RUGGED SLOPES COVERED BY CHAPARRAL AND ROCKY OUTCROPS.

Threats:

General:

DETECTED WITH ANABAT DETECTORS ON 8 MAY, 30 JUL, 26 AUG & 24 OCT 2002 AND 6 MAR, 16 JUN, 5 AUG & 22 OCT 2003. CAPTURED IN MIST NEST 8 MAY 2002 & 22 OCT 2003. ALL DURING FORAGING BAT SURVEYS.

PLSS: T15S, R02W, Sec. 35 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3631409 E493941
Latitude/Longitude: 32.82067 / -117.06471
Elevation (feet): 170

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

STO03R0001	STOKES, D. ET AL. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - BAT INVENTORY OF THE SAN DIEGO COUNTY MULTIPLE SPECIES CONSERVATION PROGRAM AREA (INTERIM REPORT), 2003. [STO05R0001 FINAL REPORT] 2003-XX-XX
USG06D0001	U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER - BAT DETECTIONS FROM SAN DIEGO COUNTY, 2002-2006 2006-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 72002
EO Index: 72909
Key Quad: La Jolla (3211772)
Element Code: AMACC01020
Occurrence Number: 218
Occurrence Last Updated: 2008-09-04

Scientific Name: *Myotis yumanensis*
Common Name: Yuma myotis

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S4
Other Lists: BLM_S-Sensitive
IUCN_LC-Least Concern
WBWG_LM-Low-Medium Priority

General Habitat:

OPTIMAL HABITATS ARE OPEN FORESTS AND WOODLANDS WITH SOURCES OF WATER OVER WHICH TO FEED.

Micro Habitat:

DISTRIBUTION IS CLOSELY TIED TO BODIES OF WATER. MATERNITY COLONIES IN CAVES, MINES, BUILDINGS OR CREVICES.

Last Date Observed: 2002-05-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2002-05-16
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

SAN DIEGO RIVER, 0.83 MI NNW OF THE INTERSECTION OF QUALCOMM WAY & DE LA REINA, MISSION VALLEY.

Detailed Location:

LOCATION GIVEN AS "MISSION VALLEY (FIRST SAN DIEGO RIVER IMPROVEMENT PROJECT [FSDRIP]), SAN DIEGO RIVER". MAPPED ACCORDING TO LOCATION GIVEN IN BIOS.

Ecological:

Threats:

General:

BAT(S) DETECTED WITH ANABAT DETECTOR ON 16 MAY 2002 DURING A FORAGING BAT SURVEY. TADARIDA BRASILIENSIS ALSO DETECTED HERE.

PLSS: T16S, R03W, Sec. 24 (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3626142 E486824
Latitude/Longitude: 32.77310 / -117.14067
Elevation (feet): 40

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

STO03R0001	STOKES, D. ET AL. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - BAT INVENTORY OF THE SAN DIEGO COUNTY MULTIPLE SPECIES CONSERVATION PROGRAM AREA (INTERIM REPORT), 2003. [STO05R0001 FINAL REPORT] 2003-XX-XX
USG06D0001	U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER - BAT DETECTIONS FROM SAN DIEGO COUNTY, 2002-2006 2006-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 72022
EO Index: 72942
Key Quad: National City (3211761)
Element Code: AMACC01020
Occurrence Number: 232
Occurrence Last Updated: 2008-09-04

Scientific Name: *Myotis yumanensis*
Common Name: Yuma myotis

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S4
Other Lists: BLM_S-Sensitive
IUCN_LC-Least Concern
WBWG_LM-Low-Medium Priority

General Habitat:

OPTIMAL HABITATS ARE OPEN FORESTS AND WOODLANDS WITH SOURCES OF WATER OVER WHICH TO FEED.

Micro Habitat:

DISTRIBUTION IS CLOSELY TIED TO BODIES OF WATER. MATERNITY COLONIES IN CAVES, MINES, BUILDINGS OR CREVICES.

Last Date Observed: 2003-10-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-10-16
Occurrence Rank: Unknown
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:

MORRISON POND, SWEETWATER COUNTY PARK, SUNNYSIDE.

Detailed Location:

Ecological:

EPTESICUS FUSCUS, EUMOPS PEROTIS, NYCTINOMOPS FEMOROSACCUS & TADARIDA BRASILIENSIS ALSO DETECTED HERE.

Threats:

General:

BATS CAPTURED WITH MIST NETS ON 26 JUN AND DETECTED WITH ANABAT DETECTORS ON 26 JUN, 18 AUG & 16 OCT 2003 DURING FORAGING BAT SURVEYS. "OSSIFIED FINGER JOINTS/FUR, BONES JUVENILE" IN 26 JUN MIST NEST NOTES.

PLSS: T17S, R01W, Sec. 19 (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3614921 E497775
Latitude/Longitude: 32.67195 / -117.02372
Elevation (feet): 100

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

STO03R0001	STOKES, D. ET AL. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - BAT INVENTORY OF THE SAN DIEGO COUNTY MULTIPLE SPECIES CONSERVATION PROGRAM AREA (INTERIM REPORT), 2003. [STO05R0001 FINAL REPORT] 2003-XX-XX
USG06D0001	U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER - BAT DETECTIONS FROM SAN DIEGO COUNTY, 2002-2006 2006-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71870
EO Index: 74187
Key Quad: La Mesa (3211771)
Element Code: AMACC01020
Occurrence Number: 254
Occurrence Last Updated: 2008-12-23

Scientific Name: *Myotis yumanensis*
Common Name: Yuma myotis

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S4
Other Lists: BLM_S-Sensitive
IUCN_LC-Least Concern
WBWG_LM-Low-Medium Priority

General Habitat:

OPTIMAL HABITATS ARE OPEN FORESTS AND WOODLANDS WITH SOURCES OF WATER OVER WHICH TO FEED.

Micro Habitat:

DISTRIBUTION IS CLOSELY TIED TO BODIES OF WATER. MATERNITY COLONIES IN CAVES, MINES, BUILDINGS OR CREVICES.

Last Date Observed: 2003-10-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-10-22
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

SAN DIEGO R. MISSION TRAILS REGIONAL PARK, 0.56 MI NW OF INTERSECTION OF MISSION GORGE RD & FATHER JUNIPERO SERRA TRAIL.

Detailed Location:

Ecological:

RIPARIAN ZONE CONSISTS OF WILLOW, SYCAMORE AND COTTONWOOD. AREAS ADJACENT TO THE RIVER ARE DOMINATED BY OAK WOODLAND THAT TRANSITIONS QUICKLY INTO STEEP RUGGED SLOPES COVERED BY CHAPARRAL AND ROCKY OUTCROPS.

Threats:

General:

ANABAT: MAY, JUL, AUG, OCT '02 & MAR, JUN, OCT '03. MIST NET: MAY '02 & OCT '03. EPTESICUS FUSCUS, EUMOPS PEROTIS, LASIURUS BLOSSEVILLII, L. CINEREUS, NYCTINOMOPS FEMOROSACCUS, N. MACROTIS, PIPISTRELLUS HESPERUS & TADARIDA BRASILIENSIS TOO.

PLSS: T15S, R02W, Sec. 35 (S)
Accuracy: non-specific area
Area (acres): 21
UTM: Zone-11 N3631440 E493949
Latitude/Longitude: 32.82095 / -117.06464
Elevation (feet): 140

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

STO03R0001	STOKES, D. ET AL. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - BAT INVENTORY OF THE SAN DIEGO COUNTY MULTIPLE SPECIES CONSERVATION PROGRAM AREA (INTERIM REPORT), 2003. [STO05R0001 FINAL REPORT] 2003-XX-XX
USG06D0001	U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER - BAT DETECTIONS FROM SAN DIEGO COUNTY, 2002-2006 2006-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47531
Key Quad: Point Loma (3211762)
Occurrence Number: 68
EO Index: 68949
Element Code: AMACC02010
Occurrence Last Updated: 2007-03-20

Scientific Name: *Lasionycteris noctivagans*
Common Name: silver-haired bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4
State: S3S4
Rare Plant Rank:
Other Lists: IUCN_LC-Least Concern
WBWG_M-Medium Priority

General Habitat:
PRIMARILY A COASTAL AND MONTANE FOREST DWELLER, FEEDING OVER STREAMS, PONDS & OPEN BRUSHY AREAS.

Micro Habitat:
ROOSTS IN HOLLOW TREES, BENEATH EXFOLIATING BARK, ABANDONED WOODPECKER HOLES, AND RARELY UNDER ROCKS. NEEDS DRINKING WATER.

Last Date Observed: 1985-10-31
Last Survey Date: 1985-10-31
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
OCEAN BEACH.

Detailed Location:
MAPPED TO INCLUDE LAT/LONG COORDINATES PROVIDED BY MANIS, WITH UNCERTAINTY OF 321.8688 M.

Ecological:

Threats:

General:
1 MALE SPECIMEN (MVZ #181861) COLLECTED BY DENNY G. CONSTANTINE ON 31 OCT 1985.

PLSS: T16S, R04W, Sec. 36 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3623129 E476802
Latitude/Longitude: 32.74576 / -117.24761
Elevation (feet):

County Summary:
San Diego, Pacific Ocean

Quad Summary:
Point Loma (3211762), La Jolla (3211772)

Sources:

MAN04S0022 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF LASIONYCTERIS NOCTIVAGANS SPECIMEN RECORDS FROM MANIS. INCLUDES RECORDS FROM LACM, CAS, MSB & MVZ. 2004-12-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68466
Key Quad: Point Loma (3211762)
Occurrence Number: 70
EO Index: 68951
Element Code: AMACC02010
Occurrence Last Updated: 2007-03-20

Scientific Name: *Lasionycteris noctivagans*
Common Name: silver-haired bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4
State: S3S4
Rare Plant Rank:
Other Lists: IUCN_LC-Least Concern
WBWG_M-Medium Priority

General Habitat:
PRIMARILY A COASTAL AND MONTANE FOREST DWELLER, FEEDING OVER STREAMS, PONDS & OPEN BRUSHY AREAS.

Micro Habitat:
ROOSTS IN HOLLOW TREES, BENEATH EXFOLIATING BARK, ABANDONED WOODPECKER HOLES, AND RARELY UNDER ROCKS. NEEDS DRINKING WATER.

Last Date Observed: 1978-02-15
Last Survey Date: 1978-02-15
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SAN DIEGO.

Detailed Location:
MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY MANIS, WITH UNCERTAINTY OF 1000 M.

Ecological:

Threats:

General:
1 MALE SPECIMEN (MVZ #181863) COLLECTED BY DENNY G. CONSTANTINE ON 15 FEB 1978.

PLSS: T17S, R03W, Sec. 11 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3619708 E485384
Latitude/Longitude: 32.71505 / -117.15595
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

MAN04S0022 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF LASIONYCTERIS NOCTIVAGANS SPECIMEN RECORDS FROM MANIS. INCLUDES RECORDS FROM LACM, CAS, MSB & MVZ. 2004-12-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17693
Key Quad: Imperial Beach (3211751)
Occurrence Number: 104
EO Index: 68867
Element Code: AMACC05030
Occurrence Last Updated: 2007-03-19

Scientific Name: *Lasiurus cinereus*
Common Name: hoary bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4
State: S4

Rare Plant Rank:
Other Lists: IUCN_LC-Least Concern
WBWG_M-Medium Priority

General Habitat:

PREFERS OPEN HABITATS OR HABITAT MOSAICS, WITH ACCESS TO TREES FOR COVER AND OPEN AREAS OR HABITAT EDGES FOR FEEDING.

Micro Habitat:

ROOSTS IN DENSE FOLIAGE OF MEDIUM TO LARGE TREES. FEEDS PRIMARILY ON MOTHS. REQUIRES WATER.

Last Date Observed: 1990-10-24
Last Survey Date: 1990-10-24
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

IMPERIAL BEACH.

Detailed Location:

MAPPED TO INCLUDE LAT/LONG COORDINATES PROVIDED BY MANIS, WITH UNCERTAINTY OF 1126.5408 M.

Ecological:

Threats:

General:

1 MALE & 1 FEMALE SPECIMEN (MVZ #182412-182413) COLLECTED BY WILLIAM E. RAINEY ON 24 OCT 1990.

PLSS: T18S, R02W, Sec. 29 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3604660 E489427
Latitude/Longitude: 32.57934 / -117.11264
Elevation (feet):

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

MAN04S0029	MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF LASIURUS CINEREUS SPECIMENS FOR CALIFORNIA FROM MANIS. INCLUDES RECORDS FROM MVZ, CAS, MSB, LSU, KU, LACM, UWBM, FMNH AND TTU. 2004-12-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 00144
Key Quad: Point Loma (3211762)
Occurrence Number: 105

EO Index: 68868
Element Code: AMACC05030
Occurrence Last Updated: 2007-03-19

Scientific Name: *Lasiurus cinereus*
Common Name: hoary bat

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3G4
State: S4

Rare Plant Rank:

Other Lists: IUCN_LC-Least Concern
WBWG_M-Medium Priority

General Habitat:

PREFERS OPEN HABITATS OR HABITAT MOSAICS, WITH ACCESS TO TREES FOR COVER AND OPEN AREAS OR HABITAT EDGES FOR FEEDING.

Micro Habitat:

ROOSTS IN DENSE FOLIAGE OF MEDIUM TO LARGE TREES. FEEDS PRIMARILY ON MOTHS. REQUIRES WATER.

Last Date Observed: 1990-10-11
Last Survey Date: 1990-10-11
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SAN DIEGO ZOO, BALBOA PARK.

Detailed Location:

MAPPED TO INCLUDE LAT/LONG COORDINATES PROVIDED BY MANIS, WITH UNCERTAINTY OF 160.9344 M.

Ecological:

Threats:

General:

1 MALE SPECIMEN (MVZ #182414) COLLECTED BY WILLIAM E. RAINEY ON 11 OCT 1990.

PLSS: T16S, R03W, Sec. 36, SW (S)
UTM: Zone-11 N3622048 E485770

Accuracy: 1/5 mile
Latitude/Longitude: 32.73616 / -117.15188

Area (acres): 0
Elevation (feet): 300

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

MAN04S0029 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF LASIURUS CINEREUS SPECIMENS FOR CALIFORNIA FROM MANIS. INCLUDES RECORDS FROM MVZ, CAS, MSB, LSU, KU, LACM, UWBM, FMNH AND TTU. 2004-12-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71870
EO Index: 74188
Key Quad: La Mesa (3211771)
Element Code: AMACC05030
Occurrence Number: 238
Occurrence Last Updated: 2008-12-26

Scientific Name: *Lasiurus cinereus*
Common Name: hoary bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: IUCN_LC-Least Concern
WBWG_M-Medium Priority

CNDDB Element Ranks: **Global:** G3G4
State: S4

General Habitat:

PREFERS OPEN HABITATS OR HABITAT MOSAICS, WITH ACCESS TO TREES FOR COVER AND OPEN AREAS OR HABITAT EDGES FOR FEEDING.

Micro Habitat:

ROOSTS IN DENSE FOLIAGE OF MEDIUM TO LARGE TREES. FEEDS PRIMARILY ON MOTHS. REQUIRES WATER.

Last Date Observed: 2003-10-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-10-22
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

SAN DIEGO R. MISSION TRAILS REGIONAL PARK, 0.56 MI NW OF INTERSECTION OF MISSION GORGE RD & FATHER JUNIPERO SERRA TRAIL.

Detailed Location:

Ecological:

RIPARIAN ZONE CONSISTS OF WILLOW, SYCAMORE AND COTTONWOOD. AREAS ADJACENT TO THE RIVER ARE DOMINATED BY OAK WOODLAND THAT TRANSITIONS QUICKLY INTO STEEP RUGGED SLOPES COVERED BY CHAPARRAL AND ROCKY OUTCROPS.

Threats:

General:

DETECTED BY ANABAT DETECTOR ON 24 OCT 2002 & 22 OCT 2003. EPTESICUS FUSCUS, EUMOPS PEROTIS, LASIURUS BLOSSEVILLII, MYOTIS YUMANENSIS, NYCTINOMOPS FEMOROSACCUS, N. MACROTIS, PIPISTRELLUS HESPERUS & TADARIDA BRASILIENSIS ALSO DETECTED HERE.

PLSS: T15S, R02W, Sec. 35 (S)
Accuracy: non-specific area
Area (acres): 21
UTM: Zone-11 N3631440 E493949
Latitude/Longitude: 32.82095 / -117.06464
Elevation (feet): 140

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

STO03R0001	STOKES, D. ET AL. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - BAT INVENTORY OF THE SAN DIEGO COUNTY MULTIPLE SPECIES CONSERVATION PROGRAM AREA (INTERIM REPORT), 2003. [STO05R0001 FINAL REPORT] 2003-XX-XX
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Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71939
Key Quad: Point Loma (3211762)
Occurrence Number: 97
EO Index: 72815
Element Code: AMACC05060
Occurrence Last Updated: 2008-11-18

Scientific Name: *Lasiurus blossevillii*
Common Name: western red bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4
State: S3

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_H-High Priority

General Habitat:
ROOSTS PRIMARILY IN TREES, 2-40 FT ABOVE GROUND, FROM SEA LEVEL UP THROUGH MIXED CONIFER FORESTS.

Micro Habitat:
PREFERS HABITAT EDGES AND MOSAICS WITH TREES THAT ARE PROTECTED FROM ABOVE AND OPEN BELOW WITH OPEN AREAS FOR FORAGING.

Last Date Observed: 2002-08-14
Last Survey Date: 2002-08-14
Owner/Manager: DOD-NAVY
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
FORT ROSECRANS CEMETERY, JUST SW OF BENNINGTON MONUMENT, CABRILLO NATIONAL MONUMENT.

Detailed Location:

Ecological:
TADARIDA BRASILIENSIS ALSO DETECTED HERE.

Threats:

General:
BATS OBSERVED VISUALLY AND WITH ANABAT DETECTORS, DURING FORAGING BAT SURVEYS, ON 25 APR, 26 JUN & 14 AUG 2002.

PLSS: T17S, R04W, Sec. 24 (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3616811 E476965
Latitude/Longitude: 32.68876 / -117.24572
Elevation (feet): 380

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

STO03R0001	STOKES, D. ET AL. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - BAT INVENTORY OF THE SAN DIEGO COUNTY MULTIPLE SPECIES CONSERVATION PROGRAM AREA (INTERIM REPORT), 2003. [STO05R0001 FINAL REPORT] 2003-XX-XX
USG06D0001	U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER - BAT DETECTIONS FROM SAN DIEGO COUNTY, 2002-2006 2006-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 67254
Key Quad: Point Loma (3211762)
Occurrence Number: 98
EO Index: 72816
Element Code: AMACC05060
Occurrence Last Updated: 2008-09-04

Scientific Name: *Lasiurus blossevillii*
Common Name: western red bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4
State: S3
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_H-High Priority

General Habitat:
ROOSTS PRIMARILY IN TREES, 2-40 FT ABOVE GROUND, FROM SEA LEVEL UP THROUGH MIXED CONIFER FORESTS.

Micro Habitat:
PREFERS HABITAT EDGES AND MOSAICS WITH TREES THAT ARE PROTECTED FROM ABOVE AND OPEN BELOW WITH OPEN AREAS FOR FORAGING.

Last Date Observed: 2002-01-22
Last Survey Date: 2002-01-22
Owner/Manager: NPS-CABRILLO NM, DOD-NAVY
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
CABRILLO NATIONAL MONUMENT, JUST SE OF THE OLD LIGHTHOUSE, POINT LOMA.

Detailed Location:

Ecological:
NYCTINOMOPS MACROTIS ALSO FOUND HERE.

Threats:

General:
BAT(S) OBSERVED VISUALLY AND WITH AN ANABAT DETECTOR, DURING A ROOST SURVEY, ON 22 JAN 2002.

PLSS: T17S, R03W, Sec. 30 (S)
UTM: Zone-11 N3614807 E477561
Accuracy: 80 meters
Latitude/Longitude: 32.67070 / -117.23931
Area (acres): 0
Elevation (feet): 330

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

STO03R0001	STOKES, D. ET AL. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - BAT INVENTORY OF THE SAN DIEGO COUNTY MULTIPLE SPECIES CONSERVATION PROGRAM AREA (INTERIM REPORT), 2003. [STO05R0001 FINAL REPORT] 2003-XX-XX
USG06D0001	U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER - BAT DETECTIONS FROM SAN DIEGO COUNTY, 2002-2006 2006-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71940
EO Index: 72817
Key Quad: Point Loma (3211762)
Element Code: AMACC05060
Occurrence Number: 99
Occurrence Last Updated: 2008-09-04

Scientific Name: *Lasiurus blossevillii*
Common Name: western red bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_H-High Priority

CNDDB Element Ranks: **Global:** G4
State: S3

General Habitat:

ROOSTS PRIMARILY IN TREES, 2-40 FT ABOVE GROUND, FROM SEA LEVEL UP THROUGH MIXED CONIFER FORESTS.

Micro Habitat:

PREFERS HABITAT EDGES AND MOSAICS WITH TREES THAT ARE PROTECTED FROM ABOVE AND OPEN BELOW WITH OPEN AREAS FOR FORAGING.

Last Date Observed: 2002-08-01
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2002-08-01
Occurrence Rank: Unknown
Owner/Manager: NPS-CABRILLO NM, DOD-NAVY
Trend: Unknown
Presence: Presumed Extant

Location:

CABRILLO NATIONAL MONUMENT, JUST NE OF THE LIGHTHOUSE, POINT LOMA.

Detailed Location:

Ecological:

TADARIDA BRASILIENSIS ALSO DETECTED HERE.

Threats:

General:

BAT(S) DETECTED WITH AN ANABAT DETECTOR, DURING A FORAGING BAT SURVEY, ON 1 AUG 2002.

PLSS: T17S, R03W, Sec. 30 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3614265 E477300
Latitude/Longitude: 32.66580 / -117.24208
Elevation (feet): 80

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

STO03R0001	STOKES, D. ET AL. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - BAT INVENTORY OF THE SAN DIEGO COUNTY MULTIPLE SPECIES CONSERVATION PROGRAM AREA (INTERIM REPORT), 2003. [STO05R0001 FINAL REPORT] 2003-XX-XX
USG06D0001	U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER - BAT DETECTIONS FROM SAN DIEGO COUNTY, 2002-2006 2006-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71870
EO Index: 74189
Key Quad: La Mesa (3211771)
Element Code: AMACC05060
Occurrence Number: 113
Occurrence Last Updated: 2008-12-23

Scientific Name: *Lasiurus blossevillii*
Common Name: western red bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_H-High Priority

CNDDB Element Ranks: **Global:** G4
State: S3

General Habitat:

ROOSTS PRIMARILY IN TREES, 2-40 FT ABOVE GROUND, FROM SEA LEVEL UP THROUGH MIXED CONIFER FORESTS.

Micro Habitat:

PREFERS HABITAT EDGES AND MOSAICS WITH TREES THAT ARE PROTECTED FROM ABOVE AND OPEN BELOW WITH OPEN AREAS FOR FORAGING.

Last Date Observed: 2003-06-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-06-16
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

SAN DIEGO R. MISSION TRAILS REGIONAL PARK, 0.56 MI NW OF INTERSECTION OF MISSION GORGE RD & FATHER JUNIPERO SERRA TRAIL.

Detailed Location:

Ecological:

RIPARIAN ZONE CONSISTS OF WILLOW, SYCAMORE AND COTTONWOOD. AREAS ADJACENT TO THE RIVER ARE DOMINATED BY OAK WOODLAND THAT TRANSITIONS QUICKLY INTO STEEP RUGGED SLOPES COVERED BY CHAPARRAL AND ROCKY OUTCROPS.

Threats:

General:

DETECTED BY ANABAT DETECTOR ON 9 JAN & 16 JUN 2003. EPTESICUS FUSCUS, EUMOPS PEROTIS, LASIURUS CINEREUS, MYOTIS YUMANENSIS, NYCTINOMOPS FEMOROSACCUS, N. MACROTIS, PIPISTRELLUS HESPERUS & TADARIDA BRASILIENSIS ALSO DETECTED HERE.

PLSS: T15S, R02W, Sec. 35 (S)
Accuracy: non-specific area
Area (acres): 21
UTM: Zone-11 N3631440 E493949
Latitude/Longitude: 32.82095 / -117.06464
Elevation (feet):

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

STO03R0001	STOKES, D. ET AL. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - BAT INVENTORY OF THE SAN DIEGO COUNTY MULTIPLE SPECIES CONSERVATION PROGRAM AREA (INTERIM REPORT), 2003. [STO05R0001 FINAL REPORT] 2003-XX-XX
USG06D0001	U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER - BAT DETECTIONS FROM SAN DIEGO COUNTY, 2002-2006 2006-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04388
EO Index: 58964
Key Quad: La Mesa (3211771)
Element Code: AMACC05070
Occurrence Number: 49
Occurrence Last Updated: 2004-12-21

Scientific Name: *Lasiurus xanthinus*
Common Name: western yellow bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G4G5
State: S3
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_H-High Priority

General Habitat:

FOUND IN VALLEY FOOTHILL RIPARIAN, DESERT RIPARIAN, DESERT WASH, AND PALM OASIS HABITATS.

Micro Habitat:

ROOSTS IN TREES, PARTICULARLY PALMS. FORAGES OVER WATER AND AMONG TREES.

Last Date Observed: 1977-09-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1977-09-16
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

SPRING VALLEY, EAST OF SAN DIEGO.

Detailed Location:

EXACT LOCATION NOT KNOWN. MAPPED IN THE GENERAL VICINTY OF SPRING VALLEY.

Ecological:

Threats:

General:

ONE MALE SPECIMEN COLLECTED 16 SEP 1977 BY D. CONSTANTINE AT "SPRING VALLEY." DEPOSITED AT MVZ #181957.

PLSS: T16S, R01W, Sec. 29 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3624100 E499268
Latitude/Longitude: 32.75476 / -117.00781
Elevation (feet): 450

County Summary:

San Diego

Quad Summary:

Jamul Mountains (3211668), El Cajon (3211678), National City (3211761), La Mesa (3211771)

Sources:

MAN04S0014 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF LASIURUS XANTHINUS SPECIMEN RECORDS FROM MANIS. THIS INCLUDES RECORDS FROM LACM & MVZ. 2004-12-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03968
Key Quad: Point Loma (3211762)
Occurrence Number: 52
EO Index: 58972
Element Code: AMACC05070
Occurrence Last Updated: 2004-12-21

Scientific Name: *Lasiurus xanthinus*
Common Name: western yellow bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4G5
State: S3
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_H-High Priority

General Habitat:

FOUND IN VALLEY FOOTHILL RIPARIAN, DESERT RIPARIAN, DESERT WASH, AND PALM OASIS HABITATS.

Micro Habitat:

ROOSTS IN TREES, PARTICULARLY PALMS. FORAGES OVER WATER AND AMONG TREES.

Last Date Observed: 1985-03-19
Last Survey Date: 1985-03-19
Owner/Manager: CITY OF SAN DIEGO-BALBOA PARK
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

BALBOA PARK, SAN DIEGO.

Detailed Location:

LOCATION GIVEN ONLY AS SAN DIEGO. LAT/LONG COORDINATES PROVIDED BY MANIS ARE AT THE MAIN POST OFFICE. LOCATION UNCERTAINTY GIVEN AS 1000 M (0.62 MI). MAPPED IN THE VICINITY AT BALBOA PARK.

Ecological:

Threats:

General:

1 FEMALE SPECIMEN COLLECTED 19 MAR 1985 BY D. CONSTANTINE AT "SAN DIEGO." DEPOSITED AT MVZ #181956.

PLSS: T17S, R03W, Sec. 01 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3621430 E486333
Latitude/Longitude: 32.73059 / -117.14586
Elevation (feet): 200

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

MAN04S0014 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF LASIURUS XANTHINUS SPECIMEN RECORDS FROM MANIS. THIS INCLUDES RECORDS FROM LACM & MVZ. 2004-12-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 59059
Key Quad: El Cajon (3211678)
Occurrence Number: 54
EO Index: 59095
Element Code: AMACC05070
Occurrence Last Updated: 2004-12-31

Scientific Name: *Lasiurus xanthinus*
Common Name: western yellow bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4G5
State: S3
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_H-High Priority

General Habitat:
FOUND IN VALLEY FOOTHILL RIPARIAN, DESERT RIPARIAN, DESERT WASH, AND PALM OASIS HABITATS.

Micro Habitat:
ROOSTS IN TREES, PARTICULARLY PALMS. FORAGES OVER WATER AND AMONG TREES.

Last Date Observed: 1988-12-08
Last Survey Date: 1988-12-08
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
LA MESA.

Detailed Location:
EXACT LOCATION NOT KNOWN. MAPPED IN THE GENERAL VICINITY OF LA MESA.

Ecological:

Threats:

General:
1 MALE COLLECTED 7 JUL 1987 BY D. CONSTANTINE (MVZ #181954) & 1 FEMALE COLLECTED 8 DEC 1988 BY W. RAINEY (MVZ #182507).

PLSS: T16S, R01W, Sec. 09 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3628178 E500373
Latitude/Longitude: 32.79155 / -116.99600
Elevation (feet): 672

County Summary:
San Diego

Quad Summary:
El Cajon (3211678), La Mesa (3211771)

Sources:

MAN04S0014 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF LASIURUS XANTHINUS SPECIMEN RECORDS FROM MANIS. THIS INCLUDES RECORDS FROM LACM & MVZ. 2004-12-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 66252
Key Quad: Del Mar (3211782)
Occurrence Number: 39

EO Index: 66333
Element Code: AMACC07010
Occurrence Last Updated: 2006-09-20

Scientific Name: *Euderma maculatum*
Common Name: spotted bat

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G4
State: S3

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_H-High Priority

General Habitat:

OCCUPIES A WIDE VARIETY OF HABITATS FROM ARID DESERTS AND GRASSLANDS THROUGH MIXED CONIFER FORESTS.

Micro Habitat:

FEEDS OVER WATER AND ALONG WASHES. FEEDS ALMOST ENTIRELY ON MOTHS. NEEDS ROCK CREVICES IN CLIFFS OR CAVES FOR ROOSTING.

Last Date Observed: 1955-09-09
Last Survey Date: 1955-09-09
Owner/Manager: UC-SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

UNIVERSITY OF CALIFORNIA, SAN DIEGO CAMPUS.

Detailed Location:

SUC92U0001 GIVES SITE AS "UNIV OF SAN DIEGO" WHICH IS A PRIVATE SCHOOL, PIE98A0001 GIVES SITE AS "UNIV OF CALIFORNIA, SAN DIEGO CAMPUS" BUT LAT-LONG GIVEN IS FOR SAN DIEGO STATE UNIV. SAME COLLECTION DATE GIVEN. MAPPED AT UC SAN DIEGO.

Ecological:

Threats:

General:

MUSEUM SPECIMEN (MUSEUM NOT SPECIFIED) COLLECTED 9 SEP 1955.

PLSS: T15S, R03W, Sec. 07 (S)
UTM: Zone-11 N3637589 E477781

Accuracy: 2/5 mile
Latitude/Longitude: 32.87621 / -117.23751

Area (acres): 0
Elevation (feet): 50

County Summary:

San Diego

Quad Summary:

La Jolla (3211772), Del Mar (3211782)

Sources:

PIE98A0001 PIERSON, E. & W. RAINEY - DISTRIBUTION OF THE SPOTTED BAT, EUDERMA MACULATUM, IN CALIFORNIA. JOURNAL OF MAMMALOGY 79(4):1296-1305. 1998-XX-XX

SUC92U0001 SUCKLING, K. - HISTORIC SITES OF EUDERMA MACULATUM 1992-02-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 66592
EO Index: 66731
Key Quad: National City (3211761)
Element Code: AMACC10010
Occurrence Number: 264
Occurrence Last Updated: 2006-10-04

Scientific Name: *Antrozous pallidus*
Common Name: pallid bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G4
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
USFS_S-Sensitive
WBWG_H-High Priority

General Habitat:

DESERTS, GRASSLANDS, SHRUBLANDS, WOODLANDS AND FORESTS. MOST COMMON IN OPEN, DRY HABITATS WITH ROCKY AREAS FOR ROOSTING.

Micro Habitat:

ROOSTS MUST PROTECT BATS FROM HIGH TEMPERATURES. VERY SENSITIVE TO DISTURBANCE OF ROOSTING SITES.

Last Date Observed: 1946-07-02
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1946-07-02
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

CHULA VISTA.

Detailed Location:

COLLECTED AT BARN BETWEEN E AND F STREETS. MAPPED ACCORDING TO LAT/LONG COORDINATES GIVEN IN MANIS, WITH UNCERTAINTY OF 804.672 M.

Ecological:

Threats:

General:

2 MALE AND 1 FEMALE SPECIMEN COLLECTED BY PHILLIP H. KURTZSCH ON 2 JUL 1946, MVZ #106003-106005.

PLSS: T17S, R02W, Sec. 34 (S)
Accuracy: non-specific area
Area (acres): 209
UTM: Zone-11 N3611769 E492600
Latitude/Longitude: 32.64350 / -117.07888
Elevation (feet): 100

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

MAN04S0028 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF ANTROZOUS PALLIDUS SPECIMEN RECORDS FROM MANIS. INCLUDES RECORDS FROM MVZ, CAS, KU, UWBM, UMNH, LACM, MSB, FMNH, TTU, MSU. 2004-12-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 66606
EO Index: 66745
Key Quad: Imperial Beach (3211751)
Element Code: AMACC10010
Occurrence Number: 273
Occurrence Last Updated: 2006-10-04

Scientific Name: *Antrozous pallidus*
Common Name: pallid bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4
State: S3

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
USFS_S-Sensitive
WBWG_H-High Priority

General Habitat:
DESERTS, GRASSLANDS, SHRUBLANDS, WOODLANDS AND FORESTS. MOST COMMON IN OPEN, DRY HABITATS WITH ROCKY AREAS FOR ROOSTING.

Micro Habitat:
ROOSTS MUST PROTECT BATS FROM HIGH TEMPERATURES. VERY SENSITIVE TO DISTURBANCE OF ROOSTING SITES.

Last Date Observed: 1946-08-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1946-08-17
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
NESTOR, SOUTH BAY GRAMMAR SCHOOL.

Detailed Location:
MAPPED ACCORDING TO LAT/LONG COORDINATES GIVEN BY MANIS, WITH UNCERTAINTY OF 1609.344 M. MAPPED IN SOUTH SAN DIEGO AREA.

Ecological:

Threats:

General:
1 MALE SPECIMEN COLLECTED BY PHILIP H. KRUTZSCH ON 17 AUG 1946, MVZ #106009.

PLSS: T18S, R02W, Sec. 28 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3604473 E491166
Latitude/Longitude: 32.57767 / -117.09411
Elevation (feet): 30

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

MAN04S0028 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF ANTROZOUS PALLIDUS SPECIMEN RECORDS FROM MANIS. INCLUDES RECORDS FROM MVZ, CAS, KU, UWBM, UMNH, LACM, MSB, FMNH, TTU, MSU. 2004-12-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 66607
EO Index: 66746
Key Quad: Imperial Beach (3211751)
Element Code: AMACC10010
Occurrence Number: 274
Occurrence Last Updated: 2006-10-04

Scientific Name: *Antrozous pallidus*
Common Name: pallid bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G4
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
USFS_S-Sensitive
WBWG_H-High Priority

General Habitat:

DESERTS, GRASSLANDS, SHRUBLANDS, WOODLANDS AND FORESTS. MOST COMMON IN OPEN, DRY HABITATS WITH ROCKY AREAS FOR ROOSTING.

Micro Habitat:

ROOSTS MUST PROTECT BATS FROM HIGH TEMPERATURES. VERY SENSITIVE TO DISTURBANCE OF ROOSTING SITES.

Last Date Observed: 1946-08-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1946-08-17
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

NESTOR, SOUTHWESTERN JR. HIGH SCHOOL.

Detailed Location:

MAPPED ACCORDING TO LAT/LONG COORDINATES GIVEN IN MANIS, WITH UNCERTAINTY OF 80.4672 M. MAPPED IN SAN DIEGO AREA AT SOUTHWESTERN JR. HIGH SCHOOL.

Ecological:

Threats:

General:

1 FEMALE SPECIMEN COLLECTED BY PHILIP H. KRUTZSCH ON 17 AUG 1946, MVZ #106010.

PLSS: T18S, R02W, Sec. 27, SE (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3603573 E493244
Latitude/Longitude: 32.56956 / -117.07196
Elevation (feet): 60

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

MAN04S0028 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF ANTROZOUS PALLIDUS SPECIMEN RECORDS FROM MANIS. INCLUDES RECORDS FROM MVZ, CAS, KU, UWBM, UMNH, LACM, MSB, FMNH, TTU, MSU. 2004-12-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 66326
Key Quad: Point Loma (3211762)
Occurrence Number: 87
EO Index: 66419
Element Code: AMACD02011
Occurrence Last Updated: 2006-09-25

Scientific Name: *Eumops perotis californicus*
Common Name: western mastiff bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4G5T4
State: S3S4
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
WBWG_H-High Priority

General Habitat:
MANY OPEN, SEMI-ARID TO ARID HABITATS, INCLUDING CONIFER & DECIDUOUS WOODLANDS, COASTAL SCRUB, GRASSLANDS, CHAPARRAL, ETC.

Micro Habitat:
ROOSTS IN CREVICES IN CLIFF FACES, HIGH BUILDINGS, TREES AND TUNNELS.

Last Date Observed: 1989-11-08
Last Survey Date: 1989-11-08
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
HOTEL DEL CORONADO. CORONADO, NEAR SAN DIEGO.

Detailed Location:

Ecological:

Threats:

General:
1 FEMALE SPECIMEN COLLECTED BY D.G. CONSTANTINE ON 8 NOV 1989, LACM #94023.

PLSS: T17S, R03W, Sec. 22 (S)
UTM: Zone-11 N3615912 E483318
Accuracy: 1/5 mile
Latitude/Longitude: 32.68077 / -117.17793
Area (acres): 0
Elevation (feet): 25

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

MAN04S0027 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF EUMOPS PEROTIS CALIFORNICUS SPECIMEN RECORDS FROM MANIS. INCLUDES RECORDS FROM MVZ, CAS, TTU, ROM, LACM, KU, MSU AND FMNH. 2004-12-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 66328
EO Index: 66421
Key Quad: Imperial Beach (3211751)
Element Code: AMACD02011
Occurrence Number: 89
Occurrence Last Updated: 2006-09-26

Scientific Name: *Eumops perotis californicus*
Common Name: western mastiff bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G4G5T4
State: S3S4
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
WBWG_H-High Priority

General Habitat:

MANY OPEN, SEMI-ARID TO ARID HABITATS, INCLUDING CONIFER & DECIDUOUS WOODLANDS, COASTAL SCRUB, GRASSLANDS, CHAPARRAL, ETC.

Micro Habitat:

ROOSTS IN CREVICES IN CLIFF FACES, HIGH BUILDINGS, TREES AND TUNNELS.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

OTAY.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED IN THE GENERAL VICINITY OF OTAY.

Ecological:

Threats:

General:

1 FEMALE SPECIMEN COLLECTED BY E. HYATT, CAS #17446.

PLSS: T18S, R02W, Sec. 23 (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3606364 E493942
Latitude/Longitude: 32.59475 / -117.06454
Elevation (feet):

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

COC60A0001	COCKRUM, E.L. (UNIVERSITY OF ARIZONA) - DISTRIBUTION, HABITAT AND HABITS OF THE MASTIFF BAT, EUMOPS PEROTIS, IN NORTH AMERICA. 1960: JOURNAL OF THE ARIZONA ACADEMY OF SCIENCE, 1:79-84 1960-01-01
MAN04S0027	MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF EUMOPS PEROTIS CALIFORNICUS SPECIMEN RECORDS FROM MANIS. INCLUDES RECORDS FROM MVZ, CAS, TTU, ROM, LACM, KU, MSU AND FMNH. 2004-12-10
PIE98R0001	PIERSON, E. & W. RAINEY - DISTRIBUTION, HABITAT ASSOCIATIONS, STATUS AND SURVEY METHODOLOGIES FOR THREE MOLOSSID BAT SPECIES AND THE VESPERTILIONID. FINAL REPORT CAL FISH & GAME WILDLIFE MANAGEMENT DIVISION 1998-04-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 66391
EO Index: 66488
Key Quad: La Mesa (3211771)
Element Code: AMACD02011
Occurrence Number: 138
Occurrence Last Updated: 2006-09-25

Scientific Name: *Eumops perotis californicus*
Common Name: western mastiff bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G4G5T4
State: S3S4
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
WBWG_H-High Priority

General Habitat:

MANY OPEN, SEMI-ARID TO ARID HABITATS, INCLUDING CONIFER & DECIDUOUS WOODLANDS, COASTAL SCRUB, GRASSLANDS, CHAPARRAL, ETC.

Micro Habitat:

ROOSTS IN CREVICES IN CLIFF FACES, HIGH BUILDINGS, TREES AND TUNNELS.

Last Date Observed: 1995-05-30
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1995-05-30
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

MISSION GORGE.

Detailed Location:

MAPPED ACCORDING TO LAT/LONG COORDINATES GIVEN WHICH PUTS THE SITE JUST N OF HWY 8 IN MISSION GORGE AND ABOUT 0.5 MI NE OF HWY 8 JCT WITH HWY 805.

Ecological:

Threats:

General:

MULTIPLE INDIVIDUALS DETECTED 30 MAY 1995.

PLSS: T16S, R02W, Sec. 18, SE (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3626650 E488276
Latitude/Longitude: 32.77770 / -117.12518
Elevation (feet): 40

County Summary:

San Diego

Quad Summary:

La Mesa (3211771), La Jolla (3211772)

Sources:

PIE98R0001 PIERSON, E. & W. RAINEY - DISTRIBUTION, HABITAT ASSOCIATIONS, STATUS AND SURVEY METHODOLOGIES FOR THREE MOLOSSID BAT SPECIES AND THE VESPERTILIONID. FINAL REPORT CAL FISH & GAME WILDLIFE MANAGEMENT DIVISION 1998-04-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21364
Key Quad: La Mesa (3211771)
Occurrence Number: 178
EO Index: 66539
Element Code: AMACD02011
Occurrence Last Updated: 2006-09-26

Scientific Name: *Eumops perotis californicus*
Common Name: western mastiff bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4G5T4
State: S3S4
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
WBWG_H-High Priority

General Habitat:

MANY OPEN, SEMI-ARID TO ARID HABITATS, INCLUDING CONIFER & DECIDUOUS WOODLANDS, COASTAL SCRUB, GRASSLANDS, CHAPARRAL, ETC.

Micro Habitat:

ROOSTS IN CREVICES IN CLIFF FACES, HIGH BUILDINGS, TREES AND TUNNELS.

Last Date Observed: 1946-XX-XX
Last Survey Date: 1946-XX-XX
Owner/Manager: CSU-SAN DIEGO, PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SAN DIEGO.

Detailed Location:

SPECIFIC LOCATION UNKNOWN. MAPPED AT SAN DIEGO STATE UNIVERSITY ACCORDING TO LAT/LONG COORDINATES GIVEN BY PIERSON AND RAINEY.

Ecological:

Threats:

General:

SPECIMENS COLLECTED IN 1933 AND 1946, DEPOSITED AT SDNHM.

PLSS: T16S, R02W (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3626414 E493275
Latitude/Longitude: 32.77561 / -117.07180
Elevation (feet):

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

PIE98R0001 PIERSON, E. & W. RAINEY - DISTRIBUTION, HABITAT ASSOCIATIONS, STATUS AND SURVEY METHODOLOGIES FOR THREE MOLOSSID BAT SPECIES AND THE VESPERTILIONID. FINAL REPORT CAL FISH & GAME WILDLIFE MANAGEMENT DIVISION 1998-04-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03648
EO Index: 69221
Key Quad: Point Loma (3211762)
Element Code: AMACD02011
Occurrence Number: 200
Occurrence Last Updated: 2007-03-28

Scientific Name: *Eumops perotis californicus*
Common Name: western mastiff bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G4G5T4
State: S3S4
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
WBWG_H-High Priority

General Habitat:

MANY OPEN, SEMI-ARID TO ARID HABITATS, INCLUDING CONIFER & DECIDUOUS WOODLANDS, COASTAL SCRUB, GRASSLANDS, CHAPARRAL, ETC.

Micro Habitat:

ROOSTS IN CREVICES IN CLIFF FACES, HIGH BUILDINGS, TREES AND TUNNELS.

Last Date Observed: 1995-10-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1995-10-12
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVY, NPS-CABRILLO NM
Trend: Unknown
Presence: Presumed Extant

Location:

POINT LOMA.

Detailed Location:

SOURCE GIVES LOCALITY DESCRIPTIONS AS POINT LOMA, "CHILD CARE CENTER," "VETERANS CEMETERY," "CABRILLO MONUMENT," "VALLEY OF THE DRUMS," "TRANSDEC," "NRAD BAYSIDE," AND "BATTERY HUMPHREY."

Ecological:

BATS NOT DETECTED UNTIL AT LEAST 2 HOURS AFTER DARK, SUGGESTING THAT THEY MAY NOT ROOST ON THE PENINSULA.

Threats:

General:

2 BATS DETECTED ACOUSTICALLY 27 OCT 1993. TOTAL OF 6 BATS DETECTED ACOUSTICALLY 20-22 AUG 1994. 1 BAT DETECTED 3 JUL, 2 BATS DETECTED 4 JUL AND 2 BATS DETECTED ACOUSTICALLY 12 OCT 1995.

PLSS: T17S, R04W, Sec. 13 (S)
Accuracy: non-specific area
Area (acres): 1,127
UTM: Zone-11 N3617217 E476849
Latitude/Longitude: 32.69243 / -117.24697
Elevation (feet):

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

BRO97R0006 BROWN, P. & R. BERRY (BROWN-BERRY BIOLOGICAL CONSULTING) - BAT SURVEY OF DEPARTMENT OF NAVY FACILITIES ON POINT LOMA PENINSULA, CALIFORNIA 1997-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 72022
EO Index: 72995
Key Quad: National City (3211761)
Element Code: AMACD02011
Occurrence Number: 246
Occurrence Last Updated: 2008-09-04

Scientific Name: *Eumops perotis californicus*
Common Name: western mastiff bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G4G5T4
State: S3S4
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
WBWG_H-High Priority

General Habitat:

MANY OPEN, SEMI-ARID TO ARID HABITATS, INCLUDING CONIFER & DECIDUOUS WOODLANDS, COASTAL SCRUB, GRASSLANDS, CHAPARRAL, ETC.

Micro Habitat:

ROOSTS IN CREVICES IN CLIFF FACES, HIGH BUILDINGS, TREES AND TUNNELS.

Last Date Observed: 2003-10-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-10-16
Occurrence Rank: Unknown
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:

MORRISON POND, SWEETWATER COUNTY PARK, SUNNYSIDE.

Detailed Location:

Ecological:

EPTESICUS FUSCUS, MYOTIS YUMANENSIS, NYCTINOMOPS FEMOROSACCUS & TADARIDA BRASILIENSIS ALSO DETECTED HERE.

Threats:

General:

BATS DETECTED AUDIBLY ON 18 AUG & 16 OCT 2003 DURING FORAGING BAT SURVEYS.

PLSS: T17S, R01W, Sec. 19 (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3614921 E497775
Latitude/Longitude: 32.67195 / -117.02372
Elevation (feet): 100

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

STO03R0001	STOKES, D. ET AL. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - BAT INVENTORY OF THE SAN DIEGO COUNTY MULTIPLE SPECIES CONSERVATION PROGRAM AREA (INTERIM REPORT), 2003. [STO05R0001 FINAL REPORT] 2003-XX-XX
USG06D0001	U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER - BAT DETECTIONS FROM SAN DIEGO COUNTY, 2002-2006 2006-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	71870	**EO Index:**	73075
Key Quad:	La Mesa (3211771)	**Element Code:**	AMACD02011
Occurrence Number:	275	**Occurrence Last Updated:**	2008-11-19

Scientific Name: *Eumops perotis californicus*

Common Name: western mastiff bat

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

CNDDB Element Ranks: **Global:** G4G5T4

State: S3S4

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
WBWG_H-High Priority

General Habitat:

MANY OPEN, SEMI-ARID TO ARID HABITATS, INCLUDING CONIFER & DECIDUOUS WOODLANDS, COASTAL SCRUB, GRASSLANDS, CHAPARRAL, ETC.

Micro Habitat:

ROOSTS IN CREVICES IN CLIFF FACES, HIGH BUILDINGS, TREES AND TUNNELS.

Last Date Observed:	2003-10-22	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-10-22	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SAN DIEGO R. MISSION TRAILS REGIONAL PARK, 0.56 MI NW OF INTERSECTION OF MISSION GORGE RD & FATHER JUNIPERO SERRA TRAIL.

Detailed Location:

Ecological:

RIPARIAN ZONE CONSISTS OF WILLOW, SYCAMORE AND COTTONWOOD. AREAS ADJACENT TO THE RIVER ARE DOMINATED BY OAK WOODLAND THAT TRANSITIONS QUICKLY INTO STEEP RUGGED SLOPES COVERED BY CHAPARRAL AND ROCKY OUTCROPS.

Threats:

General:

DETECTED AUDIBLY 24 OCT 2002 & 22 OCT 2003 DURING FORAGING BAT SURVEYS. EPTESICUS FUSCUS, LASIURUS BLOSSEVILLII, L. CINEREUS, MYOTIS YUMANENSIS, NYCTINOMOPS FEMOROSACCUS, N. MACROTIS, PIPISTRELLUS HESPERUS, TADARIDA BRASILIENSIS ALSO FOUND.

PLSS:	T15S, R02W, Sec. 35 (S)	**Accuracy:**	non-specific area	**Area (acres):**	21
UTM:	Zone-11 N3631440 E493949	**Latitude/Longitude:**	32.82095 / -117.06464	**Elevation (feet):**	140

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

STO03R0001	STOKES, D. ET AL. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - BAT INVENTORY OF THE SAN DIEGO COUNTY MULTIPLE SPECIES CONSERVATION PROGRAM AREA (INTERIM REPORT), 2003. [STO05R0001 FINAL REPORT] 2003-XX-XX
USG06D0001	U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER - BAT DETECTIONS FROM SAN DIEGO COUNTY, 2002-2006 2006-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 43259
EO Index: 43259
Key Quad: National City (3211761)
Element Code: AMACD04010
Occurrence Number: 5
Occurrence Last Updated: 2007-03-07

Scientific Name: *Nyctinomops femorosaccus*
Common Name: pocketed free-tailed bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S3
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_M-Medium Priority

General Habitat:

VARIETY OF ARID AREAS IN SOUTHERN CALIFORNIA; PINE-JUNIPER WOODLANDS, DESERT SCRUB, PALM OASIS, DESERT WASH, DESERT RIPARIAN, ETC.

Micro Habitat:

ROCKY AREAS WITH HIGH CLIFFS.

Last Date Observed: 1997-02-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1997-02-12
Occurrence Rank: Unknown
Owner/Manager: SWEETWATER AUTHORITY
Trend: Unknown
Presence: Presumed Extant

Location:

JUST WEST OF SWEETWATER RESERVOIR DAM, EAST OF SAN DIEGO.

Detailed Location:

BATS OCCUPY SEVERAL ROCK CREVICE ROOSTS.

Ecological:

ROOST IS LOCATED WITHIN A ROCK QUARRY; COASTAL SAGE SCRUB DOMINATES ON THE SURROUNDING HILLSIDES AND WILLOW RIPARIAN IS FOUND WITHIN 100 YARDS OF THE ROOST.

Threats:

THREATENED BY A PROPOSED EXTENSION OF HIGHWAY 125.

General:

AN ESTIMATED 100 BATS OBSERVED EMERGING FROM 3 CREVICES, 29 APR 1994. 4 AD FEMALES/1 AD MALE CAPTURED (ESTIMATED >50), 27 MAY 1994. ESTIMATED 50 FROM 2 CREVICES, 17 JUL 1994. >15 PRESENT, 20 JAN 1996. 14 MERGED, MORE IN ROOST, 12 FEB 1997.

PLSS: T17S, R01W, Sec. 17, W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3617338 E498831
Latitude/Longitude: 32.69376 / -117.01247
Elevation (feet): 180

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

MIN00U0001 MINER, K.L. - SCIENTIFIC COLLECTING REPORT FOR YEARS JULY 1998 THROUGH JULY 2000. 2000-08-04

MIN99U0001 MINER, K.L. - FIELD SURVEY REPORT FOR MULTIPLE BAT SPECIES 1999-01-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 43261
EO Index: 43261
Key Quad: La Mesa (3211771)
Element Code: AMACD04010
Occurrence Number: 7
Occurrence Last Updated: 2000-07-20

Scientific Name: *Nyctinomops femorosaccus*
Common Name: pocketed free-tailed bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S3
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_M-Medium Priority

General Habitat:

VARIETY OF ARID AREAS IN SOUTHERN CALIFORNIA; PINE-JUNIPER WOODLANDS, DESERT SCRUB, PALM OASIS, DESERT WASH, DESERT RIPARIAN, ETC.

Micro Habitat:

ROCKY AREAS WITH HIGH CLIFFS.

Last Date Observed: 1995-05-30
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1995-05-30
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

MISSION GORGE, ON THE SAN DIEGO RIVER, SAN DIEGO.

Detailed Location:

ROOST SITE IS LOCATED IN AN ABANDONED GRANITE QUARRY. THIS SPECIES IS PRESENT YEAR-ROUND.

Ecological:

HABITAT SURROUNDING ROOST SITE CONSISTS OF COASTAL SAGE SCRUB ON THE HILLSIDES AND WILLOW/COTTONWOOD RIPARIAN WITHIN 50 METERS OF THE ROOST. OTHER SPECIES OF BATS ALSO UTILIZE THIS ROOST: TADARIDA BRASILIENSIS AND NYCTINOMOPS MACROTIS.

Threats:

THREATENED IN THE PAST BY PROPOSED EXTENSION OF JACKSON DRIVE & BY A WATER/SEWAGE CONVEYANCE.

General:

2 ADULT MALES, 5 JUVENILE FEMALES, AND 1 JUVENILE MALE CAPTURED, 27 NOV 1994. 5 ADULT FEMALES AND 1 ADULT MALE CAPTURED, 30 MAY 1995. TOTAL POPULATION ESTIMATED AT >100 INDIVIDUALS.

PLSS: T16S, R02W, Sec. 03 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3630389 E493176
Latitude/Longitude: 32.81147 / -117.07289
Elevation (feet): 150

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

MIN99U0001 MINER, K.L. - FIELD SURVEY REPORT FOR MULTIPLE BAT SPECIES 1999-01-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 43262
Key Quad: La Mesa (3211771)
Occurrence Number: 8
EO Index: 43262
Element Code: AMACD04010
Occurrence Last Updated: 2007-03-14

Scientific Name: *Nyctinomops femorosaccus*
Common Name: pocketed free-tailed bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S3

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_M-Medium Priority

General Habitat:
VARIETY OF ARID AREAS IN SOUTHERN CALIFORNIA; PINE-JUNIPER WOODLANDS, DESERT SCRUB, PALM OASIS, DESERT WASH, DESERT RIPARIAN, ETC.

Micro Habitat:
ROCKY AREAS WITH HIGH CLIFFS.

Last Date Observed: 2000-XX-XX
Last Survey Date: 2000-XX-XX
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
HIGH STREET QUARRY, 0.3 MILE WEST OF THE JUNCTION OF SPRING STREET AND HIGHWAY 94, LA MESA.

Detailed Location:
ROOST SITE IS LOCATED IN AN ABANDONED GRANITE QUARRY AND SEVERAL CREVICES ARE UTILIZED.

Ecological:
HABITAT SURROUNDING THE ROOST CONSISTS OF COASTAL SAGE SCRUB ON THE HILLSIDES.

Threats:
INCREASE OF HUMAN ACTIVITY NEAR ROOST.

General:
POPULATION IS ESTIMATED AT 50-100 INDIVIDUALS; IDENTIFICATION BASED ON VOCALIZATIONS AND FLIGHT PROFILE 27 FEB 1998. INDIVIDUAL(S) OBSERVED DURING SURVEY IN 2000.

PLSS: T16S, R01W, Sec. 30 (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3623831 E498253
Latitude/Longitude: 32.75234 / -117.01865
Elevation (feet): 600

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

ALL00U0001	ALLEN, D. - MEMORANDUM OF UNDERSTANDING REGARDING CALIFORNIA BATS: YEAR 2000 ANNUAL REPORT. 2000-XX-XX
MIN99U0001	MINER, K.L. - FIELD SURVEY REPORT FOR MULTIPLE BAT SPECIES 1999-01-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 72831
EO Index: 68725
Key Quad: National City (3211761)
Element Code: AMACD04010
Occurrence Number: 24
Occurrence Last Updated: 2008-11-10

Scientific Name: *Nyctinomops femorosaccus*
Common Name: pocketed free-tailed bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_M-Medium Priority

CNDDB Element Ranks: **Global:** G5
State: S3

General Habitat:

VARIETY OF ARID AREAS IN SOUTHERN CALIFORNIA; PINE-JUNIPER WOODLANDS, DESERT SCRUB, PALM OASIS, DESERT WASH, DESERT RIPARIAN, ETC.

Micro Habitat:

ROCKY AREAS WITH HIGH CLIFFS.

Last Date Observed: 1987-05-02
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1987-05-02
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

BONITA.

Detailed Location:

MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY MANIS, WITH UNCERTAINTY OF 160.9344 M (0.1 MI). BOTH 1987 COLLECTIONS AT "BONITA."

Ecological:

Threats:

General:

D. G. CONSTANTINE & C. J. CONROY COLLECTED 1 MALE (MVZ #200029) ON UNKNOWN DATE & 2 FEMALES (MVZ #181966-181967) ON 26 MAR & 2 MAY 1987.

PLSS: T17S, R01W, Sec. 30 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3613437 E496998
Latitude/Longitude: 32.65856 / -117.03200
Elevation (feet): 120

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

MAN05S0014	MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF NYCTINOMOPS FEMOROSACCUS SPECIMEN RECORDS FROM MANIS. INCLUDES RECORDS FROM LACM, MVZ, FMNH AND KU. 2005-01-06
STO03R0001	STOKES, D. ET AL. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - BAT INVENTORY OF THE SAN DIEGO COUNTY MULTIPLE SPECIES CONSERVATION PROGRAM AREA (INTERIM REPORT), 2003. [STO05R0001 FINAL REPORT] 2003-XX-XX
USG06D0001	U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER - BAT DETECTIONS FROM SAN DIEGO COUNTY, 2002-2006 2006-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 35040
Key Quad: National City (3211761)
Occurrence Number: 26
EO Index: 68727
Element Code: AMACD04010
Occurrence Last Updated: 2007-03-14

Scientific Name: *Nyctinomops femorosaccus*
Common Name: pocketed free-tailed bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S3
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_M-Medium Priority

General Habitat:
VARIETY OF ARID AREAS IN SOUTHERN CALIFORNIA; PINE-JUNIPER WOODLANDS, DESERT SCRUB, PALM OASIS, DESERT WASH, DESERT RIPARIAN, ETC.

Micro Habitat:
ROCKY AREAS WITH HIGH CLIFFS.

Last Date Observed: 1977-09-16
Last Survey Date: 1977-09-16
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
CHULA VISTA.

Detailed Location:
MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY MANIS, WITH UNCERTAINTY OF 1000 M (0.62 MI).

Ecological:

Threats:

General:
1 FEMALE SPECIMEN (MVZ #181969) COLLECTED AT "CHULA VISTA" BY DENNY G. CONSTANTINE ON 16 NOV 1983.

PLSS: T18S, R02W, Sec. 03 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3611389 E492160
Latitude/Longitude: 32.64007 / -117.08358
Elevation (feet): 70

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

MAN05S0014	MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF NYCTINOMOPS FEMOROSACCUS SPECIMEN RECORDS FROM MANIS. INCLUDES RECORDS FROM LACM, MVZ, FMNH AND KU. 2005-01-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 59549
Key Quad: La Jolla (3211772)
Occurrence Number: 27
EO Index: 68728
Element Code: AMACD04010
Occurrence Last Updated: 2007-03-14

Scientific Name: *Nyctinomops femorosaccus*
Common Name: pocketed free-tailed bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S3
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_M-Medium Priority

General Habitat:
VARIETY OF ARID AREAS IN SOUTHERN CALIFORNIA; PINE-JUNIPER WOODLANDS, DESERT SCRUB, PALM OASIS, DESERT WASH, DESERT RIPARIAN, ETC.

Micro Habitat:
ROCKY AREAS WITH HIGH CLIFFS.

Last Date Observed: 1983-11-16
Last Survey Date: 1983-11-16
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
CLAIREMONT.

Detailed Location:
MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY MANIS, WITH UNCERTAINTY OF 1609.344 M (1 MILE).

Ecological:

Threats:

General:
1 FEMALE SPECIMEN (MVZ #181970) COLLECTED AT "CLAIREMONT" BY DENNY G. CONSTANTINE ON 16 NOV 1983.

PLSS: T16S, R03W, Sec. 09 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3629169 E480791
Latitude/Longitude: 32.80031 / -117.20516
Elevation (feet): 240

County Summary:
San Diego, Pacific Ocean

Quad Summary:
La Jolla (3211772)

Sources:

MAN05S0014 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF NYCTINOMOPS FEMOROSACCUS SPECIMEN RECORDS FROM MANIS. INCLUDES RECORDS FROM LACM, MVZ, FMNH AND KU. 2005-01-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68465
Key Quad: La Jolla (3211772)
Occurrence Number: 32
EO Index: 68733
Element Code: AMACD04010
Occurrence Last Updated: 2007-03-27

Scientific Name: *Nyctinomops femorosaccus*
Common Name: pocketed free-tailed bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S3
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_M-Medium Priority

General Habitat:

VARIETY OF ARID AREAS IN SOUTHERN CALIFORNIA; PINE-JUNIPER WOODLANDS, DESERT SCRUB, PALM OASIS, DESERT WASH, DESERT RIPARIAN, ETC.

Micro Habitat:

ROCKY AREAS WITH HIGH CLIFFS.

Last Date Observed: 1987-01-10
Last Survey Date: 1987-01-10
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

LINDA VISTA.

Detailed Location:

MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY MANIS WITH UNCERTAINTY OF 160.9344 M (0.1 MI). MEASURMENTS NOTED BY MVZ AS BEING TAKEN IN MIDDLE OF TOWN & WAS NOT THE PRECISE COLLECTION LOCALITY, THEREFORE ALL OF LINDA VISTA IS MAPPED.

Ecological:

Threats:

General:

1 FEMALE SPECIMEN (MVZ #181974) RECEIVED BY DENNY G. CONSTANTINE FROM STATE AND COUNTY PUBLIC HEALTH DEPARTMENT. COLLECTED AT "LINDA VISTA" ON 10 JAN 1987.

PLSS: T16S, R03W, Sec. 14, NW (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3627458 E484290
Latitude/Longitude: 32.78493 / -117.16776
Elevation (feet): 340

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

MAN05S0014 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF NYCTINOMOPS FEMOROSACCUS SPECIMEN RECORDS FROM MANIS. INCLUDES RECORDS FROM LACM, MVZ, FMNH AND KU. 2005-01-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68466
Key Quad: Point Loma (3211762)
Occurrence Number: 34
EO Index: 68735
Element Code: AMACD04010
Occurrence Last Updated: 2007-03-14

Scientific Name: *Nyctinomops femorosaccus*
Common Name: pocketed free-tailed bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S3
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_M-Medium Priority

General Habitat:
VARIETY OF ARID AREAS IN SOUTHERN CALIFORNIA; PINE-JUNIPER WOODLANDS, DESERT SCRUB, PALM OASIS, DESERT WASH, DESERT RIPARIAN, ETC.

Micro Habitat:
ROCKY AREAS WITH HIGH CLIFFS.

Last Date Observed: 1991-01-25
Last Survey Date: 1991-01-25
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SAN DIEGO.

Detailed Location:
MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY MANIS, WITH UNCERTAINTY OF 1000 M.

Ecological:

Threats:

General:
1 MALE & 1 FEMALE SPECIMEN (MVZ #181976-181977) COLLECTED ON 12 OCT 1976 AND 29 APR 1982. 1 FEMALE SPECIMEN (LACM #94027) COLLECTED ON 25 JAN 1991. ALL COLLECTED AT "SAN DIEGO" BY DENNY G. CONSTANTINE.

PLSS: T17S, R03W, Sec. 11 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3619708 E485384
Latitude/Longitude: 32.71505 / -117.15595
Elevation (feet): 80

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

MAN05S0014 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF NYCTINOMOPS FEMOROSACCUS SPECIMEN RECORDS FROM MANIS. INCLUDES RECORDS FROM LACM, MVZ, FMNH AND KU. 2005-01-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68468
EO Index: 68738
Key Quad: La Mesa (3211771)
Element Code: AMACD04010
Occurrence Number: 37
Occurrence Last Updated: 2008-09-04

Scientific Name: *Nyctinomops femorosaccus*
Common Name: pocketed free-tailed bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S3
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_M-Medium Priority

General Habitat:

VARIETY OF ARID AREAS IN SOUTHERN CALIFORNIA; PINE-JUNIPER WOODLANDS, DESERT SCRUB, PALM OASIS, DESERT WASH, DESERT RIPARIAN, ETC.

Micro Habitat:

ROCKY AREAS WITH HIGH CLIFFS.

Last Date Observed: 2003-12-03
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-12-03
Occurrence Rank: Unknown
Owner/Manager: MISSION TRAILS RP
Trend: Unknown
Presence: Presumed Extant

Location:

MISSION TRAILS REGIONAL PARK, ABOUT 2 MI WNW OF COWLES MOUNTAIN.

Detailed Location:

2000 LOCATION MAPPED ACCORDING TO UTM COORDINATES PROVIDED BY SOURCE. DAY ROOST.

Ecological:

ABANDONED ROCK QUARRIES. OPEN HABITAT WITH RIPARIAN AND COASTAL SAGE SCRUB. AREAS ADJACENT TO THE RIVER ARE DOMINATED BO OAK WOODLAND THAT TRANSITIONS QUICKLY INTO STEEP RUGGED SLOPES COVERED BY CHAPARRAL AND ROCKY OUTCROPS.

Threats:

General:

INDIVDIUAL(S) OBSERVED DURING SURVEY IN 2000. BATS WERE DETECTED WITH AN ANABAT DETECTOR ON 8 MAY, 26 AUG, 24 OCT 2002, 9 JAN, 6, MAR, 16, JUN, 5 AUG, 22 OCT & 3 DEC 2003 DURING FORAGING BAT SURVEYS.

PLSS: T15S, R02W, Sec. 35 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3631409 E493941
Latitude/Longitude: 32.82067 / -117.06471
Elevation (feet): 170

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

ALL00U0001	ALLEN, D. - MEMORANDUM OF UNDERSTANDING REGARDING CALIFORNIA BATS: YEAR 2000 ANNUAL REPORT. 2000-XX-XX
STO03R0001	STOKES, D. ET AL. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - BAT INVENTORY OF THE SAN DIEGO COUNTY MULTIPLE SPECIES CONSERVATION PROGRAM AREA (INTERIM REPORT), 2003. [STO05R0001 FINAL REPORT] 2003-XX-XX
USG06D0001	U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER - BAT DETECTIONS FROM SAN DIEGO COUNTY, 2002-2006 2006-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 72022
Key Quad: National City (3211761)
Occurrence Number: 74
EO Index: 73702
Element Code: AMACD04010
Occurrence Last Updated: 2008-11-10

Scientific Name: *Nyctinomops femorosaccus*
Common Name: pocketed free-tailed bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S3
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_M-Medium Priority

General Habitat:
VARIETY OF ARID AREAS IN SOUTHERN CALIFORNIA; PINE-JUNIPER WOODLANDS, DESERT SCRUB, PALM OASIS, DESERT WASH, DESERT RIPARIAN, ETC.

Micro Habitat:
ROCKY AREAS WITH HIGH CLIFFS.

Last Date Observed: 2003-08-18
Last Survey Date: 2003-08-18
Owner/Manager: SDG COUNTY
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
MORRISON POND, SWEETWATER COUNTY PARK, SUNNYSIDE.

Detailed Location:

Ecological:
EPTESICUS FUSCUS, EUMOPS PEROTIS, MYOTIS YUMANENSIS & TADARIDA BRASILIENSIS ALSO DETECTED HERE.

Threats:

General:
BATS WERE DETECTED AUDIBLY AND WITH AN ANABAT DETECTOR ON 18 AUG 2003 DURING A FORAGING BAT SURVEY.

PLSS: T17S, R01W, Sec. 19 (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3614921 E497775
Latitude/Longitude: 32.67195 / -117.02372
Elevation (feet):

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

STO03R0001	STOKES, D. ET AL. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - BAT INVENTORY OF THE SAN DIEGO COUNTY MULTIPLE SPECIES CONSERVATION PROGRAM AREA (INTERIM REPORT), 2003. [STO05R0001 FINAL REPORT] 2003-XX-XX
USG06D0001	U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER - BAT DETECTIONS FROM SAN DIEGO COUNTY, 2002-2006 2006-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71870
EO Index: 74186
Key Quad: La Mesa (3211771)
Element Code: AMACD04010
Occurrence Number: 86
Occurrence Last Updated: 2008-12-23

Scientific Name: *Nyctinomops femorosaccus*
Common Name: pocketed free-tailed bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S3
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_M-Medium Priority

General Habitat:

VARIETY OF ARID AREAS IN SOUTHERN CALIFORNIA; PINE-JUNIPER WOODLANDS, DESERT SCRUB, PALM OASIS, DESERT WASH, DESERT RIPARIAN, ETC.

Micro Habitat:

ROCKY AREAS WITH HIGH CLIFFS.

Last Date Observed: 2003-12-03
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-12-03
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

SAN DIEGO R. MISSION TRAILS REGIONAL PARK, 0.56 MI NW OF INTERSECTION OF MISSION GORGE RD & FATHER JUNIPERO SERRA TRAIL.

Detailed Location:

Ecological:

RIPARIAN ZONE CONSISTS OF WILLOW, SYCAMORE AND COTTONWOOD. AREAS ADJACENT TO THE RIVER ARE DOMINATED BY OAK WOODLAND THAT TRANSITIONS QUICKLY INTO STEEP RUGGED SLOPES COVERED BY CHAPARRAL AND ROCKY OUTCROPS.

Threats:

General:

DETECTED BY ANABAT MAY, JUL, AUG, OCT '02 & JAN, MAR, JUN, AUG, OCT, DEC '03. EPTESICUS FUSCUS, EUMOPS PEROTIS, LASIURUS BLOSSEVILLII, L. CINEREUS, MYOTIS YUMANENSIS, NYCTINOMOPS MACROTIS, PIPISTRELLUS HESPERUS & TADARIDA BRASILIENSIS ALSO.

PLSS: T15S, R02W, Sec. 35 (S)
Accuracy: non-specific area
Area (acres): 21
UTM: Zone-11 N3631440 E493949
Latitude/Longitude: 32.82095 / -117.06464
Elevation (feet): 140

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

STO03R0001	STOKES, D. ET AL. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - BAT INVENTORY OF THE SAN DIEGO COUNTY MULTIPLE SPECIES CONSERVATION PROGRAM AREA (INTERIM REPORT), 2003. [STO05R0001 FINAL REPORT] 2003-XX-XX
USG06D0001	U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER - BAT DETECTIONS FROM SAN DIEGO COUNTY, 2002-2006 2006-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 59549
EO Index: 59585
Key Quad: La Jolla (3211772)
Element Code: AMACD04020
Occurrence Number: 11
Occurrence Last Updated: 2005-01-24

Scientific Name: *Nyctinomops macrotis*
Common Name: big free-tailed bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S3

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_MH-Medium-High Priority

General Habitat:
LOW-LYING ARID AREAS IN SOUTHERN CALIFORNIA.

Micro Habitat:
NEED HIGH CLIFFS OR ROCKY OUTCROPS FOR ROOSTING SITES. FEEDS PRINCIPALLY ON LARGE MOTHS.

Last Date Observed: 1981-10-23
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1981-10-23
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
CLAIREMONT.

Detailed Location:
EXACT LOCATION UNKNOWN. LOCATION ONLY GIVEN AS CLAIREMONT. MAPPED ACCORDING TO LAT / LONG COORDINATES PROVIDED BY MANIS. COORDINATES HAVE AN UNCERTAINTY OF 1609 METERS (ABOUT 1 MILE).

Ecological:

Threats:

General:
ONE MALE SPECIMEN COLLECTED 23 OCT 1981 BY D. CONSTANTINE AT "CLAIREMONT." DEPOSITED AT MVZ #181987.

PLSS: T16S, R03W, Sec. 09 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3629169 E480791
Latitude/Longitude: 32.80031 / -117.20516
Elevation (feet): 250

County Summary:
San Diego, Pacific Ocean

Quad Summary:
La Jolla (3211772)

Sources:

MAN05S0005 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF NYCTINOMOPS MACROTIS SPECIMEN RECORDS FROM MANIS. THIS INCLUDES RECORDS FROM LACM & MVZ. 2005-01-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 59059
EO Index: 59589
Key Quad: El Cajon (3211678)
Element Code: AMACD04020
Occurrence Number: 13
Occurrence Last Updated: 2005-01-24

Scientific Name: *Nyctinomops macrotis*
Common Name: big free-tailed bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S3
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_MH-Medium-High Priority

General Habitat:

LOW-LYING ARID AREAS IN SOUTHERN CALIFORNIA.

Micro Habitat:

NEED HIGH CLIFFS OR ROCKY OUTCROPS FOR ROOSTING SITES. FEEDS PRINCIPALLY ON LARGE MOTHS.

Last Date Observed: 1989-03-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1989-03-17
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

LA MESA.

Detailed Location:

EXACT LOCATION UNKNOWN. LOCATION ONLY GIVEN AS LA MESA. LAT / LONG COORDINATES PROVIDED BY MANIS FALL WITHIN THIS CIRCLE AND HAVE AN UNCERTAINTY OF 1609 METERS (ABOUT 1 MILE).

Ecological:

Threats:

General:

1 MALE SPECIMEN COLLECTED 17 MAR 1989 BY W. RAINEY AT "LA MESA." DEPOSITED AT MVZ #182483.

PLSS: T16S, R01W, Sec. 09 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3628178 E500373
Latitude/Longitude: 32.79155 / -116.99600
Elevation (feet): 670

County Summary:

San Diego

Quad Summary:

El Cajon (3211678), La Mesa (3211771)

Sources:

MAN05S0005 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF NYCTINOMOPS MACROTIS SPECIMEN RECORDS FROM MANIS. THIS INCLUDES RECORDS FROM LACM & MVZ. 2005-01-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 59555
Key Quad: La Mesa (3211771)
Occurrence Number: 15
EO Index: 59591
Element Code: AMACD04020
Occurrence Last Updated: 2005-01-24

Scientific Name: *Nyctinomops macrotis*
Common Name: big free-tailed bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S3
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_MH-Medium-High Priority

General Habitat:
LOW-LYING ARID AREAS IN SOUTHERN CALIFORNIA.

Micro Habitat:
NEED HIGH CLIFFS OR ROCKY OUTCROPS FOR ROOSTING SITES. FEEDS PRINCIPALLY ON LARGE MOTHS.

Last Date Observed: 1994-11-27
Last Survey Date: 1994-11-27
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
MISSION GORGE, SAN DIEGO COUNTY.

Detailed Location:

Ecological:

Threats:

General:
UNKNOWN NUMBER OF INDIVIDUALS ACOUSTICALLY IDENTIFIED USING THE ANABAT METHOD 27 NOV 1994. ALSO FROM AREA OF "MISSION GORGE," 1 UNKNOWN SPECIMEN COLLECTED 27 MAY 1991 BY B. ARNOLD & P. BROWN. DEPOSITED AT LACM #91712.

PLSS: T16S, R02W, Sec. 03 (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3630477 E493365
Latitude/Longitude: 32.81227 / -117.07086
Elevation (feet): 175

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

MAN05S0005	MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF NYCTINOMOPS MACROTIS SPECIMEN RECORDS FROM MANIS. THIS INCLUDES RECORDS FROM LACM & MVZ. 2005-01-06
PIE98R0001	PIERSON, E. & W. RAINEY - DISTRIBUTION, HABITAT ASSOCIATIONS, STATUS AND SURVEY METHODOLOGIES FOR THREE MOLOSSID BAT SPECIES AND THE VESPERTILIONID. FINAL REPORT CAL FISH & GAME WILDLIFE MANAGEMENT DIVISION 1998-04-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03968
EO Index: 59593
Key Quad: Point Loma (3211762)
Element Code: AMACD04020
Occurrence Number: 17
Occurrence Last Updated: 2005-01-24

Scientific Name: *Nyctinomops macrotis*
Common Name: big free-tailed bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S3
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_MH-Medium-High Priority

General Habitat:

LOW-LYING ARID AREAS IN SOUTHERN CALIFORNIA.

Micro Habitat:

NEED HIGH CLIFFS OR ROCKY OUTCROPS FOR ROOSTING SITES. FEEDS PRINCIPALLY ON LARGE MOTHS.

Last Date Observed: 1987-02-05
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1987-02-05
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO-BALBOA PARK
Trend: Unknown
Presence: Presumed Extant

Location:

BALBOA PARK, SAN DIEGO.

Detailed Location:

LOCATION GIVEN ONLY AS SAN DIEGO. LAT/LONG COORDINATES PROVIDED BY MANIS ARE AT THE MAIN POST OFFICE. LOCATION UNCERTAINTY GIVEN AS 1000 M (0.62 MI). MAPPED IN THE VICINITY AT BALBOA PARK.

Ecological:

Threats:

General:

1 F COLLECTED 13 DEC 1977 & 1 M COLLECTED 5 FEB 1987 BOTH BY D. CONSTANTINE AT "SAN DIEGO" (MVZ #181989&181990). SAN DIEGO MUSEUM OF NATURAL HISTORY ALSO HAS UNKNOWN NUMBER OF SPECIMENS COLLECTED 30 DEC 1930, FROM "BALBOA PARK, SAN DIEGO."

PLSS: T17S, R03W, Sec. 01 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3621430 E486333
Latitude/Longitude: 32.73059 / -117.14586
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

MAN05S0005	MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF NYCTINOMOPS MACROTIS SPECIMEN RECORDS FROM MANIS. THIS INCLUDES RECORDS FROM LACM & MVZ. 2005-01-06
PIE98R0001	PIERSON, E. & W. RAINEY - DISTRIBUTION, HABITAT ASSOCIATIONS, STATUS AND SURVEY METHODOLOGIES FOR THREE MOLOSSID BAT SPECIES AND THE VESPERTILIONID. FINAL REPORT CAL FISH & GAME WILDLIFE MANAGEMENT DIVISION 1998-04-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04388
Key Quad: La Mesa (3211771)
Occurrence Number: 18
EO Index: 59594
Element Code: AMACD04020
Occurrence Last Updated: 2005-01-24

Scientific Name: *Nyctinomops macrotis*
Common Name: big free-tailed bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S3

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_MH-Medium-High Priority

General Habitat:
LOW-LYING ARID AREAS IN SOUTHERN CALIFORNIA.

Micro Habitat:
NEED HIGH CLIFFS OR ROCKY OUTCROPS FOR ROOSTING SITES. FEEDS PRINCIPALLY ON LARGE MOTHS.

Last Date Observed: 1983-12-09
Last Survey Date: 1983-12-09
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SPRING VALLEY, EAST OF SAN DIEGO.

Detailed Location:
EXACT LOCATION NOT KNOWN. MAPPED IN THE GENERAL VICINTY OF SPRING VALLEY. LAT / LONG COORDINATES PROVIDED BY MANIS FALL WITHIN THIS CIRCLE AND HAVE AN UNCERTAINTY OF 1609 METERS (ABOUT 1 MILE).

Ecological:

Threats:

General:
ONE FEMALE SPECIMEN COLLECTED 9 DEC 1983 BY D. CONSTANTINE AT "SPRING VALLEY." DEPOSITED AT MVZ #181991.

PLSS: T16S, R01W, Sec. 29 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3624100 E499268
Latitude/Longitude: 32.75476 / -117.00781
Elevation (feet): 450

County Summary:
San Diego

Quad Summary:
Jamul Mountains (3211668), El Cajon (3211678), National City (3211761), La Mesa (3211771)

Sources:

MAN05S0005 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF NYCTINOMOPS MACROTIS SPECIMEN RECORDS FROM MANIS. THIS INCLUDES RECORDS FROM LACM & MVZ. 2005-01-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03611
EO Index: 59608
Key Quad: La Jolla (3211772)
Element Code: AMACD04020
Occurrence Number: 24
Occurrence Last Updated: 2005-01-24

Scientific Name: *Nyctinomops macrotis*
Common Name: big free-tailed bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S3
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_MH-Medium-High Priority

General Habitat:
LOW-LYING ARID AREAS IN SOUTHERN CALIFORNIA.

Micro Habitat:
NEED HIGH CLIFFS OR ROCKY OUTCROPS FOR ROOSTING SITES. FEEDS PRINCIPALLY ON LARGE MOTHS.

Last Date Observed: 1970-10-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1970-10-07
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
MISSION BEACH.

Detailed Location:
EXACT LOCATION UNKNOWN. LAT/LONG COORDINATES PROVIDED IN E. PIERSON & W. RAINEY'S REPORT FALL WITHIN THIS CIRCLE.

Ecological:

Threats:

General:
UNKNOWN NUMBER OF SPECIMENS COLLECTED 7 OCT 1970, DEPOSITED AT UNIVERSITY OF CALIFORNIA, SAN DIEGO.

PLSS: T16S, R04W, Sec. 13 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3626894 E476201
Latitude/Longitude: 32.77971 / -117.25413
Elevation (feet): 20

County Summary:
San Diego, Pacific Ocean

Quad Summary:
La Jolla (3211772)

Sources:

PIE98R0001 PIERSON, E. & W. RAINEY - DISTRIBUTION, HABITAT ASSOCIATIONS, STATUS AND SURVEY METHODOLOGIES FOR THREE MOLOSSID BAT SPECIES AND THE VESPERTILIONID. FINAL REPORT CAL FISH & GAME WILDLIFE MANAGEMENT DIVISION 1998-04-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	67254	**EO Index:**	72740
Key Quad:	Point Loma (3211762)	**Element Code:**	AMACD04020
Occurrence Number:	27	**Occurrence Last Updated:**	2008-09-04

Scientific Name: *Nyctinomops macrotis*

Common Name: big free-tailed bat

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_MH-Medium-High Priority

General Habitat:

LOW-LYING ARID AREAS IN SOUTHERN CALIFORNIA.

Micro Habitat:

NEED HIGH CLIFFS OR ROCKY OUTCROPS FOR ROOSTING SITES. FEEDS PRINCIPALLY ON LARGE MOTHS.

Last Date Observed:	2002-08-28	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2002-08-28	**Occurrence Rank:**	Unknown
Owner/Manager:	NPS-CABRILLO NM, DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

CABRILLO NATIONAL MONUMENT, JUST SE OF THE OLD LIGHTHOUSE, POINT LOMA.

Detailed Location:

Ecological:

LASIURUS BLOSSEVILLII ALSO FOUND HERE.

Threats:

General:

DETECTED AUDIBLY DURING A ROOST SURVEY. A SINGLE BAT, PRODUCING A FAINT, HIGH PITCH CHIRP WAS HEARD FLYING OVER EAST RIDGE AND THEN HEADING UP THE DRAW. SOUNDED TOO QUIET/HIGH PITCHED FOR EUMOPS BUT COULD BE INSTEAD OF NYMA.

PLSS:	T17S, R03W, Sec. 30 (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3614807 E477561	**Latitude/Longitude:**	32.67070 / -117.23931	**Elevation (feet):**	330

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

STO03R0001	STOKES, D. ET AL. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - BAT INVENTORY OF THE SAN DIEGO COUNTY MULTIPLE SPECIES CONSERVATION PROGRAM AREA (INTERIM REPORT), 2003. [STO05R0001 FINAL REPORT] 2003-XX-XX
USG06D0001	U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER - BAT DETECTIONS FROM SAN DIEGO COUNTY, 2002-2006 2006-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71870
EO Index: 72741
Key Quad: La Mesa (3211771)
Element Code: AMACD04020
Occurrence Number: 28
Occurrence Last Updated: 2008-11-19

Scientific Name: *Nyctinomops macrotis*
Common Name: big free-tailed bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S3
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_MH-Medium-High Priority

General Habitat:
LOW-LYING ARID AREAS IN SOUTHERN CALIFORNIA.

Micro Habitat:
NEED HIGH CLIFFS OR ROCKY OUTCROPS FOR ROOSTING SITES. FEEDS PRINCIPALLY ON LARGE MOTHS.

Last Date Observed: 2003-10-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-10-22
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
SAN DIEGO R. MISSION TRAILS REGIONAL PARK, 0.56 MI NW OF INTERSECTION OF MISSION GORGE RD & FATHER JUNIPERO SERRA TRAIL.

Detailed Location:

Ecological:
RIPARIAN ZONE CONSISTS OF WILLOW, SYCAMORE AND COTTONWOOD. AREAS ADJACENT TO THE RIVER ARE DOMINATED BY OAK WOODLAND THAT TRANSITIONS QUICKLY INTO STEEP RUGGED SLOPES COVERED BY CHAPARRAL AND ROCKY OUTCROPS.

Threats:

General:
DETECTED AUDIBLY 24 OCT 02, 9 JAN, 22 OCT 03. DETECTED BY ANABAT 9 JAN, 22 OCT 03. EPTESICUS FUSCUS, EUMOPS PEROTIS, LASIURUS BLOSSEVILLII & CINEREUS, MYOTIS YUMANENSIS, NYCTINOMOPS FEMOROSACCUS, PIPISTRELLUS HESPERUS&TADARIDA BRASILIENSIS.

PLSS: T15S, R02W, Sec. 35 (S)
Accuracy: non-specific area
Area (acres): 21
UTM: Zone-11 N3631440 E493949
Latitude/Longitude: 32.82095 / -117.06464
Elevation (feet): 140

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

STO03R0001	STOKES, D. ET AL. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - BAT INVENTORY OF THE SAN DIEGO COUNTY MULTIPLE SPECIES CONSERVATION PROGRAM AREA (INTERIM REPORT), 2003. [STO05R0001 FINAL REPORT] 2003-XX-XX
USG06D0001	U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER - BAT DETECTIONS FROM SAN DIEGO COUNTY, 2002-2006 2006-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 49644
EO Index: 49644
Key Quad: Imperial Beach (3211751)
Element Code: AMAEB03051
Occurrence Number: 25
Occurrence Last Updated: 2002-12-12

Scientific Name: *Lepus californicus bennettii*
Common Name: San Diego black-tailed jackrabbit

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3T4
State: S3S4

General Habitat:

INTERMEDIATE CANOPY STAGES OF SHRUB HABITATS & OPEN SHRUB / HERBACEOUS & TREE / HERBACEOUS EDGES.

Micro Habitat:

COASTAL SAGE SCRUB HABITATS IN SOUTHERN CALIFORNIA.

Last Date Observed: 2000-11-29
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2000-11-29
Occurrence Rank: Unknown
Owner/Manager: PVT-OTAY RANCH
Trend: Unknown
Presence: Presumed Extant

Location:

NORTH SIDE OF POGGI CANYON, EAST OF CHULA VISTA.

Detailed Location:

OTAY RANCH VILLAGE ONE WEST.

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB.

Threats:

THREAT CONSISTS OF DEVELOPMENT.

General:

UNKNOWN NUMBER OBS IN 2 LOCATIONS DURING CALIFORNIA GNATCATCHER SURVEYS, NOV 2000. CALIFORNIA GNATCATCHER, COASTAL CACTUS WREN, AMERICAN BADGER & BURROWING OWL IN VICINITY.

PLSS: T18S, R01W, Sec. 08 (S)
Accuracy: non-specific area
Area (acres): 17
UTM: Zone-11 N3608851 E498966
Latitude/Longitude: 32.61720 / -117.01102
Elevation (feet): 440

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

DUD01U0001 PRIEST, J. (DUDEK AND ASSOCIATES) - CALIFORNIA GNATCATCHER SURVEY FOR THE OTAY RANCH VILLAGE ONE WEST, SOUTH PLANNING AREA OF OTAY RANCH, CITY OF CHULA VISTA, SAN DIEGO, CALIFORNIA 2001-01-31

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	51264	**EO Index:**	51265
Key Quad:	Otay Mesa (3211658)	**Element Code:**	AMAEB03051
Occurrence Number:	30	**Occurrence Last Updated:**	2003-05-13

Scientific Name: *Lepus californicus bennettii* **Common Name:** San Diego black-tailed jackrabbit

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:** CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3T4

State: S3S4

General Habitat:

INTERMEDIATE CANOPY STAGES OF SHRUB HABITATS & OPEN SHRUB / HERBACEOUS & TREE / HERBACEOUS EDGES.

Micro Habitat:

COASTAL SAGE SCRUB HABITATS IN SOUTHERN CALIFORNIA.

Last Date Observed:	2002-04-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2002-04-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT-OTAY RANCH	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH OF POGGI CANYON, EXTENDING SOUTH ALONG WEST SIDE OF WOLF CANYON; EAST OF CHULA VISTA.

Detailed Location:

OTAY RANCH VILLAGE 2.

Ecological:

HABITAT ON PROJECT SITE CONSISTS PRIMARILY OF ANNUAL GRASSLANDS AND AGRICULTURAL FIELDS, BUT SIGNIFICANT PORTIONS DO SUPPORT COASTAL SAGE SCRUB. SMALL PORTIONS OF PROPERTY CONTAIN NATIVE GRASSLANDS AND MARITIME SUCCULENT SCRUB.

Threats:

THREAT CONSISTS OF DEVELOPMENT.

General:

UNKNOWN NUMBER DETECTED MAR-APR 2002 DURING CALIFORNIA GNATCATCHER SURVEYS.

PLSS:	T18S, R01W, Sec. 09 (S)	**Accuracy:**	non-specific area	**Area (acres):**	731
UTM:	Zone-11 N3608393 E500534	**Latitude/Longitude:**	32.61307 / -116.99430	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

DUD02U0004 DUDEK & ASSOCIATES, INC. - CALIFORNIA GNATCATCHER SURVEY FOR THE OTAY RANCH VILLAGE 2 PROJECT, CITY OF CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA 2002-05-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68223
EO Index: 68374
Key Quad: Point Loma (3211762)
Element Code: AMAEB03051
Occurrence Number: 73
Occurrence Last Updated: 2007-02-22

Scientific Name: *Lepus californicus bennettii*
Common Name: San Diego black-tailed jackrabbit

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3T4
State: S3S4

General Habitat:
INTERMEDIATE CANOPY STAGES OF SHRUB HABITATS & OPEN SHRUB / HERBACEOUS & TREE / HERBACEOUS EDGES.

Micro Habitat:
COASTAL SAGE SCRUB HABITATS IN SOUTHERN CALIFORNIA.

Last Date Observed: 2005-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DOD-NORTH ISLAND NAS
Trend: Unknown
Presence: Presumed Extant

Location:
NORTHWEST OF THE INTERSECTION OF S MOFFET RD & ROGERS RD. NORTH ISLAND NAVAL AIR STATION.

Detailed Location:

Ecological:
OPEN FIELD WITH RUDERAL VEGETATION.

Threats:

General:
NUMBER OBSERVED GIVEN AS 1, BUT NOTED AS BEING COMMON IN RUDERAL HABITAT.

PLSS: T17S, R03W, Sec. 16 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3617057 E480682
Latitude/Longitude: 32.69105 / -117.20607
Elevation (feet): 20

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
REC05D0002 RECON ENVIRONMENTAL, INC. - SHAPEFILES WITH SPECIES LOCATION DATA COLLECTED BY RECON FOR THE US NAVY AT NORTH ISLAND NAVAL AIR STATION (RECON PROJECT NUMBER 4050). 2005-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 79622
Key Quad: La Mesa (3211771)
Occurrence Number: 85
EO Index: 80613
Element Code: AMAEB03051
Occurrence Last Updated: 2010-08-16

Scientific Name: *Lepus californicus bennettii*
Common Name: San Diego black-tailed jackrabbit

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3T4
State: S3S4

General Habitat:
INTERMEDIATE CANOPY STAGES OF SHRUB HABITATS & OPEN SHRUB / HERBACEOUS & TREE / HERBACEOUS EDGES.

Micro Habitat:
COASTAL SAGE SCRUB HABITATS IN SOUTHERN CALIFORNIA.

Last Date Observed: 2007-04-XX
Last Survey Date: 2007-04-XX
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:
0.75 MI NW OF SIMEON DR AT FATHER JUNIPERO SERRA TRAIL, MISSION TRAILS REGIONAL PARK, 5.5 MI ESE OF MIRAMAR AIR STATION.

Detailed Location:
ALONG SOUTH SIDE OF TRANSMISSION LINE TL 639 AND JUST EAST OF OAK CANYON. MAPPED TO PROVIDED COORDINATES.

Ecological:
HABITAT CONSISTS OF COASTAL SAGE SCRUB AND CHAPARRAL RECOVERING FROM THE CEDAR FIRE OF 2003. COASTAL SCRUB IS PATCHY BUT CHAPARRAL IS RECOVERING WELL. PROTECTED OPEN SPACE PARK.

Threats:

General:
1 ADULT OBSERVED IN APRIL 2007.

PLSS: T15S, R02W, Sec. 25, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3634315 E495555
Latitude/Longitude: 32.84689 / -117.04749
Elevation (feet): 535

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:
FIS07F0021 FISCHER, K. - FIELD SURVEY FORM FOR LEPUS CALIFORNICUS BENNETTII 2007-04-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	51601	**EO Index:**	34873
Key Quad:	Imperial Beach (3211751)	**Element Code:**	AMAFD01042
Occurrence Number:	5	**Occurrence Last Updated:**	2004-03-19

Scientific Name: *Perognathus longimembris pacificus* **Common Name:** Pacific pocket mouse

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T1

State: S1

General Habitat:

INHABITS THE NARROW COASTAL PLAINS FROM THE MEXICAN BORDER NORTH TO EL SEGUNDO, LOS ANGELES COUNTY.

Micro Habitat:

SEEMS TO PREFER SOILS OF FINE ALLUVIAL SANDS NEAR THE OCEAN, BUT MUCH REMAINS TO BE LEARNED.

Last Date Observed:	1932-08-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2002-08-17	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Extirpated		

Location:

LOWER TIJUANA RIVER VALLEY, JUST NORTH OF THE MEXICAN BORDER.

Detailed Location:

COLLECTION LOCATIONS INCLUDE: 2 MILES NORTH OF MONUMENT 258, 2 MILES NORTH OF MEXICAN BOUNDARY, TIJUANA R VALLEY FIELD, NEAR MOUTH OF TIJUANA R, & MONUMENT 258. 2002: NAVAL OUTLYING LANDING FIELDS (NOLF) IMPERIAL BEACH.

Ecological:

2002: COASTAL SAGE SCRUB, RIPARIAN FOREST, SALT MARSH RIPARIAN SCRUB. TRAPS WERE SET IN HIGH POTENTIAL HABITAT.

Threats:

General:

HISTORIC SITE. 134 SPECIMENS WERE COLLECTED BETWEEN JUL 1894 AND AUG 1932; DEPOSITED AT LACM, MVZ (#47312-18 COLLECTED BETWEEN 5 & 10 AUG 1931 BY F. STEPHENS), SBMNH, US, AND SDNHM. 8/12-17/2002: NONE CAPTURED IN 1450 TRAP-NIGHTS.

PLSS:	T18S, R02W, Sec. 31 (S)	**Accuracy:**	non-specific area	**Area (acres):**	1,936
UTM:	Zone-11 N3602130 E488786	**Latitude/Longitude:**	32.55652 / -117.11944	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

DOD02F0004	DODD, S.C. (S.C. DODD BIOLOGICAL CONSULTING) - FIELD SURVEY FORM FOR PEROGNATHUS LONGIMEMBRIS PACIFICUS 2002-08-17
DOD03R0001	DODD, S.C. (S.C. DODD BIOLOGICAL CONSULTING) - SMALL MAMMAL TRAPPING ON THE NAVAL OUTLYING LANDING FIELDS ON THE TIJUANA RIVER, IMPERIAL BEACH, CALIFORNIA. 2003-04-18
ERI93R0001	ERICKSON, R.A. - PACIFIC POCKET MOUSE; DRAFT MANUSCRIPT PREPARED FOR INCLUSION IN "ENDANGERED RODENTS OF THE WORLD," TO BE PUBLISHED BY IUCN. 1993-XX-XX
FWS97R0004	U.S. FISH & WILDLIFE SERVICE - DRAFT RECOVERY PLAN FOR THE PACIFIC POCKET MOUSE (PEROGNATHUS LONGIMEMBRIS PACIFICUS) 1997-XX-XX
MVZ03S0004	MUSEUM OF VERTEBRATE ZOOLOGY (UNIVERSITY OF CALIFORNIA, BERKELEY) - PRINTOUT OF MVZ SPECIMEN DATABASE FOR PEROGNATHUS LONGIMEMBRIS PACIFICUS. 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 43870
EO Index: 43870
Key Quad: La Mesa (3211771)
Element Code: AMAFD05021
Occurrence Number: 5
Occurrence Last Updated: 2000-09-27

Scientific Name: *Chaetodipus californicus femoralis*
Common Name: Dulzura pocket mouse

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:
VARIETY OF HABITATS INCLUDING COASTAL SCRUB, CHAPARRAL & GRASSLAND IN SAN DIEGO COUNTY.

Micro Habitat:
ATTRACTED TO GRASS-CHAPARRAL EDGES.

Last Date Observed: 1994-08-01
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1994-08-01
Occurrence Rank: Fair
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
N OF MISSION GORGE. 2.4 MI NW OF COWLES MTN. APRROX. 4 MI N OF SAN DIEGO STATE COLLEGE, APPROX 0.8 MI S OF FORTUNA MNT.

Detailed Location:

Ecological:
ERIOGONUM AND ADENOSTOMA ARE DOMINANTS.

Threats:
AREA RECENTLY RAKED FOR ORDINANCE DISPOSAL.

General:
1 INDIVIDUAL REPORTED AT THIS SITE IN 1994.

PLSS: T15S, R02W, Sec. 26 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3633016 E494142
Latitude/Longitude: 32.83518 / -117.06259
Elevation (feet): 500

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
TRE94F0008 TREMOR, S. - FIELD SURVEY FORM FOR CHAETODIPUS CALIFORNICUS FEMORALIS 1994-08-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 38505
EO Index: 33512
Key Quad: La Mesa (3211771)
Element Code: AMAFD05031
Occurrence Number: 11
Occurrence Last Updated: 1998-03-30

Scientific Name: *Chaetodipus fallax fallax*
Common Name: northwestern San Diego pocket mouse

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3T4
State: S3S4

General Habitat:
COASTAL SCRUB, CHAPARRAL, GRASSLANDS, SAGEBRUSH, ETC. IN WESTERN SAN DIEGO COUNTY.

Micro Habitat:
SANDY, HERBACEOUS AREAS, USUALLY IN ASSOCIATION WITH ROCKS OR COARSE GRAVEL.

Last Date Observed: 1994-08-29
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1994-08-29
Occurrence Rank: Good
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
SHEPHERD CANYON, 3.7 MILES NW OF COWLES MTN & 2 MILES ENE OF INTERSECTION OF HIGHWAY 15 & CLAIRMONT MESA BLVD.

Detailed Location:
0.75 MILE SOUTH OF MIRAMAR NAVAL AIR STATION BOUNDARY.

Ecological:
SPARSE CHAMISE CHAPARRAL, CURRENT LAND USE IS OPEN SPACE.

Threats:

General:
1 CAPTURED, 1994.

PLSS: T15S, R02W, Sec. 28 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3633677 E491967
Latitude/Longitude: 32.84112 / -117.08583
Elevation (feet): 440

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
TRE94F0005 TREMOR, S. - FIELD SURVEY FORM FOR CHAETODIPUS FALLAX FALLAX 1994-08-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 38506
EO Index: 33513
Key Quad: La Mesa (3211771)
Element Code: AMAFD05031
Occurrence Number: 12
Occurrence Last Updated: 1998-03-30

Scientific Name: *Chaetodipus fallax fallax*
Common Name: northwestern San Diego pocket mouse

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3T4
State: S3S4

General Habitat:
COASTAL SCRUB, CHAPARRAL, GRASSLANDS, SAGEBRUSH, ETC. IN WESTERN SAN DIEGO COUNTY.

Micro Habitat:
SANDY, HERBACEOUS AREAS, USUALLY IN ASSOCIATION WITH ROCKS OR COARSE GRAVEL.

Last Date Observed: 1994-05-05
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1994-05-05
Occurrence Rank: Fair
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
SPRING CANYON, 0.8 MILE NW JUNCTION OF FR JUNIPERO SERRA TRAIL & MISSION GORGE RD IN SANTEE. 2.4 MILES N OF COWLES MTN.

Detailed Location:
MISSION TRAILS REGIONAL PARK, LOWER SPRING CANYON.

Ecological:
COASTAL SAGE SCRUB, AREA FLAT, LAKE NEARBY. SURROUNDING LAND USE - OPEN SPACE.

Threats:
PROPOSED EQUESTRIAN CENTER.

General:
1 CAPTURED, 1994.

PLSS: T15S, R02W, Sec. 25 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3634387 E496455
Latitude/Longitude: 32.84755 / -117.03788
Elevation (feet): 340

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

MON94R0001	MONTGOMERY, S.J. - FIELD SURVEY FORMS AND REPORT: TRAPPING AND HABITAT ASSESSMENT SURVEY FOR STEPHENS' KANGAROO RATS, SAN BERNARDINO KANGAROO RATS & LOS ANGELES POCKET MICE, ALONG STATE HWY 79. 1994-10-30
TRE94F0006	TREMOR, S. - FIELD SURVEY FORM FOR CHAETODIPUS FALLAX FALLAX 1994-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	54751	**EO Index:**	54751
Key Quad:	Imperial Beach (3211751)	**Element Code:**	AMAFD05031
Occurrence Number:	35	**Occurrence Last Updated:**	2004-03-19

Scientific Name: *Chaetodipus fallax fallax*

Common Name: northwestern San Diego pocket mouse

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3T4

State: S3S4

General Habitat:

COASTAL SCRUB, CHAPARRAL, GRASSLANDS, SAGEBRUSH, ETC. IN WESTERN SAN DIEGO COUNTY.

Micro Habitat:

SANDY, HERBACEOUS AREAS, USUALLY IN ASSOCIATION WITH ROCKS OR COARSE GRAVEL.

Last Date Observed:	2002-08-17	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2002-08-17	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NAVAL OUTLYING LANDING FIELDS (NOLF), IMPERIAL BEACH.

Detailed Location:

11 TRAPLINES SET, MICE CAPTURED ONLY IN TRAPLINES 1 (1 CAPTURE) AND 3 (6 CAPTURES).

Ecological:

RIPARIAN FOREST / SCRUB DOMINATED BY MULEFAT & WILLOWS. COARSE & SANDY LOAM ALLUVIAL SOILS. DENSE RESIDENTIAL TO NORTH, OPEN SPACE, LIGHT RESIDENTIAL & AG TO EAST & SOUTH.

Threats:

General:

7 CAPTURED IN 1450 TRAP-NIGHTS. SURVEY CONDUCTED AS PART OF THE NATURAL RESOURCE INVENTORY ON THE NAVAL OUTLYING LANDING FIELDS (NOLF).

PLSS:	T18S, R02W, Sec. 32 (S)	**Accuracy:**	non-specific area	**Area (acres):**	558
UTM:	Zone-11 N3602894 E489373	**Latitude/Longitude:**	32.56341 / -117.11320	**Elevation (feet):**	25

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

DOD02F0007	DODD, S.C. (S.C. DODD BIOLOGICAL CONSULTING) - FIELD SURVEY FORM FOR CHAETODIPUS FALLAX FALLAX 2002-08-17
DOD03R0001	DODD, S.C. (S.C. DODD BIOLOGICAL CONSULTING) - SMALL MAMMAL TRAPPING ON THE NAVAL OUTLYING LANDING FIELDS ON THE TIJUANA RIVER, IMPERIAL BEACH, CALIFORNIA. 2003-04-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 50457
EO Index: 57537
Key Quad: Imperial Beach (3211751)
Element Code: AMAFD05031
Occurrence Number: 40
Occurrence Last Updated: 2004-10-20

Scientific Name: *Chaetodipus fallax fallax*
Common Name: northwestern San Diego pocket mouse

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3T4
State: S3S4

General Habitat:
COASTAL SCRUB, CHAPARRAL, GRASSLANDS, SAGEBRUSH, ETC. IN WESTERN SAN DIEGO COUNTY.

Micro Habitat:
SANDY, HERBACEOUS AREAS, USUALLY IN ASSOCIATION WITH ROCKS OR COARSE GRAVEL.

Last Date Observed: 1993-04-23
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1993-04-23
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
CALIFORNIA TERRACES, SAN DIEGO.

Detailed Location:

Ecological:

Threats:

General:
3 FEMALES CAPTURED/RELEASED 14 APR 1993, 2 MALES CAPTURED/RELEASED 15 APR 1993, 1 FEMALE CAPTURED/RELEASED 16 APR 1993, 1 MALE CAPTURED/RELEASED 23 APR 1993.

PLSS: T18S, R01W, Sec. 29 (S)
Accuracy: non-specific area
Area (acres): 702
UTM: Zone-11 N3604280 E499490
Latitude/Longitude: 32.57597 / -117.00543
Elevation (feet): 500

County Summary:
San Diego

Quad Summary:
Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

NEW93U0001 NEWMAN, J.M. - SCIENTIFIC COLLECTING PERMIT REPORT FOR SMALL MAMMAL CAPTURES DURING 1993 IN SAN DIEGO COUNTY. 1993-06-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	57523	**EO Index:**	57539
Key Quad:	Point Loma (3211762)	**Element Code:**	AMAFD05031
Occurrence Number:	41	**Occurrence Last Updated:**	2004-10-20

Scientific Name: *Chaetodipus fallax fallax*

Common Name: northwestern San Diego pocket mouse

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3T4

State: S3S4

General Habitat:

COASTAL SCRUB, CHAPARRAL, GRASSLANDS, SAGEBRUSH, ETC. IN WESTERN SAN DIEGO COUNTY.

Micro Habitat:

SANDY, HERBACEOUS AREAS, USUALLY IN ASSOCIATION WITH ROCKS OR COARSE GRAVEL.

Last Date Observed:	2002-08-31	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2002-08-31	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

LOCATED IN POINT LOMA AT SUNSET CLIFFS SHORELINE PARK.

Detailed Location:

TRAPPING CONDUCTED WITHIN THE HILLSIDE PARK SECTION.

Ecological:

DISTURBED DENSE COASTAL SAGE SCRUB WITH A DENSE UNDERSTORY OF EXOTIC LANDSCAPING MOVING IN FROM EDGES. SUBSTRATE IN THIS AREA IS HIGH QUALITY LOOSELY PACKED FINE SANDY LOAM.

Threats:

LOTS OF FOOT TRAFFIC AND DOG WALKING ACTIVITY.

General:

3 INDIVIDUALS CAUGHT 27 AUG 2002, 2 INDIVIDUALS CAUGHT 28 AUG 2002, 2 INDIVIDUALS CAUGHT 29 AUG 2002, 1 INDIVIDUAL CAUGHT 30 AUG 2002, 2 INDIVIDUALS CAUGHT 31 AUG 2002. 375 TOTAL TRAP-NIGHTS.

PLSS:	T17S, R04W, Sec. 12 (S)	**Accuracy:**	non-specific area	**Area (acres):**	11
UTM:	Zone-11 N3620051 E476231	**Latitude/Longitude:**	32.71798 / -117.25363	**Elevation (feet):**	270

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

DOD02F0008	DODD, S. (S.C. DODD BIOLOGICAL CONSULTING) - FIELD SURVEY FORM FOR CHAETODIPUS FALLAX FALLAX 2002-08-31
DOD02R0004	DODD, S. (S.C. DODD BIOLOGICAL CONSULTING) - PACIFIC POCKET MOUSE SURVEYS ON THE SUNSET CLIFFS SHORELINE PARK IN POINT LOMA, CALIFORNIA. 2002-09-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 33540
EO Index: 29694
Key Quad: La Mesa (3211771)
Element Code: AMAFF08041
Occurrence Number: 4
Occurrence Last Updated: 2009-03-04

Scientific Name: *Neotoma lepida intermedia*
Common Name: San Diego desert woodrat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3T4
State: S3S4

General Habitat:

COASTAL SCRUB OF SOUTHERN CALIFORNIA FROM SAN DIEGO COUNTY TO SAN LUIS OBISPO COUNTY.

Micro Habitat:

MODERATE TO DENSE CANOPIES PREFERRED. THEY ARE PARTICULARLY ABUNDANT IN ROCK OUTCROPS, ROCKY CLIFFS, AND SLOPES.

Last Date Observed: 1994-07-02
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1994-07-02
Occurrence Rank: Good
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

MISSION TRAILS, ABOUT 0.3 MILES NW OF NORTH PEAK OF FORTUNA MOUNTAIN, SE MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

MAPPED TO MARKED LOCATION ON PROVIDED MAP.

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB ON A 2% SLOPE; ABUNDANT 1 FOOT DIAMETER ROCKS. SOIL WAS HARD PACKED WITH SCATTERED ROCK.

Threats:

General:

2 FEMALES, 1 MALE, AND 1 UNKNOWN-SEX CAPTURED (AND RELEASED) ON 2 JULY 1994. REPORTER MARKED STATUS AS FORAGING.

PLSS: T15S, R02W, Sec. 22, SE (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3634950 E493585
Latitude/Longitude: 32.85262 / -117.06856
Elevation (feet): 710

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

TRE94F0001 TREMOR, S. - FIELD SURVEY FORM FOR NEOTOMA LEPIDA INTERMEDIA 1994-07-02

TRE94U0001 TREMOR, S. (SAN DIEGO NATURAL HISTORY MUSEUM) - COMPILATION OF FIELD FORMS FROM 1994 FOR SMALL MAMMAL TRAPPING (SCIENTIFIC COLLECTORS PERMIT) MAPS INCLUDED. COVER LETTER TO CARYLA LARSEN. 1994-12-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 33541
EO Index: 29695
Key Quad: La Mesa (3211771)
Element Code: AMAFF08041
Occurrence Number: 5
Occurrence Last Updated: 2009-03-05

Scientific Name: *Neotoma lepida intermedia*
Common Name: San Diego desert woodrat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3T4
State: S3S4

General Habitat:

COASTAL SCRUB OF SOUTHERN CALIFORNIA FROM SAN DIEGO COUNTY TO SAN LUIS OBISPO COUNTY.

Micro Habitat:

MODERATE TO DENSE CANOPIES PREFERRED. THEY ARE PARTICULARLY ABUNDANT IN ROCK OUTCROPS, ROCKY CLIFFS, AND SLOPES.

Last Date Observed: 1994-07-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1994-07-07
Occurrence Rank: Excellent
Owner/Manager: CITY OF SAN DIEGO, DOD
Trend: Unknown
Presence: Presumed Extant

Location:

JUST NORTH OF SECOND SAN DIEGO AQUEDUCT, ABOUT 1.1 MI SW OF FORTUNA MOUNTAIN, MISSION SAN DIEGO.

Detailed Location:

MAPPED TO MARKED LOCATION ON PROVIDED MAP.

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB.

Threats:

General:

2 MALES CAPTURED (AND RELEASED) ON 7 JULY 1994. REPORTER MARKED STATUS AS FORAGING.

PLSS: T15S, R02W, Sec. 27, SE (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3633047 E493153
Latitude/Longitude: 32.83545 / -117.07315
Elevation (feet): 925

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

TRE94F0002	TREMOR, S. (SAN DIEGO NATURAL HISTORY MUSEUM) - FIELD SURVEY FORM FOR NEOTOMA LEPIDA INTERMEDIA 1994-07-07
TRE94U0001	TREMOR, S. (SAN DIEGO NATURAL HISTORY MUSEUM) - COMPILATION OF FIELD FORMS FROM 1994 FOR SMALL MAMMAL TRAPPING (SCIENTIFIC COLLECTORS PERMIT) MAPS INCLUDED. COVER LETTER TO CARYLA LARSEN. 1994-12-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	33542	**EO Index:**	29696
Key Quad:	La Mesa (3211771)	**Element Code:**	AMAFF08041
Occurrence Number:	6	**Occurrence Last Updated:**	2009-03-05

Scientific Name: *Neotoma lepida intermedia*

Common Name: San Diego desert woodrat

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3T4

State: S3S4

General Habitat:

COASTAL SCRUB OF SOUTHERN CALIFORNIA FROM SAN DIEGO COUNTY TO SAN LUIS OBISPO COUNTY.

Micro Habitat:

MODERATE TO DENSE CANOPIES PREFERRED. THEY ARE PARTICULARLY ABUNDANT IN ROCK OUTCROPS, ROCKY CLIFFS, AND SLOPES.

Last Date Observed:	1994-07-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1994-07-11	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ABOUT 0.6 MI SW OF FORTUNA MOUNTAIN, BETWEEN SHEPHERD CANYON & MISSION GORGE, MISSION SAN DIEGO.

Detailed Location:

MAPPED TO MARKED LOCATION ON PROVIDED MAP.

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB, DOMINATED BY SALVIA MELLIFERA.

Threats:

General:

1 MALE CAPTURED (AND RELEASED) ON 11 JULY 1994. REPORTER MARKED STATUS AS FORAGING.

PLSS:	T15S, R02W, Sec. 27, E (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3633687 E493522	**Latitude/Longitude:**	32.84123 / -117.06922	**Elevation (feet):**	600

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

TRE94F0003	TREMOR, S. (SAN DIEGO NATURAL HISTORY MUSEUM) - FIELD SURVEY FORM FOR NEOTOMA LEPIDA INTERMEDIA 1994-07-11
TRE94U0001	TREMOR, S. (SAN DIEGO NATURAL HISTORY MUSEUM) - COMPILATION OF FIELD FORMS FROM 1994 FOR SMALL MAMMAL TRAPPING (SCIENTIFIC COLLECTORS PERMIT) MAPS INCLUDED. COVER LETTER TO CARYLA LARSEN. 1994-12-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	33543	**EO Index:**	29697
Key Quad:	La Mesa (3211771)	**Element Code:**	AMAFF08041
Occurrence Number:	7	**Occurrence Last Updated:**	2009-03-05

Scientific Name: *Neotoma lepida intermedia*

Common Name: San Diego desert woodrat

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3T4

State: S3S4

General Habitat:

COASTAL SCRUB OF SOUTHERN CALIFORNIA FROM SAN DIEGO COUNTY TO SAN LUIS OBISPO COUNTY.

Micro Habitat:

MODERATE TO DENSE CANOPIES PREFERRED. THEY ARE PARTICULARLY ABUNDANT IN ROCK OUTCROPS, ROCKY CLIFFS, AND SLOPES.

Last Date Observed:	1994-07-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1994-07-11	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

JUST SOUTH OF SECOND SAN DIEGO AQUEDUCT, 0.6 MILE NORTH OF MISSION GORGE, SAN DIEGO.

Detailed Location:

MAPPED TO MARKED LOCATION ON PROVIDED MAP.

Ecological:

COAST LIVE-OAK RIPARIAN WOODLAND.

Threats:

General:

1 MALE CAPTURED (AND RELEASED) ON 11 JULY 1994. REPORTER MARKED STATUS AS FORAGING.

PLSS:	T15S, R02W, Sec. 34, SE (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3632272 E493404	**Latitude/Longitude:**	32.82846 / -117.07047	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

TRE94F0004	TREMOR, S. - FIELD SURVEY FORM FOR NEOTOMA LEPIDA INTERMEDIA 1994-07-11
TRE94U0001	TREMOR, S. (SAN DIEGO NATURAL HISTORY MUSEUM) - COMPILATION OF FIELD FORMS FROM 1994 FOR SMALL MAMMAL TRAPPING (SCIENTIFIC COLLECTORS PERMIT) MAPS INCLUDED. COVER LETTER TO CARYLA LARSEN. 1994-12-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 22608
EO Index: 47064
Key Quad: San Vicente Reservoir (3211688)
Element Code: AMAFF08041
Occurrence Number: 41
Occurrence Last Updated: 2002-01-23

Scientific Name: *Neotoma lepida intermedia*
Common Name: San Diego desert woodrat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3T4
State: S3S4

General Habitat:

COASTAL SCRUB OF SOUTHERN CALIFORNIA FROM SAN DIEGO COUNTY TO SAN LUIS OBISPO COUNTY.

Micro Habitat:

MODERATE TO DENSE CANOPIES PREFERRED. THEY ARE PARTICULARLY ABUNDANT IN ROCK OUTCROPS, ROCKY CLIFFS, AND SLOPES.

Last Date Observed: 1998-04-26
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1998-04-26
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

FANITA RANCH AND SURROUNDING AREA, W OF HIGHWAY 67, E OF WEST SYCAMORE CANYON, NW PORTION CITY OF SANTEE.

Detailed Location:

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB, SOUTHERN MIXED CHAPARRAL, VERNAL POOL & VALLEY NEEDLEGRASS GRASSLAND, SYCAMORE ALLUVIAL WOODLAND, SOUTHERN COAST LIVE OAK RIPARIAN FOREST, BROOM BACCHARIS SCRUB, COAST LIVE OAK WOODLAND.

Threats:

PROPOSED DEVELOPMENT.

General:

UNKNOWN NUMBER OF INDIVIDUALS OBSERVED DURING A MAR-APR 1998 SURVEY FOR QUINO CHECKERSPOT BUTTERFLIES.

PLSS: T15S, R01W, Sec. 09 (S)
Accuracy: non-specific area
Area (acres): 3,940
UTM: Zone-11 N3638640 E501138
Latitude/Longitude: 32.88592 / -116.98783
Elevation (feet): 800

County Summary:

San Diego

Quad Summary:

El Cajon (3211678), San Vicente Reservoir (3211688), La Mesa (3211771), Poway (3211781)

Sources:

DUD98R0001 DUDEK & ASSOCIATES, INC. - QUINO CHECKERSPOT SURVEY FOR FANITA RANCH, SAN DIEGO CO (INCLUDES DATA FROM PRIOR SURVEYS FOR OTHER SPECIES) 1998-06-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	50457	**EO Index:**	50457
Key Quad:	Imperial Beach (3211751)	**Element Code:**	AMAFF08041
Occurrence Number:	62	**Occurrence Last Updated:**	2009-03-05

Scientific Name: *Neotoma lepida intermedia*

Common Name: San Diego desert woodrat

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3T4

State: S3S4

General Habitat:

COASTAL SCRUB OF SOUTHERN CALIFORNIA FROM SAN DIEGO COUNTY TO SAN LUIS OBISPO COUNTY.

Micro Habitat:

MODERATE TO DENSE CANOPIES PREFERRED. THEY ARE PARTICULARLY ABUNDANT IN ROCK OUTCROPS, ROCKY CLIFFS, AND SLOPES.

Last Date Observed:	2003-06-01	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-06-01	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY MESA, WEST OF BROWN FIELD NAVAL AIR STATION, ABOUT 2 MI NORTH OF TIJUANA.

Detailed Location:

MAPPED TO ENTIRE SECTION AS PROVIDED IN NEW93U0001 (ALSO DESCRIBED AS 'CALIFORNIA TERRACES'). WOO04U0002 PROVIDED GENERAL UTM COORDS WHICH FELL WITHIN THE MAPPED SECTION.

Ecological:

Threats:

General:

1993: 1 FEMALE CAPTURED/RELEASED ON 14 APR, 1 MALE 2 FEMALES & 1 UNKNOWN ON 15 APR. 2003: 6 CAPTURED (SHERMAN'S LIVE TRAP) & RELEASED ON 1 JUN.

PLSS:	T18S, R01W, Sec. 29 (S)	**Accuracy:**	non-specific area	**Area (acres):**	702
UTM:	Zone-11 N3604280 E499490	**Latitude/Longitude:**	32.57597 / -117.00543	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

NEW93U0001	NEWMAN, J.M. - SCIENTIFIC COLLECTING PERMIT REPORT FOR SMALL MAMMAL CAPTURES DURING 1993 IN SAN DIEGO COUNTY. 1993-06-11
WOO04U0002	WOODWARD, B.W. (RECON ENVIRONMENTAL, INC.) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-006265] 2004-10-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	57523	**EO Index:**	58220
Key Quad:	Point Loma (3211762)	**Element Code:**	AMAFF08041
Occurrence Number:	70	**Occurrence Last Updated:**	2004-11-22

Scientific Name: *Neotoma lepida intermedia*

Common Name: San Diego desert woodrat

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3T4

State: S3S4

General Habitat:

COASTAL SCRUB OF SOUTHERN CALIFORNIA FROM SAN DIEGO COUNTY TO SAN LUIS OBISPO COUNTY.

Micro Habitat:

MODERATE TO DENSE CANOPIES PREFERRED. THEY ARE PARTICULARLY ABUNDANT IN ROCK OUTCROPS, ROCKY CLIFFS, AND SLOPES.

Last Date Observed:	2002-08-31	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2002-08-31	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

LOCATED IN POINT LOMA AT SUNSET CLIFFS SHORELINE PARK.

Detailed Location:

TRAPPING CONDUCTED WITHIN THE HILLSIDE PARK SECTION.

Ecological:

DISTURBED DENSE COASTAL SAGE SCRUB WITH A DENSE UNDERSTORY OF EXOTIC LANDSCAPING MOVING IN FROM EDGES. SUBSTRATE IN THIS AREA IS HIGH QUALITY LOOSELY PACKED FINE SANDY LOAM.

Threats:

LOTS OF FOOT TRAFFIC AND DOG WALKING ACTIVITY.

General:

2 INDIVIDUALS CAUGHT 27 AUG 2002, 1 INDIVIDUAL CAUGHT 28 AUG 2002, 2 INDIVIDUALS CAUGHT 29 AUG 2002, 1 INDIVIDUAL CAUGHT 30 AUG 2002, 2 INDIVIDUALS CAUGHT 31 AUG 2002. 375 TOTAL TRAP-NIGHTS.

PLSS:	T17S, R04W, Sec. 12 (S)	**Accuracy:**	non-specific area	**Area (acres):**	11
UTM:	Zone-11 N3620051 E476231	**Latitude/Longitude:**	32.71798 / -117.25363	**Elevation (feet):**	

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

DOD02F0013	DODD, S. (S.C. DODD BIOLOGICAL CONSULTING) - FIELD SURVEY FORM FOR NEOTOMA LEPIDA INTERMEDIA 2002-08-31
DOD02R0004	DODD, S. (S.C. DODD BIOLOGICAL CONSULTING) - PACIFIC POCKET MOUSE SURVEYS ON THE SUNSET CLIFFS SHORELINE PARK IN POINT LOMA, CALIFORNIA. 2002-09-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 43870
EO Index: 74756
Key Quad: La Mesa (3211771)
Element Code: AMAFF08041
Occurrence Number: 81
Occurrence Last Updated: 2009-03-05

Scientific Name: *Neotoma lepida intermedia*
Common Name: San Diego desert woodrat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3T4
State: S3S4

General Habitat:

COASTAL SCRUB OF SOUTHERN CALIFORNIA FROM SAN DIEGO COUNTY TO SAN LUIS OBISPO COUNTY.

Micro Habitat:

MODERATE TO DENSE CANOPIES PREFERRED. THEY ARE PARTICULARLY ABUNDANT IN ROCK OUTCROPS, ROCKY CLIFFS, AND SLOPES.

Last Date Observed: 1994-08-01
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1994-08-01
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

ABOUT 0.9 MI SOUTH OF FORTUNA MTN, BETWEEN SHEPHERD CANYON & MISSION GORGE, MISSION SAN DIEGO.

Detailed Location:

MAPPED TO MARKED LOCATION ON PROVIDED MAP.

Ecological:

COASTAL SAGE SCRUB DOMINATED BY ERIOGONUM & ADENOSTOMA. PACKED HARD DISTURBED SOILS.

Threats:

General:

2 FEMALES CAPTURED (AND RELEASED) ON 1 AUG 1994.

PLSS: T15S, R02W, Sec. 26, SW (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3633016 E494142
Latitude/Longitude: 32.83518 / -117.06259
Elevation (feet): 500

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

TRE94U0001 TREMOR, S. (SAN DIEGO NATURAL HISTORY MUSEUM) - COMPILATION OF FIELD FORMS FROM 1994 FOR SMALL MAMMAL TRAPPING (SCIENTIFIC COLLECTORS PERMIT) MAPS INCLUDED. COVER LETTER TO CARYLA LARSEN. 1994-12-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04076
Key Quad: Imperial Beach (3211751)
Occurrence Number: 311

EO Index: 57611
Element Code: AMAJF04010
Occurrence Last Updated: 2004-10-25

Scientific Name: *Taxidea taxus*
Common Name: American badger

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

MOST ABUNDANT IN DRIER OPEN STAGES OF MOST SHRUB, FOREST, AND HERBACEOUS HABITATS, WITH FRIABLE SOILS.

Micro Habitat:

NEEDS SUFFICIENT FOOD, FRIABLE SOILS AND OPEN, UNCULTIVATED GROUND. PREYS ON BURROWING RODENTS. DIGS BURROWS.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: DPR-BORDER FIELD SP
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

MEXICAN BOUNDARY AT MONUMENT 258.

Detailed Location:

Ecological:

Threats:

General:

1 COLLECTED, USNM.

PLSS: T19S, R02W, Sec. 07 (S)
UTM: Zone-11 N3599951 E488543

Accuracy: 1/5 mile
Latitude/Longitude: 32.53686 / -117.12200

Area (acres): 0
Elevation (feet): 10

County Summary:

San Diego, Mexico

Quad Summary:

Imperial Beach (3211751)

Sources:

DFG86R0004 CALIFORNIA DEPARTMENT OF FISH & GAME - AMERICAN BADGER. PAGES 66-70 IN MAMMALIAN SPECIES OF SPECIAL CONCERN IN CALIFORNIA. WILDLIFE MANAGEMENT DIVISION ADMINISTRATIVE REPORT 86-1. 1986-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 27989
Key Quad: Jamul Mountains (3211668)
Occurrence Number: 316

EO Index: 57631
Element Code: AMAJF04010
Occurrence Last Updated: 2004-10-25

Scientific Name: *Taxidea taxus*
Common Name: American badger

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

MOST ABUNDANT IN DRIER OPEN STAGES OF MOST SHRUB, FOREST, AND HERBACEOUS HABITATS, WITH FRIABLE SOILS.

Micro Habitat:

NEEDS SUFFICIENT FOOD, FRIABLE SOILS AND OPEN, UNCULTIVATED GROUND. PREYS ON BURROWING RODENTS. DIGS BURROWS.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SWEETWATER RESERVOIR.

Detailed Location:

Ecological:

Threats:

General:

1 COLLECTED, SDSNH.

PLSS: T17S, R01W (S)
UTM: Zone-11 N3617509 E500928

Accuracy: 1 mile
Latitude/Longitude: 32.69531 / -116.99009

Area (acres): 0
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

Jamul Mountains (3211668), National City (3211761)

Sources:

DFG86R0004 CALIFORNIA DEPARTMENT OF FISH & GAME - AMERICAN BADGER. PAGES 66-70 IN MAMMALIAN SPECIES OF SPECIAL CONCERN IN CALIFORNIA. WILDLIFE MANAGEMENT DIVISION ADMINISTRATIVE REPORT 86-1. 1986-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 57753
Key Quad: La Jolla (3211772)
Occurrence Number: 333

EO Index: 57769
Element Code: AMAJF04010
Occurrence Last Updated: 2004-10-27

Scientific Name: *Taxidea taxus*
Common Name: American badger

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

MOST ABUNDANT IN DRIER OPEN STAGES OF MOST SHRUB, FOREST, AND HERBACEOUS HABITATS, WITH FRIABLE SOILS.

Micro Habitat:

NEEDS SUFFICIENT FOOD, FRIABLE SOILS AND OPEN, UNCULTIVATED GROUND. PREYS ON BURROWING RODENTS. DIGS BURROWS.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

1 MILE NORTH OF LA JOLLA.

Detailed Location:

AREA MAPPED IS NORTH FROM SOLEDAD MTN TO SOUTH OF UC SAN DIEGO.

Ecological:

Threats:

General:

1 COLLECTED, SDSNH.

PLSS: T15S, R04W, Sec. 24 (S)
UTM: Zone-11 N3634836 E476702

Accuracy: 1 mile
Latitude/Longitude: 32.85135 / -117.24898

Area (acres): 0
Elevation (feet): 200

County Summary:

San Diego, Pacific Ocean

Quad Summary:

La Jolla (3211772)

Sources:

DFG86R0004 CALIFORNIA DEPARTMENT OF FISH & GAME - AMERICAN BADGER. PAGES 66-70 IN MAMMALIAN SPECIES OF SPECIAL CONCERN IN CALIFORNIA. WILDLIFE MANAGEMENT DIVISION ADMINISTRATIVE REPORT 86-1. 1986-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 79618
EO Index: 80603
Key Quad: Imperial Beach (3211751)
Element Code: ARAAA02010
Occurrence Number: 1
Occurrence Last Updated: 2010-09-30

Scientific Name: *Chelonia mydas*
Common Name: green turtle

Listing Status: **Federal:** Threatened
Rare Plant Rank:
State: None
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G3
State: S4

General Habitat:

MARINE.

Micro Habitat:

COMPLETELY HERBIVOROUS; NEEDS ADQUATE SUPPLY OF SEAGRASSES AND ALGAE.

Last Date Observed: 2009-11-05
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-11-05
Occurrence Rank: Unknown
Owner/Manager: SAN DIEGO UNIFIED PORT DIST
Trend: Unknown
Presence: Presumed Extant

Location:

SOUTH SAN DIEGO BAY.

Detailed Location:

TURTLES FREQUENT THE WARM WATER EFFLUENT CHANNEL OF THE SAN DIEGO GAS & ELECTRIC SOUTH BAY POWER PLANT (DUKE ENERGY) AND FORAGE IN THE BAY'S EELGRASS BEDS. THE POWER PLANT BEGAN OPERATION AND DISCHARGING WARM WATER IN 1960.

Ecological:

BOTH SEXES & ALL AGE-CLASSES, EXCEPT JUV <30 CM. LOCAL RESIDENT FORAGING POPULATION; LIKELY FROM MEXICAN BREEDING POPULATION. ATTRACTED TO ABUNDANT FOOD (EELGRASS, GREEN & RED ALGAE), & WARM WATER EFFLUENT LIKELY AIDS DIGESTION & GROWTH.

Threats:

KNOWN CAUSES OF DEATH = BOAT COLLISION, GHOST NETS, & FISHING LINE INGESTIONS. DISEASE (FIBROPAPILLOMA).

General:

PRESENT MID 1800S. MODERN REPORTS COMMON SINCE 1960 POWER PLANT INSTALLATION. 6 CAPTURED/TRACKED IN 1979; ESTIMATED 25-30. 9 OBSERVED IN 1989. ABUNDANCE EST FROM 1990-2009 RANGED 16 ('00) - 61 ('02). SAME FREQUENCY OBS FROM 1976-2006.

PLSS: T99X, R99X, Sec. UN (X)
Accuracy: specific area
Area (acres): 1,829
UTM: Zone-11 N3609442 E489267
Latitude/Longitude: 32.62248 / -117.11440
Elevation (feet): 0

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751), National City (3211761), Point Loma (3211762)

Sources:

DUT90U0001	DUTTON, P. & D. MCDONALD - SEA TURTLES PRESENT IN SAN DIEGO BAY. PAGES 139-141 IN T. RICHARDSON ET AL., PROC. TENTH ANNUAL WORKSHOP ON SEA TURTLE BIOLOGY & CONSERVATION. NOAA TECH. MEMO. NMFS-SEFC-278. 1990-08-XX
EGU10A0001	EGUCHI, T. ET AL. (NOAA-NATIONAL MARINE FISHERIES SERVICE) - ABUNDANCE AND SURVIVAL RATES OF GREEN TURTLES IN AN URBAN ENVIRONMENT: COEXISTENCE OF HUMANS AND AN ENDANGERED SPECIES. MARINE BIOLOGY 157:1869-1877. 2010-05-09
MCD90U0001	MCDONALD, D. & P. DUTTON - FIBROPAPILLOMAS ON SEA TURTLES IN SAN DIEGO BAY, CALIFORNIA. MARINE TURTLE NEWSLETTER 51:9-10. 1990-XX-XX
MCD95R0001	MCDONALD, D. ET AL. (MERKEL AND ASSOCIATES, INC.) - A REVIEW OF THE GREEN TURTLES OF SOUTH SAN DIEGO BAY IN RELATION TO THE OPERATIONS OF THE SDG&E SOUTH BAY POWER PLANT. ATTACHMENT 28. 1995-01-17
POR06M0001	PORT OF SAN DIEGO - SATELLITE TRACKING MAP OF CHELONIA MYDAS (WRINCKEBUTT) IN SAN DIEGO BAY, 2006. 2006-06-27
SEA10M0001	SEATURTLE.ORG INC. - SATELLITE TRACKING MAP OF CHELONIA MYDAS (BONITA) IN SAN DIEGO BAY, 2009-2010. 2010-08-11
SOU10R0001	SOUTHWEST FISHERIES SICENCE CENTER (NOAA) - SAN DIEGO BAY SEA TURTLES , SWFSC ACCESSED ON 23 AUG 2010. 2010-08-23
STI84U0001	STINSON, M. (SAN DIEGO STATE UNIVERSITY) - BIOLOGY OF SEA TURTLES IN SAN DIEGO BAY, CALIFORNIA, AND IN THE NORTHEASTERN PACIFIC OCEAN. MS THESIS, SAN DIEGO STATE UNIVERSITY. 628PP. 1984-12-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 60858
EO Index: 60894
Key Quad: Imperial Beach (3211751)
Element Code: ARACC01060
Occurrence Number: 24
Occurrence Last Updated: 2005-04-06

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 2004-07-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2004-07-15
Occurrence Rank: Poor
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:

SOUTH SIDE OF TIJUANA RIVER, 0.5 MILE NNW OF SPOONERS MESA, 1 MILE NORTH OF THE MEXICAN BORDER.

Detailed Location:

FORMERLY A. P. PULCHRA EO #30.

Ecological:

HABITAT CONSISTS OF DISTURBED BLACK WILLOW RIPARIAN FOREST, ON HARD CLAYPAN (TOP)/ALLUVIAL (BOTTOM) SOILS.

Threats:

THREATENED BY TRAIL RESTORATION AND WEED CONTROL ACTIVITIES.

General:

1 ADULT OBSERVED ON 21 MAY 2004; 1 ADULT OBSERVED ON 15 JUL 2004.

PLSS: T19S, R02W, Sec. 05, NE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3601530 E490141
Latitude/Longitude: 32.55111 / -117.10500
Elevation (feet): 12

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

ROU04F0002 ROUSSO, S. (P&D CONSULTANTS) - FIELD SURVEY FORM FOR ANNIELLA PULCHRA PULCHRA 2004-07-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A2601
EO Index: 104192
Key Quad: Imperial Beach (3211751)
Element Code: ARACC01060
Occurrence Number: 25
Occurrence Last Updated: 2016-11-16

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 2006-06-28
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-06-28
Occurrence Rank: Poor
Owner/Manager: PVT, CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:

N SIDE OF NAPLES ST, ABOUT 0.1 MI NW OF THE 4TH AVE INTERSECTION, CHULA VISTA.

Detailed Location:

FORMERLY A. P. PULCHRA EO #99. MAPPED TO PROVIDED COORDINATES.

Ecological:

RUDERAL LOT/BACK YARD ADJACENT TO CONCRETE-LINED STORM DRAIN IN URBAN RESIDENTIAL AREA.

Threats:

FERAL ANIMALS AND DOMESTIC PETS. POSSIBLE DEVELOPMENT OF LOT.

General:

1 LIZARD FOUND DEAD AND CHOPPED INTO THREE PIECES ON 28 JUN 2006.

PLSS: T18S, R02W, Sec. 10, S (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3608399 E492987
Latitude/Longitude: 32.6131 / -117.07475
Elevation (feet): 73

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

PAL06F0007 PALMER, D. - FIELD SURVEY FORM FOR ANNIELLA PULCHRA PULCHRA 2006-06-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A2619
EO Index: 104210
Key Quad: Imperial Beach (3211751)
Element Code: ARACC01060
Occurrence Number: 26
Occurrence Last Updated: 2018-12-14

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 2007-03-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2007-03-16
Occurrence Rank: Unknown
Owner/Manager: SDG&E
Trend: Unknown
Presence: Presumed Extant

Location:

SOUTHWEST SIDE OF MELROSE AVE, ABOUT 0.1 MILES S OF THE JUNCTION OF E QUINTARD ST, CHULA VISTA.

Detailed Location:

FORMERLY A. P. PULCHRA EO #100. MAPPED TO PROVIDED COORDINATES.

Ecological:

DIRT/RUDERAL LOT WITH DISTURBED COASTAL SAGE-CHAPARRAL MIX IN URBAN AREA. SAN DIEGO GAS & ELECTRIC OPEN SPACE EASEMENT FOR TRANSMISSION TOWERS; PORTIONS MAY BE MANAGED BY THE CITY OF CHULA VISTA. DISTURBANCE FROM TRASH, NON-NATIVE PLANTS.

Threats:

FERAL ANIMALS AND DOMESTIC PETS. EXCAVATION PRESUMABLY ASSOCIATED WITH POWER LINE CONSTRUCTION/MAINTENANCE.

General:

1 WAS COLLECTED ON 22 OCT 1975. 1 LIZARD WAS UNEARTHED DURING AN EXCAVATION ON 16 MAR 2007, THEN ESCAPED INTO LOOSE SOIL.

PLSS: T18S, R02W, Sec. 13, NW (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3607955 E495942
Latitude/Longitude: 32.60911 / -117.04325
Elevation (feet): 269

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

PAL07F0080 PALMER, D. - FIELD SURVEY FORM FOR ANNIELLA PULCHRA PULCHRA 2007-03-16

WIS75S0002 WISCHSTADT - SDNHM #56742 COLLECTED AT 226 E QUINTARD ST, CHULA VISTA 1975-10-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B0901
Key Quad: Del Mar (3211782)
Occurrence Number: 243

EO Index: 112783
Element Code: ARACC01060
Occurrence Last Updated: 2018-12-05

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 1986-07-13
Last Survey Date: 1986-07-13
Owner/Manager: UC-SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

CAMPUS OF UNIVERSITY OF CALIFORNIA SAN DIEGO, VICINITY OF I-5 NEAR GENESEE AVE AND LA JOLLA VILLAGE DR, LA JOLLA.

Detailed Location:

MAPPED GENERALLY TO THE AREA OF THE UNIVERSITY. AT THE TIME OF COLLECTION, THERE WAS MORE OPEN SPACE SW OF GENESEE AVE AND I-5, AND EAST OF I-5; THE ARE SW OF GENESEE AND I-5 APPEARS TO BE UCSD'S ECOLOGICAL PARK, A EUCALYPTUS GROVE.

Ecological:

Threats:

DEVELOPMENT SINCE THE TIME OF COLLECTION.

General:

1 WAS COLLECTED ON 13 JUL 1986.

PLSS: T15S, R03W, Sec. 7, S (S)
UTM: Zone-11 N3638041 E478170

Accuracy: 3/5 mile
Latitude/Longitude: 32.8803 / -117.23337

Area (acres): 776
Elevation (feet): 349

County Summary:

San Diego

Quad Summary:

La Jolla (3211772), Del Mar (3211782)

Sources:

SHO86S0002 SHOR, B. - SDNHM #65474 COLLECTED AT SAN DIEGO, LA JOLLA, UCSD CAMPUS 1986-07-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B0908
Key Quad: La Jolla (3211772)
Occurrence Number: 244

EO Index: 112790
Element Code: ARACC01060
Occurrence Last Updated: 2018-10-01

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 1941-05-03
Last Survey Date: 1941-05-03
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

HISTORIC CAMP KEARNEY, UPPER ROSE CANYON AT KEARNEY MESA, 7 MI ENE OF LA JOLLA, MIRAMAR MARINE CORPS AIR STATION.

Detailed Location:

MAPPED NON-SPECIFICALLY TO CAMP KEARNEY DEPICTED ON 1903 TO 1930 TOPOGRAPHIC MAPS.

Ecological:

Threats:

General:

COLLECTED IN 1928, 1931, 1937, AND 1941.

PLSS: T15S, R03W, Sec. 14, E (S)
UTM: Zone-11 N3636744 E485611

Accuracy: 3/5 mile
Latitude/Longitude: 32.86872 / -117.1538

Area (acres): 776
Elevation (feet): 431

County Summary:

San Diego

Quad Summary:

La Jolla (3211772), Del Mar (3211782)

Sources:

COU28S0001	COURSEFELL, S. - SDNHM #439 & 440 COLLECTED AT SAN DIEGO, CAMP KEARNY 1928-03-12
LAN31S0001	LANDER, L. - SDNHM #4270 COLLECTED AT SAN DIEGO, CAMP KEARNY 1931-02-23
SAN37S0002	SAN DIEGO ZOO - SDNHM #27335 COLLECTED AT SAN DIEGO, CAMP KEARNY 1937-06-18
SAN41S0002	SAN DIEGO ZOO - SDNHM #33811 COLLECTED AT SAN DIEGO, CAMP KEARNY 1941-05-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B0910	**EO Index:**	112793
Key Quad:	Del Mar (3211782)	**Element Code:**	ARACC01060
Occurrence Number:	245	**Occurrence Last Updated:**	2018-10-01

Scientific Name: *Anniella stebbinsi*

Common Name: Southern California legless lizard

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	193X-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	193X-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

HISTORIC TOWN OF LINDA VISTA NEAR UPPER SOLEDAD CANYON, ROSE CANYON AND KEARNEY MESA, SAN DIEGO.

Detailed Location:

MAPPED TO LINDA VISTA DEPICTED ON 1903-1950 TOPO MAPS. APPARENTLY THIS TOWN WAS HEAVILY DAMAGED IN A FLOOD BEFORE 1920. PRESENT DAY LINDA VISTA COMMUNITY OF SAN DIEGO WAS DEVELOPED IN THE 1940S. PRE-1940 REFERENCE ASSUMED OLDER LINDA VISTA.

Ecological:

Threats:

General:

ACCORDING TO KLAUBERS 1932 ARTICLE, ANNIELLA WERE KNOWN FROM LINDA VISTA. NEEDS CONTEMPORARY FIELD RESEARCH AND REPORTING.

PLSS:	T15S, R03W, Sec. 10, S (S)	**Accuracy:**	3/5 mile	**Area (acres):**	776
UTM:	Zone-11 N3637968 E483719	**Latitude/Longitude:**	32.87973 / -117.17405	**Elevation (feet):**	398

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772), Del Mar (3211782)

Sources:

KLA32A0003 KLAUBER, L. - NOTES ON THE SILVERY FOOTLESS LIZARD, ANNIELLA PULCHRA. COPEIA 1932(1): 4-6. 1932-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B0912
Key Quad: La Jolla (3211772)
Occurrence Number: 246

EO Index: 112794
Element Code: ARACC01060
Occurrence Last Updated: 2018-10-01

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 1957-06-16
Last Survey Date: 1957-06-16
Owner/Manager: UC-SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SCIPPS INSTITUTION OF OCEANOGRAPHY CAMPUS, ABOUT 1.8 MILES NNE OF LA JOLLA.

Detailed Location:

Ecological:

Threats:

DEVELOPMENT SINCE THE TIME OF COLLECTION.

General:

1 COLLECTED IN JUN 1951. 1 COLLECTED IN JUN 1957.

PLSS: T15S, R04W, Sec. 13, W (S)
UTM: Zone-11 N3636614 E476348

Accuracy: non-specific area
Latitude/Longitude: 32.86739 / -117.25281

Area (acres): 66
Elevation (feet): 90

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

HUB57S0001 HUBBS, C. - SDNHM #19210 COLLECTED AT LA JOLLA, SCRIPPS INSTITUTE OF OCEANOGRAPHY 1957-06-16

NOR51S0002 NORRIS, K. - UAZ #7276 COLLECTED AT SCIPPS INST OF OCEANOGRAPHY GROUNDS, LA JOLLA 1951-06-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03519
Key Quad: La Jolla (3211772)
Occurrence Number: 247

EO Index: 112796
Element Code: ARACC01060
Occurrence Last Updated: 2018-10-01

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 1939-XX-XX
Last Survey Date: 1939-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

LA JOLLA.

Detailed Location:

LOCATION ONLY GIVEN AS LA JOLLA.

Ecological:

Threats:

DEVELOPMENT SINCE THE TIME OF COLLECTION.

General:

COLLECTED FROM LA JOLLA ON 15 JUN 1927 AND IN SPRING 1939.

PLSS: T15S, R04W, Sec. 27 (S)
UTM: Zone-11 N3633342 E473790

Accuracy: 1 mile
Latitude/Longitude: 32.83782 / -117.28005

Area (acres): 0
Elevation (feet): 100

County Summary:

San Diego, Pacific Ocean

Quad Summary:

La Jolla (3211772)

Sources:

PER39S0001 PERKINS, C. - CUMV #3248 COLLECTED AT LA JOLLA 1939-XX-XX

SUM27S0001 SUMMER, F. - SDNHM #1110 COLLECTED AT LA JOLLA 1927-06-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36619
Key Quad: La Jolla (3211772)
Occurrence Number: 248
EO Index: 112797
Element Code: ARACC01060
Occurrence Last Updated: 2018-10-02

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S3

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 1965-03-28
Last Survey Date: 1965-03-28
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:

PACIFIC BEACH, NORTH SIDE OF MISSION BAY, SAN DIEGO.

Detailed Location:

EXACT LOCATIONS UNKNOWN. MAPPED NON-SPECIFICALLY TO THE COMMUNITY OF PACIFIC BEACH.

Ecological:

PACIFIC BEACH WAS WELL-DEVELOPED BY THE LATER 1950S. IT IS UNCLEAR WHERE THE 1965 COLLECTIONS CAME FROM; POSSIBLY THE COASTAL BEACH AREA OR MAYBE THE FOOTHILLS NORTH OF THE TOWN.

Threats:

DEVELOPMENT SINCE EARLIER COLLECTIONS.

General:

COLLECTED IN 1930, 1932, 1938, 1952, AND 1965.

PLSS: T16S, R04W, Sec. 12 (S)
UTM: Zone-11 N3629673 E477019
Accuracy: 1 mile
Latitude/Longitude: 32.80479 / -117.24546
Area (acres): 0
Elevation (feet): 100

County Summary:

San Diego, Pacific Ocean

Quad Summary:

La Jolla (3211772)

Sources:

ANO32S0009	ANONYMOUS - CM #14463 COLLECTED AT PACIFIC BEACH 1932-04-XX
ANO52S0025	ANONYMOUS - SDNHM #41999 COLLECTED AT SAN DIEGO, PACIFIC BEACH 1952-04-28
KLA39A0001	KLAUBER, L. - STUDIES OF REPTILE LIFE IN THE ARID SOUTHWEST. BULLETINS OF THE ZOOLOGICAL SOCIETY OF SAN DIEGO 14: 1-100. [PART I NIGHT COLLECTING; PART II COLORATION; PART III NOTES ON LIZARDS] 1939-02-24
SCO30S0001	SCOTT, R. - SDNHM #4101 COLLECTED AT SAN DIEGO, PACIFIC BEACH 1930-12-18
TUT65S0001	TUTTLE, C. - SDNHM #46215, 46216, 46217 & 46218 COLLECTED AT PACIFIC BEACH 1965-03-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36802
Key Quad: La Jolla (3211772)
Occurrence Number: 249
EO Index: 112808
Element Code: ARACC01060
Occurrence Last Updated: 2018-10-02

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S3
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 1940-09-21
Last Survey Date: 1940-09-21
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

MISSION BEACH.

Detailed Location:

MAPPED GENERALLY TO THE PENINSULA DEPICTED ON 1930S TOPOGRAPHIC MAPS.

Ecological:

Threats:

DEVELOPMENT SINCE THE TIME OF COLLECTION.

General:

COLLECTED ON 21 JUN 1929 AND 21 SEP 1940. NEEDS CONTEMPORARY RESEARCH AND REPORTING.

PLSS: T16S, R04W, Sec. 24 (S)
Accuracy: non-specific area
Area (acres): 139
UTM: Zone-11 N3626235 E476330
Latitude/Longitude: 32.77377 / -117.25274
Elevation (feet): 10

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

MAR29S0001 MARTIN, J. - SDNHM #2000 COLLECTED AT SAN DIEGO, MISSION BEACH 1929-06-21
SAN40S0002 SAN DIEGO ZOO - SDNHM #33534 COLLECTED AT SAN DIEGO, MISSION BEACH 1940-09-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B0923
EO Index: 112810
Key Quad: La Jolla (3211772)
Element Code: ARACC01060
Occurrence Number: 250
Occurrence Last Updated: 2018-10-02

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 1938-11-10
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1938-11-10
Occurrence Rank: Poor
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

HISTORIC COMMUNITY OF MORENA, EAST SIDE OF MISSION BAY, SAN DIEGO.

Detailed Location:

MAPPED GENERALLY TO COMMUNITY OF MORENA DEPICTED ON 1930S TOPOGRAPHIC MAPS. MORENA IS NOW THE COMMUNITY OF BAY PARK.

Ecological:

Threats:

DEVELOPMENT SINCE THE TIME OF COLLECTION.

General:

COLLECTED ON 11 JUN 1908 AND 10 NOV 1938.

PLSS: T16S, R03W, Sec. 16, W (S)
Accuracy: 2/5 mile
Area (acres): 280
UTM: Zone-11 N3627347 E480731
Latitude/Longitude: 32.78388 / -117.20577
Elevation (feet): 30

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

CAS08S0002 CASS, C. - UMMZ #36889 & 36890 COLLECTED AT MORENA, SAN DIEGO COUNTY 1908-06-11

SAN38S0001 SAN DIEGO ZOO - SDNHM #30752 & 30756 COLLECTED AT MORENA, N OF OLD TOWN 1938-11-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68465
Key Quad: La Jolla (3211772)
Occurrence Number: 251
EO Index: 112811
Element Code: ARACC01060
Occurrence Last Updated: 2018-10-02

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S3
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 1946-08-17
Last Survey Date: 1946-08-17
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

LINDA VISTA COMMUNITY OF SAN DIEGO.

Detailed Location:

THERE ARE 2 LINDA VISTAS NEAR SAN DIEGO (SEE ALSO MIRAMAR, AND EO #245). IT IS ASSUMED THAT THIS 1946 COLLECTION CAME FROM WHAT IS NOW KNOWN AS LINDA VISTA AS THIS RESIDENTIAL COMMUNITY WAS JUST BEING CONSTRUCTED IN THE MID 1940S.

Ecological:

1941 AERIAL SHOWS THE ROADS LAID OUT FOR CHESTERTON MILITARY HOUSING COMPLEX, AND LINDA VISTA RD AND URIC ST, BUT NO STRUCTURES OR GRADING. EXTENSIVE RESIDENTIAL DEVELOPMENT BY 1953, & LITTLE TO NO NATURAL AREAS BY 1976.

Threats:

DEVELOPMENT SINCE THE TIME OF COLLECTION.

General:

1 COLLECTED ON 17 AUG 1946. NEEDS CONTEMPORARY RESEARCH AND REPORTING.

PLSS: T16S, R03W, Sec. 14, NW (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3627458 E484290
Latitude/Longitude: 32.78493 / -117.16776
Elevation (feet): 340

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

SAN46S0001 SAN DIEGO ZOO - SDNHM #37870 COLLECTED AT LINDA VISTA 1946-08-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92210
EO Index: 112815
Key Quad: La Mesa (3211771)
Element Code: ARACC01060
Occurrence Number: 252
Occurrence Last Updated: 2018-10-02

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 1931-03-25
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1931-03-25
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:

LA MESA, SAN DIEGO.

Detailed Location:

Ecological:

Threats:

DEVELOPMENT SINCE THE TIME OF COLLECTION.

General:

1 COLLECTED ON 25 MAR 1931. NEEDS CONTEMPORARY RESEARCH AND REPORTING.

PLSS: T16S, R01W, Sec. 19 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3625556 E497822
Latitude/Longitude: 32.76789 / -117.02325
Elevation (feet): 535

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

DUE31S0001 DUERNUTT, J. - SDNHM #4313 COLLECTED AT LA MESA 1931-03-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1133
Key Quad: National City (3211761)
Occurrence Number: 353

EO Index: 113026
Element Code: ARACC01060
Occurrence Last Updated: 2018-10-16

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 1931-05-24
Last Survey Date: 1931-05-24
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:

SPRING VALLEY.

Detailed Location:

EXACT LOCATIONS OF COLLECTIONS UNKNOWN. MAPPED NON-SPECIFICALLY WITH RESPECT TO 1930S-1940S TOPO MAPS TO INCLUDE THE VALLEY OF SPRING VALLEY (NOW VICINITY OF HWY 25) AND THE TOWN OF SPRING VALLEY NEAR KENWOOD DR AT HWY 94.

Ecological:

Threats:

DEVELOPMENT SINCE THE TIME OF COLLECTION; MAY BE EXTIRPATED.

General:

COLLECTED ON 4 MAR 1930, 14 MAR 1930, AND 24 MAY 1931.

PLSS: T16S, R01W, Sec. 32 (S)
UTM: Zone-11 N3622547 E499789

Accuracy: non-specific area
Latitude/Longitude: 32.74075 / -117.00225

Area (acres): 1,242
Elevation (feet): 358

County Summary:

San Diego

Quad Summary:

Jamul Mountains (3211668), El Cajon (3211678), National City (3211761)

Sources:

BRI31S0001	BRITT, J. - SDNHM #4811 COLLECTED AT SPRING VALLEY 1931-05-24
MCD30S0001	MCDOUGALL, G. - SDNHM #2390 COLLECTED AT SPRING VALLEY 1930-03-04
MCD30S0002	MCDOUGALL, G. - SDNHM #25090 COLLECTED AT SPRING VALLEY 1930-03-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1174
Key Quad: Imperial Beach (3211751)
Occurrence Number: 354

EO Index: 113072
Element Code: ARACC01060
Occurrence Last Updated: 2018-10-22

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 2011-04-XX
Last Survey Date: 2011-04-XX
Owner/Manager: SDG COUNTY
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

ABOUT 0.25 MI S OF OTAY MESA RD AT HAWKEN DR, 0.6 MI ENE OF I-805 AT BEYER BLVD, OTAY VALLEY REGIONAL PARK, SAN YSIDRO.

Detailed Location:

MAPPED TO PROVIDED MAP. FURBY-NORTH PROPERTY, SAN DIEGO DEPARTMENT OF PARKS AND RECREATION, NOW PART OF OTAY VALLEY REGIONAL PARK.

Ecological:

OLIVENHAIN COBBLEY LOAM SOILS. JOJOBA-SAN DIEGO SUNFLOWER ASSOCIATION.

Threats:

General:

1 INCIDENTALLY UNEARTHED DURING INSTALLATION OF PITFALL ARRAY IN APR 2011 (NONE DETECTED DURING PITFALL TRAPPING - METHOD NOT REALLY APPROPRIATE FOR ANNIELLA).

PLSS: T18S, R02W, Sec. 36, SE (S)
UTM: Zone-11 N3602586 E496916

Accuracy: 80 meters
Latitude/Longitude: 32.56068 / -117.03286

Area (acres): 5
Elevation (feet): 403

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

ALB12R0001 ALBRIGHT, B. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - RESOURCE MANAGEMENT PLAN FOR FURBY-NORTH PROPERTY: SAN DIEGO COUNTY 2012-06-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1177
Key Quad: Imperial Beach (3211751)
Occurrence Number: 355

EO Index: 113071
Element Code: ARACC01060
Occurrence Last Updated: 2018-10-22

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 2017-10-10
Last Survey Date: 2017-10-10
Owner/Manager: PVT
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:

ALONG WILLOW RD JUST SW OF THE I-5/I-805 SPLIT, 0.3 MI SE OF I-5 AT VIA DE SAN YISIDRO, SAN YISIDRO, CITY OF SAN DIEGO.

Detailed Location:

ACROSS THE STREET FROM WILLOW ELEMENTARY SCHOOL, ABOUT 0.4 MILES N OF THE US / MEXICO BORDER. MAPPED TO PROVIDED INFORMATION FROM INATURALIST.

Ecological:

THIS AREA WAS UNDEVELOPED IN 1974, MARGINALLY DEVELOPED IN 1980, SPECIFIC SITE DEVELOPED BY 1989, AND THE SURROUNDING AREA WELL DEVELOPED BY 2002. THIS IS LIKELY A DETECTION OF A REMNANT POPULATION THAT MAY NOT PERSIST.

Threats:

DEVELOPMENT.

General:

1 FOUND AND PHOTOGRAPHED ON CONCRETE ON 10 OCT 2017.

PLSS: T19S, R02W, Sec. 1, NW (S)
UTM: Zone-11 N3601157 E496014

Accuracy: 80 meters
Latitude/Longitude: 32.54778 / -117.04246

Area (acres): 5
Elevation (feet): 51

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

INA17U0001 INATURALIST - OBSERVATION 8354072 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2018-10-19. 2017-10-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1178
Key Quad: Imperial Beach (3211751)
Occurrence Number: 356

EO Index: 113073
Element Code: ARACC01060
Occurrence Last Updated: 2018-10-22

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 2012-05-12
Last Survey Date: 2012-05-12
Owner/Manager: SDG COUNTY
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

0.3 MI SE OF SUNSET AVE AT HOLLISTER ST, TIJUANA RIVER VALLEY REGIONAL PARK, SAN DIEGO.

Detailed Location:

APPEARS TO BE THE WILD WILLOW FARM & EDUCATION CENTER ORGANIC FARM.

Ecological:

FOUND BY A VOLUNTEER GARDNER WHILE DIGGING UP WEEDS NEAR A PEACH TREE. IT WAS FOUND IN SOME RECENTLY PLANTED LOOSE SOIL THAT IS MOSTLY LOAMY AND REGULARLY IRRIGATED.

Threats:

UNCLEAR WHAT IMPACT ORGANIC FARM MAY HAVE ON SPECIES.

General:

1 UNEARTHED DURING WEED PULLING AND PHOTOGRAPHED ON 12 MAY 2012.

PLSS: T19S, R02W, Sec. 3, NW (S)
UTM: Zone-11 N3601807 E492400

Accuracy: 80 meters
Latitude/Longitude: 32.55363 / -117.08096

Area (acres): 5
Elevation (feet): 33

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

INA12U0001 INATURALIST - OBSERVATION 78549 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2018-10-19. 2012-05-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1179
Key Quad: Imperial Beach (3211751)
Occurrence Number: 357

EO Index: 113074
Element Code: ARACC01060
Occurrence Last Updated: 2018-12-14

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 2016-06-19
Last Survey Date: 2016-06-19
Owner/Manager: SDG COUNTY
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:

0.3 MI SW OF SUNSET AVE AT HOLLISTER ST, JUST NORTH OF TIJUANA RIVER, TIJUANA RIVER VALLEY REGIONAL PARK, SAN DIEGO.

Detailed Location:

Ecological:

Threats:

POSSIBLY THREATENED BY ROAD MORTALITY DUE TO VEHICLE STRIKES.

General:

1 FOUND ALIVE AND PHOTOGRAPHED IN 2007. 1 FOUND DEAD AND PHOTOGRAPHED ON 19 JUN 2016.

PLSS: T19S, R02W, Sec. 4, NE (S)
UTM: Zone-11 N3601884 E491692

Accuracy: specific area
Latitude/Longitude: 32.55432 / -117.0885

Area (acres): 9
Elevation (feet): 24

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

INA16U0002 INATURALIST - OBSERVATION 8316855 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2018-10-19. 2016-06-19

STO07U0001 STOWE, M. - DETECTION INFORMATION FOR PHOTOS OF ANNIELLA AT TIJUANA RIVER VALLEY REGIONAL PARK 2007-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1183	**EO Index:**	113077
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ARACC01060
Occurrence Number:	358	**Occurrence Last Updated:**	2018-10-22

Scientific Name: *Anniella stebbinsi*

Common Name: Southern California legless lizard

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	1998-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1998-XX-XX	**Occurrence Rank:**	Good
Owner/Manager:	DPR-BORDER FIELD SP	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ABOUT 0.1 MI N OF USA/MEX BORDER, 0.4 MI SSE OF THE STATE PARK ENTRANCE KIOSK ON MONUMENT RD, BORDER FIELD STATE PARK.

Detailed Location:

1.4 MI WSW OF HOLLISTER ST AT MONUMENT RD, AND 0.9 MILES ENE OF BORDER MONUMENT 258. MAPPED TO PROVIDED COORDINATES FOR TRAPPING ARRAY 11.

Ecological:

MESA TOP.

Threats:

General:

1 CAPTURED BY DRIFT FENCE & PITTFALL TRAP ARRAY IN 1998 AND RELEASED; NOT CAPTURED DURING SAME EFFORT IN 1997, 1999, & 2000 DUE TO LOW PROBABILITY TO PASSIVELY CAPTURE ANNIELLA BY PITFALL TRAPS.

PLSS:	T19S, R02W, Sec. 8, NE (S)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3600039 E489915	**Latitude/Longitude:**	32.53766 / -117.1074	**Elevation (feet):**	162

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

FIS00R0002	FISHER, R. & T. CASE (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - FINAL REPORT ON HERPETOFAUNA MONITORING IN THE TIJUANA ESTUARY NATIONAL ESTUARINE RESEARCH RESERVE 2000-02-XX
ROC01R0001	ROCHESTER, C. ET AL. (U.S. GEOLOGICAL SURVEY) - HERPETOFAUNAL MONITORING IN MSCP REGION OF SAN DIEGO 2001-03-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1184	**EO Index:**	113078
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ARACC01060
Occurrence Number:	359	**Occurrence Last Updated:**	2018-10-22

Scientific Name: *Anniella stebbinsi*

Common Name: Southern California legless lizard

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	1997-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1997-XX-XX	**Occurrence Rank:**	Good
Owner/Manager:	DPR-BORDER FIELD SP	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

WITHIN 100 METERS OF USA/MEX BORDER, 0.75 MI SW OF THE STATE PARK KIOSK ON MONUMENT RD, BORDER FIELD STATE PARK.

Detailed Location:

2 MI WSW OF HOLLISTER ST AT MONUMENT RD, AND 0.3 MILES ENE OF BORDER MONUMENT 258. MAPPED TO PROVIDED COORDINATES FOR TRAPPING ARRAY 6 AND 8.

Ecological:

MESA TOP.

Threats:

General:

1 CAPTURED AT 2 ARRAYS BY DRIFT FENCE & PITTFALL TRAPS IN 1997 AND RELEASED; NOT CAPTURED DURING SAME EFFORT IN 1998 AND 1999 DUE TO LOW PROBABILITY TO PASSIVELY CAPTURE ANNIELLA BY PITFALL TRAPS.

PLSS:	T19S, R02W, Sec. 8, NW (S)	**Accuracy:**	specific area	**Area (acres):**	8
UTM:	Zone-11 N3599783 E488964	**Latitude/Longitude:**	32.53534 / -117.11752	**Elevation (feet):**	80

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

FIS00R0002	FISHER, R. & T. CASE (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - FINAL REPORT ON HERPETOFAUNA MONITORING IN THE TIJUANA ESTUARY NATIONAL ESTUARINE RESEARCH RESERVE 2000-02-XX
ROC01R0001	ROCHESTER, C. ET AL. (U.S. GEOLOGICAL SURVEY) - HERPETOFAUNAL MONITORING IN MSCP REGION OF SAN DIEGO 2001-03-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1186	**EO Index:**	113079
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ARACC01060
Occurrence Number:	360	**Occurrence Last Updated:**	2018-10-22

Scientific Name: *Anniella stebbinsi*

Common Name: Southern California legless lizard

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	1928-02-01	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1928-02-01	**Occurrence Rank:**	Fair
Owner/Manager:	DPR-BORDER FIELD SP	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

AREA OF BORDER MONUMENT 258, USA/MEX BORDER 0.1 MILE E OF THE OCEAN, 1 MILE SW OF THE STATE PARK KIOSK, BORDER FIELD SP.

Detailed Location:

VICINITY OF PRESENT DAY MONUMENT MESA (ACCESSIBLE) AND FRIENDSHIP PARK (INACCESSIBLE; WITHIN THE 2008-2009 DHS BORDER INFRASTRUCTURE PROJECT).

Ecological:

1939 & 1941 AERIALS SHOW THE AREA TO BE PRIMARILY NATURAL OPEN SPACE ON EITHER SIDE OF THE BORDER. AREA HAS BEEN IMPACTED BY PAST EFFECTS OF NAVAL RESERVATION, DEVELOPMENT OF MONUMENT MESA PARK (1975-1980), & CURRENT BORDER ENFORCEMENT.

Threats:

DEVELOPMENT SINCE THE TIME OF COLLECTION.

General:

3 COLLECTED ON 1 FEB 1928.

PLSS:	T19S, R02W, Sec. 7 (S)	**Accuracy:**	non-specific area	**Area (acres):**	9
UTM:	Zone-11 N3599691 E488470	**Latitude/Longitude:**	32.5345 / -117.12279	**Elevation (feet):**	54

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

SEA28S0004 SEARL, C. - SDNHM #11425, 11426 & 11427 COLLECTED AT MONUMENT 258 1928-02-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1191	**EO Index:**	113081
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ARACC01060
Occurrence Number:	361	**Occurrence Last Updated:**	2018-10-22

Scientific Name: *Anniella stebbinsi*

Common Name: Southern California legless lizard

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	2016-10-23	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-10-23	**Occurrence Rank:**	Excellent
Owner/Manager:	DPR-BORDER FIELD SP	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

COASTAL DUNES ABOUT 0.5 MILES N OF BORDER MONUMENT 258, 0.8 MILES E OF THE STATE PARK KIOSK, BORDER FIELD STATE PARK.

Detailed Location:

ABOUT 0.5 MILE STRETCH OF DUNES ABOUT 0.25 TO 0.7 MILES NORTH OF MONUMENT 258.

Ecological:

COASTAL SAND DUNES. SITE OF GENETIC REFERENCE FOR CLADE E IN PAR09A0001 NOW DESCRIBED AS A. STEBBINSI, AND FOR VERTEBRAL COUNTS FOR A. STEBBINSI IN PAP13A0001.

Threats:

General:

FOUND DURING TRAPPING SURVEYS IN 1997, 1998, & 2000.1 COLLECTED ON 19 DEC 1998. 5 COLLECTED ON 25 FEB 2000. 4 FOUND, 3 PHOTOGRAPHED, ON 1 FEB 2014. FOUND UNDER BOARD ON SAND DUNE & PHOTOGRAPHED 23 OCT 2016.

PLSS:	T19S, R02W, Sec. 6, S (S)	**Accuracy:**	specific area	**Area (acres):**	30
UTM:	Zone-11 N3600447 E488388	**Latitude/Longitude:**	32.54132 / -117.12367	**Elevation (feet):**	9

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

FIS00R0002	FISHER, R. & T. CASE (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - FINAL REPORT ON HERPETOFAUNA MONITORING IN THE TIJUANA ESTUARY NATIONAL ESTUARINE RESEARCH RESERVE 2000-02-XX
HER16D0001	HERP, INC. - HERPETOLOGICAL EDUCATION AND RESEARCH PROJECT (HERP) DATABASE. FORMERLY A PROJECT OF THE NORTH AMERICAN FIELD HERPING ASSOCIATION. 2016-10-11
INA16U0001	INATURALIST - OBSERVATION 4423088 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2018-10-19. 2016-10-23
PAP00S0024	PAPENFUSS, T. - MVZ #230674, 230675, 230676, 230677 & 230678 COLLECTED AT COASTAL DUNES, 0.4 MI N OF MEXICAN BORDER, NE 1/4 SEC 7, T19S, R2W 2000-02-25
PAP13A0001	PAPENFUSS, T. & J. PARHAM (MUSEUM OF VERTEBRATE ZOOLOGY) - FOUR NEW SPECIES OF CALIFORNIA LEGLESS LIZARDS (ANNIELLA). BREVIORA 536: 1-17. 2013-XX-XX
PAP98S0015	PAPENFUSS, T. (MUSEUM OF VERTEBRATE ZOOLOGY) - MVZ #230556 COLLECTED FRROM NE 1/4 SEC 7, T19S, R2W, COASTAL DUNES, 0.3 MI N OF MEXICAN BORDER 1998-12-19
PAR09A0001	PARHAM, J. & T. PAPENFUSS - EVIDENCE FOR HIGH GENETIC DIVERSITY AMONG FOSSORIAL LIZARD POPULATIONS (ANNIELLA PULCHRA) IN A RAPIDLY DEVELOPING LANDSCAPE. CONSERVATION GENETICS 10: 169-176. 2009-XX-XX
ROC01R0001	ROCHESTER, C. ET AL. (U.S. GEOLOGICAL SURVEY) - HERPETOFAUNAL MONITORING IN MSCP REGION OF SAN DIEGO 2001-03-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1196	**EO Index:**	113088
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ARACC01060
Occurrence Number:	362	**Occurrence Last Updated:**	2018-12-14

Scientific Name: *Anniella stebbinsi*

Common Name: Southern California legless lizard

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	1998-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1998-XX-XX	**Occurrence Rank:**	Excellent
Owner/Manager:	USFWS-TIJUANA SLOUGH NWR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

1.1 MILE SOUTH OF IMPERIAL BEACH BLVD AT 3RD ST, TIJUANA SLOUGH NATIONAL WILDLIFE REFUGE, IMPERIAL BEACH.

Detailed Location:

MAPPED TO PROVIDED COORDINATES FOR TRAPPING ARRAY 13 AND 15. VICINITY OF SOUTH MCCOY TRAIL SOUTH OF IRIS AVE REFUGE ENTRANCE.

Ecological:

MARSH UPLAND.

Threats:

General:

3 CAPTURED BY DRIFT FENCE & PITTFALL TRAP ARRAY IN 1998 AND RELEASED (1 COLLECTED); NOT CAPTURED DURING SAME EFFORT IN 1997, 1999, & 2000 DUE TO LOW PROBABILITY TO PASSIVELY CAPTURE ANNIELLA BY PITFALL TRAPS.

PLSS:	T18S, R02W, Sec. 31, S (S)	**Accuracy:**	specific area	**Area (acres):**	13
UTM:	Zone-11 N3602588 E488262	**Latitude/Longitude:**	32.56064 / -117.12503	**Elevation (feet):**	16

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

FIS00R0002	FISHER, R. & T. CASE (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - FINAL REPORT ON HERPETOFAUNA MONITORING IN THE TIJUANA ESTUARY NATIONAL ESTUARINE RESEARCH RESERVE 2000-02-XX
ROC01R0001	ROCHESTER, C. ET AL. (U.S. GEOLOGICAL SURVEY) - HERPETOFAUNAL MONITORING IN MSCP REGION OF SAN DIEGO 2001-03-XX
USG98S0001	USGS - LACM #185964 COLLECTED AT TIJUANA ESTUARY 1998-06-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1200	**EO Index:**	113093
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ARACC01060
Occurrence Number:	363	**Occurrence Last Updated:**	2018-10-23

Scientific Name: *Anniella stebbinsi*

Common Name: Southern California legless lizard

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	2016-10-08	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-10-08	**Occurrence Rank:**	Good
Owner/Manager:	USFWS-TIJUANA SLOUGH NWR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ABOUT 0.25 MI SSE OF IMPERIAL BEACH BLVD AT 3RD STREET, TIJUANA SLOUGH NATIONAL WILDLIFE REFUGE, IMPERIAL BEACH.

Detailed Location:

ABOUT 0.1 MILE SOUTH OF THE REFUGE VISITOR CENTER, VICINITY OF NORTH MCCOY TRAIL. MAPPED TO PROVIDED COORDINATES. HISTORICAL COLLECTION RECORD FROM 10 MILES S OF SAN DIEGO INCLUDED HERE.

Ecological:

FOUND BY VOLUNTEERS WORKING ON INVASIVE PLANT REMOVAL AND COASTAL SAGE SCRUB RESTORATION AT TIJUANA ESTUARY.

Threats:

General:

COLLECTED FROM THE GENERAL AREA ON 12 JAN 1958. 1 UNEARTHED DURING INVASIVE PLANT REMOVAL ON 8 OCT 2016.

PLSS:	T18S, R02W, Sec. 30, S (S)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3603979 E488123	**Latitude/Longitude:**	32.57319 / -117.12653	**Elevation (feet):**	9

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

INA16U0003	INATURALIST - OBSERVATION 4299844 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2018-10-19. 2016-10-08
STA58S0002	STAEDELE, J. - AMNH #161012 COLLECTED 10 MI S SAN DIEGO 1958-01-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1201
Key Quad: Imperial Beach (3211751)
Occurrence Number: 364

EO Index: 113096
Element Code: ARACC01060
Occurrence Last Updated: 2018-10-24

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 2018-02-17
Last Survey Date: 2018-02-17
Owner/Manager: UNK, USFWS-TIJUANA SLOUGH NWR
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

VICINITY OF IMPERIAL BEACH BLVD ABOUT 0.1 MILE E OF THE BEACH AND 0.2 MILES W OF 3RD ST, IMPERIAL BEACH.

Detailed Location:

MAPPED NON-SPECIFICALLY TO INATURALIST POINT FEATURE IN THE MIDDLE OF IMPERIAL BEACH BLVD THAT HAD AN ASSOCIATED ERROR MARGIN OF 74 METERS.

Ecological:

POSSIBLY FOUND FROM REFUGE OPEN SPACE PROPERTY ALONG THE SOUTH SIDE OF IMPERIAL BEACH BLVD, BUT IT'S ALSO POSSIBLE THAT IT WAS FOUND IN A RESIDENTIAL YARD.

Threats:

General:

1 FOUND AND PHOTOGRAPHED ON 17 FEB 2018.

PLSS: T18S, R02W, Sec. 30, W (S)
UTM: Zone-11 N3604361 E487745

Accuracy: non-specific area
Latitude/Longitude: 32.57663 / -117.13057

Area (acres): 5
Elevation (feet): 11

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

INA18U0001 INATURALIST - OBSERVATION 10162030 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2018-10-19. 2018-02-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1202	**EO Index:**	113097
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ARACC01060
Occurrence Number:	365	**Occurrence Last Updated:**	2018-10-23

Scientific Name: *Anniella stebbinsi*

Common Name: Southern California legless lizard

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	1958-01-12	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1958-01-12	**Occurrence Rank:**	None
Owner/Manager:	UKNOWN	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

NESTOR.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED TO THE GENERAL AREA OF THE COMMUNITY OF NESTOR. LATER COLLECTION RECORD FROM 10 MILES S OF SAN DIEGO INCLUDED HERE.

Ecological:

PRIMARILY AGRICULTURE IN THE 1930S, MORRE RESIDENTIAL DEVELOPMENT & FREEWAY CONSTRUCTION IN THE 1950S, AND VERY LITTLE OPEN SPACE BY THE 1990S. THERE MAY BE HABITAT ALONG THE CREEK THAT STILL FLOWS THROUGH NESTOR, BUT MOSTLY A DITCH.

Threats:

DEVELOPMENT SINCE THE TIME OF COLLECTION.

General:

1 COLLECTED ON 11 JUN 1928. COLLECTED FROM THE GENERAL AREA (10 MILES S OF SAN DIEGO) ON 12 JAN 1958.

PLSS:	T18S, R02W, Sec. 27 (S)	**Accuracy:**	3/5 mile	**Area (acres):**	776
UTM:	Zone-11 N3604132 E492124	**Latitude/Longitude:**	32.5746 / -117.08391	**Elevation (feet):**	26

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

FLO28S0001	FLOERISCH, B. - SDNHM #820 COLLECTED AT NESTOR 1928-06-11
STA58S0002	STAEDELE, J. - AMNH #161012 COLLECTED 10 MI S SAN DIEGO 1958-01-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1205	**EO Index:**	113099
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ARACC01060
Occurrence Number:	366	**Occurrence Last Updated:**	2018-10-23

Scientific Name: *Anniella stebbinsi*

Common Name: Southern California legless lizard

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	2017-03-04	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-03-04	**Occurrence Rank:**	Good
Owner/Manager:	DOD, USFWS	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

VICINITY OF HISTORIC CORONADO HEIGHTS, US ARMY FORT EMORY, US NAVAL RADIO RECEIVING STATION, SOUTHWEST SAN DIEGO BAY.

Detailed Location:

NOW PART OF DOD SILVER STRAND TRAINING COMPLEX AND JUST NORTH OF THE HISTORIC WULLENWEBER ANTENNA ARRAY ("THE ELEPHANT CAGE"). RECENTLY FOUND ON THE EAST SIDE OF HWY 75 ALONG THE BIKE TRAIL.

Ecological:

1939: COMMON IN SAND DUNES ABOVE HIGH TIDE UNDER SAND VERBENA. 2017: IN SANDY LEAF LITTER, E SIDE OF BAYSHORE BIKEWAY, E SIDE OF HWY 75. RECENT AERIAL IMAGES INDICATE THAT HIGH QUALITY ANNIELLA HABITAT LIKELY STILL OCCURS ON DOD PROPERTY.

Threats:

General:

10 COLLECTED ON 6 MAY 1939. 1 FOUND AND PHOTOGRAPHED ON 4 MAR 2017.

PLSS:	T18S, R02W, Sec. 18, S (S)	**Accuracy:**	non-specific area	**Area (acres):**	189
UTM:	Zone-11 N3607327 E488327	**Latitude/Longitude:**	32.60339 / -117.12441	**Elevation (feet):**	7

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

DEU39S0002	DEUEL, J. - SDNHM #17379, 17380, 17381, 17382, 17383, 17384, 17385, 17386, 17387 & 17388 COLLECTED AT CORONADO HEIGHTS 1939-05-06
INA17U0002	INATURALIST - OBSERVATION 5230827 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2018-10-19. 2017-03-04
KLA40A0001	KLAUBER, L. - NOTES FROM A HERPETOLOGICAL DIARY, II. COPEIA 1940(1): 15-18. 1940-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1206
Key Quad: National City (3211761)
Occurrence Number: 367
EO Index: 113101
Element Code: ARACC01060
Occurrence Last Updated: 2018-10-23

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S3
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 2018-05-19
Last Survey Date: 2018-05-19
Owner/Manager: USFWS
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

GUNPOWDER POINT, SW OF THE CIRCULAR END OF GUNPOWDER POINT DR, SAN DIEGO BAY NATIONAL WILDLIFE REFUGE, CHULA VISTA.

Detailed Location:

MAPPED TO PROVIDED COORDINATES FROM INATURALIST.

Ecological:

Threats:

General:

1 FOUND NEAR THE SURFACE AND PHOTOGRAPHED BURROWING INTO SOIL ON 25 JUN 2016. 1 FOUND AND PHOTOGRAPHED ON HARDPACKED SOIL ON 19 MAY 2018; THE INDIVIDUAL PHOTOGRAPHED WAS OBVIOUSLY WOUNDED AND LIKELY DEAD.

PLSS: T18S, R02W, Sec. 5, NW (S)
UTM: Zone-11 N3611278 E489446
Accuracy: specific area
Latitude/Longitude: 32.63905 / -117.11252
Area (acres): 11
Elevation (feet): 10

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

INA16U0004 INATURALIST - OBSERVATION 4911395 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2018-10-19. 2016-06-25

INA18U0004 INATURALIST - OBSERVATION 12628740 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2018-10-19. 2018-05-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 35040
Key Quad: National City (3211761)
Occurrence Number: 368
EO Index: 113194
Element Code: ARACC01060
Occurrence Last Updated: 2018-12-14

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S3
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 1932-07-03
Last Survey Date: 1932-07-03
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:

CHULA VISTA.

Detailed Location:

LOCATION ONLY STATED AS CHULA VISTA; MAPPED TO GENERAL AREA OF THE CITY OF CHULA VISTA.

Ecological:

Threats:

DEVELOPMENT SINCE THE TIME OF COLLECTION.

General:

COLLECTED IN THE VICINITY OF CHULA VISTA IN 1932 AND AT AN UNKNOWN DATE.

PLSS: T18S, R02W, Sec. 03 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3611389 E492160
Latitude/Longitude: 32.64007 / -117.08358
Elevation (feet): 75

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

BEA32S0003 BEARDSLEY, K. - SDNHM #8806 COLLECTED AT CHULA VISTA 1932-07-03
GRANDS0019 GRANT - FMNH #206118 COLLECTED AT CHULA VISTA XXXX-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1294	**EO Index:**	113196
Key Quad:	National City (3211761)	**Element Code:**	ARACC01060
Occurrence Number:	369	**Occurrence Last Updated:**	2018-11-02

Scientific Name: *Anniella stebbinsi*

Common Name: Southern California legless lizard

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	1992-04-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1992-04-15	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SWEETWATER VALLEY, VICINITY OF WILLOW ST UPSTREAM (NE) TO BONITA RD, VICINITY OF THE COMMUNITIES OF BONITA & SUNNYSIDE.

Detailed Location:

EXACT LOCATION UNKNOWN. THERE IS NO BONITA VALLEY; PRESUMED THIS EQUALED SWEETWATER VALLEY NEAR BONITA. MAPPED NON-SPECIFICALLY TO SWEETWATER VALLEY NEAR BONITA & SUNNYMEAD. SANBIOS IMPLIED IT MAY HAVE BEEN COLLECTED NEAR BONITA RD.

Ecological:

THERE DOES NOT APPEAR TO BE DIFFERENCES IN LAND USE IN THIS AREA BETWEEN 1994 AERIALS AND 2016.

Threats:

General:

1 COLLECTED ON 15 APR 1992.

PLSS:	T17S, R01W, Sec. 30 (S)	**Accuracy:**	non-specific area	**Area (acres):**	440
UTM:	Zone-11 N3614564 E497749	**Latitude/Longitude:**	32.66873 / -117.024	**Elevation (feet):**	77

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

CER92S0001	CERUTTI, R. - SDNHM #68032 COLLECTED AT CHULA VISTA, BONITA VALLEY 1992-04-15
SDG18D0001	COUNTY OF SAN DIEGO - SANBIOS DATABASE EXTRACT OF ANNIELLA RECORDS. DOWNLOADED 28 SEP 2018. 2018-09-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1300	**EO Index:**	113206
Key Quad:	Point Loma (3211762)	**Element Code:**	ARACC01060
Occurrence Number:	370	**Occurrence Last Updated:**	2018-11-02

Scientific Name: *Anniella stebbinsi*

Common Name: Southern California legless lizard

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	2014-02-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2014-02-24	**Occurrence Rank:**	Fair
Owner/Manager:	DPR-SILVER STRAND SB	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SILVER STRAND, FROM NAVAL AMPHIBIOUS BASE CORONADO SOUTH TO CORONADO CAYS, OUTER PENINSULA OF SAN DIEGO BAY.

Detailed Location:

MAPPED WITH RESPECT TO HISTORIC 1941 AND 1962 AERIAL IMAGERY, AND TO RECENT (2013-2014) DETECTIONS AT SILVER STRAND STATE BEACH EAST OF HWY 75 BETWEEN CROWN COVE AND CORONADO CAYS.

Ecological:

THE ENTIRE STRAND HAS BEEN GREATLY ALTERED BY DREDGING FILL AND DEVELOPMENT SINCE THE 1940S AND 1960S. THE DEVELOPMENT OF CORONADO CAYS WAS ONCE CONTINUOUS LAND MASS, WHEREAS LINCOLN MILITARY HOUSING IS CONSTRUCTED ON FILL.

Threats:

DEVELOPMENT.

General:

COLLECTED IN 1930, 1937, 1949 (QTY 33), 1959, AND 1973. 1 FOUND AND PHOTOGRAPHED ON 28 JAN 2013. 4 FOUND AND PHOTOGRAPHED ON 24 FEB 2014.

PLSS:	T18S, R03W, Sec. 1 (S)	**Accuracy:**	non-specific area	**Area (acres):**	716
UTM:	Zone-11 N3610508 E486913	**Latitude/Longitude:**	32.63207 / -117.13952	**Elevation (feet):**	8

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751), Point Loma (3211762)

Sources:

BRO59S0005	BROWN, D. ET AL. - CAS #22652 COLLECTED AT SILVER STRAND BEACH 1959-09-20
HER16D0001	HERP, INC. - HERPETOLOGICAL EDUCATION AND RESEARCH PROJECT (HERP) DATABASE. FORMERLY A PROJECT OF THE NORTH AMERICAN FIELD HERPING ASSOCIATION. 2016-10-11
MAH73S0001	MAHRDT, C. - SDNHM #47930 COLLECTED AT SAN DIEGO, SILVER STRAND STATE BEACH 1973-12-06
SCH49S0004	SCHWENKMEYER, R. & G. MARSH - SDNHM #39631, 39632, 39633, 39634, 39635, 39636, 39637, 39638 & 39639 COLLECTED AT SAN DIEGO, SILVER STRAND 1949-03-18
SCH49S0005	SCHWENKMEYER, R. & F. WILLIAMSON - SDNHM #39640, 39641, 39642, 39643, 39644, 39645 & 39646 COLLECTED AT SAN DIEGO, SILVER STRAND. 1949-03-25
SCH49S0006	SCHWENKMEYER, R. - SDNHM #39658, 39659, 39660, 39661, 39662, 39663, 39664, 39665, 39666, 39667, 39668 & 39669 COLLECTED AT SAN DIEGO, SILVER STRAND 1949-04-08
SCH49S0007	SCHWENKMEYER, R. ET AL. - SDNHM #40336, 40337, 40338, 40339 & 40340 COLLECTED AT SAN DIEGO, SILVER STRAND STATE PARK 1949-11-24
SDG37S0001	SAN DIEGO GAS AND ELECTRIC - SDNHM #26856 COLLECTED AT CORONADO STRAND 1937-05-10
WYL30S0001	WYLIE, W. - SDNHM #13238 COLLECTED AT CORONADO; SILVER STRAND 1930-01-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1310	**EO Index:**	113218
Key Quad:	Point Loma (3211762)	**Element Code:**	ARACC01060
Occurrence Number:	371	**Occurrence Last Updated:**	2018-11-05

Scientific Name: *Anniella stebbinsi*

Common Name: Southern California legless lizard

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	1998-12-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1998-12-10	**Occurrence Rank:**	Poor
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

CORONADO.

Detailed Location:

MAPPED WITH RESPECT TO 1941 & 1962 AERIAL IMAGES, AND WITH RESPECT TO 1904, 1930, & 1953 TOPO MAPS. COLLECTED AT CORONADO, CORONADO BEACH, AND MOST RECENTLY FROM THE YARD AT 964 OLIVE AVE (HOUSE PRESENT IN 1941 AERIALS).

Ecological:

CITY OF CORONADO WAS INCORPORATED IN 1890 & APPEARED WELL LAID-OUT IN 1904 MAPS, THOUGH 1941 AERIALS SHOW SOME NEIGHBORHOOD BLOCKS W/OUT HOUSING DEVELOPMENTS. THE AREA W OF ALAMEDA BLVD (SPANISH BIGHT) WAS FILLED-IN & DEVELOPED BY THE 1950S

Threats:

DEVELOPMENT SINCE EARLY COLLECTIONS HAS LIKELY HAD A NEGATIVE AFFECT.

General:

COLLECTED FROM THE AREA OF CORONADO AROUND 1900, 1926, AROUND 1930, 1935, 1955, AND 1998.

PLSS:	T17S, R03W, Sec. 15 (S)	**Accuracy:**	4/5 mile	**Area (acres):**	1,312
UTM:	Zone-11 N3616947 E483379	**Latitude/Longitude:**	32.69011 / -117.17731	**Elevation (feet):**	26

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

BLANDS0006	BLAISDELL, F. - CAS #5102, 5103, 5104, 5105, 5106, 5107, 5108, 5109 & 5110 COLLECTED AT CORONADO [BEFORE APRIL 1906] 190X-07-XX
CAL55S0001	CALLEY - TNHC #21330, 21331, 21332 & 21333 COLLECTED AT CORONADO BEACH 1955-07-XX
HUB26S0001	HUBBS, C. - UMMZ #65194 COLLECTED AT CORONADO 1926-10-XX
PAP98S0014	PAPENFUSS, T. & C. NELSON (MUSEUM OF VERTEBRATE ZOOLOGY) - MVZ #230554 & 230555 COLLECTED AT 964 OLIVE AVE (IN YARD), CORONADO 1998-12-10
SAN35S0003	SAN DIEGO ZOO - SDNHM #23172 COLLECTED AT CORONADO 1935-02-11
STE30S0001	STEPHENS, F. - SDNHM #11016 COLLECTED AT CORONADO BEACH [MOST LIKELY COLLECTED BETWEEN 1910-1925; PASSED AWAY IN 1937] 1930-XX-XX
VAN35S0004	VAN DYKE, E. - CAS #71977 COLLECTED AT CORONADO 1935-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1315	**EO Index:**	113223
Key Quad:	National City (3211761)	**Element Code:**	ARACC01060
Occurrence Number:	372	**Occurrence Last Updated:**	2018-11-07

Scientific Name: *Anniella stebbinsi*

Common Name: Southern California legless lizard

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	1976-04-28	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1976-04-28	**Occurrence Rank:**	Poor
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

CITY OF SAN DIEGO.

Detailed Location:

OCCURRENCE REPRESENTS HISTORIC COLLECTIONS WITH ONLY CITY OF SAN DIEGO FOR LOCATIOIN, INCLUDING A MORE SPECIFIC LOCATION OF BALBOA PARK. MAPPED NON-SPECIFICALLY AS A 5 KM RADIUS CIRCLE COVERING THE GENERAL EXPANSE OF SAN DIEGO.

Ecological:

SMALL POPULATIONS MAY STILL PERSIST IN UNDEVELOPED RAVINES, IN RESIDENTIAL YARDS, AND BALBOA PARK WHERE THE LAST COLLECTION WAS DOCUMENTED IN 1976.

Threats:

DEVELOPMENT SINCE THE TURN OF THE 20TH CENTURY.

General:

COLLECTED FROM THE AREA OF SAN DIEGO IN 1884, 1890, 1894, AND OTHERS BEFORE 1900, 1909, 1916, 1923, 1926, 1927, 1928, 1929, 1930, 1931, 1934, 1935, 1937, 1939, 1940, 1941, 1975, AND 1976.

PLSS:	T17S, R02W, Sec. 6 (S)	**Accuracy:**	non-specific area	**Area (acres):**	19,408
UTM:	Zone-11 N3621381 E488656	**Latitude/Longitude:**	32.73017 / -117.12107	**Elevation (feet):**	200

County Summary:	**Quad Summary:**
San Diego	National City (3211761), Point Loma (3211762), La Mesa (3211771), La Jolla (3211772)

Sources:

ANO28S0012	ANONYMOUS - KU #9527 COLLECTED AT CITY OF SAN DIEGO 1928-08-04
ANO75S0008	ANONYMOUS - SDNHM #55578 COLLECTED IN VICINITY OF CITY OF SAN DIEGO 1975-03-XX
ANO76S0012	ANONYMOUS - SDNHM #58433 COLLECTED AT SAN DIEGO, BALBOA PARK 1976-04-28
ANONDS0206	ANONYMOUS - USNM #59464 COLLECTED AT CITY OF SAN DIEGO XXXX-XX-XX
BAK28S0020	BAKER, H. - SDNHM #1489 COLLECTED AT CITY OF SAN DIEGO 1928-08-10
COO30S0016	COOK, L. - CHAS #5373 COLLECTED AT CITY OF SAN DIEGO 1930-12-25
COO39S0006	COOK, L. - SDNHM #31291 COLLECTED AT CITY OF SAN DIEGO 1939-04-11
COP00A0001	COPE, E. - ANNIELLOIDEA. PAGES 669-677 IN THE CROCODILIANS, LIZARDS, AND SNAKES OF NORTH AMERICA. REPORT OF US NATIONAL MUSEUM YEAR ENDING JUNE 30, 1898, PART II. 1900-XX-XX
EMO00S0001	EMORY, W. - USNM #3190 COLLECTED AT CITY OF SAN DIEGO [PRIOR TO 1900, CITED IN COPE 1900: COAST MOUNTAINS NEAR SAN DIEGO] 1900-XX-XX
EST31S0001	ESTEP, L. - SDNHM #4592, 4593 & 4594 COLLECTED AT CITY OF SAN DIEGO 1931-05-16

FIE40S0001	FIELD, F. - SDNHM #33031 COLLECTED AT CITY OF SAN DIEGO 1940-05-31
FLE16S0001	FLEMING, G. - SDNHM #11008 COLLECTED AT CITY OF SAN DIEGO 1916-07-XX
FLE16S0002	FLEMING, G. - SDNHM #11018 COLLECTED AT CITY OF SAN DIEGO 1916-07-19
GAN40S0022	GANDER, F. - SDNHM #17577 COLLECTED AT CITY OF SAN DIEGO 1940-09-21
GIS28S0001	GISTNEY, H. - SDNHM #782 COLLECTED AT CITY OF SAN DIEGO 1928-05-26
GRA39S0005	GRANT, C. - SDNHM #17465 COLLECTED AT CITY OF SAN DIEGO 1939-02-26
GRU16S0001	GRUNDSTROM, T. - SDNHM #11003 COLLECTED AT CITY OF SAN DIEGO 1916-06-18
HAMNDS0001	HAMMOND - UMMZ #3825 COLLECTED AT CITY OF SAN DIEGO XXXX-XX-XX
HAT31S0001	HATCH, P. - SDNHM #4111 COLLECTED AT CITY OF SAN DIEGO 1931-01-09
HIG29S0001	HIGH, I. - SDNHM #1671 COLLECTED AT CITY OF SAN DIEGO 1929-03-22
KLA23S0001	KLAUBER, L. - UMMZ #97506 COLLECTED AT CITY OF SAN DIEGO 1923-04-XX
KLA26S0002	KLAUBER, L. - CAS #66315 COLLECTED AT CITY OF SAN DIEGO 1926-12-04
KLA29S0006	KLAUBER, L. - CUMV #1127 COLLECTED AT CITY OF SAN DIEGO 1929-05-14
KLANDS0001	KLAUBER, L. - CM #22092 COLLECTED AT CITY OF SAN DIEGO XXXX-XX-XX
KRA29S0005	KRANZTHOR, G. & G. MYERS - CAS #7289 COLLECTED AT CITY OF SAN DIEGO 1929-06-XX
LIP90S0001	LIPPINCOTT, J. & E. COPE - ANSP #10777, 10778 & 10779 COLLECTED NEAR CITY OF SAN DIEGO 1890-XX-XX
LOC28S0001	LOCKHOUSEN, K. - SDNHM #1517 COLLECTED AT CITY OF SAN DIEGO 1928-08-16
MER30S0001	MERCIER, L. - SDNHM #3448 COLLECTED AT CITY OF SAN DIEGO 1930-09-26
OLS31S0001	OLSON, A. - SDNHM #4291 COLLECTED AT CITY OF SAN DIEGO 1931-03-14
ORC84S0012	ORCUTT, C. - USNM #13838 COLLECTED NEAR CITY OF SAN DIEGO 1884-04-04
ORC84S0013	ORCUTT, C. - USNM #13890 COLLECTED NEAR CITY OF SAN DIEGO 1884-06-16
ORC84S0014	ORCUTT, C. - USNM #255240 COLLECTED NEAR CITY OF SAN DIEGO 1884-04-04
ORC84S0015	ORCUTT, C. - USNM #255241 & 255242 COLLECTED NEAR CITY OF SAN DIEGO 1884-06-16
PET27S0001	PETERS, J. - SDNHM #25088 & 25089 COLLECTED AT CITY OF SAN DIEGO 1927-XX-XX
PETNDS0002	PETERS, J. - SDNHM #219 & 220 COLLECTED AT CITY OF SAN DIEGO XXXX-XX-XX
RIC09S0003	RICKSECKER - SDNHM #11002 COLLECTED AT CITY OF SAN DIEGO 1909-04-XX
SAN34S0001	SAN DIEGO ZOO - SDNHM #21837 & 21838 COLLECTED AT CITY OF SAN DIEGO 1934-02-11
SAN35S0004	SAN DIEGO ZOO - SDNHM #24271 COLLECTED AT CITY OF SAN DIEGO 1935-10-03
SAN37S0003	SAN DIEGO ZOO - SDNHM #27901 COLLECTED AT CITY OF SAN DIEGO 1937-09-18
SAN41S0003	SAN DIEGO ZOO - SDNHM #34384 COLLECTED AT CITY OF SAN DIEGO 1941-08-06
SAN41S0005	SAN DIEGO ZOO - SDNHM #34642 COLLECTED AT CITY OF SAN DIEGO 1941-10-19
SAN94S0037	SANFORD, O. - CAS #27259, 27260, 27261, 27262, 27263, 27264, 27265, 27266, 27267, 27268, 27269 & 27270 COLLECTED AT CITY OF SAN DIEGO 1894-XX-XX
STE09S0015	STEPHENS, F. - MVZ #999 COLLECTED AT CITY OF SAN DIEGO 1909-03-03
STE84S0005	STEARNS, R. - USNM #13939 COLLECTED AT CITY OF SAN DIEGO 1884-07-28
WIL30S0003	WILSON, C. - SDNHM #3149 COLLECTED AT CITY OF SAN DIEGO 1930-08-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1316
Key Quad: La Jolla (3211772)
Occurrence Number: 373

EO Index: 113224
Element Code: ARACC01060
Occurrence Last Updated: 2018-11-05

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 2016-11-26
Last Survey Date: 2016-11-26
Owner/Manager: PVT
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:

JUST NORTH OF FORT STOCKTON DR AT SIERRA VISTA ST, 1.3 MILES ESE OF I-5 AT I-8, SAN DIEGO.

Detailed Location:

MAPPED TO PROVIDED ADDRESS OF 4268 SIERRA VISTA ST, SAN DIEGO.

Ecological:

FOUND IN LOOSE SOIL IN BACK YARD OF RESIDENTIAL NEIGHBORHOOD THAT BORDERS A LESS DEVELOPED RAVINE ABOUT 0.6 MILES UPSLOPE (SOUTH) FROM THE SAN DIEGO RIVER PLAIN.

Threats:

General:

1 FOUND AND PHOTOGRAPHED IN BACK YARD ON 26 NOV 2016.

PLSS: T16S, R03W, Sec. 27, SW (S)
UTM: Zone-11 N3623944 E482862

Accuracy: 80 meters
Latitude/Longitude: 32.75322 / -117.18295

Area (acres): 5
Elevation (feet): 247

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

INA16U0007 INATURALIST - OBSERVATION 4642859 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2018-10-19. 2016-11-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1330	**EO Index:**	113234
Key Quad:	Point Loma (3211762)	**Element Code:**	ARACC01060
Occurrence Number:	374	**Occurrence Last Updated:**	2018-11-06

Scientific Name: *Anniella stebbinsi*

Common Name: Southern California legless lizard

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	2017-02-17	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-02-17	**Occurrence Rank:**	Good
Owner/Manager:	NPS-CABRILLO NM, DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH END OF POINT LOMA EAST OF CABRILLO RD, CABRILLO NATIONAL MONUMENT & DEPARTMENT OF DEFENSE FORT ROSECRANS.

Detailed Location:

VICINITY OF THE OLD POINT LOMA LIGHTHOUSE NEAR PARK SERVICE VISITOR CENTER (INATURALIST RECORDS), AND JUST NORTH OF THE NEW POINT LOMA LIGHTHOUSE (USGS PITFALL TRAP ARRAY, SITE 3). SPECIFIC LOCATIONS OF HISTORIC COLLECTIONS ARE UNKNOWN.

Ecological:

GENERALLY, THE HABITAT WAS DESCRIBED AS MARITIME SUCCULENT SCRUB AND COASTAL SAGE SCRUB WITH SOME CHAMISE CHAPARRAL, GRASSLAND, AND WASH AREAS. THE AREA IS HIGHLY ACCESSIBLE BY PEOPLE.

Threats:

General:

HISTORIC COLLECTIONS FROM 1907, 1922, 1928, 1931, 1941, AND 1975. 1 CAPTURED IN PITFALL TRAP IN 1999. 1 COLLECTED FROM GENERAL AREA BY USGS STAFF, 20 MAR 2000. 1 FOUND AND PHOTOGRAPHED ON 16 MAR 2015, AND ON 17 FEB 2017.

PLSS:	T17S, R03W, Sec. 30 (S)	**Accuracy:**	non-specific area	**Area (acres):**	47
UTM:	Zone-11 N3614885 E477566	**Latitude/Longitude:**	32.6714 / -117.23927	**Elevation (feet):**	298

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

ANO00S0016	ANONYMOUS - USNM #565273 (RNF 2795) COLLECTED AT POINT LOMA, SOUTHWEST END OF FORT ROSECRANS [MOST LIKELY COLLECTED BY ROBERT N. FISHER, USGS-WERC] 2000-03-20
ANO28S0011	ANONYMOUS - KU #8481 & 8482 COLLECTED AT POINT LOMA 1928-01-10
ANO75S0007	ANONYMOUS - SDNHM #68169 COLLECTED AT SAN DIEGO, POINT LOMA 1975-07-10
BAK07S0001	BAKER, F. - SDNHM #11001 COLLECTED AT SAN DIEGO, POINT LOMA 1907-09-20
BAK22S0001	BAKER, F. - SDNHM #11379 & 11380 COLLECTED AT SAN DIEGO, POINT LOMA 1922-05-XX
INA15U0002	INATURALIST - OBSERVATION 1297176 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2018-10-19. 2015-03-16
INA17U0003	INATURALIST - OBSERVATION 5124751 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2018-10-19. 2017-02-17
KIL28S0010	KILGORE, C. - SDNHM #282, 283 & 284 COLLECTED AT SAN DIEGO, POINT LOMA 1928-01-10
KLA32A0003	KLAUBER, L. - NOTES ON THE SILVERY FOOTLESS LIZARD, ANNIELLA PULCHRA. COPEIA 1932(1): 4-6. 1932-XX-XX
KLANDS0002	KLAUBER, L. - UMNH #301 COLLECTED AT POINT LOMA [COLLECTED BEFORE L. M. KLAUBER PASSED AWAY IN 1968 AT AGE 84] 194X-XX-XX
MAC31S0009	MACBETH, E. - SDNHM #4121 COLLECTED AT SAN DIEGO, POINT LOMA 1931-01-18
ROC01R0001	ROCHESTER, C. ET AL. (U.S. GEOLOGICAL SURVEY) - HERPETOFAUNAL MONITORING IN MSCP REGION OF SAN DIEGO 2001-03-XX
SAN41S0004	SAN DIEGO ZOO - SDNHM #34510 & 34511 COLLECTED AT SAN DIEGO, POINT LOMA 1941-08-09
WEB99R0001	WEBER, S. & R. FISHER (NATIONAL PARK SERVICE) - INVENTORY AND MANAGE POINT LOMA HERPETOFAUNA (REPTILES AND AMPHIBIANS); AND SECONDARILY, SHREWS, AND MACROINVERTEBRATES 1999-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1334	**EO Index:**	113243
Key Quad:	Point Loma (3211762)	**Element Code:**	ARACC01060
Occurrence Number:	375	**Occurrence Last Updated:**	2018-11-06

Scientific Name: *Anniella stebbinsi*

Common Name: Southern California legless lizard

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	1999-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1999-11-10	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OPEN SPACE AT N END OF FORT ROSECRANS NATIONAL CEMETERY, 0.25 MI SSE OF WOODWARD RD AT CABRILLO MEMORIAL DR, POINT LOMA

Detailed Location:

MAPPED TO LOCATION FOR USGS PITFALL TRAP ARRAY SITE 7. SPECIFIC LOCATIONS OF HISTORIC COLLECTIONS ARE UNKNOWN.

Ecological:

GENERALLY, THE HABITAT WAS DESCRIBED AS MARITIME SUCCULENT SCRUB AND COASTAL SAGE SCRUB WITH SOME CHAMISE CHAPARRAL, GRASSLAND, AND WASH AREAS. THE AREA IS HIGHLY ACCESSIBLE BY PEOPLE.

Threats:

General:

HISTORIC COLLECTIONS FROM 1907, 1922, 1928, 1931, 1941, AND 1975. 1 CAPTURED DURING PITFALL SURVEYS IN 1999.

PLSS:	T17S, R04W, Sec. 13, SE (S)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3617495 E477170	**Latitude/Longitude:**	32.69494 / -117.24356	**Elevation (feet):**	294

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

ANO28S0011	ANONYMOUS - KU #8481 & 8482 COLLECTED AT POINT LOMA 1928-01-10
ANO75S0007	ANONYMOUS - SDNHM #68169 COLLECTED AT SAN DIEGO, POINT LOMA 1975-07-10
BAK07S0001	BAKER, F. - SDNHM #11001 COLLECTED AT SAN DIEGO, POINT LOMA 1907-09-20
BAK22S0001	BAKER, F. - SDNHM #11379 & 11380 COLLECTED AT SAN DIEGO, POINT LOMA 1922-05-XX
KIL28S0010	KILGORE, C. - SDNHM #282, 283 & 284 COLLECTED AT SAN DIEGO, POINT LOMA 1928-01-10
KLA32A0003	KLAUBER, L. - NOTES ON THE SILVERY FOOTLESS LIZARD, ANNIELLA PULCHRA. COPEIA 1932(1): 4-6. 1932-XX-XX
KLANDS0002	KLAUBER, L. - UMNH #301 COLLECTED AT POINT LOMA [COLLECTED BEFORE L. M. KLAUBER PASSED AWAY IN 1968 AT AGE 84] 194X-XX-XX
MAC31S0009	MACBETH, E. - SDNHM #4121 COLLECTED AT SAN DIEGO, POINT LOMA 1931-01-18
ROC01R0001	ROCHESTER, C. ET AL. (U.S. GEOLOGICAL SURVEY) - HERPETOFAUNAL MONITORING IN MSCP REGION OF SAN DIEGO 2001-03-XX
SAN41S0004	SAN DIEGO ZOO - SDNHM #34510 & 34511 COLLECTED AT SAN DIEGO, POINT LOMA 1941-08-09
WEB99R0001	WEBER, S. & R. FISHER (NATIONAL PARK SERVICE) - INVENTORY AND MANAGE POINT LOMA HERPETOFAUNA (REPTILES AND AMPHIBIANS); AND SECONDARILY, SHREWS, AND MACROINVERTEBRATES 1999-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1337	**EO Index:**	113245
Key Quad:	Point Loma (3211762)	**Element Code:**	ARACC01060
Occurrence Number:	376	**Occurrence Last Updated:**	2018-11-06

Scientific Name: *Anniella stebbinsi*

Common Name: Southern California legless lizard

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	2018-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2018-XX-XX	**Occurrence Rank:**	Fair
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

JUST NORTH OF JENNINGS ST, IN VICINITY OF ALBION ST AND GAGE DR, NORTHERN POINT LOMA, SAN DIEGO.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

FOUND REGULARLY OCCURRING IN RESIDENTIAL NEIGHBORHOOD AND DESCRIBED AS A REPRODUCING POPULATION. HOUSES IN THIS AREA WERE BUILT AROUND THE 1950S.

Threats:

General:

ANNIELLA WERE DETECTED REGULARLY HERE IN A RESIDENTIAL YARD BETWEEN 2010 AND 2018.

PLSS:	T17S, R03W, Sec. 6, SW (S)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3620252 E477323	**Latitude/Longitude:**	32.71981 / -117.24199	**Elevation (feet):**	262

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

RIC15U0002	RICHMOND, J. (U.S. GEOLOGICAL SURVEY) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-002294] 2015-07-05
RIC18U0002	RICHMOND, J. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - EMAIL COMMUNICATION REGARDING RESIDENTIAL ANNIELLA NEAR ALBION ST, SAN DIEGO 2018-11-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1339	**EO Index:**	113248
Key Quad:	Point Loma (3211762)	**Element Code:**	ARACC01060
Occurrence Number:	377	**Occurrence Last Updated:**	2018-11-06

Scientific Name: *Anniella stebbinsi*

Common Name: Southern California legless lizard

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed:	2016-11-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-11-24	**Occurrence Rank:**	Fair
Owner/Manager:	UNKNOWN, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

COMMUNITY OF OCEAN BEACH, SAN DIEGO.

Detailed Location:

SPECIFIC LOCATIONS OF HISTORIC COLLECTIONS UNKNOWN. 2010 DETECTION IN RESIDENTIAL NEIGHBORHOOD NEAR PESCADERO AVE AND EBERS ST, AND 2016 DETECTION FROM YARD IN NORTHERN OCEAN BEACH.

Ecological:

THE COMMUNITY OF OCEAN BEACH WAS WELL DEVELOPED BY THE 1930S/1940S. IT APPEARS THAT RESIDUAL POPULATIONS ARE STILL PERSISTING IN RESIDENTIAL DEVLEOPMENT.

Threats:

General:

COLLECTED AT OCEAN BEACH IN 1927, 1928, 1930, AND 1940. 1 FOUND IN BACK YARD NEAR PESCADERO AVE AND PHOTOGRAPHED ON 14 MAR 2010. 1 FOUND IN FRONT YARD UNDER ROCK AND PHOTOGRAPHED IN NORTHERN OCEAN BEACH ON 24 NOV 2016.

PLSS:	T16S, R04W, Sec. 36 (S)	**Accuracy:**	3/5 mile	**Area (acres):**	776
UTM:	Zone-11 N3622754 E476839	**Latitude/Longitude:**	32.74237 / -117.24722	**Elevation (feet):**	65

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762), La Jolla (3211772)

Sources:

DON30S0001	DONALDSON, D. - SDNHM #3570 COLLECTED AT SAN DIEGO, OCEAN BEACH 1930-10-19
HUG28S0001	HUGH, I. - SDNHM #538 COLLECTED AT SAN DIEGO, OCEAN BEACH 1928-04-10
INA10U0001	INATURALIST & C. BROWN - OBSERVATION 1552972 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2018-10-19. 2010-03-14
INA16U0005	INATURALIST - OBSERVATION 4635659 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2018-10-19. 2016-11-24
KLA32A0003	KLAUBER, L. - NOTES ON THE SILVERY FOOTLESS LIZARD, ANNIELLA PULCHRA. COPEIA 1932(1): 4-6. 1932-XX-XX
RAT27S0001	RATHBUN, H. - SDNHM #1216 COLLECTED AT SAN DIEGO, OCEAN BEACH 1927-10-20
SAN40S0003	SAN DIEGO ZOO - SDNHM #33535 COLLECTED AT SAN DIEGO, OCEAN BEACH 1940-09-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1345
Key Quad: La Mesa (3211771)
Occurrence Number: 378

EO Index: 113254
Element Code: ARACC01060
Occurrence Last Updated: 2018-11-07

Scientific Name: *Anniella stebbinsi*
Common Name: Southern California legless lizard

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

General Habitat:

GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY.

Micro Habitat:

VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.

Last Date Observed: 2018-06-26
Last Survey Date: 2018-06-26
Owner/Manager: SDG COUNTY-MISSION TRAILS RP
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

EAST SIDE OF COWLES MOUNTAIN, ABOUT 1 MILE WNW OF LAKE MURRY BLVD AT NAVAJO RD, MISSION TRAILS REGIONAL PARK, SAN DIEGO.

Detailed Location:

MAPPED TO PROVIDED COORDINATES STATED IN INATURALIST WITH AN ACCURRACY OF 478 METERS. FOUND ALONG THE BARKER WAY TRAIL ON ESE SIDE OF COWLES MOUNTAIN, ACCESSIBLE FROM BARKER WAY..

Ecological:

Threats:

General:

1 JUVENILE FOUND AND PHOTOGRAPHED ON 26 JUN 2018.

PLSS: T16S, R01W, Sec. 6, NW (S)
UTM: Zone-11 N3630434 E497524

Accuracy: 1/5 mile
Latitude/Longitude: 32.81189 / -117.02645

Area (acres): 70
Elevation (feet): 1,124

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

INA18U0005 INATURALIST - OBSERVATION 13834060 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2018-10-19. 2018-06-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04322
EO Index: 28087
Key Quad: Imperial Beach (3211751)
Element Code: ARACF12100
Occurrence Number: 121
Occurrence Last Updated: 1995-11-17

Scientific Name: *Phrynosoma blainvillii*
Common Name: coast horned lizard

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3G4
State: S3S4
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:

OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed: 1981-05-04
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1981-05-04
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO, STATE
Trend: Unknown
Presence: Presumed Extant

Location:

SOUTH OF OTAY MESA ROAD, 0.5 MILE NORTHEAST OF SAN YSIDRO.

Detailed Location:

ONE TO TEN INDIVIDUALS OBSERVED IN OPEN AREAS IN SAGE SCRUB HABITAT.

Ecological:

Threats:

PROPOSED FOR EVENTUAL DEVELOPMENT.

General:

PLSS: T18S, R02W, Sec. 36, SE (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3602637 E496607
Latitude/Longitude: 32.56114 / -117.03614
Elevation (feet): 400

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

SCH81F0015 SCHEIDT, V.N. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (BLAINVILLII POPULATION) - (SAN DIEGO HORNED LIZARD) 1981-05-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04209
EO Index: 28031
Key Quad: Imperial Beach (3211751)
Element Code: ARACF12100
Occurrence Number: 187
Occurrence Last Updated: 2012-01-09

Scientific Name: *Phrynosoma blainvillii*
Common Name: coast horned lizard

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3G4
State: S3S4
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:

OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed: 1935-06-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1935-06-17
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:

PALM CITY, E OF IMPERIAL BEACH.

Detailed Location:

MAPPED TO PROVIDED LOCALITY OF "PALM CITY." EXACT LOCATION UNKNOWN.

Ecological:

NEARLY ENTIRELY DEVELOPED IN 2005 AIR PHOTO.

Threats:

HEAVILY DEVELOPED AREA.

General:

1 COLLECTED BY R.C. CAVELL ON 17 JUN 1935 (SDNHM #23953).

PLSS: T18S, R02W, Sec. 22, SW (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3605443 E492332
Latitude/Longitude: 32.58643 / -117.08170
Elevation (feet): 40

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

CAV35S0001 CAVELL, R. - SDNHM #23953 1935-06-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21364	**EO Index:**	8459
Key Quad:	La Mesa (3211771)	**Element Code:**	ARACF12100
Occurrence Number:	209	**Occurrence Last Updated:**	2011-04-06

Scientific Name: *Phrynosoma blainvillii*

Common Name: coast horned lizard

Listing Status: **Federal:** None
State: None

Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3G4
State: S3S4

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:

OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	1950-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1950-XX-XX	**Occurrence Rank:**	None
Owner/Manager:	CSU-SAN DIEGO, PVT	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

SAN DIEGO STATE UNIVERSITY AND ADOBE FALL OPEN SPACE PARK, SAN DIEGO.

Detailed Location:

BRO86U0005 STATED AS "STATE COLLEGE." BUR33A01 STATED AS "ADOBE FALLS, SAN DIEGO." SDNHM #39393 & #18628 STATED AS "SAN DIEGO STATE UNIV." MAPPED TO AREA OF ADOBE FALLS OPEN SPACE PARK AND SAN DIEGO STATE UNIVERSITY.

Ecological:

Threats:

General:

BUR33A0001 STATED " A SPECIMEN FROM ADOBE FALLS, SAN DIEGO COUNTY, CALIFORNIA, WAS RECEIVED FROM L H COOK ON 2 APRI 1931.". 1948: SDNHM #39393 BY G. MARSH. 1950: SDNHM #18628 BY B. BRATTSTROM.

PLSS:	T16S, R02W (S)	**Accuracy:**	3/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3626414 E493275	**Latitude/Longitude:**	32.77561 / -117.07180	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BRA50S0001	BRATTSTROM, B. - SDNHM #18628 1950-XX-XX
BRO80U0001	BRODE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - GEOGRAPHIC REFERENCE CARD CATALOG OF SPECIMENS AND FIELD NOTE RECORDS COMPILED BY JOHN BRODE (DFG) 1980-XX-XX
BUR33A0001	BURT, C.E. - SOME LIZARDS FROM THE GREAT BASIN OF THE WEST AND ADJACENT AREAS, WITH COMMENTS ON THE STATUS OF VARIOUS FORMS. AMERICAN MIDLAND NATURALIST 14:228-250 1933-XX-XX
MAR48S0001	MARSH, G. - SDNHM #39393 1948-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03975
Key Quad: La Jolla (3211772)
Occurrence Number: 291
EO Index: 27959
Element Code: ARACF12100
Occurrence Last Updated: 1995-11-14

Scientific Name: *Phrynosoma blainvillii*
Common Name: coast horned lizard

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4
State: S3S4

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:
FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:
OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed: 198X-XX-XX
Last Survey Date: 198X-XX-XX
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
MARINE CORPS AIR STATION MIRAMAR; JUST NE OF JCT HWY 163 & CLAIREMONT MESA BLVD KEARNY MESA ("PARCEL C").

Detailed Location:
OBS ON SITE.

Ecological:

Threats:

General:

PLSS: T15S, R03W, Sec. 25 (S)
UTM: Zone-11 N3633214 E486652
Accuracy: 1/5 mile
Latitude/Longitude: 32.83690 / -117.14262
Area (acres): 0
Elevation (feet): 405

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

WES87R0002 WESTEC SERVICES, INC. - ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED LAND SALES AND EXCHANGES SOUTH OF CALIFORNIA STATE ROUTE 52, NAVAL AIR STATION, MIRAMAR, SAN DIEGO COUNTY, CA 1987-04-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04115
Key Quad: La Mesa (3211771)
Occurrence Number: 294

EO Index: 27957
Element Code: ARACF12100
Occurrence Last Updated: 1996-01-05

Scientific Name: *Phrynosoma blainvillii*
Common Name: coast horned lizard

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3G4
State: S3S4

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:

OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed: 1980-07-XX
Last Survey Date: 1980-07-XX
Owner/Manager: DOD-NAVY
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

MURPHY CANYON HEIGHTS PARCEL JUST NE OF JCT I-15 & FRIARS RD & AT SW END OF GOLF COURSE.

Detailed Location:

THIS TAXON HAS BEEN REPORTED FROM THIS PARCEL.

Ecological:

Threats:

HABITAT IS HIGHLY DISTURBED & SURROUNDED BY DEVELOPMENT. PROPOSED IN 1980 FOR NAVY HOUSING PROJECT; UNKNOWN IF DEVEL.

General:

PLSS: T16S, R02W, Sec. 08 (S)
UTM: Zone-11 N3628786 E490010

Accuracy: 1/5 mile
Latitude/Longitude: 32.79699 / -117.10670

Area (acres): 0
Elevation (feet): 300

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

PSB80R0001	PSBS - PACIFIC SOUTHWEST BIOLOGICAL SERVICES, INC. - BIOLOGICAL ASSESSMENT FOR MURPHY CANYON HEIGHTS, TIERRASANTA, AND CAMP ELLIOT SITES, SAN DIEGO 1980-10-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 26616
Key Quad: La Mesa (3211771)
Occurrence Number: 409
EO Index: 1271
Element Code: ARACF12100
Occurrence Last Updated: 1995-10-26

Scientific Name: *Phrynosoma blainvillii*
Common Name: coast horned lizard

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4
State: S3S4
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:

OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed: 1994-07-22
Last Survey Date: 1994-07-22
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

JUST NORTH OF GROSSMONT COLLEGE, EL CAJON.

Detailed Location:

Ecological:

HABITAT CONSISTS OF DIEGAN COASTAL SAGE SCRUB, DOMINATED BY ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, MALOSMA LAURINA, & BACCHARIS SAROTHROIDES.

Threats:

THE AREA IS ZONED AS LOW DENSITY RESIDENTIAL (1-2 HOMES/ACRE). ORV USE.

General:

2 OBSERVED ALONG A DIRT ROAD. MISSION TRAILS REGIONAL PARK IS TO THE WEST & PROPOSED STATE ROUTE 125 IS ON THE EAST.

PLSS: T15S, R01W (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3631539 E499280
Latitude/Longitude: 32.82187 / -117.00769
Elevation (feet): 600

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

APR94F0002 APRIL, B.L. (CALIFORNIA DEPARTMENT OF TRANSPORTATION) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA & PHRYNOSOMA CORONATUM (BLAINVILLII POPULATION) 1994-07-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 50667
EO Index: 50667
Key Quad: La Mesa (3211771)
Element Code: ARACF12100
Occurrence Number: 472
Occurrence Last Updated: 2003-03-20

Scientific Name: *Phrynosoma blainvillii*
Common Name: coast horned lizard

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3G4
State: S3S4
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:

OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed: 1998-06-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1998-06-15
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:

NORTH OF MURPHY CANYON AND SOUTH OF GREEN FARMS ROAD, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

Ecological:

HABITAT IN AREA CONSISTS OF DISTURBED AREA WITH REMNANT VERNAL POOLS, MIXED CHAPARRAL AND CHAMISE CHAPARRAL. AREA TO WEST IS DEVELOPED.

Threats:

POSSIBLE THREAT DUE TO USE AS TRAINING FACILITY (FIRING RANGE, CANINE TRAINING, URBAN DISASTER TRAINING FACILITY ETC.)

General:

UNKNOWN NUMBER OBSERVED DURING CALIFORNIA GNATCATCHER SURVEYS IN 1998, SOMETIME BEFORE 15 JUN 1998.

PLSS: T15S, R02W, Sec. 17 (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3636138 E490473
Latitude/Longitude: 32.86331 / -117.10182
Elevation (feet): 520

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

AFF98U0001 GROSS, M. (AFFINIS) - RESULTS OF GNATCATCHER SURVEYS, SHERIFF'S LEASE, MCAS MIRAMAR, CALIFORNIA. 1998-02-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 55014
Key Quad: La Mesa (3211771)
Occurrence Number: 514
EO Index: 55014
Element Code: ARACF12100
Occurrence Last Updated: 2004-04-01

Scientific Name: *Phrynosoma blainvillii*
Common Name: coast horned lizard

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4
State: S3S4
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:

OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed: 1997-08-10
Last Survey Date: 1997-08-10
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

0.3 MILE NORTH OF CLAIREMONT MESA BLVD AND 0.2 MILE EAST OF I-15, MIRAMAR MCAS.

Detailed Location:

MAPPED ACCORDING TO LATITUDE AND LONGITUDE.

Ecological:

HABITAT CONSISTS OF DIEGAN COASTAL SAGE SCRUB.

Threats:

General:

1 JUVENILE FEMALE COLLECTED ON 10 AUG 1997. SPECIMEN #VBSI 0897-01.

PLSS: T15S, R02W, Sec. 29, SW (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3633346 E489052
Latitude/Longitude: 32.83811 / -117.11697
Elevation (feet): 360

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

VAR98U0001 HAAS, W. (VARANUS BIOLOGICAL SERVICES) - SPECIMEN DATA SHEET FOR REPTILE AND AMPHIBIAN SPECIMENS COLLECTED 1996-1998. 1998-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	56354	**EO Index:**	56370
Key Quad:	La Jolla (3211772)	**Element Code:**	ARACF12100
Occurrence Number:	523	**Occurrence Last Updated:**	2004-08-11

Scientific Name: *Phrynosoma blainvillii*

Common Name: coast horned lizard

Listing Status: **Federal:** None
State: None

Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3G4
State: S3S4

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:

OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	1981-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1981-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

0.35 MILE NNW OF JUNCTION OF CLAIRMONT MESA BLVD & CONVOY ST, BETWEEN I-805 & HWY 163, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

"0.3 MI N CLAIRMONT MESA BLVD AT JCT CONVOY ST" AND "0.4 MI NNW CLAIRMONT MESA BLVD AT JCT CONVOY ST"

Ecological:

HABITAT CONSISTS OF CHAMISE-CHAPARRAL MESA TOP.

Threats:

General:

1 SCAT OBSERVED AT EACH OF 2 LOCATIONS.

PLSS:	T15S, R03W, Sec. 26 (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3633300 E485551	**Latitude/Longitude:**	32.83765 / -117.15438	**Elevation (feet):**	380

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

MCG81R0001 MCGURTY, B. - STATUS SURVEY REPORT ON THE SAN DIEGO HORNED LIZARD, CAMP PENDLETON MCB, MIRAMAR NAS AND FALLBROOK ANNEX, U.S. NAVAL WEAPONS STATION (CONTRACT 11310-0129-81). 1981-11-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	75770	**EO Index:**	77147
Key Quad:	La Jolla (3211772)	**Element Code:**	ARACF12100
Occurrence Number:	559	**Occurrence Last Updated:**	2011-04-07

Scientific Name: *Phrynosoma blainvillii*

Common Name: coast horned lizard

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G3G4

State: S3S4

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:

OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	2007-06-27	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2007-06-27	**Occurrence Rank:**	Fair
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH OF SAN CLEMENTE CANYON, AND NORTH OF HIGHWAY 52, SOUTHWEST CORNER OF MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

NEAR THE CENTER OF SECTION 26. JUST NE FROM HICKMAN FIELD ATHLETIC COMPLEX & SOUTH OF WATER TREATMENT PLANT.

Ecological:

HABITAT IS OPEN MARITIME CHAPARRAL WITH ADENOSTOMA FASCICULATUM, CEANOTHUS VERRUCOSUS, ERIGONUM FASCICULATUM, AND LOTUS SCOPARIUS. ISOLATED PATCH OF HABITAT SURROUNDED BY DISTURBED AREAS AND ROADWAYS. WASTEWATER TREATMENT PLANT IN AREA.

Threats:

"EXPANSION OF ADJACENT FACILITIES" (LIKELY REFERING TO WATER TREATMENT PLANT).

General:

ONE JUVENILE FOUND ON MESA TOP APPROXIMATELY 6 INCHES TOTAL LENGTH DISPLAYING A VERY RED COLORATION MATCHING RED-SANDSTONE SUBSTRATE.

PLSS:	T15S, R03W, Sec. 26, SW (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3633761 E484811	**Latitude/Longitude:**	32.84180 / -117.16230	**Elevation (feet):**	442

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

CLA07F0008 CLARK, K. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (BLAINVILLII POPULATION) 2007-06-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 76158
Key Quad: La Jolla (3211772)
Occurrence Number: 560
EO Index: 77151
Element Code: ARACF12100
Occurrence Last Updated: 2011-04-07

Scientific Name: *Phrynosoma blainvillii*
Common Name: coast horned lizard

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4
State: S3S4
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:
FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:
OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed: 2007-05-03
Last Survey Date: 2007-05-03
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:
0.6 MI E OF I-805 AT SR 52 JCT, ALONG SAN CLEMENTE CYN, JUST S OF THE LANDFILL AT MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:
0.25 MILE NORTHWEST OF WATER TREATMENT FACILITY. MAPPED TO PROVIDED COORDINATES FROM CLA07F0009.

Ecological:
PATCHY GRASSLAND, COASTAL SAGE SCRUB WITH ADJACENT RIPARIAN.

Threats:
EXPANSION OF LANDFILL.

General:
ONE JUVENILE FOUND ON DIRT ROAD IN BOTTOM OF CANYON. RAN OFF INTO DENSE ERIOGONUM FASCICULATUM.

PLSS: T15S, R03W, Sec. 26, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3634404 E484325
Latitude/Longitude: 32.84760 / -117.16750
Elevation (feet): 251

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:
CLA07F0009 CLARK, K. - FIELD SURVEY FORM FOR PHRYNOSOMA CORONATUM (BLAINVILLII POPULATION) 2007-05-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82061
Key Quad: Point Loma (3211762)
Occurrence Number: 778
EO Index: 83049
Element Code: ARACF12100
Occurrence Last Updated: 2011-03-21

Scientific Name: *Phrynosoma blainvillii*
Common Name: coast horned lizard

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4
State: S3S4
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:

OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

POINT LOMA, SAN DIEGO COUNTY.

Detailed Location:

SDNHM #11216-8 STATED LOCALITY AS "POINT LOMA, SAN DIEGO COUNTY." EXACT LOCATION IS UNKNOWN. MAPPED TO VICINITY OF POINT LOMA.

Ecological:

Threats:

General:

SDNHM SPECIMEN #11216-8 COLLECTED BY F. BAKER ON UNKNOWN DATE.

PLSS: T17S, R04W, Sec. 13 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3618058 E476870
Latitude/Longitude: 32.70001 / -117.24676
Elevation (feet): 285

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

BAKNDS0020 BAKER, F. - SDNHM #11216-8 XXXX-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	68466	**EO Index:**	83052
Key Quad:	Point Loma (3211762)	**Element Code:**	ARACF12100
Occurrence Number:	780	**Occurrence Last Updated:**	2012-09-20

Scientific Name: *Phrynosoma blainvillii*

Common Name: coast horned lizard

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3G4

State: S3S4

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:

OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	1948-09-13	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1948-09-13	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

SAN DIEGO.

Detailed Location:

SPECIMEN LOCALITIES SIMPLY STATED AS "SAN DIEGO." EXACT LOCATION UNKNOWN.

Ecological:

MOST OF AREA HAS BEEN DEVELOPED, WITH SOME OPEN AREAS LEFT IN BALBOA PARK.

Threats:

THREATENED BY DEVELOPMENT.

General:

COLLECTED BY: F. STEPHENS ON 15 JUN 1901, IN AUG 1901, ON 18 MAY 1905, AND 4 JUN 1908; BY C. SEARL ON 27 OCT 1928; BY F.M. COTA ON 28 MAY 1936; BY C. HALL ON 23 JUN 1937; AND BY R. SCHWENKMEYER ON 13 SEP 1948.

PLSS:	T17S, R03W, Sec. 11 (S)	**Accuracy:**	1 mile	**Area (acres):**	0
UTM:	Zone-11 N3619708 E485384	**Latitude/Longitude:**	32.71505 / -117.15595	**Elevation (feet):**	80

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

COT36S0002	COTA, F. - SDNHM #25788 1936-05-28
HAL37S0001	HALL, C. - SDNHM #27409 1937-06-23
SCH48S0001	SCHWENKMEYER, R. (SAN DIEGO NATURAL HISTORY MUSEUM) - SDNHM SPECIMEN #39392 1948-09-13
SEA28S0003	SEARL, C. (SAN DIEGO NATURAL HISTORY MUSEUM) - SDNHM SPECIMEN #11695 1928-10-27
STE01S0002	STEPHENS, F. (SAN DIEGO NATURAL HISTORY MUSEUM) - SDNHM SPECIMEN #11222 1901-08-XX
STE01S0003	STEPHENS, F. (SAN DIEGO NATURAL HISTORY MUSEUM) - SDNHM SPECIMEN #11310 1901-06-15
STE05S0001	STEPHENS, F. (SAN DIEGO NATURAL HISTORY MUSEUM) - SDNHM SPECIMEN #11309 1905-05-18
STE08S0001	STEPHENS, F. (SAN DIEGO NATURAL HISTORY MUSEUM) - SDNHM SPECIMEN #11306 1908-04-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	84714	**EO Index:**	84032
Key Quad:	La Mesa (3211771)	**Element Code:**	ARACF12100
Occurrence Number:	786	**Occurrence Last Updated:**	2014-03-27

Scientific Name: *Phrynosoma blainvillii*

Common Name: coast horned lizard

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3G4
State: S3S4

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:

OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	1967-09-13	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1967-09-13	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

THE VICINITY OF LA MESA AND SPRING VALLEY (CITY), EAST OF SAN DIEGO.

Detailed Location:

1916 & 1939 LOCALITY STATED AS "LA MESA," AND 1967 LOCALITY STATED AS "SPRING VALLEY." EXACT LOCATION UNKNOWN. MAPPED TO THE GENERAL VICINITY OF LA MESA AND SPRING VALLEY CITIES.

Ecological:

AREA HAS BEEN DEVELOPED WITH A FEW PATCHES OF OPEN SPACE (2010 AERIAL). MORE THAN LIKELY EXTIRPATED.

Threats:

THREATENED BY DEVELOPMENT.

General:

4 COLLECTED (USNM #53688-53691) ON 10 APR 1916. 1 COLLECTED BY A.I. BENEDICT (SDNHM #31233) ON 1 APR 1939. 1 COLLECTED BY C.H. MORRIS (SDNHM #46244) ON 13 SEP 1967.

PLSS:	T16S, R01W, Sec. 19 (S)	**Accuracy:**	non-specific area	**Area (acres):**	3,479
UTM:	Zone-11 N3624715 E498634	**Latitude/Longitude:**	32.76030 / -117.01457	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Jamul Mountains (3211668), El Cajon (3211678), National City (3211761), La Mesa (3211771)

Sources:

ANO16S0004	ANONYMOUS (U.S. NATIONAL MUSEUM OF NATURAL HISTORY) - USNM (NMNH) #53688, 53689, 53690, & 53691 (T214, T216, T213, T215) COLLECTED AT LA MESA 1916-04-10
BEN39S0001	BENEDICT, A. - SDNHM #31233 1939-04-01
MOR67S0004	MORRIS, C. (SAN DIEGO NATURAL HISTORY MUSEUM) - SDNHM SPECIMEN #46244 1967-09-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 84684
EO Index: 85705
Key Quad: Imperial Beach (3211751)
Element Code: ARACF12100
Occurrence Number: 792
Occurrence Last Updated: 2012-01-09

Scientific Name: *Phrynosoma blainvillii*
Common Name: coast horned lizard

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3G4
State: S3S4
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:

OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed: 1930-06-29
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1930-06-29
Occurrence Rank: Unknown
Owner/Manager: DPR-BORDER FIELD SP
Trend: Unknown
Presence: Presumed Extant

Location:

BORDER MONUMENT 258, SW CORNER OF SAN DIEGO COUNTY.

Detailed Location:

MAPPED TO PROVIDED LOCALITY OF "MONUMENT 258."

Ecological:

Threats:

General:

1 COLLECTED BY L.H. COOK (SDNHM #13918) ON 29 JUN 1930.

PLSS: T19S, R02W, Sec. 07 (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3599684 E488469
Latitude/Longitude: 32.53445 / -117.12278
Elevation (feet): 60

County Summary:

San Diego, Mexico

Quad Summary:

Imperial Beach (3211751)

Sources:

COO30S0005 COOK, L. - SDNHM #13918 1930-06-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03519	**EO Index:**	85719
Key Quad:	La Jolla (3211772)	**Element Code:**	ARACF12100
Occurrence Number:	799	**Occurrence Last Updated:**	2014-03-27

Scientific Name: *Phrynosoma blainvillii*

Common Name: coast horned lizard

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G3G4

State: S3S4

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:

OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	1936-05-02	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1936-05-02	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

LA JOLLA.

Detailed Location:

MAPPED TO PROVIDED LOCALITY "LA JOLLA." EXACT LOCATIONS UNKNOWN.

Ecological:

LIKELY EXTIRPATED; EXTENSIVE DEVELOPMENT (2010 AERIAL).

Threats:

General:

5 COLLECTED BY RITTER ON 25 MAY 1915 (MVZ #43485). 1 COLLECTED BY SAN DIEGO ZOO ON 2 MAY 1936 (SDNHM #25441).

PLSS:	T15S, R04W, Sec. 27 (S)	**Accuracy:**	1 mile	**Area (acres):**	0
UTM:	Zone-11 N3633342 E473790	**Latitude/Longitude:**	32.83782 / -117.28005	**Elevation (feet):**	50

County Summary:	**Quad Summary:**
San Diego, Pacific Ocean	La Jolla (3211772)

Sources:

RIT15S0001	RITTER, W. - MVZ #43485 1915-05-25
RIT15S0002	RITTER, W. - MVZ #43486 1915-05-25
RIT15S0003	RITTER, W. - MVZ #43487 1915-05-25
RIT15S0004	RITTER, W. - MVZ #43488 1915-05-25
RIT15S0005	RITTER, W. - MVZ #43489 1915-05-25
SDZ36S0001	SAN DIEGO ZOO - SDNHM SPECIMEN #25441 1936-05-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A2167	**EO Index:**	103764
Key Quad:	Otay Mesa (3211658)	**Element Code:**	ARACF12100
Occurrence Number:	868	**Occurrence Last Updated:**	2016-11-02

Scientific Name: *Phrynosoma blainvillii*

Common Name: coast horned lizard

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G3G4

State: S3S4

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:

OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.

Last Date Observed:	2016-03-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-03-26	**Occurrence Rank:**	Excellent
Owner/Manager:	USFWS-SAN DIEGO NWR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ABOUT 0.7 MILES WSW OF CACTUS RD AT SIEMPRE VIVA RD AND 0.8 MILES SSW OF HWY 905 AT HERITAGE RD, OTAY MESA.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

COASTAL SAGE SCRUB AND NON-NATIVE GRASSLAND SURROUNDED BY INDUSTRIAL/COMMERCIAL AND RESIDENTIAL DEVELOPMENT. DISTURBANCE FROM DIRT ROADS AND SOME TRASH.

Threats:

General:

1 ADULT OBSERVED BASKING ON 26 MAR 2016.

PLSS:	T19S, R01W, Sec. 5, NE (S)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3601703 E499960	**Latitude/Longitude:**	32.55272 / -117.00043	**Elevation (feet):**	463

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

SMI16F0008 SMITH, D. ET AL. - FIELD SURVEY FORM FOR PHRYNOSOMA BLAINVILLII 2016-03-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 55010
EO Index: 55010
Key Quad: La Mesa (3211771)
Element Code: ARACH01114
Occurrence Number: 28
Occurrence Last Updated: 2004-04-01

Scientific Name: *Plestiodon skiltonianus interparietalis*
Common Name: Coronado skink

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_WL-Watch List

CNDDB Element Ranks: **Global:** G5T5
State: S2S3

General Habitat:

GRASSLAND, CHAPARRAL, PINON-JUNIPER AND JUNIPER SAGE WOODLAND, PINE-OAK AND PINE FORESTS IN COAST RANGES OF SOUTHERN CALIFORNIA.

Micro Habitat:

PREFERS EARLY SUCCESSIONAL STAGES OR OPEN AREAS. FOUND IN ROCKY AREAS CLOSE TO STREAMS AND ON DRY HILLSIDES.

Last Date Observed: 1997-06-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1997-06-22
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR, UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

JUST NORTHEAST OF THE INTERSECTION OF I-15 AND CLAIREMONT MESA BLVD, MIRAMAR MCAS.

Detailed Location:

MAPPED ACCORDING TO LATITUDE AND LONGITUDE.

Ecological:

HABITAT CONSISTS OF DIEGAN COASTAL SAGE SCRUB.

Threats:

General:

1 JUVENILE MALE COLLECTED ON 22 JUN 1997. SPECIMEN #VBSI 0697-06.

PLSS: T15S, R02W, Sec. 29, SW (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3632883 E489051
Latitude/Longitude: 32.83393 / -117.11697
Elevation (feet): 300

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

VAR98U0001 HAAS, W. (VARANUS BIOLOGICAL SERVICES) - SPECIMEN DATA SHEET FOR REPTILE AND AMPHIBIAN SPECIMENS COLLECTED 1996-1998. 1998-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	60860	**EO Index:**	60896
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ARACH01114
Occurrence Number:	31	**Occurrence Last Updated:**	2005-04-06

Scientific Name: *Plestiodon skiltonianus interparietalis*

Common Name: Coronado skink

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_WL-Watch List

CNDDB Element Ranks: **Global:** G5T5

State: S2S3

General Habitat:

GRASSLAND, CHAPARRAL, PINON-JUNIPER AND JUNIPER SAGE WOODLAND, PINE-OAK AND PINE FORESTS IN COAST RANGES OF SOUTHERN CALIFORNIA.

Micro Habitat:

PREFERS EARLY SUCCESSIONAL STAGES OR OPEN AREAS. FOUND IN ROCKY AREAS CLOSE TO STREAMS AND ON DRY HILLSIDES.

Last Date Observed:	2004-07-16	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2004-07-16	**Occurrence Rank:**	Fair
Owner/Manager:	SDG COUNTY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH SIDE OF TIJUANA RIVER, 0.2 MILE SW OF INTERSECTION OF SUNSET AVENUE AND HOLLISTER STREET, SE OF IMPERIAL BEACH.

Detailed Location:

Ecological:

HABITAT CONSISTS OF DISTURBED BLACK WILLOW RIPARIAN FOREST.

Threats:

THREATENED BY TRAIL RESTORATION ACTIVITIES.

General:

1 JUVENILE OBSERVED ON 16 JUL 2004.

PLSS:	T18S, R02W, Sec. 33, SE (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3602113 E491837	**Latitude/Longitude:**	32.55639 / -117.08695	**Elevation (feet):**	40

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

ROU04F0001 ROUSSO, S. (P&D CONSULTANTS) - FIELD SURVEY FORM FOR EUMECES SKILTONIANUS INTERPARIETALIS 2004-07-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 85954
EO Index: 86989
Key Quad: Jamul Mountains (3211668)
Element Code: ARACJ02060
Occurrence Number: 19
Occurrence Last Updated: 2012-05-30

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S2S3
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1930-04-28
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1930-04-28
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

ALONG TELEGRAPH CANYON, IN THE VICINITY OF SOUTHWESTERN COLLEGE, CHULA VISTA.

Detailed Location:

MAPPED TO GENERAL LOCATION DESCRIBED AS "TELEGRAPH CANYON."

Ecological:

ACCORDING TO 2010 AIR PHOTOS, THIS AREA IS NOW HEAVILY DEVELOPED.

Threats:

THREATENED BY DEVELOPMENT.

General:

SPECIMEN (SDNHM #14157) COLLECTED BY F.E. WALKER 28 APR 1930.

PLSS: T18S, R01W, Sec. 04 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3611514 E501466
Latitude/Longitude: 32.64122 / -116.98436
Elevation (feet): 460

County Summary:

San Diego

Quad Summary:

Jamul Mountains (3211668), National City (3211761)

Sources:

WAL30S0002 WALKER, F. (SAN DIEGO NATURAL HISTORY MUSEUM) - WHIPTAIL SPECIMEN (SDNHM 14157) COLLECTED BY F.E. WALKER NEAR TELEGRAPH CANYON. 1930-04-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21364
Key Quad: La Mesa (3211771)
Occurrence Number: 20
EO Index: 63517
Element Code: ARACJ02060
Occurrence Last Updated: 2012-03-05

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S2S3
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1971-10-29
Last Survey Date: 1971-10-29
Owner/Manager: CSU-SAN DIEGO, PVT
Presence: Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

SAN DIEGO STATE UNIVERSITY.

Detailed Location:

MAPPED TO GIVEN LOCALITY "SAN DIEGO STATE UNIVERSITY."

Ecological:

Threats:

General:

SAN DIEGO STATE UNIVERSITY #46351, COLLECTED BY R. L. TREMPER 29 OCT 1970. ACCORDING TO BRATTSTROM, SPECIES EXTIRPATED FROM SITE BY 1990.

PLSS: T16S, R02W (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3626414 E493275
Latitude/Longitude: 32.77561 / -117.07180
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

BRA90U0001 BRATTSTROM, B. - LETTER TO DARLENE MCGRIFF (DFG) WITH 8 ATTACHMENTS - CONCERNING HISTORICAL AND CURRENT LOCATIONS OF ORANGE-THROATED WHIPTAIL. 1990-06-18

HER06S0001 HERPNET - PRINTOUT OF RECORDS FROM HERPNET. SEARCHED ON ASPIDOSCELIS HYPERYTHRA BELDINGI, ASPIDOSCELIS HYPERYTHRA, & CNEMIDOPHORUS HYPERYTHRUS. RECORDS FROM SDNHM, LACM, SBMNH, KUNHM. 2006-02-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04323
EO Index: 63521
Key Quad: National City (3211761)
Element Code: ARACJ02060
Occurrence Number: 24
Occurrence Last Updated: 2012-03-05

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G5
State: S2S3

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1951-06-25
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1951-06-25
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

BONITA.

Detailed Location:

MAPPED TO PROVIDED LOCALITY "BONITA."

Ecological:

MUCH OF AREA APPEARS DEVELOPED SINCE 1994 ACCORDING TO AIR PHOTOS.

Threats:

General:

SDNHM #41469 COLLECTED BY J. GALLAGHER ON 25 JUN 1951. ACCORDING TO BRATTSTROM, SPECIES STILL AT THIS SITE OR IN IMMEDIATE VICINITY IN 1990.

PLSS: T17S, R02W, Sec. 25 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3613601 E496846
Latitude/Longitude: 32.66005 / -117.03363
Elevation (feet): 100

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

BRA90U0001 BRATTSTROM, B. - LETTER TO DARLENE MCGRIFF (DFG) WITH 8 ATTACHMENTS - CONCERNING HISTORICAL AND CURRENT LOCATIONS OF ORANGE-THROATED WHIPTAIL. 1990-06-18

HER06S0001 HERPNET - PRINTOUT OF RECORDS FROM HERPNET. SEARCHED ON ASPIDOSCELIS HYPERYTHRA BELDINGI, ASPIDOSCELIS HYPERYTHRA, & CNEMIDOPHORUS HYPERYTHRUS. RECORDS FROM SDNHM, LACM, SBMNH, KUNHM. 2006-02-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17841
Key Quad: National City (3211761)
Occurrence Number: 25
EO Index: 64021
Element Code: ARACJ02060
Occurrence Last Updated: 2012-03-06

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S2S3
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1950-10-10
Last Survey Date: 1950-10-10
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

NATIONAL CITY.

Detailed Location:

Ecological:

MOST OF THE AREA APPEARS DEVELOPED SINCE 1994 ACCORDING TO AIR PHOTOS.

Threats:

General:

SDNHM #18715 COLLECTED BY D. HUNTER ON 10 OCT 1950. ACCORDING TO BRATTSTROM, SPECIES IS PROBABLY STILL AT SITE OR IN IMMEDIATE VICINITY IN 1990.

PLSS: T17S, R02W (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3615016 E491044
Latitude/Longitude: 32.67278 / -117.09552
Elevation (feet): 20

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

BRA90U0001 BRATTSTROM, B. - LETTER TO DARLENE MCGRIFF (DFG) WITH 8 ATTACHMENTS - CONCERNING HISTORICAL AND CURRENT LOCATIONS OF ORANGE-THROATED WHIPTAIL. 1990-06-18

HER06S0001 HERPNET - PRINTOUT OF RECORDS FROM HERPNET. SEARCHED ON ASPIDOSCELIS HYPERYTHRA BELDINGI, ASPIDOSCELIS HYPERYTHRA, & CNEMIDOPHORUS HYPERYTHRUS. RECORDS FROM SDNHM, LACM, SBMNH, KUNHM. 2006-02-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 33871
EO Index: 12277
Key Quad: National City (3211761)
Element Code: ARACJ02060
Occurrence Number: 33
Occurrence Last Updated: 2012-02-24

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S2S3
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1991-02-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1991-02-14
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVY
Trend: Unknown
Presence: Presumed Extant

Location:

CHOLLAS HEIGHTS (NAVAL RADIO STATION), SAN DIEGO.

Detailed Location:

MUSEUM RECORD AND BRATTSTROM DATA MAPPED TO LOCATION PROVIDED AS "CHOLLAS HEIGHTS." BRATTSROM. MAPPED TO PROVIDED 1991 MAP.

Ecological:

LIZARD INHABITED RELATIVELY OPEN PROPERTY WITH SCATTERED SHRUBS NEARBY. MOST OF THE AREA APPEARED GRADED IN 1994 AND DEVELOPED SINCE 1996 ACCORDING TO AIR PHOTOS. MORE RESEARCH IS NEEDED TO SEE IF THE SPECIES EXISTS IN SURROUNDING HABITAT.

Threats:

THREATENED BY A PROPOSED MILITARY HOUSING PROJECT.

General:

SPECIMEN (SDNHM 11424) COLLECTED 21 AUG 1927. B. BRATTSTROM THOUGHT THE SPECIES WAS PROBABLY EXTIRPATED IN 1990 BUT 1 LIZARD WAS OBSERVED 14 FEB 1991 DURING A GENERAL SURVEY.

PLSS: T16S, R02W, Sec. 35, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3622362 E494164
Latitude/Longitude: 32.73907 / -117.06228
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

BRA90U0001 BRATTSTROM, B. - LETTER TO DARLENE MCGRIFF (DFG) WITH 8 ATTACHMENTS - CONCERNING HISTORICAL AND CURRENT LOCATIONS OF ORANGE-THROATED WHIPTAIL. 1990-06-18

DUN91R0001 DUNHAM, K. - BIOLOGICAL TECHNICAL REPORT FOR MILITARY HOUSING PROJECT CHOLLAS HEIGHTS TRANSMITTER STATION. SEVERAL RARE PLANTS, ANIMALS, AND NC'S. 1991-04-01

HER06S0001 HERPNET - PRINTOUT OF RECORDS FROM HERPNET. SEARCHED ON ASPIDOSCELIS HYPERYTHRA BELDINGI, ASPIDOSCELIS HYPERYTHRA, & CNEMIDOPHORUS HYPERYTHRUS. RECORDS FROM SDNHM, LACM, SBMNH, KUNHM. 2006-02-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92210
EO Index: 64020
Key Quad: La Mesa (3211771)
Element Code: ARACJ02060
Occurrence Number: 35
Occurrence Last Updated: 2018-09-21

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S2S3
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1929-10-09
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1929-10-09
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:

VICINITY OF LA MESA.

Detailed Location:

EXACT COLLECTION LOCATION FOR 1929 SPECIMEN UNKNOWN, LOCALITY GIVEN AS "LA MESA." MAPPED TO LOCATION OF LA MESA CIRCA 1930, BASED ON HISTORIC USGS TOPO MAPS.

Ecological:

Threats:

DEVELOPMENT HAS DRASTICALLY REDUCED HABITAT SINCE TIME OF 1929 COLLECTION.

General:

SDNHM #2276 COLLECTED ON 9 OCT 1929. ACCORDING TO BRATTSTROM, SPECIES THOUGHT TO BE PROBABLY EXTIRPATED AT THIS SITE AS OF 1990. HOWEVER, SMALL POPULATIONS MAY PERSIST IN HABITAT FRAGMENTS (SUCH AS NEARBY OCC #419).

PLSS: T16S, R01W, Sec. 19 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3625556 E497822
Latitude/Longitude: 32.76789 / -117.02325
Elevation (feet): 535

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

ANO29S0016	ANONYMOUS - SDNHM #2276 COLLECTED FROM LA MESA. 1929-10-09
BRA90U0001	BRATTSTROM, B. - LETTER TO DARLENE MCGRIFF (DFG) WITH 8 ATTACHMENTS - CONCERNING HISTORICAL AND CURRENT LOCATIONS OF ORANGE-THROATED WHIPTAIL. 1990-06-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04322
EO Index: 27654
Key Quad: Imperial Beach (3211751)
Element Code: ARACJ02060
Occurrence Number: 93
Occurrence Last Updated: 1989-08-10

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S2S3
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1981-05-04
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1981-05-04
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO, STATE
Trend: Unknown
Presence: Presumed Extant

Location:

S OF OTAY MESA RD, 0.5 MI NE OF SAN YSIDRO.

Detailed Location:

Ecological:

SAGE SCRUB HABITAT.

Threats:

SITE PROPOSED FOR DEVELOPMENT.

General:

MORE THAN 10 OBSERVED IN 1981.

PLSS: T18S, R02W, Sec. 36, SE (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3602637 E496607
Latitude/Longitude: 32.56114 / -117.03614
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

SCH81F0014 SCHEIDT, V.N. - FIELD SURVEY FORM FOR ASPIDOSCELIS HYPERYTHRA (ORANGE-THROATED WHIPTAIL) 1981-05-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	33837	**EO Index:**	8157
Key Quad:	San Vicente Reservoir (3211688)	**Element Code:**	ARACJ02060
Occurrence Number:	101	**Occurrence Last Updated:**	2004-03-31

Scientific Name: *Aspidoscelis hyperythra* **Common Name:** orange-throated whiptail

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S2S3

Rare Plant Rank:

Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed:	1998-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1998-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT, UNKNOWN, PADRE DAM MWD	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

FANITA RANCH AND SURROUNDING AREA, W OF HIGHWAY 67, MAINLY E OF WEST SYCAMORE CANYON, NW PORTION CITY OF SANTEE.

Detailed Location:

1985: COBBLY WASHES OF CANYON BOTTOM, BESIDE DIRT TRAILS, WITHIN SHRUBLAND & BRUSHY AREAS NEAR COAST LIVE OAKS. 1989 & 1992: COASTAL SAGE SCRUB E OF SYCAMORE CYN. 1997: CSS, WOODLAND, RIPARIAN. 1998: CSS, SOUTHERN MIXED CHAPARRAL.

Ecological:

AREA TO EAST OF SYCAMORE CANYON IS MIX OF COASTAL SAGE SCRUB, SOUTHERN MIXED CHAPARRAL, NON-NATIVE GRASSLAND, & SYCAMORE-OAK WOODLAND WITH SOME COAST LIVE OAK WOODLAND & OTHER COMMUNITIES.

Threats:

AREA EAST OF CAMP ELLIOTT IS PROPOSED FOR DEVELOPMENT (FANITA RANCH PROJECT).

General:

8 OBSERVED IN JUL 1985. 13 OBSERVED BETWEEN 1989 AND 1992. 4 COLLECTED DURING AUGUST AND SEPTEMBER 1997 (SPECIMEN #'S VBSI 0897-02, VBSI 0897-04, VBSI 0997-01, VBSI 0997-07). 10 OBSERVATIONS MADE IN 1998.

PLSS:	T15S, R01W, Sec. 09 (S)	**Accuracy:**	non-specific area	**Area (acres):**	4,005
UTM:	Zone-11 N3638595 E501349	**Latitude/Longitude:**	32.88551 / -116.98557	**Elevation (feet):**	700

County Summary:	**Quad Summary:**
San Diego	El Cajon (3211678), San Vicente Reservoir (3211688), La Mesa (3211771), Poway (3211781)

Sources:

DUD98R0001	DUDEK & ASSOCIATES, INC. - QUINO CHECKERSPOT SURVEY FOR FANITA RANCH, SAN DIEGO CO (INCLUDES DATA FROM PRIOR SURVEYS FOR OTHER SPECIES) 1998-06-05
FWS85R0008	U.S. FISH & WILDLIFE SERVICE - FIELD SURVEY OF BIOLOGICAL RESOURCES OF SPECIFIC CANYON HABITATS OF MIRAMAR NAVAL AIR STATION, CALIFORNIA 1985-09-XX
OGD92R0001	OGDEN ENVIRONMENTAL AND ENERGY SERVICES COMPANY - BIOLOGICAL TECHNICAL REPORT FOR FANITA RANCH 1992-06-12
VAR98U0001	HAAS, W. (VARANUS BIOLOGICAL SERVICES) - SPECIMEN DATA SHEET FOR REPTILE AND AMPHIBIAN SPECIMENS COLLECTED 1996-1998. 1998-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03889
Key Quad: La Jolla (3211772)
Occurrence Number: 102
EO Index: 27645
Element Code: ARACJ02060
Occurrence Last Updated: 1995-11-14

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S2S3
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 198X-XX-XX
Last Survey Date: 198X-XX-XX
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

MARINE CORPS AIR STATION MIRAMAR; ADJACENT TO AND EAST OF I-805 N OF CONVOY ST, ("PARCEL A").

Detailed Location:

3 INDIV DETECTED ON THE MESA IN THE E PART OF THE SITE INDICATING A SUBSTANTIAL POPULATION. THIS SPECIES MAY ALSO OCCUR IN THE SANDY CANYON BOTTOM.

Ecological:

Threats:

General:

PLSS: T15S, R03W, Sec. 26 (S)
UTM: Zone-11 N3633415 E484549
Accuracy: 1/5 mile
Latitude/Longitude: 32.83868 / -117.16510
Area (acres): 0
Elevation (feet): 390

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

WES87R0002 WESTEC SERVICES, INC. - ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED LAND SALES AND EXCHANGES SOUTH OF CALIFORNIA STATE ROUTE 52, NAVAL AIR STATION, MIRAMAR, SAN DIEGO COUNTY, CA 1987-04-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03931
Key Quad: La Jolla (3211772)
Occurrence Number: 103
EO Index: 27641
Element Code: ARACJ02060
Occurrence Last Updated: 1995-11-14

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S2S3
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1981-08-05
Last Survey Date: 1981-08-05
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

0.25-0.45 MI N OF CLAIREMONT MESA BLVD AT JCT W/CONVOY ST (CONVOY SE), MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

1 INDIV OBS.

Ecological:

LEVEL MESA TOP DISTURBED BY DUMPING AND BULLDOZING. ADENOSTOMA FASCICULATUM IS PRIMARY PLANT SPECIES. 10-15% BARE GROUND.

Threats:

DUMPING AND BULLDOZING.

General:

PLSS: T15S, R03W, Sec. 25 (S)
UTM: Zone-11 N3633279 E485661
Accuracy: 1/5 mile
Latitude/Longitude: 32.83747 / -117.15321
Area (acres): 0
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

MCG81R0002 MCGURTY, B.M. - STATUS SURVEY REPORT ON THE ORANGE-THROATED WHIPTAIL LIZARD OCCURRING ON CAMP PENDLETON, MIRAMAR, AND FALLBROOK ANNEX. USFWS CONTRACT #11310-0129-81. 1981-11-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03856
EO Index: 27640
Key Quad: La Jolla (3211772)
Element Code: ARACJ02060
Occurrence Number: 104
Occurrence Last Updated: 1998-11-16

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G5
State: S2S3

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1981-10-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1981-10-15
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:

0.3-0.5 MI E I-805 AT JCT W/HWY 52 (SAN CLEMENTE CYN W), MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

1981 REPORT STATES, LIZARDS FOUND IN DRAINAGE BOTTOMS, ADJACENT SLOPES AND RIDGES OF SAN CLEMENTE CANYON IN SW CORNER OF BASE.

Ecological:

LEVEL, SANDY ALLUVIUM (OLD WASH BANK); 5-25% BARE GROUND. PRIMARY PLANT SPECIES ARE BACCHARIS PILULARIS & ERYOGNUM FASCICULATUM.

Threats:

General:

A TOTAL OF 7 INDIVS OBS DURING 3 SITE VISITS FROM 5 AUG TO 15 OCT 1981.

PLSS: T15S, R03W, Sec. 27 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3634292 E484059
Latitude/Longitude: 32.84659 / -117.17034
Elevation (feet): 240

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

MCG81R0002 MCGURTY, B.M. - STATUS SURVEY REPORT ON THE ORANGE-THROATED WHIPTAIL LIZARD OCCURRING ON CAMP PENDLETON, MIRAMAR, AND FALLBROOK ANNEX. USFWS CONTRACT #11310-0129-81. 1981-11-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03693
Key Quad: Point Loma (3211762)
Occurrence Number: 110

EO Index: 27635
Element Code: ARACJ02060
Occurrence Last Updated: 1996-02-14

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S2S3

Rare Plant Rank:

Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1981-XX-XX
Last Survey Date: 1981-XX-XX
Owner/Manager: DOD-NAVAL OCEAN SYSTEMS CENTER
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

POINT LOMA; NAVAL OCEANS SYSTEMS CENTER AT SE END OF PENINSULA E OF BATTERY HUMPHREY.

Detailed Location:

Ecological:

MARITIME SAGE SCRUB.

Threats:

General:

THREE INDIVIDUALS OBS DURING 1981 SURVEYS.

PLSS: T17S, R03W, Sec. 30 (S)
UTM: Zone-11 N3614518 E477571

Accuracy: 1/5 mile
Latitude/Longitude: 32.66810 / -117.23920

Area (acres): 0
Elevation (feet): 200

County Summary:

San Diego, Pacific Ocean

Quad Summary:

Point Loma (3211762)

Sources:

WOO81R0001 WOODWARD & CLYDE - TERRESTRIAL BIOSURVEY AND INVENTORY OF NAVAL PROPERTY ON POINT LOMA 1981-11-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03679
Key Quad: Point Loma (3211762)
Occurrence Number: 111
EO Index: 27634
Element Code: ARACJ02060
Occurrence Last Updated: 2012-03-20

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S2S3
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1995-07-09
Last Survey Date: 1995-07-09
Owner/Manager: DOD-NAVY
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

POINT LOMA; NSSF, ON SE SIDE OF NE EXTENSION OF FORT ROSECRANS NATIONAL CEMETERY.

Detailed Location:

SPECIMEN LOCALITIES STATED AS "POINT LOMA."

Ecological:

SUITABLE CHAPARRAL & MARITIME SAGE SCRUB VEGETATION SHOULD BE CONSIDERED HABITAT. SINCE THIS TAXON IS OFTEN DIFFICULT TO OBSERVE, SIGHTINGS INDICATE THE POSSIBILITY OF A MORE WIDESPREAD PRESENCE OF THE SPECIES ON POINT LOMA.

Threats:

General:

SDNHM #11130 COLLECTED ON UNKNOWN DATE. ONE INDIVIDUAL OBSERVED IN CHAPARRAL DURING 1981 SURVEYS. ACCORDING TO BRATTSTROM, STILL AT SITE OR IN IMMEDIATE VICINITY IN 1990. 1 ADULT COLLECTED BY R.N. FISHER (CAS #200987) ON 9 JUL 1995.

PLSS: T17S, R04W, Sec. 13 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3617198 E477186
Latitude/Longitude: 32.69226 / -117.24337
Elevation (feet): 250

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

BRA90U0001	BRATTSTROM, B. - LETTER TO DARLENE MCGRIFF (DFG) WITH 8 ATTACHMENTS - CONCERNING HISTORICAL AND CURRENT LOCATIONS OF ORANGE-THROATED WHIPTAIL. 1990-06-18
CAS05S0010	CALIFORNIA ACADEMY OF SCIENCES - PRINTOUT OF CAS MUSEUM SPECIMENS FOR ASPIDOSCELIS HYPERYTHRA. 2005-12-05
HER06S0001	HERPNET - PRINTOUT OF RECORDS FROM HERPNET. SEARCHED ON ASPIDOSCELIS HYPERYTHRA BELDINGI, ASPIDOSCELIS HYPERYTHRA, & CNEMIDOPHORUS HYPERYTHRUS. RECORDS FROM SDNHM, LACM, SBMNH, KUNHM. 2006-02-06
WOO81R0001	WOODWARD & CLYDE - TERRESTRIAL BIOSURVEY AND INVENTORY OF NAVAL PROPERTY ON POINT LOMA 1981-11-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04115	**EO Index:**	27633
Key Quad:	La Mesa (3211771)	**Element Code:**	ARACJ02060
Occurrence Number:	112	**Occurrence Last Updated:**	1996-01-05

Scientific Name: *Aspidoscelis hyperythra*

Common Name: orange-throated whiptail

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5

State: S2S3

Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed:	1965-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1965-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MURPHY CANYON HEIGHTS PARCEL JUST NE OF JCT I-15 & FRIARS ROAD & AT SW END GOLF COURSE.

Detailed Location:

THIS TAXON HAS BEEN REPORTED FROM THIS PARCEL (MILLS, PERS COM 1978).

Ecological:

HABITAT IS HIGHLY DISTURBED AND SURROUNDED BY DEVELOPMENT.

Threats:

PROPOSED IN 1980 FOR NAVY HOUSING PROJECT; UNKNOWN IF DEVEL ALSO OCCURS OFF-SITE IN HIGH DENSITIES (MONTGOMERY 1978).

General:

PLSS:	T16S, R02W, Sec. 08 (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3628786 E490010	**Latitude/Longitude:**	32.79699 / -117.10670	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

PSB80R0001 PSBS - PACIFIC SOUTHWEST BIOLOGICAL SERVICES, INC. - BIOLOGICAL ASSESSMENT FOR MURPHY CANYON HEIGHTS, TIERRASANTA, AND CAMP ELLIOT SITES, SAN DIEGO 1980-10-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17838
Key Quad: La Mesa (3211771)
Occurrence Number: 119
EO Index: 10063
Element Code: ARACJ02060
Occurrence Last Updated: 1991-10-28

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S2S3
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1990-05-17
Last Survey Date: 1990-05-17
Owner/Manager: SDG COUNTY
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

MISSION TRAILS REGIONAL PARK.

Detailed Location:

Ecological:

PLANT SPECIES INCLUDE ARTEMISIA, BACCHARIS, BUCKWHEAT, & NIMULUS. OTHER ANIMALS INCLUDE CALIF. GNATCATCHER, CALIF. THRASHER, ASH THROATED FLYCATCHERS, CALIF QUAIL & WESTERN RATTLESNAKE. SITE SLOPES SLIGHTLY & IS ADJACENT TO A SANDY AREA.

Threats:

THIS SITE IS IN THE ALIGNMENT OF THE PROPOSED JACKSON RD. EXTENSION. ALSO ORV USE IS A PROBLEM.

General:

1 ADULT OBSERVED.

PLSS: T15S, R02W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3632044 E493572
Latitude/Longitude: 32.82640 / -117.06867
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

VIS90F0001 VISSMAN, S.M. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA & ORANGE-THROATED WHIPTAIL IN MISSION TRAILS REGIONAL PARK. 1990-05-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17866
EO Index: 24602
Key Quad: National City (3211761)
Element Code: ARACJ02060
Occurrence Number: 129
Occurrence Last Updated: 1991-12-16

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G5
State: S2S3

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1989-06-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1989-06-14
Occurrence Rank: Good
Owner/Manager: CALTRANS
Trend: Unknown
Presence: Presumed Extant

Location:

ABOUT 50 YARDS NORTH OF SR-54 (SOUTH BAY FREEWAY) AND 0.2 MILE WEST OF JCT WITH SWEETWATER RD, WEST OF SWEETWATER RES.

Detailed Location:

Ecological:

SMALL SOUTH-RUNNING DRAINAGES BETWEEN RESIDENTIAL AREAS ON THE NORTH AND THE HIGHWAY ON THE SOUTH. REMNANT COASTAL SAGE SCRUB. POLIOPTILA CALIFORNICA ALSO FOUND HERE.

Threats:

THIS AREA IS RIGHT-OF-WAY FOR FUTURE FREEWAY.

General:

2-4 INDIVIDUALS OBSERVED.

PLSS: T17S, R01W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3616914 E498100
Latitude/Longitude: 32.68994 / -117.02026
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

BEE89F0008 BEEZLEY, J. - FIELD SURVEY FORM FOR ASPIDOSCELIS HYPERYTHRA (=CNEMIDOPHORUS HYPERYTHRUS) 1989-06-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 20009
Key Quad: Imperial Beach (3211751)
Occurrence Number: 151
EO Index: 20687
Element Code: ARACJ02060
Occurrence Last Updated: 1995-11-13

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S2S3
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1989-07-03
Last Survey Date: 1989-07-03
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

EAST OF I-805 AND SOUTH OF PALM AVENUE, ABOUT 4 MILES EAST OF IMPERIAL BEACH.

Detailed Location:

2 ADULTS OBSERVED, BOTH IN DRAINAGE BOTTOMS.

Ecological:

COASTAL SAGE SCRUB DOMINATED BY AMBROSIA CHENOPODIAFOLIA ON SOUTH-FACING SLOPES AND ARTEMISIA AND BUCKWHEAT ON NORTHERN SLOPES.

Threats:

LOTS OF ORV ACTIVITY NEARBY. SOME DUMPING. AREA IS BEING CONSIDERED FOR URBAN DEVELOPMENT.

General:

PLSS: T18S, R02W, Sec. 25, NE (S)
UTM: Zone-11 N3604423 E496771
Accuracy: 2/5 mile
Latitude/Longitude: 32.57725 / -117.03440
Area (acres): 0
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

NIC89F0008 NICOLAI, N. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR ASPIDOSCELIS HYPERYTHRA (=CNEMIDOPHORUS HYPERYTHRUS) 1989-07-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21263
Key Quad: Imperial Beach (3211751)
Occurrence Number: 203
EO Index: 14387
Element Code: ARACJ02060
Occurrence Last Updated: 1992-09-10

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S2S3
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: PVT-OTAY RANCH
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

DIRECTLY NORTH OF OTAY VALLEY AND OTAY VALLEY ROAD, ABOUT 2 MILES EAST OF JUNCTION OF I-805 AND OTAY VALLEY ROAD.

Detailed Location:

Ecological:

COASTAL SAGE SCRUB.

Threats:

DEVELOPMENT.

General:

GNATCATCHERS AND CACTUS WRENS ALSO FOUND NEARBY.

PLSS: T18S, R01W, Sec. 20, NE (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3606283 E499463
Latitude/Longitude: 32.59404 / -117.00572
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

SCH89R0001 SCHEID, G. ET AL. - BIOLOGICAL RESOURCES INVENTORY REPORT FOR THE OTAY RANCH PROPERTY 1989-10-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 25618
Key Quad: La Mesa (3211771)
Occurrence Number: 220
EO Index: 5446
Element Code: ARACJ02060
Occurrence Last Updated: 1994-06-09

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S2S3
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1993-10-XX
Last Survey Date: 1993-10-XX
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:

KEARNY MESA, 1.5 MILES NORTH OF MURPHY CANYON ROAD/FRIARS ROAD INTERSECTION, SAN DIEGO.

Detailed Location:

SITE IS LOCATED WITHIN MONTGOMERY FIELD AIRPORT PROPERTY, ADJACENT TO THE HEWLETT-PACKARD BUILDING.

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB AND BROOM BACCHARIS SCRUB. OTHER RARE TAXA FOUND AT THIS SITE INCLUDE CALIFORNIA GNATCATCHER, BURROWING OWL, SELAGINELLA CINERASCENS, & VIQUIERA LACINIATA.

Threats:

THREATENED BY DEVELOPMENT & ISOLATION.

General:

UNKNOWN NUMBER OBSERVED SEPTEMBER/OCTOBER 1993.

PLSS: T16S, R02W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3630283 E488420
Latitude/Longitude: 32.81048 / -117.12369
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

La Mesa (3211771), La Jolla (3211772)

Sources:

FAM93F0003 FAMOLARO, P. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA, ASPIDOSCELIS (=CNEMIDOPHORUS) HYPERYTHRA BELDINGI & ATHENE CUNICULARIA 1993-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 30729
EO Index: 4189
Key Quad: National City (3211761)
Element Code: ARACJ02060
Occurrence Number: 224
Occurrence Last Updated: 1995-11-13

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S2S3
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1994-10-06
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1994-10-06
Occurrence Rank: Unknown
Owner/Manager: SDG COUNTY?
Trend: Unknown
Presence: Presumed Extant

Location:

SPRING VALLEY OUTFALL SEWER, BETWEEN QUARRY ROAD AND SWEETWATER RESERVOIR, SOUTH OF LEMON GROVE.

Detailed Location:

Ecological:

HABITAT CONSISTS OF DIEGAN COASTAL SAGE SCRUB ON A ROCKY, WEST-FACING SLOPE; DOMINANTS INCLUDE MALOSMA LAURINA, ARTEMISIA CALIFORNICA, BACCHARIS SAROTHRAE, AND ERIOGONUM FASCICULATUM. ADJACENT AREA IS DEVELOPED.

Threats:

General:

1 JUVENILE OBSERVED ON 6 OCTOBER 1994. SAN DIEGO PUBLIC WORKS (COUNTY?).

PLSS: T17S, R01W (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3617148 E499005
Latitude/Longitude: 32.69205 / -117.01061
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

MON94F0002 MONTIJO, R. - FIELD SURVEY FORM FOR ASPIDOSCELIS HYPERYTHRA (=CNEMIDOPHORUS HYPERYTHRUS) 1994-10-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 40150
EO Index: 35152
Key Quad: Imperial Beach (3211751)
Element Code: ARACJ02060
Occurrence Number: 263
Occurrence Last Updated: 1998-11-12

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G5
State: S2S3

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1987-07-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1987-07-14
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

POGGI CANYON, 1 MILE NNE OF I-805 AND OTAY VALLEY ROAD, EAST OF CHULA VISTA.

Detailed Location:

Ecological:

Threats:

General:

LIZARDS WERE OBSERVED ON SURVEYS IN MAY, JUNE AND JULY OF 1987.

PLSS: T18S, R01W, Sec. 18 (S)
Accuracy: non-specific area
Area (acres): 75
UTM: Zone-11 N3607816 E497379
Latitude/Longitude: 32.60786 / -117.02793
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

MON87U0002 MONTGOMERY, S.J. - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-000755]. ANNUAL REPORT OF SPECIMENS TAKEN FOR 1987. 1987-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 40171
Key Quad: La Jolla (3211772)
Occurrence Number: 264

EO Index: 35173
Element Code: ARACJ02060
Occurrence Last Updated: 1998-11-16

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S2S3

Rare Plant Rank:

Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1990-08-XX
Last Survey Date: 1990-08-XX
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

ROSE CANYON, ABOUT 1 MILE UPSTREAM (NE) FROM I-805, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

Ecological:

VEGETATION TYPES: OPEN COASTAL SAGE SCRUB AND DRY SCRUB WASH.

Threats:

ROADS, LANDFILLS.

General:

SEVERAL LIZARDS OBSERVED AT 4 DIFFERENT SAMPLE SITES.

PLSS: T15S, R03W, Sec. 15 (S)
UTM: Zone-11 N3637031 E483614

Accuracy: non-specific area
Latitude/Longitude: 32.87129 / -117.17515

Area (acres): 248
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

La Jolla (3211772), Del Mar (3211782)

Sources:

BRA92R0001 BRATTSTROM, B.H. - STATUS SURVEY OF THE ORANGE-THROATED WHIPTAIL LIZARD ON THE NAVAL AIR STATION, MIRAMAR, SAN DIEGO COUNTY, CALIFORNIA. 1992-07-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 40172
Key Quad: La Jolla (3211772)
Occurrence Number: 265
EO Index: 35174
Element Code: ARACJ02060
Occurrence Last Updated: 2004-03-31

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S2S3
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1997-11-18
Last Survey Date: 1997-11-18
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SAN CLEMENTE CANYON, ABOUT 1.1 MILE UPSTREAM (NE) FROM I-805, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

Ecological:

1990: VEGETATION TYPES INCLUDE OPEN COASTAL SAGE SCRUB AND DRY SCRUB WASH. 1997: SOUTHERN SYCAMORE-ALDER RIPARIAN WOODLAND.

Threats:

ROADS, LANDFILLS.

General:

SEVERAL LIZARDS OBSERVED AT 2 DIFFERENT SAMPLE SITES, 1990. 1 JUVENILE COLLECTED ON 18 NOV 1997, SPECIMEN #VBSI 1197-03.

PLSS: T15S, R03W, Sec. 23 (S)
Accuracy: non-specific area
Area (acres): 92
UTM: Zone-11 N3634755 E485310
Latitude/Longitude: 32.85078 / -117.15699
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

BRA92R0001 BRATTSTROM, B.H. - STATUS SURVEY OF THE ORANGE-THROATED WHIPTAIL LIZARD ON THE NAVAL AIR STATION, MIRAMAR, SAN DIEGO COUNTY, CALIFORNIA. 1992-07-23

VAR98U0001 HAAS, W. (VARANUS BIOLOGICAL SERVICES) - SPECIMEN DATA SHEET FOR REPTILE AND AMPHIBIAN SPECIMENS COLLECTED 1996-1998. 1998-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 40173
Key Quad: La Jolla (3211772)
Occurrence Number: 266
EO Index: 35175
Element Code: ARACJ02060
Occurrence Last Updated: 2012-03-08

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S2S3
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1990-XX-XX
Last Survey Date: 1990-XX-XX
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

1.9 MILES E OF I-805 & HIGHWAY 52, 0.9 MILE N OF CLAIREMONT MESA BLVD & HIGHWAY 163, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

SOUTH END OF KEARNY MESA. LOCATION FOR MUSEUM RECORDS STATED AS "SAN DIEGO, KEARNEY MESA."

Ecological:

VERNAL POOL COMPLEX. OPEN CHAPARRAL COMMUNITY WITH C. VERRUCOSUS, S. MELIFERA, E. FASICULATUM, A. FASCICULATUM, & R. INTERGRIFOLIA.

Threats:

ROADS, LANDFILLS.

General:

110 SPECIMENS (SDNHM) COLLECTED 1962-63. PERIODICALLY COLLECTED FOR REPRODUCTIVE STUDIES APR 1963-FEB 1964. OBSERVED DURING 1990 SURVEY. ACCORDING TO BRATTSTROM, SPECIES EXTANT AT SITE (KEARNEY MESA) OR IN IMMEDIATE VICINITY IN 1990.

PLSS: T15S, R03W, Sec. 25, N (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3634124 E486351
Latitude/Longitude: 32.84510 / -117.14585
Elevation (feet): 410

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

BOS66A0001	BOSTIC, D. - A PRELIMINARY REPORT OF REPRODUCTION IN THE TEIID LIZARD, CNEMIDOPHORUS HYPERYTHRUS BELDINGI. HERPETOLOGICA 22(2) 81-90 1966-06-30
BRA90U0001	BRATTSTROM, B. - LETTER TO DARLENE MCGRIFF (DFG) WITH 8 ATTACHMENTS - CONCERNING HISTORICAL AND CURRENT LOCATIONS OF ORANGE-THROATED WHIPTAIL. 1990-06-18
BRA92R0001	BRATTSTROM, B.H. - STATUS SURVEY OF THE ORANGE-THROATED WHIPTAIL LIZARD ON THE NAVAL AIR STATION, MIRAMAR, SAN DIEGO COUNTY, CALIFORNIA. 1992-07-23
HER06S0001	HERPNET - PRINTOUT OF RECORDS FROM HERPNET. SEARCHED ON ASPIDOSCELIS HYPERYTHRA BELDINGI, ASPIDOSCELIS HYPERYTHRA, & CNEMIDOPHORUS HYPERYTHRUS. RECORDS FROM SDNHM, LACM, SBMNH, KUNHM. 2006-02-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 50671
EO Index: 50671
Key Quad: La Mesa (3211771)
Element Code: ARACJ02060
Occurrence Number: 301
Occurrence Last Updated: 2003-03-20

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S2S3
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1998-06-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1998-06-15
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:

NORTH OF MURPHY CANYON AND SOUTH OF GREEN FARMS ROAD, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

Ecological:

HABITAT IN AREA CONSISTS OF DISTURBED AREA WITH REMNANT VERNAL POOLS, MIXED CHAPARRAL AND CHAMISE CHAPARRAL. AREA TO WEST IS DEVELOPED.

Threats:

POSSIBLE THREAT DUE TO USE AS TRAINING FACILITY (FIRING RANGE, CANINE TRAINING, URBAN DISASTER TRAINING FACILITY ETC.)

General:

UNKNOWN NUMBER OBSERVED DURING GNATCATCHER SURVEYS SOMETIME BEFORE 15 JUN 1998.

PLSS: T15S, R02W, Sec. 17 (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3636081 E490434
Latitude/Longitude: 32.86280 / -117.10224
Elevation (feet): 520

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

AFF98U0001 GROSS, M. (AFFINIS) - RESULTS OF GNATCATCHER SURVEYS, SHERIFF'S LEASE, MCAS MIRAMAR, CALIFORNIA. 1998-02-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 50692
EO Index: 50692
Key Quad: La Jolla (3211772)
Element Code: ARACJ02060
Occurrence Number: 302
Occurrence Last Updated: 2003-04-03

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S2S3
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 2002-06-20
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2002-06-20
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

SERRA MESA, EAST OF INTERSTATE 805 AND WEST OF MISSION VILLAGE DRIVE, SAN DIEGO.

Detailed Location:

ABOUT 0.2 MILE SOUTH OF GOWDY AVE.

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB DOMINATED BY ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM AND LOTUS SCOPARIUS. OTHER SHRUBS INCLUDE MALOSMA LAURINA, RHUS INTEGRIFOLIA AND HETEROMELES ARBUTIFOLIA.

Threats:

General:

SPECIES OBSERVED AT 2 LOCATIONS BETWEEN 15 MAY AND 20 JUN 2002 DURING 3 CALIFORNIA GNATCATCHER SURVEYS.

PLSS: T16S, R03W, Sec. 12 (S)
Accuracy: specific area
Area (acres): 11
UTM: Zone-11 N3628217 E487014
Latitude/Longitude: 32.79182 / -117.13869
Elevation (feet): 360

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

AFF02U0002 GROSS, M. (AFFINIS) - RESULTS OF PROTOCOL SURVEYS FOR THE CALIFORNIA GNATCATCHER, SERRA MESA SDGE PROPERTY. 2002-07-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 57268
Key Quad: La Mesa (3211771)
Occurrence Number: 350
EO Index: 57284
Element Code: ARACJ02060
Occurrence Last Updated: 2004-10-06

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S2S3
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 2004-04-13
Last Survey Date: 2004-04-13
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

JUST NE OF THE US NAVAL RECREATION FACILITY GOLF COURSE, 3 MILES NE OF THE INTERSECTION OF I-8 AND I-15, SAN DIEGO.

Detailed Location:

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB; SURROUNDED BY RESIDENTIAL HOUSING EAST AND WEST OF THE TRANSMISSION CORRIDOR.

Threats:

General:

1 ADULT OBSERVED ON 13 APR 2004.

PLSS: T16S, R02W, Sec. 04 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3631116 E492092
Latitude/Longitude: 32.81802 / -117.08447
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

KIM04F0004 KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR ASPIDOSCELIS HYPERYTHRA (=CNEMIDOPHORUS HYPERYTHRUS BELDINGI) 2004-04-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03570
Key Quad: La Jolla (3211772)
Occurrence Number: 367

EO Index: 63985
Element Code: ARACJ02060
Occurrence Last Updated: 2006-02-09

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S2S3

Rare Plant Rank:

Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 195X-XX-XX
Last Survey Date: 195X-XX-XX
Owner/Manager: PVT
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

LA JOLLA, LA JOLLA MESA.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED TO INCLUDE LA JOLLA MESA AND SURROUNDING AREA.

Ecological:

Threats:

General:

CAS #181793. COLLECTED BY J.F. COPP SOMETIME BETWEEN 1951-1956.

PLSS: T15S, R04W, Sec. 35 (S)
UTM: Zone-11 N3631852 E475295

Accuracy: 1 mile
Latitude/Longitude: 32.82441 / -117.26393

Area (acres): 0
Elevation (feet): 500

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

CAS05S0010 CALIFORNIA ACADEMY OF SCIENCES - PRINTOUT OF CAS MUSEUM SPECIMENS FOR ASPIDOSCELIS HYPERYTHRA. 2005-12-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36619
Key Quad: La Jolla (3211772)
Occurrence Number: 371
EO Index: 64058
Element Code: ARACJ02060
Occurrence Last Updated: 2006-02-15

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S2S3
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1990-XX-XX
Last Survey Date: 1990-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SAN DIEGO, PACIFIC BEACH.

Detailed Location:

EXACT LOCATION UNKNOWN. AREA MAPPED TO INCLUDE PACIFIC BEACH.

Ecological:

Threats:

General:

SDNHM #58886-7 COLLECTED ON 4 JUL 1963. ACCORDING TO BRATTSTROM, STILL AT SITE OR IN IMMEDIATE VICINITY IN 1990.

PLSS: T16S, R04W, Sec. 12 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3629673 E477019
Latitude/Longitude: 32.80479 / -117.24546
Elevation (feet): 100

County Summary:

San Diego, Pacific Ocean

Quad Summary:

La Jolla (3211772)

Sources:

BRA90U0001 BRATTSTROM, B. - LETTER TO DARLENE MCGRIFF (DFG) WITH 8 ATTACHMENTS - CONCERNING HISTORICAL AND CURRENT LOCATIONS OF ORANGE-THROATED WHIPTAIL. 1990-06-18

HER06S0001 HERPNET - PRINTOUT OF RECORDS FROM HERPNET. SEARCHED ON ASPIDOSCELIS HYPERYTHRA BELDINGI, ASPIDOSCELIS HYPERYTHRA, & CNEMIDOPHORUS HYPERYTHRUS. RECORDS FROM SDNHM, LACM, SBMNH, KUNHM. 2006-02-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 64085
Key Quad: La Mesa (3211771)
Occurrence Number: 377

EO Index: 64180
Element Code: ARACJ02060
Occurrence Last Updated: 2006-02-27

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S2S3

Rare Plant Rank:

Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1971-06-13
Last Survey Date: 1971-06-13
Owner/Manager: MISSION TRAILS RP
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

NE SAN DIEGO MISSION DAM SITE, FR JUNIPERO SERRA TRAIL.

Detailed Location:

TCWC LOCATION STATED AS "NE SAN DIEGO MISSION DAM SITE, FR JUNIPERO SERRA TRAIL". LOCATION MAPPED TO INCLUDE THE MISSION DAM AND HISTORIC FLUME SITE AND SURROUNDING AREA.

Ecological:

Threats:

General:

TEXAS COOPERATIVE WILDLIFE COLLECTION, TEXAS A&M UNIVERSITY (TCWC #48187). COLLECTED ON 13 JUN 1971.

PLSS: T15S, R02W, Sec. 25, N (S)
UTM: Zone-11 N3633841 E496207

Accuracy: 2/5 mile
Latitude/Longitude: 32.84262 / -117.04052

Area (acres): 0
Elevation (feet): 320

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

HER06S0001 HERPNET - PRINTOUT OF RECORDS FROM HERPNET. SEARCHED ON ASPIDOSCELIS HYPERYTHRA BELDINGI, ASPIDOSCELIS HYPERYTHRA, & CNEMIDOPHORUS HYPERYTHRUS. RECORDS FROM SDNHM, LACM, SBMNH, KUNHM. 2006-02-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 64086
Key Quad: La Jolla (3211772)
Occurrence Number: 378

EO Index: 64181
Element Code: ARACJ02060
Occurrence Last Updated: 2006-02-27

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S2S3

Rare Plant Rank:

Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1969-07-XX
Last Survey Date: 1969-07-XX
Owner/Manager: CITY OF SAN DIEGO, UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

TECOLATE CANYON (5.5 MILES N OF DOWNTOWN SAN DIEGO).

Detailed Location:

UCM LOCATION STATED AS "TECOLATE CANYON (5.5 MILES NORTH OF DOWNTOWN SAN DIEGO)". LOCATION MAPPED TO INCLUDE CENTRAL PORTION OF TECOLATE CANYON & SOME OF THE SURROUNDING AREA.

Ecological:

Threats:

General:

UNIVERSITY OF COLORADO MUSEUM (UCM #41401) COLLECTED DURING JUL 1969.

PLSS: T16S, R03W, Sec. 09 (S)
Accuracy: 1 mile
Area (acres): 0

UTM: Zone-11 N3628934 E482206
Latitude/Longitude: 32.79822 / -117.19004
Elevation (feet):

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

HER06S0001 HERPNET - PRINTOUT OF RECORDS FROM HERPNET. SEARCHED ON ASPIDOSCELIS HYPERYTHRA BELDINGI, ASPIDOSCELIS HYPERYTHRA, & CNEMIDOPHORUS HYPERYTHRUS. RECORDS FROM SDNHM, LACM, SBMNH, KUNHM. 2006-02-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 64090
Key Quad: Imperial Beach (3211751)
Occurrence Number: 379
EO Index: 64185
Element Code: ARACJ02060
Occurrence Last Updated: 2006-03-01

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S2S3
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 2005-09-02
Last Survey Date: 2005-09-02
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:

0.5 MILE SOUTH THE JUNCTION OF I-5 AND I-805, NEAR THE TIJUANA RIVER AND JUST NORTH OF THE USA/MEXICO BORDER.

Detailed Location:

LOCATED BETWEEN THE US BORDER/TIJUANA RIVER LEVEE AND PLAZA LAS AMERICAS PARKING LOT.

Ecological:

RELICT PATCH OF STABILIZED SOUTHERN DUNE SCRUB VEGETATION. NON-NATIVE SPECIES ON SITE. NATIVE PLANTS INCLUDE CROTON CALIFORNICUS, CAMISSONIA CHEIRANTHIFOLIUS SSP. SUFFRUTICOSA, HETEROTHECA SESSILIFLORA SSP. SESSILIFLORA, OTHER SUBSHRUBS.

Threats:

THREATENED BY EDGE EFFECTS TO PATCH OF HABITAT. PROPOSED FOR BRIDGE PROJECT.

General:

6 JUVENILES OBSERVED ON 2 SEP 2005. PROPOSED FOR BORDER PEDESTRIAN BRIDGE. THIS IS AN ISOLATED POPULATION COMPLETELY SURROUNDED BY DEVELOPMENT.

PLSS: T19S, R02W, Sec. 01, SE (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3600555 E496382
Latitude/Longitude: 32.54236 / -117.03852
Elevation (feet): 63

County Summary:

San Diego, Mexico

Quad Summary:

Imperial Beach (3211751)

Sources:

SCH05F0004 SCHEIDT, V. - FIELD SURVEY FORM FOR ASPIDOSCELIS HYPERYTHRA (=CNEMIDOPHORUS HYPERYTHRUS BELDINGI) 2005-09-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 75770
Key Quad: La Jolla (3211772)
Occurrence Number: 388

EO Index: 76782
Element Code: ARACJ02060
Occurrence Last Updated: 2009-07-09

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S2S3

Rare Plant Rank:

Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 2007-06-27
Last Survey Date: 2007-06-27
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:

SOUTH OF SAN CLEMENTE CANYON, AND NORTH OF HIGHWAY 52, SOUTHWEST CORNER OF MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

LOCATED ON MESA TOP, SOUTH OF WATER TREATMENT PLANT.

Ecological:

HABITAT IS OPEN MARITIME CHAPARRAL W/ ADENOSTOMA FASCICULATUM, CEANOTHUS VERRUCOSUS, ERIOGONUM FASCICULATUM, AND LOTUS SCOPARIUS. ISOLATED PATCH OF HABITIAT SURROUNDED BY DISTURBED AREAS AND ROADWAYS. VEGETATION SCRAPED ON EDGES OF HABITAT.

Threats:

EXPANSION OF ADJACENT FACILITIES.

General:

5 ADULTS FOUND IN THIS AREA. AERIAL IMAGERY SHOWS AREA TO WEST AND SOUTH COMPLETELY DEVELOPED, WITH WATER TREATMENT PLANT IMMEDIATELY TO THE NORTH (2008).

PLSS: T15S, R03W, Sec. 26 (S)
UTM: Zone-11 N3633761 E484811

Accuracy: 80 meters
Latitude/Longitude: 32.84180 / -117.16230

Area (acres): 0
Elevation (feet): 442

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

CLA07F0007 CLARK, K. - FIELD SURVEY FORM FOR ASPIDOSCELIS HYPERYTHRA 2007-06-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68466
Key Quad: Point Loma (3211762)
Occurrence Number: 401
EO Index: 86217
Element Code: ARACJ02060
Occurrence Last Updated: 2012-03-16

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S2S3
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1940-06-16
Last Survey Date: 1940-06-16
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SAN DIEGO.

Detailed Location:

DATA MAPEPD TO THE GENERAL LOCATION OF "SAN DIEGO." EXACT LOCATIONS ARE UNKNOWN.

Ecological:

Threats:

General:

COLLECTIONS REPORTED BY J.S. LIPPINCOTT DURING/PRIOR TO 1883. USNM (#13840 IN '84), MCZ (#2268 IN 1925), SDNHM (#11423 IN '27, #1569 & 1626 IN '28, #2004 & 2094 IN '29, #4591 IN '31, #29751 IN '38, & #33196 IN '40), & KU (#12978, UNK DATE).

PLSS: T17S, R03W, Sec. 11 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3619708 E485384
Latitude/Longitude: 32.71505 / -117.15595
Elevation (feet): 80

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

BRA90U0001	BRATTSTROM, B. - LETTER TO DARLENE MCGRIFF (DFG) WITH 8 ATTACHMENTS - CONCERNING HISTORICAL AND CURRENT LOCATIONS OF ORANGE-THROATED WHIPTAIL. 1990-06-18
COP83A0001	COPE, E. - NOTES ON THE GEOGRAPHICAL DISTRIBUTION OF BATRACHIA AND REPTILIA IN WESTERN NORTH AMERICA. PROCEEDINGS OF THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA 35:10-35 1883-XX-XX
HER06S0001	HERPNET - PRINTOUT OF RECORDS FROM HERPNET. SEARCHED ON ASPIDOSCELIS HYPERYTHRA BELDINGI, ASPIDOSCELIS HYPERYTHRA, & CNEMIDOPHORUS HYPERYTHRUS. RECORDS FROM SDNHM, LACM, SBMNH, KUNHM. 2006-02-06
USN84S0002	NATIONAL MUSEUM OF NATURAL HISTORY (USNM) - SPECIMEN (USNM #313840) COLLECTEDIN THE VICINITY OF SAN DIEGO. 1884-04-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21674
Key Quad: Point Loma (3211762)
Occurrence Number: 402
EO Index: 86218
Element Code: ARACJ02060
Occurrence Last Updated: 2012-03-08

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S2S3
Rare Plant Rank:
Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 1950-XX-XX
Last Survey Date: 1950-XX-XX
Owner/Manager: CITY OF SAN DIEGO-BALBOA PARK
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

IN THE VICINITY OF POWERHOUSE CANYON, BALBOA PARK, SAN DIEGO.

Detailed Location:

MAPPED TO LOCATION LISTED AS "POWDER HOUSE CANYON IN BALBOA PARK."

Ecological:

AREA IS DESCRIBED AS "UNCULTIVATED CHAPARRAL."

Threats:

General:

DESCRIBED AS "STILL FAIRLY COMMON" IN THIS AREA IN A 1950 ARTICLE.

PLSS: T16S, R03W, Sec. 36 (S)
Accuracy: non-specific area
Area (acres): 159
UTM: Zone-11 N3621946 E486620
Latitude/Longitude: 32.73525 / -117.14280
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

SHA50A0001 SHAW, C. - THE LIZARDS OF SAN DIEGO COUNTY WITH DESCRIPTIONS AND KEY. BULLETINS OF THE ZOOLOGICAL SOCIETY OF SAN DIEGO 25. 1950-10-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A2163
Key Quad: Otay Mesa (3211658)
Occurrence Number: 409

EO Index: 103759
Element Code: ARACJ02060
Occurrence Last Updated: 2016-10-13

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S2S3

Rare Plant Rank:

Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 2016-03-26
Last Survey Date: 2016-03-26
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

PACIFIC GATEWAY PARK, 0.7 MI WNW OF CACTUS RD AT SIEMPRE VIVA RD & 0.7 MI SSW OF HWY 905 AT HERITAGE RD, OTAY MESA.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

COASTAL SAGE SCRUB AND NON-NATIVE GRASSLAND SURROUNDED BY INDUSTRIAL DEVELOPMENT. DISTURBANCE FROM DIRT ROADS AND SOME TRASH.

Threats:

General:

1 ADULT OBSERVED DURING USGS HERP SURVEY.

PLSS: T18S, R01W, Sec. 32, SE (S)
UTM: Zone-11 N3601896 E499969

Accuracy: 80 meters
Latitude/Longitude: 32.55446 / -117.00033

Area (acres): 5
Elevation (feet): 456

County Summary:

San Diego

Quad Summary:

Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

SMI16F0006 SMITH, D. - FIELD SURVEY FORM FOR ASPIDOSCELIS HYPERYTHRA 2016-03-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A2181
Key Quad: Imperial Beach (3211751)
Occurrence Number: 410

EO Index: 103774
Element Code: ARACJ02060
Occurrence Last Updated: 2016-10-11

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S2S3

Rare Plant Rank:

Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 2016-03-26
Last Survey Date: 2016-03-26
Owner/Manager: USFWS-SAN DIEGO NWR
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Excellent
Trend: Unknown

Location:

ABOUT 0.5 MILES SW OF HWY 905 AT HERITAGE RD AND 1.1 MILES NW OF CACTUS RD AT SIEMPRE VIVA RD, OTAY MESA.

Detailed Location:

MAPPED TO POINT ON MAP FROM 1999 REPORT (SW POLYGON) AND COORDINATES PROVIDED FOR 2016 DETECTION (NE POLYGON).

Ecological:

COASTAL SAGE SCRUB AND NON-NATIVE GRASSLAND SURROUNDED BY INDUSTRIAL/COMMERCIAL AND RESIDENTIAL DEVELOPMENT. DISTURBANCE FROM DIRT ROADS AND SOME TRASH.

Threats:

General:

AT LEAST 1 OBSERVED DURING 1999 VERNAL POOL WET SEASON SURVEYS. 1 ADULT OBSERVED FORAGING DURING USGS HERP SURVEY ON 26 MAY 2016.

PLSS: T18S, R01W, Sec. 32, SE (S)
UTM: Zone-11 N3602537 E499519

Accuracy: specific area
Latitude/Longitude: 32.56024 / -117.00512

Area (acres): 10
Elevation (feet): 361

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

HEL99R0001	HELIX ENVIRONMENTAL PLANNING, INC. - 1999 ANNUAL REPORT FOR PROTOCOL LEVEL WET SEASON SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP 1999-07-28
SMI16F0009	SMITH, D. - FIELD SURVEY FORM FOR ASPIDOSCELIS HYPERYTHRA 2016-03-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A2582
Key Quad: National City (3211761)
Occurrence Number: 411

EO Index: 104171
Element Code: ARACJ02060
Occurrence Last Updated: 2016-11-14

Scientific Name: *Aspidoscelis hyperythra*
Common Name: orange-throated whiptail

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S2S3

Rare Plant Rank:

Other Lists: CDFW_WL-Watch List
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS.

Micro Habitat:

PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.

Last Date Observed: 2004-10-27
Last Survey Date: 2004-10-27
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

JUNIPER CANYON OPEN SPACE, ABOUT 220' SSE OF ELM ST AT GREGORY ST, 0.5 MI N HWY 94 AT HWY 15, OF SAN DIEGO.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

DISTURBED COASTAL SAGE SCRUB/CHAPARRAL IN OPEN SPACE SURROUNDED BY URBAN RESIDENTIAL. LAND USED FOR HIKING & FOOT TRAFFIC CORRIDOR BETWEEN NEIGHBORHOODS. DISTURBANCE FROM TRASH, VEGETATION DESTRUCTION, HOMELESS ENCAMPMENTS.

Threats:

HABITAT DESTRUCTION FROM FILL & VANDALISM, FERAL AND DOMESTIC CATS, ARGENTINE ANTS.

General:

1 ADULT FOUND UNDER DEBRIS ON 27 OCT 2004.

PLSS: T17S, R02W, Sec. 6, SE (S)
UTM: Zone-11 N3620693 E488594

Accuracy: 80 meters
Latitude/Longitude: 32.72397 / -117.12172

Area (acres): 5
Elevation (feet): 162

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

PAL04F0005 PALMER, D. - FIELD SURVEY FORM FOR ASPIDOSCELIS HYPERYTHRA 2004-10-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 30728
EO Index: 4190
Key Quad: National City (3211761)
Element Code: ARACJ02143
Occurrence Number: 4
Occurrence Last Updated: 1995-11-13

Scientific Name: *Aspidoscelis tigris stejnegeri*
Common Name: coastal whiptail

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T5
State: S3

General Habitat:

FOUND IN DESERTS AND SEMI-ARID AREAS WITH SPARSE VEGETATION AND OPEN AREAS. ALSO FOUND IN WOODLAND & RIPARIAN AREAS.

Micro Habitat:

GROUND MAY BE FIRM SOIL, SANDY, OR ROCKY.

Last Date Observed: 1994-10-06
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1994-10-06
Occurrence Rank: Good
Owner/Manager: SDG COUNTY?
Trend: Unknown
Presence: Presumed Extant

Location:

SPRING VALLEY OUTFALL SEWER, BETWEEN QUARRY ROAD AND SWEETWATER RESERVOIR, SOUTH OF LEMON GROVE.

Detailed Location:

Ecological:

HABITAT CONSISTS OF DIEGAN COASTAL SAGE SCRUB ON A ROCKY, WEST-FACING SLOPE; DOMINANTS INCLUDE MALOSMA LAURINA, ARTEMISIA CALIFORNICA, BACCHARIS SAROTHRAE, AND ERIOGONUM FASCICULATUM. ADJACENT AREA IS DEVELOPED.

Threats:

General:

1 JUVENILE OBSERVED ON 6 OCTOBER 1994. OWNER IS SAN DIEGO PUBLIC WORKS (COUNTY?).

PLSS: T17S, R01W (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3617363 E499022
Latitude/Longitude: 32.69399 / -117.01043
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

MON94F0004 MONTIJO, R. - FIELD SURVEY FORM FOR ASPIDOSCELIS TIGRIS STEJNEGERI (=CNEMIDOPHORUS TIGRIS MULTISCUTATUS) 1994-10-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03519
EO Index: 104843
Key Quad: La Jolla (3211772)
Element Code: ARADB01017
Occurrence Number: 3
Occurrence Last Updated: 2017-03-02

Scientific Name: *Arizona elegans occidentalis*
Common Name: California glossy snake

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.

Micro Habitat:

GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed: 1916-05-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1916-05-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

LA JOLLA.

Detailed Location:

LOCALITY GIVEN AS "LA JOLLA." MAPPED TO GENERAL VICINITY OF LA JOLLA, EXACT LOCATION UNKNOWN.

Ecological:

Threats:

General:

1 FEMALE (PARATYPE) AND 1 MALE (HOLOTYPE) COLLECTED IN MAY 1916.

PLSS: T15S, R04W, Sec. 27 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3633342 E473790
Latitude/Longitude: 32.83782 / -117.28005
Elevation (feet): 80

County Summary:

San Diego, Pacific Ocean

Quad Summary:

La Jolla (3211772)

Sources:

BLA24A0001 BLANCHARD, F. - A NEW SNAKE OF THE GENUS ARIZONA. OCCASIONAL PAPERS OF THE MUSEUM OF ZOOLOGY, UNIVERSITY OF MICHIGAN, 150 1924-04-26

KLA46A0001 KLAUBER, L. - THE GLOSSY SNAKE, ARIZONA, WITH DESCRIPTIONS OF NEW SUBSPECIES. TRANSACTIONS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY, 10(17): 311-398. 1946-03-29

THO16S0001 THOMPSON, J. - USNM #54371 & 54372 COLLECTED FROM LA JOLLA 1916-05-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03852
EO Index: 104845
Key Quad: La Jolla (3211772)
Element Code: ARADB01017
Occurrence Number: 4
Occurrence Last Updated: 2017-03-06

Scientific Name: *Arizona elegans occidentalis*
Common Name: California glossy snake

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.

Micro Habitat:

GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed: 1942-04-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1942-04-11
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

MISSION VALLEY, SAN DIEGO.

Detailed Location:

STATED LOCALITIES: "MISSON VALLEY." MAPPED TO GENERAL VICINITY OF MISSION VALLEY, EXACT LOCATION UNKNOWN. ATTRIBUTED SPECIMENS COLLECTED FROM "SAN DIEGO."

Ecological:

Threats:

General:

PARATYPE COLLECTED ON 4 APR 1884. SPECIMENS COLLECTED ON 14 AUG 1926, 6 APR 1927, 3 MAR 1928, 13 JUN 1929, 25 JAN 1941, AND 11 APR 1942.

PLSS: T16S, R03W, Sec. 22 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3625202 E483745
Latitude/Longitude: 32.76458 / -117.17354
Elevation (feet): 25

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

AKE29S0001	AKE, T. - SDNHM #1951 COLLECTED FROM SAN DIEGO 1929-06-03
ANO84S0008	ANONYMOUS - USNM #13839 COLLECTED FROM SAN DIEGO (PARATYPE) 1884-04-04
GUG26S0001	GUGLIMENTE, A. - SDNHM #198 COLLECTED FROM SAN DIEGO; MISSION VALLEY 1926-08-14
GUG27S0001	GUGLIMENTTI, V. - SDNHM #1025 COLLECTED FROM SAN DIEGO; MISSION VALLEY 1927-04-06
KLA46A0001	KLAUBER, L. - THE GLOSSY SNAKE, ARIZONA, WITH DESCRIPTIONS OF NEW SUBSPECIES. TRANSACTIONS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY, 10(17): 311-398. 1946-03-29
SAN41S0001	SAN DIEGO ZOO - SDNHM #33677 COLLECTED FROM SAN DIEGO; MISSION VALLEY 1941-01-25
SAN42S0001	SAN DIEGO ZOO - SDNHM #34964 COLLECTED FROM SAN DIEGO; MISSION VALLEY 1942-04-11
STE28S0001	STEPHENS, F. - SDNHM #28101 COLLECTED FROM SAN DIEGO; MISSION VALLEY 1928-03-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36619
Key Quad: La Jolla (3211772)
Occurrence Number: 5
EO Index: 104848
Element Code: ARADB01017
Occurrence Last Updated: 2017-03-02

Scientific Name: *Arizona elegans occidentalis*
Common Name: California glossy snake

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.

Micro Habitat:

GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed: 1890-01-XX
Last Survey Date: 1890-01-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

VICINITY OF PACIFIC BEACH.

Detailed Location:

Ecological:

Threats:

General:

1 MALE JUVENILE (PARATYPE SPECIMEN) COLLECTED IN JAN 1890.

PLSS: T16S, R04W, Sec. 12 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3629673 E477019
Latitude/Longitude: 32.80479 / -117.24546
Elevation (feet): 100

County Summary:

San Diego, Pacific Ocean

Quad Summary:

La Jolla (3211772)

Sources:

ANO90S0006	ANONYMOUS - USNM #16848 COLLECTED FROM PACIFIC BEACH (PARATYPE) 1890-01-XX
KLA46A0001	KLAUBER, L. - THE GLOSSY SNAKE, ARIZONA, WITH DESCRIPTIONS OF NEW SUBSPECIES. TRANSACTIONS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY, 10(17): 311-398. 1946-03-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A3561
Key Quad: La Jolla (3211772)
Occurrence Number: 175
EO Index: 105198
Element Code: ARADB01017
Occurrence Last Updated: 2017-02-08

Scientific Name: *Arizona elegans occidentalis*
Common Name: California glossy snake

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.

Micro Habitat:

GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed: 1926-06-06
Last Survey Date: 1926-06-06
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

VICINITY OF MONTGOMERY-GIBBS EXECUTIVE AIRPORT, VICINITY OF HISTORIC ROSEDALE, NORTH SAN DIEGO.

Detailed Location:

STATED LOCALITY "ROSEDALE." 1903 TOPO MAP SHOWS "ROSEDALE" LABELED IN VICINITY OF BM 428 MURPHY EAST OF WHERE AIRPORT (OPENED 1940) IS PRESENTLY LOCATED. MAPPED TO VICINITY; EXACT LOCATION UNKNOWN.

Ecological:

Threats:

General:

COLLECTED ON 6 JUN 1926.

PLSS: T16S, R03W, Sec. 1 (S)
Accuracy: 1 mile
Area (acres): 1,987
UTM: Zone-11 N3630842 E487184
Latitude/Longitude: 32.8155 / -117.13691
Elevation (feet): 421

County Summary:

San Diego

Quad Summary:

La Mesa (3211771), La Jolla (3211772)

Sources:

KLA46A0001 KLAUBER, L. - THE GLOSSY SNAKE, ARIZONA, WITH DESCRIPTIONS OF NEW SUBSPECIES. TRANSACTIONS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY, 10(17): 311-398. 1946-03-29

VAS26S0001 VASEY, J. - SDNHM #102 COLLECTED FROM ROSEDALE 1926-06-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A3562
Key Quad: La Mesa (3211771)
Occurrence Number: 176
EO Index: 105199
Element Code: ARADB01017
Occurrence Last Updated: 2017-02-08

Scientific Name: *Arizona elegans occidentalis*
Common Name: California glossy snake

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.

Micro Habitat:

GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed: 1937-05-24
Last Survey Date: 1937-05-24
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

VICINITY OF GRANTVILLE.

Detailed Location:

STATED LOCALITY "GRANTVILLE," EXACT LOCATION UNKNOWN.

Ecological:

Threats:

General:

SPECIMENS COLLECTED ON 4 AND 6 MAY 1933 AND 24 MAY 1937.

PLSS: T16S, R02W, Sec. 16 (S)
Accuracy: 1 mile
Area (acres): 1,987
UTM: Zone-11 N3627898 E491397
Latitude/Longitude: 32.78899 / -117.09188
Elevation (feet): 172

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

KLA46A0001	KLAUBER, L. - THE GLOSSY SNAKE, ARIZONA, WITH DESCRIPTIONS OF NEW SUBSPECIES. TRANSACTIONS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY, 10(17): 311-398. 1946-03-29
WAL37S0002	WALKER, L. - SDNHM #17108 COLLECTED FROM GRANTVILLE 1937-05-24
WAR33S0001	WARD, J. - SDNHM #10790 COLLECTED FROM GRANTVILLE 1933-05-04
WAR33S0002	WARD, J. - SDNHM #10794 COLLECTED FROM GRANTVILLE 1933-05-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A3563
Key Quad: La Mesa (3211771)
Occurrence Number: 177
EO Index: 105200
Element Code: ARADB01017
Occurrence Last Updated: 2017-02-08

Scientific Name: *Arizona elegans occidentalis*
Common Name: California glossy snake

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.

Micro Habitat:

GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed: 1939-04-08
Last Survey Date: 1939-04-08
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

VICINTIY OF MISSION GORGE, NORTH OF SAN DIEGO.

Detailed Location:

STATED LOCALITY: "MISSION GORGE," EXACT LOCATION UNKNOWN.

Ecological:

Threats:

General:

SPECIMEN COLLECTED ON 8 APR 1939.

PLSS: T15S, R02W, Sec. 35 (S)
Accuracy: 1 mile
Area (acres): 1,987
UTM: Zone-11 N3632037 E494922
Latitude/Longitude: 32.82634 / -117.05425
Elevation (feet): 237

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

KLA46A0001 KLAUBER, L. - THE GLOSSY SNAKE, ARIZONA, WITH DESCRIPTIONS OF NEW SUBSPECIES. TRANSACTIONS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY, 10(17): 311-398. 1946-03-29

PAI39S0001 PAINTER, H. - SDNHM #31252 COLLECTED FROM SAN DIEGO; MISSION GORGE 1939-04-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82061
EO Index: 105207
Key Quad: Point Loma (3211762)
Element Code: ARADB01017
Occurrence Number: 183
Occurrence Last Updated: 2017-02-01

Scientific Name: *Arizona elegans occidentalis*
Common Name: California glossy snake

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.

Micro Habitat:

GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed: 1960-03-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1960-03-17
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

VICINITY OF POINT LOMA.

Detailed Location:

STATED LOCALITY "POINT LOMA," EXACT LOCATION UNKNOWN.

Ecological:

Threats:

General:

SPECIMEN COLLECTED ON 17 MAR 1960.

PLSS: T17S, R04W, Sec. 13 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3618058 E476870
Latitude/Longitude: 32.70001 / -117.24676
Elevation (feet): 285

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

OWE60S0001 OWEN, O. - SDNHM #44066 COLLECTED FROM SAN DIEGO; POINT LOMA 1960-03-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A3669	**EO Index:**	105305
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ARADB01017
Occurrence Number:	201	**Occurrence Last Updated:**	2017-02-09

Scientific Name: *Arizona elegans occidentalis* **Common Name:** California glossy snake

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:** CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.

Micro Habitat:

GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed:	1930-02-23	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1999-XX-XX	**Occurrence Rank:**	None
Owner/Manager:	DPR-BORDER FIELD SP	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

VICINITY OF BORDER FIELD STATE PARK, BETWEEN TIJUANA RIVER & INTERNATIONAL BORDER, SOUTH OF SAN DIEGO.

Detailed Location:

Ecological:

FOUND UNDER PLANK ON BEACH IN 1930S.

Threats:

General:

1 COLLECTED IN 23 FEB 1930. NONE DETECTED BETWEEN 1997-1999 HERP SURVEYS.

PLSS:	T19S, R02W, Sec. 5 (S)	**Accuracy:**	1 mile	**Area (acres):**	1,987
UTM:	Zone-11 N3601071 E488954	**Latitude/Longitude:**	32.54696 / -117.11765	**Elevation (feet):**	7

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

COO30A0001	COOK, L. - NOTES ON AN ARIZONA ELEGANS OCCIDENTALIS BLANCHARD. COPEIA, 1930(4):158 1930-12-31
FIS00R0002	FISHER, R. & T. CASE (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - FINAL REPORT ON HERPETOFAUNA MONITORING IN THE TIJUANA ESTUARY NATIONAL ESTUARINE RESEARCH RESERVE 2000-02-XX
KLA46A0001	KLAUBER, L. - THE GLOSSY SNAKE, ARIZONA, WITH DESCRIPTIONS OF NEW SUBSPECIES. TRANSACTIONS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY, 10(17): 311-398. 1946-03-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A3670
EO Index: 105307
Key Quad: Imperial Beach (3211751)
Element Code: ARADB01017
Occurrence Number: 202
Occurrence Last Updated: 2017-03-14

Scientific Name: *Arizona elegans occidentalis*
Common Name: California glossy snake

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.

Micro Habitat:

GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed: 1916-03-25
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1916-03-25
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

VICINITY OF HISTORIC TIA JUANA, CALIFORNIA (PRESENT DAY SAN YSIDRO STATION), NEAR I-5 AT INTERNATIONAL BORDER.

Detailed Location:

MAPPED TO VICINITY OF TIA JUANA IN SOUTH SAN DIEGO COUNTY, NOW KNOWN AS SAN YSIDRO STATION SINCE LATE 1930S - EARLY 1940S. "TIA JUAN" IS AN ALTERNATE SPELLING OF "TIA JUANA" FROM THE EARLY 1800S; FORMERLY PART OF HISTORIC RANCHO TIA JUANA.

Ecological:

Threats:

General:

COLLECTED ON 25 MAR 1916.

PLSS: T19S, R01W, Sec. 6 (S)
Accuracy: 1 mile
Area (acres): 1,987
UTM: Zone-11 N3600708 E497430
Latitude/Longitude: 32.54374 / -117.02737
Elevation (feet): 146

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

KLA46A0001	KLAUBER, L. - THE GLOSSY SNAKE, ARIZONA, WITH DESCRIPTIONS OF NEW SUBSPECIES. TRANSACTIONS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY, 10(17): 311-398. 1946-03-29
SUM16S0001	SUMICHRAST, F. - MCZ #R-27115 COLLECTED FROM TIA JUAN, CALIFORNIA 1916-03-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A3024
Key Quad: Imperial Beach (3211751)
Occurrence Number: 203

EO Index: 105308
Element Code: ARADB01017
Occurrence Last Updated: 2017-02-09

Scientific Name: *Arizona elegans occidentalis*
Common Name: California glossy snake

Listing Status: **Federal:** None
State: None

Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.

Micro Habitat:

GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.

Last Date Observed: 1946-XX-XX
Last Survey Date: 1946-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

VICINITY OF OTAY.

Detailed Location:

Ecological:

Threats:

General:

KLAUBER 1946 ARTICLE NAMED OTAY AS OCCURRENCE LOCALITY.

PLSS: T18S, R02W, Sec. 23, NW (S)
UTM: Zone-11 N3606366 E493935

Accuracy: 1 mile
Latitude/Longitude: 32.59476 / -117.06463

Area (acres): 1,987
Elevation (feet): 50

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

KLA46A0001 KLAUBER, L. - THE GLOSSY SNAKE, ARIZONA, WITH DESCRIPTIONS OF NEW SUBSPECIES. TRANSACTIONS OF THE SAN DIEGO SOCIETY OF NATURAL HISTORY, 10(17): 311-398. 1946-03-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A3024
EO Index: 104644
Key Quad: Imperial Beach (3211751)
Element Code: ARADB21026
Occurrence Number: 1
Occurrence Last Updated: 2016-12-16

Scientific Name: *Masticophis fuliginosus*
Common Name: Baja California coachwhip

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5
State: S1S2

General Habitat:

IN CALIFORNIA RESTRICTED TO SOUTHERN SAN DIEGO COUNTY, WHERE IT IS KNOWN FROM GRASSLAND AND COASTAL SAGE SCRUB.

Micro Habitat:

OPEN AREAS IN GRASSLAND AND COASTAL SAGE SCRUB

Last Date Observed: 1947-06-26
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1947-06-26
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

OTAY.

Detailed Location:

MAPPED AS A 1 MILE RADIUS CIRCLE CENTERED ON POPULATED PLACE, NOW INCORPORATED WITH CHULA VISTA. KLAUBER'S DIARY STATES "...THEN DOWN TO THAT NEW CUT SOUTH OF OTAY..." THIS MAY REFERE TO NEW ROAD CUTS BEYER WAY AND/OR BEYER BLVD.

Ecological:

KLAUBER'S 1936 DETECTION WAS OF A DOR INDIVIDUAL ASSOCIATED WITH GRASS HABITAT. COMPARING TOPOGRAPHIC MAPS FROM 1904, 1930, 1943, 1953, AND 1975, THIS AREA HAS BEEN EXTENSIVELY DEVLEOPED.

Threats:

DEVELOPMENT AND CONSTRUCTION OF ROADWAYS, LEADING TO LOSS OF HABITAT AND ROAD MORTALITIES.

General:

ONE COLLECTED DEAD-ON-ROAD ON 20 MAY 1936. ONE COLLECTED ALIVE ON UNRECORDED DATE, BUT PRESERVED ON 26 JUN 1947.

PLSS: T18S, R02W, Sec. 23, NW (S)
Accuracy: 1 mile
Area (acres): 1,987
UTM: Zone-11 N3606366 E493935
Latitude/Longitude: 32.59476 / -117.06463
Elevation (feet): 50

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

KLA36S0003 KLAUBER, L. - SDNHM #25600 COLLECTED AT OTAY (DOR) 1936-05-20

SDZ47S0001 SAN DIEGO ZOO - SDNHM #38363 COLLECTED AT OTAY (DATE IS PRESERVED DATE) 1947-06-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A3027
Key Quad: Otay Mesa (3211658)
Occurrence Number: 2
EO Index: 104648
Element Code: ARADB21026
Occurrence Last Updated: 2016-12-16

Scientific Name: *Masticophis fuliginosus*
Common Name: Baja California coachwhip

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5
State: S1S2

General Habitat:

IN CALIFORNIA RESTRICTED TO SOUTHERN SAN DIEGO COUNTY, WHERE IT IS KNOWN FROM GRASSLAND AND COASTAL SAGE SCRUB.

Micro Habitat:

OPEN AREAS IN GRASSLAND AND COASTAL SAGE SCRUB

Last Date Observed: 1941-05-04
Last Survey Date: 1941-05-04
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

OTAY MESA.

Detailed Location:

LOCALITY ONLY STATED AS OTAY MESA. MAPPED NON-SPECIFICALLY AS A 1 MILE BUFFER ALONG OTAY MESA ROAD FROM NEAR MOODY CYN IN THE WEST TO THE VICINITY OF KUEBLER RANCH IN THE EAST, SINCE THIS WAS THE MAJOR ROAD AND ROAD CRUISING WAS COMMON.

Ecological:

COMPARING TOPO MAPS FROM 1903-1996 AND AERIALS FROM 1994-2016, THE OTAY MESA HAS UNDERGONE EXTENSIVE DEVELOPMENT INCLUDING AN AIRPORT (1940S), EXTENSIVE BUSINESS PARKS (>2000), AND A NEW 6 LANE HIGHWAY AND A NEW 4 LANE TOLL HIGHWAY (>2008).

Threats:

DEVELOPMENT AND CONSTRUCTION OF ROADWAYS, LEADING TO LOSS OF HABITAT AND ROAD MORTALITIES.

General:

ONE WAS COLLECTED AND LATER PRESERVED ON 23 APR 1932, AND ONE WAS COLLECTED AND LATER PRESERVED ON 5 APR 1941.

PLSS: T18S, R01W, Sec. 27 (S)
Accuracy: non-specific area
Area (acres): 8,065
UTM: Zone-11 N3603392 E503008
Latitude/Longitude: 32.56795 / -116.96795
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

HAP32S0001 HAPTONSTALL, E. - SDNHM #7580 COLLECTED AT OTAY MESA 1932-04-23

SDZ41S0001 SAN DIEGO ZOO - SDNHM #33731 COLLECTED AT OTAY MESA 1941-04-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A3036
EO Index: 104659
Key Quad: Imperial Beach (3211751)
Element Code: ARADB21026
Occurrence Number: 3
Occurrence Last Updated: 2016-12-19

Scientific Name: *Masticophis fuliginosus*
Common Name: Baja California coachwhip

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5
State: S1S2

General Habitat:

IN CALIFORNIA RESTRICTED TO SOUTHERN SAN DIEGO COUNTY, WHERE IT IS KNOWN FROM GRASSLAND AND COASTAL SAGE SCRUB.

Micro Habitat:

OPEN AREAS IN GRASSLAND AND COASTAL SAGE SCRUB

Last Date Observed: 2003-08-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-08-XX
Occurrence Rank: Good
Owner/Manager: DPR-BORDER FIELD SP
Trend: Unknown
Presence: Presumed Extant

Location:

EXTREME SW CORNER OF STATE, BETWEEN TIJUANA RIVER AND USA / MEXICO BORDER, BORDER FIELD STATE PARK.

Detailed Location:

"SOUTH RIVER" STUDY SITE ON THE TIJUANA RIVER NATIONAL ESTUARINE RESEARCH RESERVE. SOUTH HALF OF SECTION 6, WEST HALF OF SECTION 5, AND MOST OF SECTION 7.

Ecological:

150 HA UPLAND HABITAT ISOLATED BY OCEAN, MILITARY AIRFIELD, AND URBAN DEVELOPMENT OF SAN DIEGO AND TIJUANA. NO SNAKES WERE DOCUMENTED CROSSING THE RIVER DURING 7 YEARS OF TRACKING.

Threats:

THREATENED BY HABITAT FRAGMENTATION FROM DEVELOPMENT, AND BY INCREASED EXSPOSURE TO ROAD MORTALITY & OTHER EDGE EFFECTS.

General:

AT LEAST 3 INDIVIDUALS TRAPPED AS EARLY AS 1995. NINE BAJA CALIF COACHWHIPS WERE TRACKED USING TELEMENTY (561 SEPARATE DETECTIONS) FROM APR TO AUG 2002 AND 2003.

PLSS: T19S, R02W, Sec. 6 (S)
Accuracy: specific area
Area (acres): 304
UTM: Zone-11 N3600719 E488761
Latitude/Longitude: 32.54378 / -117.1197
Elevation (feet): 15

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

MIT06D0001 MITROVICH, M. - SHAPEFILE OF MASTICOPHIS FULIGINOSUS DETECTIONS SOMETIME BETWEEN 1995-2006 2006-XX-XX

MIT09A0001 MITROVICH, M. ET AL. - BEHAVIORAL RESPONSE OF THE COACHWHIP (MASTICOPHIS FLAGELLUM) TO HABITAT FRAGMENTATION AND ISOLATION IN AN URBAN LANDSCAPE. JOURNAL OF HERPETOLOGY 43(4):646-656. 2009-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A3041	**EO Index:**	104664
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ARADB21026
Occurrence Number:	4	**Occurrence Last Updated:**	2016-12-19

Scientific Name: *Masticophis fuliginosus*

Common Name: Baja California coachwhip

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5

State: S1S2

General Habitat:

IN CALIFORNIA RESTRICTED TO SOUTHERN SAN DIEGO COUNTY, WHERE IT IS KNOWN FROM GRASSLAND AND COASTAL SAGE SCRUB.

Micro Habitat:

OPEN AREAS IN GRASSLAND AND COASTAL SAGE SCRUB

Last Date Observed:	2003-08-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-08-XX	**Occurrence Rank:**	Good
Owner/Manager:	USFWS-TIJUANA SLOUGH NWR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH OF THE TOWN OF IMPERIAL BEACH AND NORTH OF TIJUANA RIVER, PRIMARILY BETWEEN PACIFIC OCEAN AND NAVAL AIRFIELD.

Detailed Location:

"NORTH RIVER" STUDY SITE ON THE TIJUANA RIVER NATIONAL ESTUARINE RESEARCH RESERVE. CENTER OF SECTION 31 AND HEADING EAST ALONG SOUTH BORDER OF AIRFIELD TO CENTER OF SECTION 32.

Ecological:

50 HA UPLAND HABITAT ISOLATED BY OCEAN, MILITARY AIRFIELD, AND URBAN DEVELOPMENT OF SAN DIEGO AND TIJUANA. NO SNAKES WERE DOCUMENTED CROSSING THE RIVER DURING 7 YEARS OF TRACKING.

Threats:

THREATENED BY HABITAT FRAGMENTATION FROM DEVELOPMENT, AND BY INCREASED EXSPOSURE TO ROAD MORTALITY & OTHER EDGE EFFECTS.

General:

AT LEAST 3 INDIVIDUALS TRAPPED MULTIPLE TIMES AS EARLY AS 1995. NINE BAJA CALIF COACHWHIPS WERE TRACKED USING TELEMENTY (594 SEPARATE DETECTIONS) FROM APR TO AUG 2002 AND 2003.

PLSS:	T18S, R02W, Sec. 31 (S)	**Accuracy:**	specific area	**Area (acres):**	130
UTM:	Zone-11 N3602681 E488237	**Latitude/Longitude:**	32.56148 / -117.12531	**Elevation (feet):**	12

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

MIT06D0001	MITROVICH, M. - SHAPEFILE OF MASTICOPHIS FULIGINOSUS DETECTIONS SOMETIME BETWEEN 1995-2006 2006-XX-XX
MIT09A0001	MITROVICH, M. ET AL. - BEHAVIORAL RESPONSE OF THE COACHWHIP (MASTICOPHIS FLAGELLUM) TO HABITAT FRAGMENTATION AND ISOLATION IN AN URBAN LANDSCAPE. JOURNAL OF HERPETOLOGY 43(4):646-656. 2009-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A3042
EO Index: 104665
Key Quad: National City (3211761)
Element Code: ARADB21026
Occurrence Number: 5
Occurrence Last Updated: 2016-12-19

Scientific Name: *Masticophis fuliginosus*
Common Name: Baja California coachwhip

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5
State: S1S2

General Habitat:
IN CALIFORNIA RESTRICTED TO SOUTHERN SAN DIEGO COUNTY, WHERE IT IS KNOWN FROM GRASSLAND AND COASTAL SAGE SCRUB.

Micro Habitat:
OPEN AREAS IN GRASSLAND AND COASTAL SAGE SCRUB

Last Date Observed: 2005-07-02
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-07-02
Occurrence Rank: Fair
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:
RICE CANYON, 0.5 MILE WEST OF THE INTERSECTION OF RANCHO DEL REY PARKWAY AND BUENA VISTA WAY, CHULA VISTA.

Detailed Location:
RICE CANYON OPEN SPACE PRESERVE. MAPPED TO PROVIDED COORDINATES.

Ecological:
SEEN IN CONCRETE BROW DITCH, THEN FLED UPSLOPE. HABITAT GENERALLY COASTAL SAGE SCRUB; PART OF AN OPEN SPACE DISTRICT WITH A BRUSH CLEARING MANAGEMENT PLAN, MAINTENANCE ROADS AND RECREATION PATHS SURROUNDED BY RESIDENTIAL DEVELOPMENT.

Threats:
BRUSH CLEARING, NON-NATIVE ANIMALS, HABITAT FRAGMENTATION AND GENETIC ISOLATION BY DEVELOPMENT, LIKELY ROAD MORTALITY.

General:
ONE WAS INCIDENTALLY OBSERVED ON 2 JUL 2005.

PLSS: T17S, R01W, Sec. 31, SE (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3611893 E498200
Latitude/Longitude: 32.64464 / -117.01919
Elevation (feet): 330

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
PAL05F0003 PALMER, D. - FIELD SURVEY FORM FOR COLUBER FULIGINOSUS 2005-07-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 59197
EO Index: 59233
Key Quad: La Mesa (3211771)
Element Code: ARADB30033
Occurrence Number: 14
Occurrence Last Updated: 2005-01-10

Scientific Name: *Salvadora hexalepis virgultea*
Common Name: coast patch-nosed snake

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T4
State: S2S3

General Habitat:

BRUSHY OR SHRUBBY VEGETATION IN COASTAL SOUTHERN CALIFORNIA.

Micro Habitat:

REQUIRE SMALL MAMMAL BURROWS FOR REFUGE AND OVERWINTERING SITES.

Last Date Observed: 2004-03-20
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2004-03-20
Occurrence Rank: Fair
Owner/Manager: MISSION TRAILS RP
Trend: Unknown
Presence: Presumed Extant

Location:

0.4 MILE SOUTH OF THE PEAK OF COWLES MOUNTAIN AND 0.25 MILE NORTH OF NAVAJO ROAD, SAN DIEGO.

Detailed Location:

LOCATED ALONG A HIKING TRAIL RUNNING FROM THE INTERSECTION OF GOLFCREST AND NAVAJO ROAD, TO COWLES PEAK.

Ecological:

HABITAT CONSISTS OF SOUTH-FACING COASTAL SAGE SCRUB, DOMINATED BY ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, VIGUIERA LACINIATA, AND MIRABILIS LAEVIS.

Threats:

THREATENED BY RECREATIONAL HIKERS.

General:

1 ADULT OBSERVED ON 20 MAR 2004.

PLSS: T16S, R02W, Sec. 01 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3629892 E496901
Latitude/Longitude: 32.80700 / -117.03310
Elevation (feet): 850

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

MAC04F0001 MACGREGOR, C. - FIELD SURVEY FORM FOR SALVADORA HEXALEPIS VIRGULTEA 2004-03-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	33837	**EO Index:**	46792
Key Quad:	San Vicente Reservoir (3211688)	**Element Code:**	ARADB36160
Occurrence Number:	66	**Occurrence Last Updated:**	2004-04-01

Scientific Name: *Thamnophis hammondii*

Common Name: two-striped gartersnake

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G4

State: S3S4

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

COASTAL CALIFORNIA FROM VICINITY OF SALINAS TO NORTHWEST BAJA CALIFORNIA. FROM SEA TO ABOUT 7,000 FT ELEVATION.

Micro Habitat:

HIGHLY AQUATIC, FOUND IN OR NEAR PERMANENT FRESH WATER. OFTEN ALONG STREAMS WITH ROCKY BEDS AND RIPARIAN GROWTH.

Last Date Observed:	1998-04-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1998-04-26	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT, UNKNOWN, PADRE DAM MWD	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

FANITA RANCH AND SURROUNDING AREA, W OF HIGHWAY 67, MAINLY E OF WEST SYCAMORE CANYON, NW PORTION CITY OF SANTEE.

Detailed Location:

1997: EAST OF SYCAMORE CANYON IN SOUTHERN SYCAMORE-ALDER RIPARIAN WOODLAND.

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB, SOUTHERN MIXED CHAPARRAL, VERNAL POOL & VALLEY NEEDLEGRASS GRASSLAND, SYCAMORE ALLUVIAL WOODLAND, SOUTHERN COAST LIVE OAK RIPARIAN FOREST, BROOM BACCHARIS SCRUB, COAST LIVE OAK WOODLAND.

Threats:

PROPOSED DEVELOPMENT.

General:

UNKNOWN NUMBER OF INDIVIDUALS OBSERVED DURING A MAR-APR 1998 SURVEY FOR QUINO CHECKERSPOT BUTTERFLIES. 1 SUBADULT MALE (SPECIMEN #VBSI 0797-10) COLLECTED ON 25 JUL 1997.

PLSS:	T15S, R01W, Sec. 09 (S)	**Accuracy:**	non-specific area	**Area (acres):**	4,005
UTM:	Zone-11 N3638595 E501349	**Latitude/Longitude:**	32.88551 / -116.98557	**Elevation (feet):**	800

County Summary:	**Quad Summary:**
San Diego	El Cajon (3211678), San Vicente Reservoir (3211688), La Mesa (3211771), Poway (3211781)

Sources:

DUD98R0001	DUDEK & ASSOCIATES, INC. - QUINO CHECKERSPOT SURVEY FOR FANITA RANCH, SAN DIEGO CO (INCLUDES DATA FROM PRIOR SURVEYS FOR OTHER SPECIES) 1998-06-05
VAR98U0001	HAAS, W. (VARANUS BIOLOGICAL SERVICES) - SPECIMEN DATA SHEET FOR REPTILE AND AMPHIBIAN SPECIMENS COLLECTED 1996-1998. 1998-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 49484
EO Index: 49484
Key Quad: National City (3211761)
Element Code: ARADB36160
Occurrence Number: 78
Occurrence Last Updated: 2002-11-26

Scientific Name: *Thamnophis hammondii*
Common Name: two-striped gartersnake

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G4
State: S3S4
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

COASTAL CALIFORNIA FROM VICINITY OF SALINAS TO NORTHWEST BAJA CALIFORNIA. FROM SEA TO ABOUT 7,000 FT ELEVATION.

Micro Habitat:

HIGHLY AQUATIC, FOUND IN OR NEAR PERMANENT FRESH WATER. OFTEN ALONG STREAMS WITH ROCKY BEDS AND RIPARIAN GROWTH.

Last Date Observed: 2001-04-23
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-04-23
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

NORTHEAST OF THE INTERSECTION OF I-805 & STATE ROUTE 94, SAN DIEGO.

Detailed Location:

AREA BOUNDED BY RIDGE VIEW DR TO THE NORTH, FEDERAL BLVD TO THE SOUTH, I-805 TO THE WEST AND FAIRMONT AVE TO THE EAST.

Ecological:

HABITAT CONSISTS OF DIEGAN COASTAL SAGE SCRUB DOMINATED BY ARTEMISIA CALIFORNICA AND OPUNTIA PROLIFERA. SURROUNDING AREA COMPRISED OF BUSINESS AND RESIDENTIAL.

Threats:

THREAT MAY CONSIST OF DISTURBANCE FROM DEVELOPED AREAS.

General:

1 ADULT OBSERVED ON 23 APR 2001.

PLSS: T17S, R02W, Sec. 04 (S)
Accuracy: non-specific area
Area (acres): 22
UTM: Zone-11 N3620620 E490700
Latitude/Longitude: 32.72333 / -117.09924
Elevation (feet): 180

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

FIS01F0001 FISCHER, K. & E. ROBBINS (VARANUS BIOLOGICAL SERVICES) - 2001 CALIFORNIA GNATCATCHER SURVEY, FEDERAL BLVD EAST SIDE OF I-805, CHOLLAS CREEK, SAN DIEGO, CALIFORNIA. 2001-04-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 55026
EO Index: 55026
Key Quad: La Jolla (3211772)
Element Code: ARADB36160
Occurrence Number: 86
Occurrence Last Updated: 2004-04-01

Scientific Name: *Thamnophis hammondii*
Common Name: two-striped gartersnake

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G4
State: S3S4
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

COASTAL CALIFORNIA FROM VICINITY OF SALINAS TO NORTHWEST BAJA CALIFORNIA. FROM SEA TO ABOUT 7,000 FT ELEVATION.

Micro Habitat:

HIGHLY AQUATIC, FOUND IN OR NEAR PERMANENT FRESH WATER. OFTEN ALONG STREAMS WITH ROCKY BEDS AND RIPARIAN GROWTH.

Last Date Observed: 1996-08-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1996-08-11
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:

SAN CLEMENTE CANYON, 1 MILE EAST OF THE INTERSECTION OF HWY 52 AND I-805, MIRAMAR MCAS.

Detailed Location:

MAPPED ACCORDING TO LATITUDE AND LONGITUDE.

Ecological:

HABITAT CONSISTS OF DIEGAN COASTAL SAGE SCRUB.

Threats:

General:

1 JUVENILE FEMALE COLLECTED ON 11 AUG 1996. SPECIMEN #VBSI 0896-01.

PLSS: T15S, R03W, Sec. 26, N (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3634613 E484868
Latitude/Longitude: 32.84949 / -117.16170
Elevation (feet): 300

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

VAR98U0001 HAAS, W. (VARANUS BIOLOGICAL SERVICES) - SPECIMEN DATA SHEET FOR REPTILE AND AMPHIBIAN SPECIMENS COLLECTED 1996-1998. 1998-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 60860
EO Index: 60899
Key Quad: Imperial Beach (3211751)
Element Code: ARADB36160
Occurrence Number: 90
Occurrence Last Updated: 2005-04-06

Scientific Name: *Thamnophis hammondii*
Common Name: two-striped gartersnake

Listing Status: **Federal:** None
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G4
State: S3S4
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
USFS_S-Sensitive

General Habitat:

COASTAL CALIFORNIA FROM VICINITY OF SALINAS TO NORTHWEST BAJA CALIFORNIA. FROM SEA TO ABOUT 7,000 FT ELEVATION.

Micro Habitat:

HIGHLY AQUATIC, FOUND IN OR NEAR PERMANENT FRESH WATER. OFTEN ALONG STREAMS WITH ROCKY BEDS AND RIPARIAN GROWTH.

Last Date Observed: 2004-07-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2004-07-22
Occurrence Rank: Fair
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:

NORTH SIDE OF TIJUANA RIVER, 0.2 MILE SW OF INTERSECTION OF SUNSET AVENUE AND HOLLISTER STREET, SE OF IMPERIAL BEACH.

Detailed Location:

Ecological:

HABITAT CONSISTS OF DISTURBED BLACK WILLOW RIPARIAN FOREST, ON SANDY SOILS.

Threats:

THREATENED BY TRAIL RESTORATION ACTIVITIES.

General:

1 ADULT OBSERVED ON 22 JUL 2004.

PLSS: T18S, R02W, Sec. 33, SE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3602113 E491837
Latitude/Longitude: 32.55639 / -117.08695
Elevation (feet): 40

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

ROU04F0003 ROUSSO, S. (P&D CONSULTANTS) - FIELD SURVEY FORM FOR THAMNOPHIS HAMMONDII 2004-07-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A2607	**EO Index:**	35153
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ARADE02090
Occurrence Number:	15	**Occurrence Last Updated:**	2016-12-02

Scientific Name: *Crotalus ruber*

Common Name: red-diamond rattlesnake

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G4

State: S3

General Habitat:

CHAPARRAL, WOODLAND, GRASSLAND, & DESERT AREAS FROM COASTAL SAN DIEGO COUNTY TO THE EASTERN SLOPES OF THE MOUNTAINS.

Micro Habitat:

OCCURS IN ROCKY AREAS AND DENSE VEGETATION. NEEDS RODENT BURROWS, CRACKS IN ROCKS OR SURFACE COVER OBJECTS.

Last Date Observed:	2006-07-07	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2006-07-07	**Occurrence Rank:**	Poor
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

POGGI CANYON, 1 MILE NNE OF I-805 AND OTAY VALLEY ROAD, EAST OF CHULA VISTA.

Detailed Location:

1987 LOCATION GIVEN AS POGGI CANYON, NW1/4 SEC 8, T18S, R1W. 2006 DETECTION MAPPED TO PROVIDED COORDINATES.

Ecological:

2006: LANDSCAPED OPEN SPACE SOUTH OF THE INTERSECTION OF DAVIES DRIVE AND SHERMAN STREET IN CHULA VISTA, ADJACENT TO COASTAL SAGE SCRUB; IN URBAN RESIDENTIAL NEIGHBORHOOD.

Threats:

MOST OF AREA HAS BEEN DEVELOPED SINCE 1987. HUMANS, PETS, ROAD MORTALITY, FUTURE INCREASED USE OF OPEN SPACE (2006).

General:

OBSERVED IN POGGI CANYON DURING MAY 1987 SURVEY. 1 DEAD ADULT OBSERVED ON 7 JUL 2006; HEAD HAD BEEN PARTIALLY BISECTED BY LANDSCAPER'S SHOVEL.

PLSS:	T18S, R01W, Sec. 18, NW (S)	**Accuracy:**	non-specific area	**Area (acres):**	68
UTM:	Zone-11 N3607819 E497409	**Latitude/Longitude:**	32.60788 / -117.02761	**Elevation (feet):**	225

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

MON87U0002	MONTGOMERY, S.J. - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-000755]. ANNUAL REPORT OF SPECIMENS TAKEN FOR 1987. 1987-XX-XX
PAL06F0008	PALMER, D. - FIELD SURVEY FORM FOR CROTALUS RUBER 2006-07-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 22608
EO Index: 47062
Key Quad: San Vicente Reservoir (3211688)
Element Code: ARADE02090
Occurrence Number: 29
Occurrence Last Updated: 2002-01-23

Scientific Name: *Crotalus ruber*
Common Name: red-diamond rattlesnake

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G4
State: S3

General Habitat:

CHAPARRAL, WOODLAND, GRASSLAND, & DESERT AREAS FROM COASTAL SAN DIEGO COUNTY TO THE EASTERN SLOPES OF THE MOUNTAINS.

Micro Habitat:

OCCURS IN ROCKY AREAS AND DENSE VEGETATION. NEEDS RODENT BURROWS, CRACKS IN ROCKS OR SURFACE COVER OBJECTS.

Last Date Observed: 1998-04-26
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1998-04-26
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

FANITA RANCH AND SURROUNDING AREA, W OF HIGHWAY 67, E OF WEST SYCAMORE CANYON, NW PORTION CITY OF SANTEE.

Detailed Location:

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB, SOUTHERN MIXED CHAPARRAL, VERNAL POOL & VALLEY NEEDLEGRASS GRASSLAND, SYCAMORE ALLUVIAL WOODLAND, SOUTHERN COAST LIVE OAK RIPARIAN FOREST, BROOM BACCHARIS SCRUB, COAST LIVE OAK WOODLAND.

Threats:

PROPOSED DEVELOPMENT.

General:

UNKNOWN NUMBER OF INDIVIDUALS OBSERVED DURING A MAR-APR 1998 SURVEY FOR QUINO CHECKERSPOT BUTTERFLIES.

PLSS: T15S, R01W, Sec. 09 (S)
Accuracy: non-specific area
Area (acres): 3,940
UTM: Zone-11 N3638640 E501138
Latitude/Longitude: 32.88592 / -116.98783
Elevation (feet): 800

County Summary:

San Diego

Quad Summary:

El Cajon (3211678), San Vicente Reservoir (3211688), La Mesa (3211771), Poway (3211781)

Sources:

DUD98R0001 DUDEK & ASSOCIATES, INC. - QUINO CHECKERSPOT SURVEY FOR FANITA RANCH, SAN DIEGO CO (INCLUDES DATA FROM PRIOR SURVEYS FOR OTHER SPECIES) 1998-06-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 51528
EO Index: 51528
Key Quad: La Mesa (3211771)
Element Code: ARADE02090
Occurrence Number: 77
Occurrence Last Updated: 2003-06-12

Scientific Name: *Crotalus ruber*
Common Name: red-diamond rattlesnake

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G4
State: S3

General Habitat:

CHAPARRAL, WOODLAND, GRASSLAND, & DESERT AREAS FROM COASTAL SAN DIEGO COUNTY TO THE EASTERN SLOPES OF THE MOUNTAINS.

Micro Habitat:

OCCURS IN ROCKY AREAS AND DENSE VEGETATION. NEEDS RODENT BURROWS, CRACKS IN ROCKS OR SURFACE COVER OBJECTS.

Last Date Observed: 2000-08-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2000-08-XX
Occurrence Rank: Unknown
Owner/Manager: PVT-SYCAMORE LANDFILL
Trend: Unknown
Presence: Presumed Extant

Location:

EAST & WEST OF LITTLE SYCAMORE CANYON. EAST OF MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

Ecological:

HABITAT CONSISTS OF CHAPARRAL VEGETATION (INCLUDING COASTAL SAGE SCRUB, GRASSLANDS) ON NORTH-FACING SLOPES. HABITAT ON WEST HALF AND NORTH PORTIONS OF SITE IS HIGH QUALITY AND RELATIVELY UNDISTURBED.

Threats:

AN ACTIVE LANDFILL IS ON THE EAST HALF OF SITE.

General:

UNKNOWN NUMBER OF INDIVIDUALS OBSERVED BETWEEN 16 MAR AND 7 AUG 2000 DURING CALIFORNIA GNATCATCHER SURVEYS.

PLSS: T15S, R01W, Sec. 18 (S)
Accuracy: non-specific area
Area (acres): 512
UTM: Zone-11 N3636220 E497343
Latitude/Longitude: 32.86409 / -117.02839
Elevation (feet): 600

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

MER00R0003 GUTIERREZ, A. (MERKEL AND ASSOCIATES, INC.) - 45-DAY LETTER REPORT OF FOCUSED COASTAL CALIFORNIA GNATCATCHER SURVEYS FOR THE SYCAMORE LANDFILL EXPANSION PROJECT LOCATED IN THE CITY OF SANTEE, SAN DIEGO COUNTY. 2000-09-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 55001
EO Index: 55001
Key Quad: La Mesa (3211771)
Element Code: ARADE02090
Occurrence Number: 97
Occurrence Last Updated: 2004-03-30

Scientific Name: *Crotalus ruber*
Common Name: red-diamond rattlesnake

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G4
State: S3

General Habitat:

CHAPARRAL, WOODLAND, GRASSLAND, & DESERT AREAS FROM COASTAL SAN DIEGO COUNTY TO THE EASTERN SLOPES OF THE MOUNTAINS.

Micro Habitat:

OCCURS IN ROCKY AREAS AND DENSE VEGETATION. NEEDS RODENT BURROWS, CRACKS IN ROCKS OR SURFACE COVER OBJECTS.

Last Date Observed: 1997-08-27
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1997-08-27
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:

MURPHY CANYON, 2.3 MILES NE OF THE INTERCHANGE OF HWY 52 AND I-15, MIRAMAR MCAS.

Detailed Location:

MAPPED ACCORDING TO LATITUDE AND LONGITUDE GIVEN.

Ecological:

HABITAT CONSISTS OF DIEGAN COASTAL SAGE SCRUB.

Threats:

General:

1 ADULT MALE COLLECTED ON 27 AUG 1997. SPECIMEN #VBSI 0897-10.

PLSS: T15S, R02W, Sec. 16, S (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3636176 E491576
Latitude/Longitude: 32.86366 / -117.09003
Elevation (feet): 540

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

VAR98U0001 HAAS, W. (VARANUS BIOLOGICAL SERVICES) - SPECIMEN DATA SHEET FOR REPTILE AND AMPHIBIAN SPECIMENS COLLECTED 1996-1998. 1998-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B3421	**EO Index:**	115335
Key Quad:	La Mesa (3211771)	**Element Code:**	ARADE02090
Occurrence Number:	192	**Occurrence Last Updated:**	2019-07-10

Scientific Name: *Crotalus ruber*

Common Name: red-diamond rattlesnake

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G4

State: S3

General Habitat:

CHAPARRAL, WOODLAND, GRASSLAND, & DESERT AREAS FROM COASTAL SAN DIEGO COUNTY TO THE EASTERN SLOPES OF THE MOUNTAINS.

Micro Habitat:

OCCURS IN ROCKY AREAS AND DENSE VEGETATION. NEEDS RODENT BURROWS, CRACKS IN ROCKS OR SURFACE COVER OBJECTS.

Last Date Observed:	2019-05-02	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2019-05-02	**Occurrence Rank:**	Unknown
Owner/Manager:	SDG COUNTY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

COWLES MTN, FROM 0.2 TO 0.7 MI NW OF BARKER WAY AT BOULDER LAKE AVE, MISSION TRAILS REGIONAL PARK.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

HIKING TRAILS THROUGH CHAPARRAL AND COASTAL SAGE VEGETATION IN PUBLIC PARK USED FOR RECREATION.

Threats:

General:

1 OBSERVED ON 14 AUG 2014. 1 ADULT OBSERVED ON 11 JUL, 1 ON 28 JUL 2015. 1 OBSERVED 7 APR, 1 ON 22 APR & 1 ON 2 MAY 2019.

PLSS:	T16S, R01W, Sec. 6 (S)	**Accuracy:**	specific area	**Area (acres):**	26
UTM:	Zone-11 N3630504 E497395	**Latitude/Longitude:**	32.81253 / -117.02783	**Elevation (feet):**	1,223

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

INA14U0014	INATURALIST - OBSERVATION 10484534 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-07-10. 2014-08-14
INA15U0019	INATURALIST - OBSERVATION 6596296 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-07-10. 2015-07-28
INA19U0007	INATURALIST - OBSERVATION 22902324 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-07-10. 2019-04-22
INA19U0008	INATURALIST - OBSERVATION 24746337 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-07-10. 2019-05-02
INA19U0009	INATURALIST - OBSERVATION 222171217 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-07-10. 2019-04-07
WIT15F0001	WITT, K. ET AL. - FIELD SURVEY FORM FOR CROTALUS RUBER 2015-07-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03968
EO Index: 20977
Key Quad: Point Loma (3211762)
Element Code: CTT32400CA
Occurrence Number: 1
Occurrence Last Updated: 1998-07-13

Scientific Name: *Maritime Succulent Scrub*
Common Name: Maritime Succulent Scrub

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S1.1

General Habitat:

Micro Habitat:

Last Date Observed: 198X-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 198X-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO-BALBOA PARK
Trend: Decreasing
Presence: Presumed Extant

Location:

BALBOA PARK, ABOUT 2 MILES DUE EAST OF SAN DIEGO INTERNATIONAL AIRPORT.

Detailed Location:

Ecological:

SMALL AREA SURVIVES W/INTACT COMMUNITY. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Threats:

MUCH DESTROYED BY CONSTRUCTION OF US NAVAL MEDICAL CENTER. REMNANTS USED BY MUSEUM OF NATURAL HISTORY TOURS.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T17S, R03W, Sec. 01 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3621430 E486333
Latitude/Longitude: 32.73059 / -117.14586
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

BIT83U0004	BITTMAN, R. - TNC ELEMENT PRESERVATION PLAN, TABLES, ETC. 1983-XX-XX
OBE83M0002	OBERBAUER, T. - MAP SHOWING SITES OF DIEGAN SAGE SCRUB; FOR 1983 EPP PROJECT. 1983-XX-XX
OBE83U0008	OBERBAUER, T. - LOCATION INFO FOR SITES OF DIEGAN COASTAL SCRUB FROM PERSONAL PHONE COMMUNICATION WITH TOM OBERBAUER & R. BITTMAN. 1983-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04175
EO Index: 26308
Key Quad: National City (3211761)
Element Code: CTT32400CA
Occurrence Number: 3
Occurrence Last Updated: 1998-07-13

Scientific Name: *Maritime Succulent Scrub*
Common Name: Maritime Succulent Scrub

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S1.1

General Habitat:

Micro Habitat:

Last Date Observed: 198X-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1985-02-12
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:

CHOLLAS VALLEY, NEAR JUNCTION OF HWY 94 & I-805; WNW OF ENCANTO.

Detailed Location:

Ecological:

SCATTERED PATCHES <1-2 ACRES EACH. DIAGNOSTIC SUCCULENT SCRUB SPECIES ABSENT, BETTER CLASSIFIED AS VENTURAN COASTAL SAGE SCRUB. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Threats:

NO LONGER MEETS EO SIZE CRITERION, TOO SMALL. SITE DEVELOPED.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T17S, R02W, Sec. 04 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3621148 E491277
Latitude/Longitude: 32.72810 / -117.09309
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

BIT83U0004	BITTMAN, R. - TNC ELEMENT PRESERVATION PLAN, TABLES, ETC. 1983-XX-XX
HOL85F0003	HOLLAND, R.F. - FIELD SURVEY FORM FOR DIEGAN COASTAL SAGE SCRUB (NC32500) 1985-02-25
OBE83M0002	OBERBAUER, T. - MAP SHOWING SITES OF DIEGAN SAGE SCRUB; FOR 1983 EPP PROJECT. 1983-XX-XX
OBE83U0008	OBERBAUER, T. - LOCATION INFO FOR SITES OF DIEGAN COASTAL SCRUB FROM PERSONAL PHONE COMMUNICATION WITH TOM OBERBAUER & R. BITTMAN. 1983-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04272	**EO Index:**	13410
Key Quad:	National City (3211761)	**Element Code:**	CTT32400CA
Occurrence Number:	4	**Occurrence Last Updated:**	1998-07-13

Scientific Name: *Maritime Succulent Scrub*

Common Name: Maritime Succulent Scrub

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists:

CNDDB Element Ranks: **Global:** G2

State: S1.1

General Habitat:

Micro Habitat:

Last Date Observed:	198X-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1985-02-12	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Extirpated		

Location:

SOUTH OF ENCANTO, NORTH OF PARADISE VALLEY ROAD; ABOUT 1.0 MILE SE OF O'FARRELL HIGH SCHOOL.

Detailed Location:

Ecological:

ABOUT 20 ACRES OF HABITAT REMAIN AS A 100-200 FT WIDE STRINGER. DIAGNOSTIC SUCCULENT SCRUB SPECIES LACKING, BETTER CLASSED AS VENTURAN COASTAL SAGE SCRUB. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Threats:

General:

SITE NO LONGER MEETS EO SIZE CRITERION, TOO SMALL. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T17S, R02W, Sec. 14 (S)	**Accuracy:**	1 mile	**Area (acres):**	0
UTM:	Zone-11 N3617358 E495049	**Latitude/Longitude:**	32.69393 / -117.05281	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

BIT83U0004	BITTMAN, R. - TNC ELEMENT PRESERVATION PLAN, TABLES, ETC. 1983-XX-XX
HOL85F0002	HOLLAND, R.F. - FIELD SURVEY FORM FOR DIEGAN COASTAL SAGE SCRUB (NC32500) 1985-02-12
OBE83M0002	OBERBAUER, T. - MAP SHOWING SITES OF DIEGAN SAGE SCRUB; FOR 1983 EPP PROJECT. 1983-XX-XX
OBE83U0008	OBERBAUER, T. - LOCATION INFO FOR SITES OF DIEGAN COASTAL SCRUB FROM PERSONAL PHONE COMMUNICATION WITH TOM OBERBAUER & R. BITTMAN. 1983-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04339	**EO Index:**	26303
Key Quad:	National City (3211761)	**Element Code:**	CTT32400CA
Occurrence Number:	5	**Occurrence Last Updated:**	1998-07-13

Scientific Name: *Maritime Succulent Scrub*

Common Name: Maritime Succulent Scrub

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists:

CNDDB Element Ranks: **Global:** G2

State: S1.1

General Habitat:

□

Micro Habitat:

□

Last Date Observed:	198X-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1985-02-12	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Extirpated		

Location:

ABOUT 1.0 MILE WEST OF SWEETWATER RESERVOIR; SOUTH OF PARADISE VALLEY ROAD.

Detailed Location:

Ecological:

EXTIRPATED BY SUBURBAN DEVELOPMENT PER HOLLAND 1985. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T17S, R01W, Sec. 18 (S)	**Accuracy:**	1 mile	**Area (acres):**	0
UTM:	Zone-11 N3616906 E497523	**Latitude/Longitude:**	32.68986 / -117.02642	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

BIT83U0004	BITTMAN, R. - TNC ELEMENT PRESERVATION PLAN, TABLES, ETC. 1983-XX-XX
HOL85F0004	HOLLAND, R.F. - FIELD SURVEY FORM FOR DIEGAN COASTAL SAGE SCRUB (NC32500) 1985-02-12
OBE83M0002	OBERBAUER, T. - MAP SHOWING SITES OF DIEGAN SAGE SCRUB; FOR 1983 EPP PROJECT. 1983-XX-XX
OBE83U0008	OBERBAUER, T. - LOCATION INFO FOR SITES OF DIEGAN COASTAL SCRUB FROM PERSONAL PHONE COMMUNICATION WITH TOM OBERBAUER & R. BITTMAN. 1983-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04350	**EO Index:**	13850
Key Quad:	Imperial Beach (3211751)	**Element Code:**	CTT32400CA
Occurrence Number:	10	**Occurrence Last Updated:**	1998-07-13

Scientific Name: *Maritime Succulent Scrub*

Common Name: Maritime Succulent Scrub

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists:

CNDDB Element Ranks: **Global:** G2

State: S1.1

General Habitat:

Micro Habitat:

Last Date Observed:	1985-02-13	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1985-02-13	**Occurrence Rank:**	Good
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

HILLS TO WEST OF OTAY MESA NEAR DENNERY, MOODY, SPRING, WRUCK & DILLON CANYONS.

Detailed Location:

Ecological:

1983 OBERBAUER BOUNDARY MODIFIED BY HOLLAND, 1985, TO REFLECT HABITAT LOSSES DUE TO URBAN BLIGHT. MANY MARTIRIAN TAXA PRESENT, BUT SITE LESS DIVERSE THAN SPOONER'S MESA.

Threats:

HEAVILY DISTURBED BY FIRE, GRAZING, & BORDER PATROL - ILLEGAL IMMIGRANT INTERACTION.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T18S, R01W, Sec. 30 (S)	**Accuracy:**	specific area	**Area (acres):**	1,643
UTM:	Zone-11 N3604701 E497901	**Latitude/Longitude:**	32.57976 / -117.02236	**Elevation (feet):**	

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

BIT83U0004	BITTMAN, R. - TNC ELEMENT PRESERVATION PLAN, TABLES, ETC. 1983-XX-XX
COX84U0002	COX, R. - TRIP MEMO. 1984-03-12
HOL85F0008	HOLLAND, R.F. - FIELD SURVEY FORM FOR DIEGAN COASTAL SAGE SCRUB (NC32500) 1985-02-13
OBE83M0002	OBERBAUER, T. - MAP SHOWING SITES OF DIEGAN SAGE SCRUB; FOR 1983 EPP PROJECT. 1983-XX-XX
OBE83U0008	OBERBAUER, T. - LOCATION INFO FOR SITES OF DIEGAN COASTAL SCRUB FROM PERSONAL PHONE COMMUNICATION WITH TOM OBERBAUER & R. BITTMAN. 1983-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04166	**EO Index:**	16610
Key Quad:	Imperial Beach (3211751)	**Element Code:**	CTT32400CA
Occurrence Number:	11	**Occurrence Last Updated:**	1998-07-13

Scientific Name: *Maritime Succulent Scrub*

Common Name: Maritime Succulent Scrub

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists:

CNDDB Element Ranks: **Global:** G2

State: S1.1

General Habitat:

Micro Habitat:

Last Date Observed:	1985-02-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1985-02-11	**Occurrence Rank:**	Excellent
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SPOONERS MESA NEAR BAJA BORDER; SOUTH OF MONUMENT ROAD; WEST OF HOLLISTER ROAD.

Detailed Location:

Ecological:

KNEE- TO WAIST-HIGH SCRUB RICH IN SUCCULENTS ON MESA FLANKS & UNFARMED WEST EDGE OF MESA TOP. CNEORIDIUM, ACALYPHA, FEROCACTUS, BERGEROCACTUS AMONG THE MANY MARITIME TAXA PRESENT.

Threats:

HEAVILY USED FOR ILLEGAL BORDER CROSSINGS. NORTH SLOPE BURNED IN EARLY 1980S, APPEARS TO BE RECOVERING.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T19S, R02W, Sec. 05, S (S)	**Accuracy:**	specific area	**Area (acres):**	156
UTM:	Zone-11 N3600453 E490281	**Latitude/Longitude:**	32.54140 / -117.10350	**Elevation (feet):**	200

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BIT83U0004	BITTMAN, R. - TNC ELEMENT PRESERVATION PLAN, TABLES, ETC. 1983-XX-XX
BIT84U0001	BITTMAN, R. - PHONE CONVERSATION: COMPARISON OF 2 SITES OF DIEGAN SAGE IN BAJA TO SPOONERS MESA. INCLUDES PLANT LISTS. BOUNDARY FROM R. BITTMAN'S MEMORY WITH MODIFICATIONS BY T. OBERBAUER. 1984-04-XX
COX84U0001	COX, R. - TRIP MEMO. 1984-03-05
COX84U0002	COX, R. - TRIP MEMO. 1984-03-12
HOL85F0009	HOLLAND, R.F. - FIELD SURVEY FORM FOR DIEGAN COASTAL SAGE SCRUB (NC32500) 1985-XX-XX
OBE83M0002	OBERBAUER, T. - MAP SHOWING SITES OF DIEGAN SAGE SCRUB; FOR 1983 EPP PROJECT. 1983-XX-XX
OBE83U0008	OBERBAUER, T. - LOCATION INFO FOR SITES OF DIEGAN COASTAL SCRUB FROM PERSONAL PHONE COMMUNICATION WITH TOM OBERBAUER & R. BITTMAN. 1983-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03655
EO Index: 16379
Key Quad: Point Loma (3211762)
Element Code: CTT32400CA
Occurrence Number: 12
Occurrence Last Updated: 1998-07-13

Scientific Name: *Maritime Succulent Scrub*
Common Name: Maritime Succulent Scrub

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S1.1

General Habitat:

Micro Habitat:

Last Date Observed: 1985-02-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1982-02-12
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVY, NPS-CABRILLO NM
Trend: Unknown
Presence: Presumed Extant

Location:

PACIFIC SIDE OF POINT LOMA NAVAL RESERVATION, INCLUDING CABRILLO NATIONAL MONUMENT.

Detailed Location:

SURROUNDING LAND IS NAVAL BASE POINT LOMA AND FORT ROSECRANS NATIONAL CEMETERY.

Ecological:

1-3 FT TALL SUBLIGNEOUS COVER. NORTH END MORE MESIC WITH COVER APPROACHING 100%, DOMINATED BY RHUS INTEGRIFOLIA. SOUTH END MARKEDLY DRIER WITH COVER <30%, DOMINATED BY EUPHORBIA MISERA, ENCELIA CA. MORE MARITIME TAXA AT SOUTH END.

Threats:

PORTION PROTECTED AS CABRILLO NATIONAL MONUMENT.

General:

MAPS UPDATED IN 1991 WITH DETAILED VEGETATION MAP MADE BY THE NAVY IN 1981. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T17S, R04W, Sec. 13 (S)
Accuracy: specific area
Area (acres): 478
UTM: Zone-11 N3617429 E476711
Latitude/Longitude: 32.69434 / -117.24845
Elevation (feet): 250

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

BIT83U0004	BITTMAN, R. - TNC ELEMENT PRESERVATION PLAN, TABLES, ETC. 1983-XX-XX
COX84U0001	COX, R. - TRIP MEMO. 1984-03-05
HOL85F0010	HOLLAND, R. - FIELD SURVEY FORM FOR DIEGAN COASTAL SAGE SCRUB 1985-XX-XX
OBE83M0002	OBERBAUER, T. - MAP SHOWING SITES OF DIEGAN SAGE SCRUB; FOR 1983 EPP PROJECT. 1983-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	27880	**EO Index:**	7252
Key Quad:	La Jolla (3211772)	**Element Code:**	CTT37C30CA
Occurrence Number:	25	**Occurrence Last Updated:**	1998-07-14

Scientific Name: *Southern Maritime Chaparral*

Common Name: Southern Maritime Chaparral

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists:

CNDDB Element Ranks: **Global:** G1

State: S1.1

General Habitat:

Micro Habitat:

Last Date Observed:	1993-05-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1993-05-26	**Occurrence Rank:**	Good
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

APPROXIMATELY 0.1 MILE SOUTHWEST OF UNIVERSITY OF CALIFORNIA, SAN DIEGO AND 0.1 MILE WEST OF TORREY PINES ROAD.

Detailed Location:

3 SEPARATE PROPERTIES NORTH OF ARDATH RD, WEST OF I-5, AND ALSO JUST EAST AND JUST WEST OF LA JOLLA SCENIC DR. ONE MILE SOUTH OF LA JOLLA VILLAGE DRIVE. THIS LOCATION IS HOGAN'S #28.

Ecological:

ADENOSTOMA FASCICULATUM SSP. OBTUSIFOLIUM DOMINATED CHAPARRAL. ASSOCIATED SPECIES INCLUDE PINUS TORREYANA, CEANOTHUS VERRUCOSUS, ERIOGONUM FASCICULATUM, AND AGROSTIS SANDIEGENSIS.

Threats:

FOOT TRAFFIC ACCORDING TO TODD KEELER-WOLF.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R04W, Sec. 13 (S)	**Accuracy:**	specific area	**Area (acres):**	20
UTM:	Zone-11 N3636714 E477075	**Latitude/Longitude:**	32.86831 / -117.24504	**Elevation (feet):**	350

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

HOG93F0005 HOGAN, D. - FIELD SURVEY FORM FOR SOUTHERN MARITIME CHAPARRAL 1993-05-26

HOG93M0001 HOGAN, D. - MAPS OF LOCATIONS OF SOUTHERN MARITIME CHAPARRAL. 1993-05-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	15965	**EO Index:**	12928
Key Quad:	La Mesa (3211771)	**Element Code:**	CTT42110CA
Occurrence Number:	47	**Occurrence Last Updated:**	1998-07-15

Scientific Name: *Valley Needlegrass Grassland*

Common Name: Valley Needlegrass Grassland

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists:

CNDDB Element Ranks: **Global:** G3

State: S3.1

General Habitat:

Micro Habitat:

Last Date Observed:	1980-07-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1980-07-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-CAMP ELLIOT NR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

TIERRA SANTA AND CAMP ELLIOT PARCELS WSW OF FORTUNA MTN AND NW OF MISSION GORGE.

Detailed Location:

SEVERAL AREAS OF WELL-DEVELOPED BUT LIMITED NATIVE GRASSLAND OCCUR ON ALL 3 PARCELS. ELEV RANGE 350-870 FT.

Ecological:

GRASSLAND DOM BY NASSELLA PULCHRA W/SIGNIFICANT #S OF SISYRINCHIUM BELLUM, GRINDELIA ROBUSTA, BLOOMERIA CROCEA AND HEMIZONIA FASCICULATA. ASSOC W/ SLOPES HAVING CLAY VERTISOLS.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R02W (S)	**Accuracy:**	1 mile	**Area (acres):**	0
UTM:	Zone-11 N3632724 E493030	**Latitude/Longitude:**	32.83253 / -117.07447	**Elevation (feet):**	

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

PSB80R0001 PSBS - PACIFIC SOUTHWEST BIOLOGICAL SERVICES, INC. - BIOLOGICAL ASSESSMENT FOR MURPHY CANYON HEIGHTS, TIERRASANTA, AND CAMP ELLIOT SITES, SAN DIEGO 1980-10-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04118	**EO Index:**	16373
Key Quad:	La Mesa (3211771)	**Element Code:**	CTT44321CA
Occurrence Number:	1	**Occurrence Last Updated:**	1998-07-16

Scientific Name: *San Diego Mesa Hardpan Vernal Pool* **Common Name:** San Diego Mesa Hardpan Vernal Pool

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G2

State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed:	1986-07-09	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-07-09	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY, USFWS	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

MURPHY CANYON HEIGHTS HOUSING COMPLEX; TIERRASANTA SOUTH. SOUTH END SANTO RD. F&G POOL CODES G1&2. CITY-RECON:G.

Detailed Location:

Ecological:

APPROX 35-40 SM-MED POOLS ASSOC W/GRASSLAND. SENSITIVE PLANT TAXA INCL POGOGYNE ABRAMSII, MYOSURUS MINIMUS APUS, BRODIAEA ORCUTTII AND MUILLA CLEVELANDII.

Threats:

HIGH-MED DISTURB FROM ORVS, DUMPING & BRUSHING. SITE HAS POWERLINE & 2 N-S RDS, DEVEL TO NW. NAVY REC LAND TO S & E.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T16S, R02W, Sec. 08 (S)	**Accuracy:**	non-specific area	**Area (acres):**	20
UTM:	Zone-11 N3629305 E490204	**Latitude/Longitude:**	32.80167 / -117.10463	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	33775	**EO Index:**	16211
Key Quad:	La Mesa (3211771)	**Element Code:**	CTT44321CA
Occurrence Number:	2	**Occurrence Last Updated:**	2002-09-09

Scientific Name: *San Diego Mesa Hardpan Vernal Pool* **Common Name:** San Diego Mesa Hardpan Vernal Pool

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G2

State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed:	1986-04-08	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-04-08	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY, CALTRANS, OTHER	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

TIERRASANTA; JUST NORTH OF SHEPHERD CANYON & WEST OF MISSION TRAILS PARK. F&G CODE A4. CITY-RECON:AAII.

Detailed Location:

Ecological:

38 POOLS ASSOC W/CHAMISE.

Threats:

ORV ACTIVITY.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R02W, Sec. 28 (S)	**Accuracy:**	non-specific area	**Area (acres):**	41
UTM:	Zone-11 N3633941 E491416	**Latitude/Longitude:**	32.84350 / -117.09173	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04016	**EO Index:**	16210
Key Quad:	La Jolla (3211772)	**Element Code:**	CTT44321CA
Occurrence Number:	3	**Occurrence Last Updated:**	1998-07-16

Scientific Name: *San Diego Mesa Hardpan Vernal Pool* **Common Name:** San Diego Mesa Hardpan Vernal Pool

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G2

State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed:	1979-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1979-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EAST OF MONTGOMERY AIRPORT, SAN DIEGO. INCLUDES BEAUCHAMP #S N1-6.

Detailed Location:

196 POOLS, VILLASENOR, 1979. MANY POOLS ALONG SMALL DRAINAGE.

Ecological:

REDDING SOILS. ASSOC VEG: GRASSLAND, CHAMISE CHAPARRAL.

Threats:

FIRE ABATEMENT DISKING, SEWER LINE, SILT FROM ADJ DEVELOPMENT, AIRPORT, CONSTR VEHICLES, WASTE CONCRETE DRAINAGE.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T16S, R02W, Sec. 06 (S)	**Accuracy:**	specific area	**Area (acres):**	199
UTM:	Zone-11 N3630803 E487720	**Latitude/Longitude:**	32.81516 / -117.13117	**Elevation (feet):**	420

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), La Jolla (3211772)

Sources:

BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03
ZED79R0001	ZEDLER, P. ET AL. - A SURVEY OF VERNAL POOLS OF KEARNY MESA, SAN DIEGO COUNTY 1979-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04124	**EO Index:**	25984
Key Quad:	La Mesa (3211771)	**Element Code:**	CTT44321CA
Occurrence Number:	4	**Occurrence Last Updated:**	1998-07-16

Scientific Name: *San Diego Mesa Hardpan Vernal Pool* **Common Name:** San Diego Mesa Hardpan Vernal Pool

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G2

State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed:	1986-04-09	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-04-09	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MARINE CORPS AIR STATION MIRAMAR, LESS THAN 1 MILE EAST OF JUNCTION OF MURPHY CANYON ROAD AND KEARNY VILLA ROAD.

Detailed Location:

F&G CODE AA8, CITY-RECON:AIII.

Ecological:

17 VARIOUS-SIZED POOLS W/IN CHAMISE CHAP AND GRASSLAND. POGOGYNE ABUNDANT IN >50% OF POOLS, BRODIAEA COMMON IN 10-50% OF POOLS. ALL SPECIAL TAXA ALSO OBSERVED IN 1979.

Threats:

LOW TO MED DISTURBANCE, PRIMARILY FROM ORVS. DIRT ROADS BISECTS THE MESA.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R02W, Sec. 20 (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3634655 E490320	**Latitude/Longitude:**	32.84993 / -117.10344	**Elevation (feet):**	480

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	11323	**EO Index:**	16209
Key Quad:	La Mesa (3211771)	**Element Code:**	CTT44321CA
Occurrence Number:	5	**Occurrence Last Updated:**	2002-03-19

Scientific Name: *San Diego Mesa Hardpan Vernal Pool* **Common Name:** San Diego Mesa Hardpan Vernal Pool

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G2

State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed:	1986-05-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-05-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EAST MARINE CORPS AIR STATION MIRAMAR; NORTHEAST OF I-15 AND CLAIREMONT MESA BLVD.

Detailed Location:

F&G CODES:AA3-7, CITY-RECON: AAVII-IX.

Ecological:

140 POOLS OF HIGH DIVERSITY IN SIZE, DEPTH, SOIL & BOTTOM TEXTURE & SPECIES COMPOSITION. ASSOC W/CHAMISE & MIXED CHAPARRAL & SAGE SCRUB. ASSOC SPECIAL TAXA: POGOGYNE, ERYNGIUM & BRODIAEA.

Threats:

LOW-MED DISTURBANCE FROM ORVS AND BRUSHING. SR WILL BISECT SITE JUST S OF AA3 POOLS. I-15 CONSTRUCTION IS A THREAT.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R02W, Sec. 29 (S)	**Accuracy:**	specific area	**Area (acres):**	42
UTM:	Zone-11 N3633586 E489250	**Latitude/Longitude:**	32.84028 / -117.11487	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BAU85U0001	BAUDER, E. - LETTERS WITH MAPS TO CNDDB, USFWS 1985-02-XX
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03
ZED79R0001	ZEDLER, P. ET AL. - A SURVEY OF VERNAL POOLS OF KEARNY MESA, SAN DIEGO COUNTY 1979-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03982	**EO Index:**	16208
Key Quad:	La Jolla (3211772)	**Element Code:**	CTT44321CA
Occurrence Number:	6	**Occurrence Last Updated:**	2008-01-03

Scientific Name: *San Diego Mesa Hardpan Vernal Pool* **Common Name:** San Diego Mesa Hardpan Vernal Pool

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G2

State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed:	1986-05-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-05-15	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY, USFWS	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

LANDMARK POOLS; WEST OF HWY 163 BETWEEN SAN CLEMENTE CANYON & CLAIREMONT MESA BLVD. F&G CODES U1-17.

Detailed Location:

Ecological:

OVER 800 POOLS W/HIGH NUMBERS OF SENSITIVE PLANTS, SIZE & DEPTH DIVERSITY. REDDING SOILS. ASSOCIATED W/CHAMISE CHAPARRAL & GRASSLAND.

Threats:

LOW-HIGH DISTURBANCE FROM BRUSHING, WATER IMPOUNDMENT, DUMPING, ORVS, HWY CONST, ETC.

General:

LARGEST REMNANT OF KEARNY MESA VP SYSTEM, LARGEST CONTINUOUS ACREAGE OF VPS IN SAN DIEGO CO, & NPS NNL. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R03W, Sec. 25 (S)	**Accuracy:**	specific area	**Area (acres):**	84
UTM:	Zone-11 N3634305 E487211	**Latitude/Longitude:**	32.84674 / -117.13666	**Elevation (feet):**	430

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BAU85U0001	BAUDER, E. - LETTERS WITH MAPS TO CNDDB, USFWS 1985-02-XX
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
ROY83M0001	ROYE, C. - MAP SHOWING VERNAL POOL AREA BOUNDARIES OF THE MIRAMAR MOUNDS AREA OF KEARNY MESA. 1983-01-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03904	**EO Index:**	16207
Key Quad:	La Jolla (3211772)	**Element Code:**	CTT44321CA
Occurrence Number:	7	**Occurrence Last Updated:**	1998-07-16

Scientific Name: *San Diego Mesa Hardpan Vernal Pool* **Common Name:** San Diego Mesa Hardpan Vernal Pool

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G2

State: S2.1

General Habitat:

□

Micro Habitat:

□

Last Date Observed:	1986-04-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-04-10	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

MARINE CORPS AIR STATION MIRAMAR INTERIOR; BETWEEN WEST END OF RUNWAYS AND ROSE CANYON.

Detailed Location:

F&G POOL CODE HH, CITY-RECON:MM. 93 POOLS OBS IN 1979; 42 POOLS RESULT FROM LUMPING POOLS INTO CLUSTERS, NO LOSS.

Ecological:

APPROX 42 POOLS ASSOC W/CHAMISE CHAP. SOME POOLS MARSHY. POGOGYNE, ERYNGIUM AND BRODIAEA PRESENT. REDDING SOILS.

Threats:

DISTURBANCES INCL: RUNWAY CONSTR, ORV DAMAGE AND BRUSHING.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R03W, Sec. 14 (S)	**Accuracy:**	specific area	**Area (acres):**	49
UTM:	Zone-11 N3636669 E485000	**Latitude/Longitude:**	32.86804 / -117.16033	**Elevation (feet):**	420

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
SCS73R0001	SOIL CONSERVATION SERVICE ET AL. - SOIL SURVEY, SAN DIEGO AREA, CALIFORNIA. PARTS I & II PLUS MAPS. 1973-12-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03822	**EO Index:**	25983
Key Quad:	Del Mar (3211782)	**Element Code:**	CTT44321CA
Occurrence Number:	9	**Occurrence Last Updated:**	2002-01-08

Scientific Name: *San Diego Mesa Hardpan Vernal Pool* **Common Name:** San Diego Mesa Hardpan Vernal Pool

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G2

State: S2.1

General Habitat:

□

Micro Habitat:

□

Last Date Observed:	1986-06-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-06-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

WEST MARINE CORPS AIR STATION MIRAMAR, N & S OF MIRAMAR ROAD, 1 MI EAST OF I-805. F&G POOL CODES: I6A, B & C, X1-4.

Detailed Location:

THE 16 POOLS NORTH OF ROAD WERE FORMERLY MORE EXTENSIVE BUT HAVE BEEN DIVIDED INTO 3 SMALL SECTIONS BY DEVEL (KNOWN AS MIDWAY, FORD & FACILITIES DEVEL POOLS). EASTERN POOLS SOUTH OF ROAD DESTROYED BY DEVELOPMENT.

Ecological:

ASSOC CHAPARRAL, SCRUB & GRASSLAND. ASSOC TAXA: POGOGYNE, ERYNGIUM & BRODIAEA. HIGH-MED DISTURBANCE OF POOLS.

Threats:

MEDIUM TO HIGH DISTURBANCE OF POOLS & SURROUNDING CHAPARRAL, SCRUB & GRASSLAND VEG; ORVS, GRADING, IRRIGAT. RUNOFF, ETC.

General:

POOLS NOW KNOWN AS MIDWAY, FORD & FACILITIES DEVEL POOLS. INCLUDES FORMER OCC #35. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R03W, Sec. 10, SW (S)	**Accuracy:**	specific area	**Area (acres):**	47
UTM:	Zone-11 N3637624 E483415	**Latitude/Longitude:**	32.87663 / -117.17729	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772), Del Mar (3211782)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
COX84U0004	COX, R. - NOTES FROM MEETING WITH JOHN RIEGER, MARCH 1984. 1984-05-02
RIE85M0001	RIEGER, J. & B. STEELE - MAP OF KEARNEY MESA VERNAL POOL SITES GRADED OR DESTROYED. 1985-02-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03780
EO Index: 25985
Key Quad: La Jolla (3211772)
Element Code: CTT44321CA
Occurrence Number: 10
Occurrence Last Updated: 1998-07-16

Scientific Name: *San Diego Mesa Hardpan Vernal Pool*
Common Name: San Diego Mesa Hardpan Vernal Pool

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed: 1979-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1979-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

MESA WEST OF I-805 ABOUT 0.25 MILE NORTH OF ROSE CANYON, SAN DIEGO. INCLUDES VILLASENOR #XII.

Detailed Location:

Ecological:

REDDING SOILS.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T15S, R03W, Sec. 16 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3636680 E481701
Latitude/Longitude: 32.86809 / -117.19559
Elevation (feet): 380

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

SCS73R0001 SOIL CONSERVATION SERVICE ET AL. - SOIL SURVEY, SAN DIEGO AREA, CALIFORNIA. PARTS I & II PLUS MAPS. 1973-12-XX

VIL79R0002 VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	16888	**EO Index:**	16198
Key Quad:	La Jolla (3211772)	**Element Code:**	CTT44321CA
Occurrence Number:	22	**Occurrence Last Updated:**	2002-03-13

Scientific Name: *San Diego Mesa Hardpan Vernal Pool* **Common Name:** San Diego Mesa Hardpan Vernal Pool

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G2

State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed:	1986-04-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-04-10	**Occurrence Rank:**	Unknown
Owner/Manager:	USFWS, DOD	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

SOUTH MARINE CORPS AIR STATION MIRAMAR; BETWEEN RUNWAYS AND SAN CLEMENTE CANYON AND RUNWAYS AND I-15.

Detailed Location:

MANY COLONIES MAPPED IN THIS VICINITY. ACCESS TO SOME SITES IS DIFFICULT. DFG VERNAL POOL CODE V1-4, W1-2, EE1 &2, FF1&2, GG. CITY/RECON CODE:WI-II, EEI&II, VI &II.

Ecological:

ASSOC VEGETATION: CHAMISE CHAPARRAL. SENSITIVE PLANT TAXA: POGOGYNE ABRAMSII, ERYNGIUM ARISTULATUM VAR. PARISHII AND BRODIAEA ORCUTTII. REDDING SOILS.

Threats:

LANDFILL AND QUARRY TO S AND SE. LOW-MED DISUTBANCE, PRIMARILY FROM ORV DAMAGE, MOWING, MINING AND DIRT ROADS.

General:

APPROX 175 MED-LG POOLS OBS IN 1986. WITHIN PERIMETER FENCE OF NAVAL AIR STATION. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R02W, Sec. 18 (S)	**Accuracy:**	specific area	**Area (acres):**	116
UTM:	Zone-11 N3636070 E487392	**Latitude/Longitude:**	32.86267 / -117.13476	**Elevation (feet):**	440

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), La Jolla (3211772), Poway (3211781)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
VIL79R0003	VILLASENOR, JR., R. - REPORT ON RARE PLANT SURVEY OF THE AQUANA RIDGE FIRE BREAK - USFS CLEVELAND N.F., PALOMAR RANGER DISTRICT (JOB #7404). 1979-06-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04037	**EO Index:**	16189
Key Quad:	La Mesa (3211771)	**Element Code:**	CTT44321CA
Occurrence Number:	32	**Occurrence Last Updated:**	2002-03-13

Scientific Name: *San Diego Mesa Hardpan Vernal Pool* **Common Name:** San Diego Mesa Hardpan Vernal Pool

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G2

State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed:	1986-04-08	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-04-08	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

KEARNY VILLA NORTH; VICINITY HWY 163 & KEARNY VILLA ROAD. F&G POOL CODES F1-27, CITY-RECON:FI-V.

Detailed Location:

FORMERLY PART OF OCC #006.

Ecological:

TOTAL OF APPROX 175 VARIED SIZED POOLS ASSOC W/GRASSLAND & CHAMISE CHAPARRAL. SENSITIVE PLANT TAXA INCL: POGOGYNE, ERYNGIUM & BRODIAEA, REDDING SOILS.

Threats:

LOW TO HIGH LEVELS OF DISTURBANCE FROM BRUSHING, ORV DAMAGE, DUMPING & WATER IMPOUNDMENT. SR-52 CONST IS A THREAT.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R02W, Sec. 30 (S)	**Accuracy:**	specific area	**Area (acres):**	65
UTM:	Zone-11 N3634398 E488251	**Latitude/Longitude:**	32.84759 / -117.12555	**Elevation (feet):**	380

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), La Jolla (3211772)

Sources:

BAU85U0001	BAUDER, E. - LETTERS WITH MAPS TO CNDDB, USFWS 1985-02-XX
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04035	**EO Index:**	16188
Key Quad:	La Jolla (3211772)	**Element Code:**	CTT44321CA
Occurrence Number:	33	**Occurrence Last Updated:**	1998-07-16

Scientific Name: *San Diego Mesa Hardpan Vernal Pool* **Common Name:** San Diego Mesa Hardpan Vernal Pool

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G2

State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed:	1986-04-08	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-04-08	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

KEARNY VILLA NORTH; JUST SE JUNCTION OF I-15 & KEARNY VILLA ROAD. F&G CODES F18&28. CITY-RECON: FIV.

Detailed Location:

Ecological:

APPROX 17 SMALL POOLS ASSOC W/CHAMISE CHAPARRAL & COASTAL SAGE SCRUB.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R02W, Sec. 30 (S)	**Accuracy:**	specific area	**Area (acres):**	29
UTM:	Zone-11 N3633619 E488242	**Latitude/Longitude:**	32.84057 / -117.12564	**Elevation (feet):**	420

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), La Jolla (3211772)

Sources:

BAU85U0001	BAUDER, E. - LETTERS WITH MAPS TO CNDDB, USFWS 1985-02-XX
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04029	**EO Index:**	16186
Key Quad:	La Mesa (3211771)	**Element Code:**	CTT44321CA
Occurrence Number:	38	**Occurrence Last Updated:**	1998-07-16

Scientific Name: *San Diego Mesa Hardpan Vernal Pool* **Common Name:** San Diego Mesa Hardpan Vernal Pool

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G2

State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed:	1986-09-30	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-09-30	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MARINE CORPS AIR STATION MIRAMAR INTERIOR; NORTH OF SAN CLEMENTE CANYON BETWEEN MINING & HWY 163. F&G CODES: RR1&2.

Detailed Location:

RR1 POOLS SURVEYED IN 1979. RR2 POOLS OBS DURING 1986 RECON SURVEY. POOLS IN E MESA TO S OF RR1 POOLS ALSO SURVEYED BY RECON IN 1986. RR2 GROUP CONTAINS ABOUT 37 POOLS.

Ecological:

ASSOC VEG INCL: GRASSLAND, CHAPARRAL & SAGE SCRUB (IN CANYONS). POGOGYNE IN BOTH POOL GROUPS: ERYNGIUM & BRODIAEA, RR1 ONLY.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R02W, Sec. 19 (S)	**Accuracy:**	specific area	**Area (acres):**	105
UTM:	Zone-11 N3635330 E488219	**Latitude/Longitude:**	32.85600 / -117.12591	**Elevation (feet):**	420

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), La Jolla (3211772)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
REC87R0001	REGIONAL ENVIRONMENTAL CONSULTANTS, CAMERON PATTERSON - VERNAL POOL SURVEY RESULTS (RECON #R-1633) TO MR. KICK KIPP, SIM J. HARRIS COMPANY, SAN DIEGO AREA ON KEARNY MESA BETWEEN I-163 & N SIDE SAN CLEMENTE ISLAND. 1987-XX-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04006	**EO Index:**	23746
Key Quad:	La Jolla (3211772)	**Element Code:**	CTT44321CA
Occurrence Number:	40	**Occurrence Last Updated:**	2002-01-11

Scientific Name: *San Diego Mesa Hardpan Vernal Pool* **Common Name:** San Diego Mesa Hardpan Vernal Pool

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G2

State: S2.1

General Habitat:

□

Micro Habitat:

□

Last Date Observed:	1986-04-07	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-04-07	**Occurrence Rank:**	None
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Extirpated		

Location:

KEARNY VILLA SOUTH; NE OF HWY 163/CLAIREMONT MESA BLVD CLOVERLEAF. F&G POOL CODES E1-5.

Detailed Location:

30 POOLS OBS IN 1979. THESE WERE CONNECTED BY MESA TOP TO F,N,O,U & BB POOLS BTWN SAN CLEMENTE CYN & MISSION VALLEY. ONLY 5 OF THE 30 POOLS STILL EXTANT & THEY ARE DAMAGED. THESE POOLS ARE NOW ESSENTIALLY EXTIRPATED.

Ecological:

SURROUNDING VEG IS COASTAL SAGE SCRUB & GRASSLAND.

Threats:

General:

IN 1986 ALL POOLS EXCEPT E4 HAD BEEN DESTROYED BY DEVELOPMENT OF INDUSTRIAL PARKS. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R02W, Sec. 30 (S)	**Accuracy:**	specific area	**Area (acres):**	12
UTM:	Zone-11 N3633131 E487485	**Latitude/Longitude:**	32.83616 / -117.13372	**Elevation (feet):**	430

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04426
EO Index: 16182
Key Quad: Imperial Beach (3211751)
Element Code: CTT44322CA
Occurrence Number: 8
Occurrence Last Updated: 1997-04-11

Scientific Name: *San Diego Mesa Claypan Vernal Pool*
Common Name: San Diego Mesa Claypan Vernal Pool

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed: 1981-09-23
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1981-09-23
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

OTAY MESA, BETWEEN DENNERY CANYON & OTAY VALLEY ROAD.

Detailed Location:

MAP DETAIL AT CNDDB. BOUNDARY DRAWN TO CONNECT DATA POINTS.

Ecological:

SPP LIST ON FILE AT CNDDB.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T18S, R01W, Sec. 29, N (S)
Accuracy: specific area
Area (acres): 51
UTM: Zone-11 N3604670 E499281
Latitude/Longitude: 32.57949 / -117.00765
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

CAS81U0001 CASS, T. - LETTER, COMPUTER PRINTOUT AND 5 MAPS OF VERNAL POOL LOCATIONS WITH RARE PLANTS ON OTAY MESA. 1981-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04362
EO Index: 23666
Key Quad: Imperial Beach (3211751)
Element Code: CTT44322CA
Occurrence Number: 9
Occurrence Last Updated: 1989-08-10

Scientific Name: *San Diego Mesa Claypan Vernal Pool*
Common Name: San Diego Mesa Claypan Vernal Pool

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed: 1981-09-23
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1981-09-23
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

OTAY MESA.

Detailed Location:

MAP DETAIL AT CNDDB.

Ecological:

SPP LIST ON FILE AT CNDDB.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T18S, R01W, Sec. 30, E (S)
Accuracy: specific area
Area (acres): 52
UTM: Zone-11 N3604091 E497946
Latitude/Longitude: 32.57426 / -117.02188
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

CAS81U0001 CASS, T. - LETTER, COMPUTER PRINTOUT AND 5 MAPS OF VERNAL POOL LOCATIONS WITH RARE PLANTS ON OTAY MESA. 1981-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04409
EO Index: 16181
Key Quad: Imperial Beach (3211751)
Element Code: CTT44322CA
Occurrence Number: 10
Occurrence Last Updated: 1997-04-14

Scientific Name: *San Diego Mesa Claypan Vernal Pool*
Common Name: San Diego Mesa Claypan Vernal Pool

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed: 1985-05-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1985-05-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Decreasing
Presence: Presumed Extant

Location:

OTAY MESA.

Detailed Location:

BOUNDARY DRAWN TO INCLUDE DATA POINTS.

Ecological:

SPECIES LIST ON FILE AT CNDDB.

Threats:

SITE SEVERELY DEGRADED BY OFF HIGHWAY VEHICLES.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T18S, R01W, Sec. 29, SE (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3603870 E499240
Latitude/Longitude: 32.57227 / -117.00809
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

CAS81U0001 CASS, T. - LETTER, COMPUTER PRINTOUT AND 5 MAPS OF VERNAL POOL LOCATIONS WITH RARE PLANTS ON OTAY MESA. 1981-XX-XX

GRI85U0003 GRIGGS, T. - MAPS WITH NOTES ON CONDITION OF VERNAL POOL AREAS 1985-07-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04369
EO Index: 23683
Key Quad: Imperial Beach (3211751)
Element Code: CTT44322CA
Occurrence Number: 11
Occurrence Last Updated: 1989-08-10

Scientific Name: *San Diego Mesa Claypan Vernal Pool*
Common Name: San Diego Mesa Claypan Vernal Pool

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed: 1981-09-23
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1981-09-23
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

OTAY MESA.

Detailed Location:

MAP DETAIL AT CNDDB.

Ecological:

SPECIES LIST ON FILE AT CNDDB.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T18S, R01W, Sec. 31, NW (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3603196 E498150
Latitude/Longitude: 32.56619 / -117.01971
Elevation (feet): 480

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

CAS81U0001 CASS, T. - LETTER, COMPUTER PRINTOUT AND 5 MAPS OF VERNAL POOL LOCATIONS WITH RARE PLANTS ON OTAY MESA. 1981-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04427
EO Index: 23681
Key Quad: Imperial Beach (3211751)
Element Code: CTT44322CA
Occurrence Number: 12
Occurrence Last Updated: 1989-08-10

Scientific Name: *San Diego Mesa Claypan Vernal Pool*
Common Name: San Diego Mesa Claypan Vernal Pool

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed: 1985-05-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1985-05-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Decreasing
Presence: Presumed Extant

Location:

OTAY MESA.

Detailed Location:

SMALL POOLS ADJACENT TO FARM EQUIPMENT TRAFFIC.

Ecological:

Threats:

AFFECTED BY FARM EQUIPMENT TRAFFIC.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T18S, R01W, Sec. 32, N (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3603039 E499580
Latitude/Longitude: 32.56477 / -117.00447
Elevation (feet): 490

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
CAS81U0001	CASS, T. - LETTER, COMPUTER PRINTOUT AND 5 MAPS OF VERNAL POOL LOCATIONS WITH RARE PLANTS ON OTAY MESA. 1981-XX-XX
COO81M0028	COOLEY, G. - MAP OF POGOGYNE NUDIUSCULA 1981-08-26
GRI85U0003	GRIGGS, T. - MAPS WITH NOTES ON CONDITION OF VERNAL POOL AREAS 1985-07-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04405
EO Index: 13149
Key Quad: Imperial Beach (3211751)
Element Code: CTT44322CA
Occurrence Number: 13
Occurrence Last Updated: 1997-04-14

Scientific Name: *San Diego Mesa Claypan Vernal Pool*
Common Name: San Diego Mesa Claypan Vernal Pool

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2.1

General Habitat:

□

Micro Habitat:

□

Last Date Observed: 1985-04-29
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1985-04-29
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Decreasing
Presence: Presumed Extant

Location:

OTAY MESA, BETWEEN SOUTH RIM & SPRING CANYON.

Detailed Location:

Ecological:

SPECIES LIST ON FILE AT CNDDB.

Threats:

FIRES, VEHICLES, CATTLE, ILLEGAL IMMIGRANTS & BORDER PATROL. DEVEL AND WASTEWATER TREATMENT PLANNED FOR THIS AREA.

General:

SITE IN RELATIVELY GOOD CONDITION, 1985, DESPITE HEAVY DISTURBANCE. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T19S, R01W, Sec. 05, NE (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3601530 E499138
Latitude/Longitude: 32.55116 / -117.00918
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

BAU85U0002 BAUDER, E. - ELEMENT OCCURRENCE EVALUATION FORMS, OTAY MESA AREA 1985-XX-XX

CAS81U0001 CASS, T. - LETTER, COMPUTER PRINTOUT AND 5 MAPS OF VERNAL POOL LOCATIONS WITH RARE PLANTS ON OTAY MESA. 1981-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04383	**EO Index:**	23667
Key Quad:	Imperial Beach (3211751)	**Element Code:**	CTT44322CA
Occurrence Number:	14	**Occurrence Last Updated:**	1997-04-14

Scientific Name: *San Diego Mesa Claypan Vernal Pool* **Common Name:** San Diego Mesa Claypan Vernal Pool

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G2

State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed:	1985-04-29	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1985-04-29	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

OTAY MESA.

Detailed Location:

340-350 FT ELEV. ONE POOL OF APPROX 15 SQ M IN WATERSHED OF ABOUT 2 ACRES.

Ecological:

Threats:

FIRES, VEHICLES, CATTLE, ILLEGAL IMMIGRANTS AND BORDER PATROL, 1985. INDUSRIAL DEVEL PLANNED FOR AREA.

General:

DISTURBED, 1979. POOLS IN MODERATELY GOOD CONDITION DESPITE DISTURBANCE TO SURROUNDING AREA. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T19S, R01W, Sec. 06, E (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3601038 E498603	**Latitude/Longitude:**	32.54672 / -117.01487	**Elevation (feet):**	345

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BAU85U0002	BAUDER, E. - ELEMENT OCCURRENCE EVALUATION FORMS, OTAY MESA AREA 1985-XX-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
CAS81U0001	CASS, T. - LETTER, COMPUTER PRINTOUT AND 5 MAPS OF VERNAL POOL LOCATIONS WITH RARE PLANTS ON OTAY MESA. 1981-XX-XX
COO81M0025	COOLEY, G. - MAP OF ORCUTTIA CALIFORNICA 1981-08-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 23607
Key Quad: Otay Mesa (3211658)
Occurrence Number: 15
EO Index: 23668
Element Code: CTT44322CA
Occurrence Last Updated: 1997-04-14

Scientific Name: *San Diego Mesa Claypan Vernal Pool*
Common Name: San Diego Mesa Claypan Vernal Pool

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed: 1981-09-23
Last Survey Date: 1981-09-23
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

OTAY MESA; ABOVE WRUCK CANYON.

Detailed Location:

MAP DETAIL AT CNDDB.

Ecological:

SPECIES LIST ON FILE AT CNDDB.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T19S, R01W, Sec. 05, NE (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3601655 E499961
Latitude/Longitude: 32.55229 / -117.00041
Elevation (feet): 440

County Summary:

San Diego

Quad Summary:

Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

CAS81U0001 CASS, T. - LETTER, COMPUTER PRINTOUT AND 5 MAPS OF VERNAL POOL LOCATIONS WITH RARE PLANTS ON OTAY MESA. 1981-XX-XX

COO81M0025 COOLEY, G. - MAP OF ORCUTTIA CALIFORNICA 1981-08-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04364	**EO Index:**	13188
Key Quad:	Imperial Beach (3211751)	**Element Code:**	CTT44322CA
Occurrence Number:	16	**Occurrence Last Updated:**	1989-08-10

Scientific Name: *San Diego Mesa Claypan Vernal Pool* **Common Name:** San Diego Mesa Claypan Vernal Pool

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G2

State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed:	1985-04-29	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1985-04-29	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

OTAY MESA, NORTH OF SOUTH RIM, WEST OF FINGER CANYON.

Detailed Location:

Ecological:

POOLS W/ ENSEMBLE OF ORCUTTIA CALIFORNICA, ERYNGIUM ARISTULATUM VAR. PARISHII, NAVARRETIA FOSSALIS, MYOSURUS MINIMUS VAR. APUS. MOUNDS REMOVED WHEN SEEN IN 1985.

Threats:

EXTENSIVE GRAZING SEEN IN 1985. POTENTIAL INDUSTRIAL DEVELOPMENT.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T19S, R01W, Sec. 06, NW (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3601745 E498068	**Latitude/Longitude:**	32.55310 / -117.02058	**Elevation (feet):**	470

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BAU85U0002	BAUDER, E. - ELEMENT OCCURRENCE EVALUATION FORMS, OTAY MESA AREA 1985-XX-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
CAS81U0001	CASS, T. - LETTER, COMPUTER PRINTOUT AND 5 MAPS OF VERNAL POOL LOCATIONS WITH RARE PLANTS ON OTAY MESA. 1981-XX-XX
COO81M0025	COOLEY, G. - MAP OF ORCUTTIA CALIFORNICA 1981-08-19
GRI85U0002	GRIGGS, T. - MEMO REGARDING OTAY MESA 1985-05-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03714	**EO Index:**	13603
Key Quad:	La Jolla (3211772)	**Element Code:**	CTT52120CA
Occurrence Number:	2	**Occurrence Last Updated:**	1998-07-10

Scientific Name: *Southern Coastal Salt Marsh* **Common Name:** Southern Coastal Salt Marsh

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G2

State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed:	1975-10-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1975-10-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UCNR-KENDALL FROST RES, OTHER	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

UC KENDALL-FROST MISSION BAY MARSH RESERVE & ADJACENT AREA TO THE WEST.

Detailed Location:

21 MARSH ACRES REMAIN (1976) OF LARGE HISTORIC MARSH. 0-6 FT ELEVATION RISE.

Ecological:

LOW & HIGH MARSH. GOOD TIDAL FLUSHING. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Threats:

DEVELOPMENT POSSIBLE; POLLUTION OF THE BAY IS A THREAT.

General:

16 AC UC PRESERVE (PROTECTED) IS ADJACENT TO CITY WILDLIFE AREA. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T16S, R03W, Sec. 07 (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3628196 E478667	**Latitude/Longitude:**	32.79150 / -117.22782	**Elevation (feet):**	

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

HOO77R0001	HOOD, L. - INVENTORY OF CALIFORNIA NATURAL AREAS, CALIFORNIA NATURAL AREAS COORDINATING COUNCIL 1977-XX-XX
SDGNDR0001	CO. OF SAN DIEGO, ENVIRONMENTAL DEVEL. AGENCY - INTEGRATED REGIONAL ENVIRONMENTAL MANAGEMENT PROJECT - NATURAL RESOURCES INVENTORY OF SAN DIEGO COUNTY XXXX-XX-XX
UCA80R0001	UNIVERSITY OF CALIFORNIA - UNIVERSITY OF CALIFORNIA NATURAL LAND AND WATER RESERVES SYSTEM INFORMATION PAMPHLET. 1980-09-XX
ZED82R0001	ZEDLER, J. - THE ECOLOGY OF SOUTHERN CALIFORNIA COASTAL SALT MARSHES: A COMMUNITY PROFILE, USFWS, BIOLOGICAL SERVICES PROGRAM, WASHINGTON, D.C. FWS/0BS-81/84.110PP (SOUTHERN COASTAL SALT MARSH) 1982-03-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04111	**EO Index:**	16121
Key Quad:	National City (3211761)	**Element Code:**	CTT52120CA
Occurrence Number:	3	**Occurrence Last Updated:**	1998-07-20

Scientific Name: *Southern Coastal Salt Marsh* **Common Name:** Southern Coastal Salt Marsh

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G2

State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed:	1978-09-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1978-09-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	USFWS-SAN DIEGO BAY NWR, UNK	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH SAN DIEGO BAY, SOUTH OF SAN DIEGO NAVAL ST. SWEETWATER RIVER ESTUARY MARSH COMPLEX.

Detailed Location:

Ecological:

FLORISTICALLY DIVERSE. OPEN TO TIDAL FLUX. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Threats:

CHANNEL DREDGE TO PART OF MARSH. MUCH OF HISTORIC MARSH FILLED, DEVELOPED. MUDFLATS DREDGED OR CONVERTED TO SALT PONDS.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T17S, R02W, Sec. 32 (S)	**Accuracy:**	specific area	**Area (acres):**	195
UTM:	Zone-11 N3611964 E490063	**Latitude/Longitude:**	32.64524 / -117.10594	**Elevation (feet):**	

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

BRO73R0001	BROWNING, B. - THE NATURAL RESOURCES OF SAN DIEGO. CALIFORNIA DEPT. OF FISH & GAME COASTAL WETLANDS SERIES REPORT #5. 1973-10-XX
EIL81R0001	EILERS, H.P. - EPA PROJECT SUMMARY. PRODUCTION IN COASTAL SALT MARSHES OF SOUTHERN CA. EPA-600/53-81-023. 1981-05-XX
HEN76A0001	HENDRICKSON, J. - ECOLOGY OF SOUTHERN CALIFORNIA COASTAL SALT MARSHES IN: PLANT COMMUNITIES OF SOUTHERN CALIFORNIA, LATTING, EDITOR. CNPS SPECIAL PUBLICATION #2, PP. 49-64. 1976-XX-XX
HOO77R0001	HOOD, L. - INVENTORY OF CALIFORNIA NATURAL AREAS, CALIFORNIA NATURAL AREAS COORDINATING COUNCIL 1977-XX-XX
SDGNDR0001	CO. OF SAN DIEGO, ENVIRONMENTAL DEVEL. AGENCY - INTEGRATED REGIONAL ENVIRONMENTAL MANAGEMENT PROJECT - NATURAL RESOURCES INVENTORY OF SAN DIEGO COUNTY XXXX-XX-XX
ZED82R0001	ZEDLER, J. - THE ECOLOGY OF SOUTHERN CALIFORNIA COASTAL SALT MARSHES: A COMMUNITY PROFILE, USFWS, BIOLOGICAL SERVICES PROGRAM, WASHINGTON, D.C. FWS/0BS-81/84.110PP (SOUTHERN COASTAL SALT MARSH) 1982-03-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04030
EO Index: 26176
Key Quad: Imperial Beach (3211751)
Element Code: CTT52120CA
Occurrence Number: 9
Occurrence Last Updated: 1998-07-20

Scientific Name: *Southern Coastal Salt Marsh*
Common Name: Southern Coastal Salt Marsh

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed: 1973-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1973-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

WEST SIDE SOUTH SAN DIEGO BAY, SOUTH OF CORONADO CAYS.

Detailed Location:

2 SMALL MARSHES, 1973. MAP DETAIL AT CNDDB.

Ecological:

Threats:

URBANIZATION, MARINA NEARBY.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T18S, R02W, Sec. 07 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3608835 E487670
Latitude/Longitude: 32.61699 / -117.13142
Elevation (feet):

County Summary:

San Diego, Pacific Ocean

Quad Summary:

Imperial Beach (3211751)

Sources:

BRO73R0001	BROWNING, B. - THE NATURAL RESOURCES OF SAN DIEGO. CALIFORNIA DEPT. OF FISH & GAME COASTAL WETLANDS SERIES REPORT #5. 1973-10-XX
HOO77R0001	HOOD, L. - INVENTORY OF CALIFORNIA NATURAL AREAS, CALIFORNIA NATURAL AREAS COORDINATING COUNCIL 1977-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04068
EO Index: 26126
Key Quad: Imperial Beach (3211751)
Element Code: CTT52120CA
Occurrence Number: 10
Occurrence Last Updated: 1998-07-20

Scientific Name: *Southern Coastal Salt Marsh*
Common Name: Southern Coastal Salt Marsh

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed: 1973-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1973-XX-XX
Occurrence Rank: Unknown
Owner/Manager: USFWS-SAN DIEGO BAY NWR, PVT
Trend: Unknown
Presence: Presumed Extant

Location:

EAST OF US NAVAL RADIO STATION, SOUTH SAN DIEGO BAY.

Detailed Location:

SMALL. SOME MARSH MAY ALSO FRINGE SOUTH EDGE OF NEARBY SALT POND PROP. PROBABLY REMNANT OF LARGER MARSH OF OTAY RIVER.

Ecological:

OPEN TO TIDAL INFLUENCE.

Threats:

NEXT TO SALT PONDS.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T18S, R02W, Sec. 18 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3607406 E488409
Latitude/Longitude: 32.60411 / -117.12353
Elevation (feet):

County Summary:
San Diego, Pacific Ocean

Quad Summary:
Imperial Beach (3211751)

Sources:

BRO73R0001	BROWNING, B. - THE NATURAL RESOURCES OF SAN DIEGO. CALIFORNIA DEPT. OF FISH & GAME COASTAL WETLANDS SERIES REPORT #5. 1973-10-XX
HOO77R0001	HOOD, L. - INVENTORY OF CALIFORNIA NATURAL AREAS, CALIFORNIA NATURAL AREAS COORDINATING COUNCIL 1977-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04077
EO Index: 16117
Key Quad: Imperial Beach (3211751)
Element Code: CTT52120CA
Occurrence Number: 11
Occurrence Last Updated: 1998-07-15

Scientific Name: *Southern Coastal Salt Marsh*
Common Name: Southern Coastal Salt Marsh

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2.1

General Habitat:

Micro Habitat:

Last Date Observed: 1981-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1981-XX-XX
Occurrence Rank: Unknown
Owner/Manager: USFWS, DPR
Trend: Unknown
Presence: Presumed Extant

Location:

TIJUANA RIVER ESTUARY (INCLUDES BORDER FIELD STATE PARK).

Detailed Location:

368 ACRES. 73% OF WATERSHED IN MEXICO.

Ecological:

MARSH AND MUDFLATS (NOAA, 1981). SPARTINA FOLIOSA DOMINANT AT LOW TIDAL ELEVATIONS. RIVER INTERMITTENT, MOUTH USUALLY OPEN.

Threats:

AGRICULTURE AND RESIDENCES ON UPLANDS.

General:

INCLUDES UNDEVELOPED STATE PARK, NAVAL AIR STATION, USFWS NATIONAL WILDLIFE REFUGE & PVT LAND. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T18S, R02W, Sec. 31, E (S)
Accuracy: specific area
Area (acres): 497
UTM: Zone-11 N3602218 E488441
Latitude/Longitude: 32.55731 / -117.12312
Elevation (feet):

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

HOO77R0001	HOOD, L. - INVENTORY OF CALIFORNIA NATURAL AREAS, CALIFORNIA NATURAL AREAS COORDINATING COUNCIL 1977-XX-XX
NOA81R0001	NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION - TIJUANA RIVER ESTUARINE SANCTUARY DRAFT EIS (PROPOSED ESTUARINE SANCTUARY GRANT AWARD TO THE STATE OF CALIFORNIA). 1981-06-XX
USN81M0001	UNITED STATES NAVY - HABITAT/LAND USE OF THE TIJUANA RIVER MANAGEMENT AREA BASED ON AERIAL PHOTO BY MPSI MAPS, INC. PREPARED BY STAFF CIVIL ENGINEERING NAS NORTH ISLAND. 1981-02-18
ZED82R0001	ZEDLER, J. - THE ECOLOGY OF SOUTHERN CALIFORNIA COASTAL SALT MARSHES: A COMMUNITY PROFILE, USFWS, BIOLOGICAL SERVICES PROGRAM, WASHINGTON, D.C. FWS/0BS-81/84.110PP (SOUTHERN COASTAL SALT MARSH) 1982-03-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03749	**EO Index:**	16042
Key Quad:	La Jolla (3211772)	**Element Code:**	CTT61300CA
Occurrence Number:	8	**Occurrence Last Updated:**	1998-07-23

Scientific Name: *Southern Riparian Forest* **Common Name:** Southern Riparian Forest

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G4

State: S4

General Habitat:

Micro Habitat:

Last Date Observed:	1986-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SAN CLEMENTE CANYON FROM ROSE CANYON TO ABOUT 1/4 MILE EAST OF I-805. NORTH CLAIREMONT VICINITY.

Detailed Location:

BOUNDARY REPRESENTS EXTENT AS INTERPRETED FROM 1986 AERIAL PHOTOS. INCLUDES SMALL UNVEGETATED AREAS.

Ecological:

MAPPED BY NWI AS PALUSTRINE, FORESTED, INTERMITTENTLY FLOODED, TEMPORARY AND RIVERINE INTERMITTENTLY FLOODED, TEMPORARY AND RIVERINE INTERMITTENT STREAM BED, INTERMITTENTLY FLOODED/TEMPORARY. VEGETATION COMPOSITION UNKNOWN.

Threats:

General:

UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R03W, Sec. 29 (S)	**Accuracy:**	specific area	**Area (acres):**	265
UTM:	Zone-11 N3633551 E479429	**Latitude/Longitude:**	32.83982 / -117.21980	**Elevation (feet):**	140

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

FWS81M0003	U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX
HOL87M0001	HOLLAND, R.F. & V. DAINS - INTERPRETATION OF 1986 AERIAL PHOTOGRAPHS IN SAN DIEGO COUNTY. SOUTHERN RIPARIAN COMMUNITIES ON SEVERAL QUADS. 1987-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03992
EO Index: 15838
Key Quad: La Jolla (3211772)
Element Code: CTT61330CA
Occurrence Number: 6
Occurrence Last Updated: 1998-07-20

Scientific Name: *Southern Cottonwood Willow Riparian Forest*
Common Name: Southern Cottonwood Willow Riparian Forest

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S3.2

General Habitat:

Micro Habitat:

Last Date Observed: 1987-04-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1987-04-15
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

SAN DIEGO RIVER FROM I-5 U/S TO MISSION SAN DIEGO DE ALCALA.

Detailed Location:

Ecological:

YOUNG POPULUS FREMONTII EMERGING THROUGH SALIX LASIOLEPIS COPSE. PARTS ARE BACCHARIS GLUTINOSA OR ARUNDO. PALUSTRINE, SCRUB/SHRUB/EMERGENT, SATURATED/SEMIPERMANENT/SEASONAL & PALUSTRINE, EMERGENT/OPEN WATER INTERMITTENTLY EXPOSED PER NWI.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T16S, R03W, Sec. 24 (S)
Accuracy: specific area
Area (acres): 519
UTM: Zone-11 N3625965 E485993
Latitude/Longitude: 32.77150 / -117.14955
Elevation (feet): 35

County Summary:	Quad Summary:
San Diego	La Mesa (3211771), La Jolla (3211772)

Sources:

FWS81M0003	U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX
HOL87F0031	HOLLAND, R.F. - FIELD SURVEY FORM FOR SOUTHERN COTTONWOOD WILLOW RIPARIAN FOREST (NC61330) 1987-04-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04358	**EO Index:**	15836
Key Quad:	La Mesa (3211771)	**Element Code:**	CTT61330CA
Occurrence Number:	7	**Occurrence Last Updated:**	1998-07-20

Scientific Name: *Southern Cottonwood Willow Riparian Forest*

Common Name: Southern Cottonwood Willow Riparian Forest

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists:

CNDDB Element Ranks: **Global:** G3

State: S3.2

General Habitat:

Micro Habitat:

Last Date Observed:	1987-04-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1987-04-15	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SAN DIEGO RIVER, NORTH OF MISSION GORGE ROAD, BETWEEN RADIO TOWERS & CARLTON OAKS GOLF COURSE.

Detailed Location:

Ecological:

USFWS NATL WETLANDS INVENTORY MAPPED AS PALUSTRINE, SCRUB-SHRUB/EMERGENT, SATURATED/SEMIPERMANENT/SEASONAL. VEG IN 1987 NO LONGER SHRUBBY BUT COTTONWOOD WILLOW FOREST 40-50 FT TALL, DENSE, W/ LITTLE UNDERSTORY EXCEPT WILLOWS.

Threats:

ADJ TO GOLF COURSE, SUBURBIA.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R01W, Sec. 29 (S)	**Accuracy:**	specific area	**Area (acres):**	111
UTM:	Zone-11 N3633371 E499186	**Latitude/Longitude:**	32.83839 / -117.00870	**Elevation (feet):**	280

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

FWS81M0003	U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX
HOL87F0032	HOLLAND, R.F. - FIELD SURVEY FORM FOR SOUTHERN COTTONWOOD WILLOW RIPARIAN FOREST (NC61330) 1987-04-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04266	**EO Index:**	15835
Key Quad:	La Mesa (3211771)	**Element Code:**	CTT61330CA
Occurrence Number:	8	**Occurrence Last Updated:**	1998-07-20

Scientific Name: *Southern Cottonwood Willow Riparian Forest*

Common Name: Southern Cottonwood Willow Riparian Forest

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists:

CNDDB Element Ranks: **Global:** G3

State: S3.2

General Habitat:

Micro Habitat:

Last Date Observed:	1987-04-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1987-04-15	**Occurrence Rank:**	Good
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MISSION GORGE ALONG SAN DIEGO RIVER, FROM MISSION DAM & FLUME HISTORIC SITE D/S 3.5 MILES.

Detailed Location:

USFWS NATIONAL WETLANDS INVENTORY MAPPED AS PALUSTRINE, SCRUB/SHRUB/EMERGENT, SATURATED/SEMIPERMANENT/SEASONAL. NOW SUCCEEDED TO FOREST.

Ecological:

CLOSED CANOPY (ABOUT 100%) 50 FT TALL DOM BY SALIX GOODDINGII, POPULUS FREMONTII. SCATTERED PLATANUS RACEMOSA EMERGE THROUGH CANOPY. UNDERSTORY OF S. LASIOLEPIS, S. HINDSIANA SOME INTRODUCED SPP IN SHRUB LAYER.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R02W, Sec. 35 (S)	**Accuracy:**	specific area	**Area (acres):**	127
UTM:	Zone-11 N3632314 E495080	**Latitude/Longitude:**	32.82885 / -117.05256	**Elevation (feet):**	220

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

FWS81M0003	U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX
HOL87F0033	HOLLAND, R.F. - FIELD SURVEY FORM FOR SOUTHERN COTTONWOOD WILLOW RIPARIAN FOREST (NC61330) 1987-04-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04176	**EO Index:**	15833
Key Quad:	La Mesa (3211771)	**Element Code:**	CTT61330CA
Occurrence Number:	9	**Occurrence Last Updated:**	1998-07-20

Scientific Name: *Southern Cottonwood Willow Riparian Forest*

Common Name: Southern Cottonwood Willow Riparian Forest

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists:

CNDDB Element Ranks: **Global:** G3

State: S3.2

General Habitat:

Micro Habitat:

Last Date Observed:	1987-04-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1987-04-15	**Occurrence Rank:**	Poor
Owner/Manager:	DOD-NAVY	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

U.S. NAVAL RECREATION FACILITIES GOLF COURSE, SAN DIEGO RIVER, MISSION VALLEY.

Detailed Location:

SMALL OUTLYING STAND ABOUT 1 MILE SSW.

Ecological:

VEG MOSTLY EUCALYPTUS W/SCATTERED SALIX GOODDINGII, BACCHARIS, ARUNDO. USFWS NATL WETLANDS INVENTORY MAPPED AS PALUSTRINE, OPEN WATER, ARTIFICIAL, INTERMITTENTLY EXPOSED & PALUSTRINE, SCRUB-SHRUB/SATURATED/SEMIPERMANENT/SEASONAL.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T16S, R02W, Sec. 04 (S)	**Accuracy:**	specific area	**Area (acres):**	32
UTM:	Zone-11 N3629869 E491606	**Latitude/Longitude:**	32.80677 / -117.08966	**Elevation (feet):**	80

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

FWS81M0003	U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX
HOL87F0050	HOLLAND, R.F. - FIELD SURVEY FORM FOR SOUTHERN COTTONWOOD WILLOW RIPARIAN FOREST (NC61330) 1987-04-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04267	**EO Index:**	15544
Key Quad:	La Mesa (3211771)	**Element Code:**	CTT62400CA
Occurrence Number:	6	**Occurrence Last Updated:**	1998-07-22

Scientific Name: *Southern Sycamore Alder Riparian Woodland*

Common Name: Southern Sycamore Alder Riparian Woodland

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists:

CNDDB Element Ranks: **Global:** G4

State: S4

General Habitat:

Micro Habitat:

Last Date Observed:	1987-04-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1987-04-15	**Occurrence Rank:**	Fair
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OAK CANYON FOR ABOUT 2 MILES U/S OF MISSION DAM AND FLUME HISTORIC SITE, SAN DIEGO.

Detailed Location:

BURNED CHAPARRAL W/ DENSE STIPA ADJ.

Ecological:

OPEN CANOPY (20-30% COVER), DOM BY PLATANUS RACEMOSA. OPEN SHRUB STORY MOSTLY OF BACCHARIS GLUTINOSA W/SOME MUHLENBERGIA RIGENS. SCATTERED VERY YOUNG POPULUS FREMONTII. NWI MAPPED AS RIVERINE, INTERM., STREAM BED, INTERMITTENTLY FLOODED.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R02W, Sec. 24 (S)	**Accuracy:**	specific area	**Area (acres):**	136
UTM:	Zone-11 N3634965 E495374	**Latitude/Longitude:**	32.85276 / -117.04943	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

FWS81M0003	U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX
HOL87F0057	HOLLAND, R.F. - FIELD SURVEY FORM FOR SOUTHERN SYCAMORE ALDER RIPARIAN WOODLAND (NC62400) 1987-04-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04297	**EO Index:**	13491
Key Quad:	La Mesa (3211771)	**Element Code:**	CTT62400CA
Occurrence Number:	7	**Occurrence Last Updated:**	1998-07-22

Scientific Name: *Southern Sycamore Alder Riparian Woodland*

Common Name: Southern Sycamore Alder Riparian Woodland

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists:

CNDDB Element Ranks: **Global:** G4

State: S4

General Habitat:

Micro Habitat:

Last Date Observed:	1987-04-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1987-04-15	**Occurrence Rank:**	Fair
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SPRING CANYON NORTH OF MISSION DAM AND FLUME HISTORIC SITE.

Detailed Location:

Ecological:

VEG IS OPEN PLATANUS RACEMOSA TO 40 FT TALL. BACCHARIS GLUTINOSA SHRUB STORY. FAN OF WILLOWS AND MULE FAT HAS DEVELOPED AT MOUTH OF SPRING CYN. NATIONAL WETLANDS INVENTORY MAPPED AS PALUSTRINE, SCRUB-SHRUB, INTERMITTENTLY FLOODED.

Threats:

PART OF AREA IS LOCAL LANDFILL.

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R02W, Sec. 24 (S)	**Accuracy:**	specific area	**Area (acres):**	68
UTM:	Zone-11 N3635079 E496449	**Latitude/Longitude:**	32.85379 / -117.03795	**Elevation (feet):**	340

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

FWS81M0003	U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX
HOL87F0049	HOLLAND, R.F. - FIELD SURVEY FORM FOR SOUTHERN SYCAMORE ALDER RIPARIAN WOODLAND (NC62400) 1987-04-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04314	**EO Index:**	15543
Key Quad:	La Mesa (3211771)	**Element Code:**	CTT62400CA
Occurrence Number:	8	**Occurrence Last Updated:**	1998-07-22

Scientific Name: *Southern Sycamore Alder Riparian Woodland*

Common Name: Southern Sycamore Alder Riparian Woodland

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists:

CNDDB Element Ranks: **Global:** G4

State: S4

General Habitat:

Micro Habitat:

Last Date Observed:	1987-04-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1987-04-15	**Occurrence Rank:**	Fair
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

LITTLE SYCAMORE CANYON, NE OF MISSION SAM AND FLUME HISTORIC SITE.

Detailed Location:

Ecological:

VEG IS VERY OPEN PLATANUS RACEMOSA TO 40 FT TALL, OVER BACCHARIS GLUTINOSA SHRUB STORY. NATIONAL WETLANDS INVENTORY MAPPED AS PALUSTRINE, SCRUB-SHRUB, INTERMITTENTLY FLOODED.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R01W, Sec. 19 (S)	**Accuracy:**	specific area	**Area (acres):**	56
UTM:	Zone-11 N3634638 E497100	**Latitude/Longitude:**	32.84982 / -117.03099	**Elevation (feet):**	340

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

FWS81M0003	U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX
HOL87F0049	HOLLAND, R.F. - FIELD SURVEY FORM FOR SOUTHERN SYCAMORE ALDER RIPARIAN WOODLAND (NC62400) 1987-04-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04378	**EO Index:**	15489
Key Quad:	Poway (3211781)	**Element Code:**	CTT62400CA
Occurrence Number:	65	**Occurrence Last Updated:**	1998-07-22

Scientific Name: *Southern Sycamore Alder Riparian Woodland*

Common Name: Southern Sycamore Alder Riparian Woodland

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists:

CNDDB Element Ranks: **Global:** G4

State: S4

General Habitat:

Micro Habitat:

Last Date Observed:	1986-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1990-04-17	**Occurrence Rank:**	Good
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

WEST SYCAMORE CANYON FOR APPROX 1 MILE ABOVE JUNCTION W/ SYCAMORE CANYON EAST END MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

CONFINED TO VALLEY FLOOR.

Ecological:

INTERMITTENTLY FLOODED/TEMPORARY. RELATIVELY FLAT & ROCKY FLOODPLAIN W/SCATTERED PLATANUS RACEMOSA & Q. AGRIFOLIA. UNDERSTORY VEG INCL ERIOGONUM, OPUNTIA & ANNUAL GRASSLAND. ALSO TOXICODENDRON DIVERSILOBUM & EPILOBIUM.

Threats:

PROPOSED SITE FOR A POWER PLANT TO THE WEST.

General:

MALACOTHAMNUS SP., AND YUCCA WHIPPLEI PRESENT. POSSIBLY ALSO CLEMATIS PAUCIFLORA. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R01W, Sec. 08 (S)	**Accuracy:**	specific area	**Area (acres):**	86
UTM:	Zone-11 N3638364 E499102	**Latitude/Longitude:**	32.88343 / -117.00959	**Elevation (feet):**	480

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), Poway (3211781)

Sources:

FWS81M0003	U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX
FWS85R0008	U.S. FISH & WILDLIFE SERVICE - FIELD SURVEY OF BIOLOGICAL RESOURCES OF SPECIFIC CANYON HABITATS OF MIRAMAR NAVAL AIR STATION, CALIFORNIA 1985-09-XX
HOL87M0001	HOLLAND, R.F. & V. DAINS - INTERPRETATION OF 1986 AERIAL PHOTOGRAPHS IN SAN DIEGO COUNTY. SOUTHERN RIPARIAN COMMUNITIES ON SEVERAL QUADS. 1987-XX-XX
YOR90F0003	YORK, R. - FIELD SURVEY FORM FOR SOUTHERN SYCAMORE ALDER RIPARIAN WOODLAND (CTT62400CA.065). 1990-04-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04425	**EO Index:**	15487
Key Quad:	San Vicente Reservoir (3211688)	**Element Code:**	CTT62400CA
Occurrence Number:	67	**Occurrence Last Updated:**	1998-07-22

Scientific Name: *Southern Sycamore Alder Riparian Woodland*

Common Name: Southern Sycamore Alder Riparian Woodland

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists:

CNDDB Element Ranks: **Global:** G4

State: S4

General Habitat:

Micro Habitat:

Last Date Observed:	1985-07-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1985-07-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SYCAMORE CANYON ON EAST SIDE MIRAMAR NAS, FROM SANTEE SEWAGE TREATMENT PLANT U/S TO CLARK CANYON.

Detailed Location:

JUST NORTH OF SEWAGE TREATMENT FACILITY CANYON IS WIDE W/ANNUAL GRASSLAND & MANY OHV TRAILS.

Ecological:

SCATTERED PLATANUS RACEMOSA & QUERCUS AGRIFOLIA OCCUR ALONG BASE OF WEST HILLSIDE. MANY PLATANUS HAVE BEEN SAWED OFF & RESPROUTING. FURTHER U/S Q. AGRIFOLIA DOMINATES; U/S INCL TOXICODENDRON, BACCHARIS, SAGE & OPUNTIA.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R01W, Sec. 08 (S)	**Accuracy:**	specific area	**Area (acres):**	155
UTM:	Zone-11 N3638312 E500093	**Latitude/Longitude:**	32.88296 / -116.99900	**Elevation (feet):**	480

County Summary:	**Quad Summary:**
San Diego	San Vicente Reservoir (3211688), La Mesa (3211771), Poway (3211781)

Sources:

FWS85R0008	U.S. FISH & WILDLIFE SERVICE - FIELD SURVEY OF BIOLOGICAL RESOURCES OF SPECIFIC CANYON HABITATS OF MIRAMAR NAVAL AIR STATION, CALIFORNIA 1985-09-XX
USF34M0002	U.S. FOREST SERVICE - VEGETATION TYPES OF CALIFORNIA, SAN DIEGO COUNTY. WIESLANDER MAPS. 1934-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03748	**EO Index:**	15332
Key Quad:	La Jolla (3211772)	**Element Code:**	CTT63300CA
Occurrence Number:	8	**Occurrence Last Updated:**	1998-07-23

Scientific Name: *Southern Riparian Scrub* **Common Name:** Southern Riparian Scrub

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G3

State: S3.2

General Habitat:

Micro Habitat:

Last Date Observed:	1986-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ROSE CANYON FROM NEAR I-5 TO SW OF THE FIRE STATION AT MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

BOUNDARY REPRESENTS EXTENT AS INTERPRETED FROM 1986 AERIAL PHOTOS.

Ecological:

MAPPED BY NWI AS PALUSTRINE SCRUB/SHRUB INTERMITTENTLY FLOODED/TEMPORARY AND RIVERINE INTERMITTENT STREAM BED INTERMITTENTLY FLOODED TEMPORARY. VEGETATION COMPOSITION UNKNOWN. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R03W, Sec. 21 (S)	**Accuracy:**	specific area	**Area (acres):**	419
UTM:	Zone-11 N3636138 E481997	**Latitude/Longitude:**	32.86321 / -117.19242	**Elevation (feet):**	220

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772), Del Mar (3211782)

Sources:

FWS81M0003	U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX
HOL87M0001	HOLLAND, R.F. & V. DAINS - INTERPRETATION OF 1986 AERIAL PHOTOGRAPHS IN SAN DIEGO COUNTY. SOUTHERN RIPARIAN COMMUNITIES ON SEVERAL QUADS. 1987-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17325
EO Index: 15331
Key Quad: La Jolla (3211772)
Element Code: CTT63300CA
Occurrence Number: 9
Occurrence Last Updated: 1998-07-23

Scientific Name: *Southern Riparian Scrub*
Common Name: Southern Riparian Scrub

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S3.2

General Habitat:

Micro Habitat:

Last Date Observed: 1986-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1986-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

NORTH CLAIREMONT, INTERMITTENT STREAM WEST & SOUTH OF STEVENSON SCHOOL.

Detailed Location:

BOUNDARY REPRESENTS EXTENT AS INTERPRETED FROM 1986 AERIAL PHOTOS.

Ecological:

MAPPED BY NWI AS PALUSTRINE SCRUB/SHRUB, INTERMITTENTLY FLOODED/TEMPORARY. VEGETATION COMPOSITION UNKNOWN. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T16S, R03W, Sec. 05 (S)
Accuracy: specific area
Area (acres): 68
UTM: Zone-11 N3631247 E480506
Latitude/Longitude: 32.81906 / -117.20825
Elevation (feet): 220

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

FWS81M0003	U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX
HOL87M0001	HOLLAND, R.F. & V. DAINS - INTERPRETATION OF 1986 AERIAL PHOTOGRAPHS IN SAN DIEGO COUNTY. SOUTHERN RIPARIAN COMMUNITIES ON SEVERAL QUADS. 1987-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03781	**EO Index:**	15330
Key Quad:	La Jolla (3211772)	**Element Code:**	CTT63300CA
Occurrence Number:	10	**Occurrence Last Updated:**	1998-07-23

Scientific Name: *Southern Riparian Scrub* **Common Name:** Southern Riparian Scrub

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G3

State: S3.2

General Habitat:

Micro Habitat:

Last Date Observed:	1986-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

TECOLOTE CREEK, FROM GENESEE AVE D/S (SOUTH) TO JUST BEYOND MT ACADIA BLVD. NORTH CLAIREMONT.

Detailed Location:

BOUNDARY REPRESENTS EXTENT AS INTERPRETED FROM 1986 AERIAL PHOTOS.

Ecological:

MAPPED BY NWI AS PALUSTRINE, SCRUB/SHRUB, INTERMITTENTLY FLOODED/TEMPORARY. VEGETATION COMPOSITION UNKNOWN. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T16S, R03W, Sec. 04 (S)	**Accuracy:**	specific area	**Area (acres):**	174
UTM:	Zone-11 N3630438 E481618	**Latitude/Longitude:**	32.81178 / -117.19635	**Elevation (feet):**	180

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

FWS81M0003	U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX
HOL87M0001	HOLLAND, R.F. & V. DAINS - INTERPRETATION OF 1986 AERIAL PHOTOGRAPHS IN SAN DIEGO COUNTY. SOUTHERN RIPARIAN COMMUNITIES ON SEVERAL QUADS. 1987-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03837	**EO Index:**	15329
Key Quad:	La Jolla (3211772)	**Element Code:**	CTT63300CA
Occurrence Number:	11	**Occurrence Last Updated:**	1998-07-23

Scientific Name: *Southern Riparian Scrub* **Common Name:** Southern Riparian Scrub

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G3

State: S3.2

General Habitat:

Micro Habitat:

Last Date Observed:	1986-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH & WEST OF SAN DIEGO MESA COLLEGE ON TRIBUTARIES TO TECOLOTE CREEK.

Detailed Location:

BOUNDARY REPRESENTS EXTENT AS INTERPRETED FROM 1986 AERIAL PHOTOS.

Ecological:

MAPPED BY NWI AS PALUSTRINE, SCRUB/SHRUB, INTERMITTENTLY FLOODED/TEMPORARY (W FORK), & PALUSTRINE, EMERGENT, INTERMITTENTLY FLOODED/TEMPORARY. VEGETATION COMPOSITION UNKNOWN. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T16S, R03W, Sec. 10 (S)	**Accuracy:**	specific area	**Area (acres):**	98
UTM:	Zone-11 N3629079 E483442	**Latitude/Longitude:**	32.79955 / -117.17685	**Elevation (feet):**	180

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

FWS81M0003	U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX
HOL87M0001	HOLLAND, R.F. & V. DAINS - INTERPRETATION OF 1986 AERIAL PHOTOGRAPHS IN SAN DIEGO COUNTY. SOUTHERN RIPARIAN COMMUNITIES ON SEVERAL QUADS. 1987-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03886	**EO Index:**	15328
Key Quad:	La Jolla (3211772)	**Element Code:**	CTT63300CA
Occurrence Number:	12	**Occurrence Last Updated:**	1998-07-23

Scientific Name: *Southern Riparian Scrub*

Common Name: Southern Riparian Scrub

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists:

CNDDB Element Ranks: **Global:** G3

State: S3.2

General Habitat:

Micro Habitat:

Last Date Observed:	1986-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SAN CLEMENTE CANYON & FORK TO SOUTH, MARINE CORPS AIR STATION MIRAMAR. ABOUT 0.5-1.5 MILES EAST OF I-805.

Detailed Location:

BOUNDARY REPRESENTS EXTENT AS INTERPRETED FROM 1986 AERIAL PHOTOS. INCLUDES SHORT UNVEGETATED STRETCH NEAR JUNCTION OF FORKS.

Ecological:

MAPPED BY NWI AS PALUSTRINE SCRUB/SHRUB/EMERGENT, SATURATED/SEMIPERMANENT/SEASONAL & INTERMITTENT STREAM BED, INTERMITTENTLY FLOODED/TEMPORARY. VEGETATION COMPOSITION UNKNOWN. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R03W, Sec. 26 (S)	**Accuracy:**	specific area	**Area (acres):**	140
UTM:	Zone-11 N3634006 E485308	**Latitude/Longitude:**	32.84402 / -117.15700	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

FWS81M0003	U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX
HOL87M0001	HOLLAND, R.F. & V. DAINS - INTERPRETATION OF 1986 AERIAL PHOTOGRAPHS IN SAN DIEGO COUNTY. SOUTHERN RIPARIAN COMMUNITIES ON SEVERAL QUADS. 1987-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04207	**EO Index:**	15327
Key Quad:	National City (3211761)	**Element Code:**	CTT63300CA
Occurrence Number:	13	**Occurrence Last Updated:**	1998-07-23

Scientific Name: *Southern Riparian Scrub* **Common Name:** Southern Riparian Scrub

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G3

State: S3.2

General Habitat:

Micro Habitat:

Last Date Observed:	1986-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH OF HWY 94, EAST OF EUCLID AVE ALONG INTERMITTENT CREEK, SAN DIEGO. CHOLLAS VALLEY.

Detailed Location:

BOUNDARY REPRESENTS EXTENT AS INTERPRETED FROM 1986 AERIAL PHOTOS.

Ecological:

MAPPED BY NWI AS RIVERINE, INTERMITTENT STREAM BED, INTERMITTENTLY FLOODED/TEMPORARY. VEGETATION COMPOSITION UNKNOWN. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T17S, R02W, Sec. 03 (S)	**Accuracy:**	specific area	**Area (acres):**	64
UTM:	Zone-11 N3620513 E492880	**Latitude/Longitude:**	32.72238 / -117.07598	**Elevation (feet):**	180

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

FWS81M0003	U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX
HOL87M0001	HOLLAND, R.F. & V. DAINS - INTERPRETATION OF 1986 AERIAL PHOTOGRAPHS IN SAN DIEGO COUNTY. SOUTHERN RIPARIAN COMMUNITIES ON SEVERAL QUADS. 1987-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04275
EO Index: 15326
Key Quad: National City (3211761)
Element Code: CTT63300CA
Occurrence Number: 14
Occurrence Last Updated: 1998-07-23

Scientific Name: *Southern Riparian Scrub*
Common Name: Southern Riparian Scrub

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S3.2

General Habitat:

Micro Habitat:

Last Date Observed: 1986-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1986-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

SWEETWATER VALLEY, NORTH OF BONITA ROAD, EAST OF I-805, LYNWOOD HILLS.

Detailed Location:

BOUNDARY REPRESENTS EXTENT AS INTERPRETED FROM 1986 AERIAL PHOTOS.

Ecological:

MAPPED BY NWI AS PALUSTRINE, SCRUB/SHRUB/EMERGENT, INTERMITTENTLY FLOODED/TEMPORARY. VEGETATION COMPOSITION UNKNOWN. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T17S, R02W, Sec. 35 (S)
Accuracy: specific area
Area (acres): 40
UTM: Zone-11 N3613038 E495315
Latitude/Longitude: 32.65496 / -117.04995
Elevation (feet): 50

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

FWS81M0003 U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX

HOL87M0001 HOLLAND, R.F. & V. DAINS - INTERPRETATION OF 1986 AERIAL PHOTOGRAPHS IN SAN DIEGO COUNTY. SOUTHERN RIPARIAN COMMUNITIES ON SEVERAL QUADS. 1987-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04197
EO Index: 15325
Key Quad: National City (3211761)
Element Code: CTT63300CA
Occurrence Number: 15
Occurrence Last Updated: 1998-07-23

Scientific Name: *Southern Riparian Scrub*
Common Name: Southern Riparian Scrub

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S3.2

General Habitat:

Micro Habitat:

Last Date Observed: 1986-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1986-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

SWEETWATER RIVER, EAST OF 4TH AVE, SOUTH OF SWEETWATER ROAD, NATIONAL CITY.

Detailed Location:

BOUNDARY REPRESENTS EXTENT AS INTERPRETED FROM 1986 AERIAL PHOTOS.

Ecological:

MAPPED BY NWI AS PALUSTRINE SCRUB/SHRUB/EMERGENT, SATURATED/SEMIPERMANENT/SEASONAL. VEGETATION COMPOSITION UNKNOWN. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T17S, R02W, Sec. 28 (S)
Accuracy: specific area
Area (acres): 19
UTM: Zone-11 N3613443 E491892
Latitude/Longitude: 32.65860 / -117.08646
Elevation (feet): 10

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

FWS81M0003	U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX
HOL87M0001	HOLLAND, R.F. & V. DAINS - INTERPRETATION OF 1986 AERIAL PHOTOGRAPHS IN SAN DIEGO COUNTY. SOUTHERN RIPARIAN COMMUNITIES ON SEVERAL QUADS. 1987-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04200	**EO Index:**	15323
Key Quad:	Poway (3211781)	**Element Code:**	CTT63300CA
Occurrence Number:	16	**Occurrence Last Updated:**	1998-07-21

Scientific Name: *Southern Riparian Scrub* **Common Name:** Southern Riparian Scrub

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G3

State: S3.2

General Habitat:

Micro Habitat:

Last Date Observed:	1986-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SAN CLEMENTE CANYON, EAST OF I-15, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

BOUNDARY REPRESENTS EXTENT AS INTERPRETED FROM 1986 AERIAL PHOTOS.

Ecological:

MAPPED BY NWI AS INTERMITTENT STREAM BED, INTERMITTENTLY FLOODED/TEMPORARY. VEG INCL BROOM BACCHARIS, BLACK SAGE, WHITE SAGE AND SMALL GROVE OF ARROYO WILLOWS. ANNUAL GRASSLAND W/EUCALYPTUS OCCURS U/S.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T15S, R02W, Sec. 10 (S)	**Accuracy:**	specific area	**Area (acres):**	111
UTM:	Zone-11 N3638261 E492660	**Latitude/Longitude:**	32.88248 / -117.07847	**Elevation (feet):**	580

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), Poway (3211781)

Sources:

FWS81M0003	U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX
FWS85R0008	U.S. FISH & WILDLIFE SERVICE - FIELD SURVEY OF BIOLOGICAL RESOURCES OF SPECIFIC CANYON HABITATS OF MIRAMAR NAVAL AIR STATION, CALIFORNIA 1985-09-XX
HOL87M0001	HOLLAND, R.F. & V. DAINS - INTERPRETATION OF 1986 AERIAL PHOTOGRAPHS IN SAN DIEGO COUNTY. SOUTHERN RIPARIAN COMMUNITIES ON SEVERAL QUADS. 1987-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04278	**EO Index:**	15287
Key Quad:	Imperial Beach (3211751)	**Element Code:**	CTT63320CA
Occurrence Number:	2	**Occurrence Last Updated:**	1998-07-21

Scientific Name: *Southern Willow Scrub* **Common Name:** Southern Willow Scrub

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G3

State: S2.1

General Habitat:

□

Micro Habitat:

□

Last Date Observed:	1987-04-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1987-04-15	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY RIVER BETWEEN I-5 & I-805 & FROM SAN DIEGO CORPORATE BOUNDARY WEST FOR ABOUT 1 MILE.

Detailed Location:

BOUNDARY CONFIRMED IN 1986 AIR PHOTOS.

Ecological:

DENSE TO PATCHY SCRUB DOM BY SALIX LASIOLEPIS AND BACCHARIS GLUTINOSA. USFWS MAPPED AS PALUSTRINE, SCRUB-SHRUB/EMERGENT, INTERMITTENTLY FLOODED/TEMPORARY.

Threats:

General:

SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS:	T18S, R02W, Sec. 23 (S)	**Accuracy:**	specific area	**Area (acres):**	505
UTM:	Zone-11 N3605755 E494165	**Latitude/Longitude:**	32.58926 / -117.06217	**Elevation (feet):**	40

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

FWS81M0003	U.S. FISH & WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY (USGS 15' AND 7 1/2' MAPS). 1981-XX-XX
HOL87F0036	HOLLAND, R.F. - FIELD SURVEY FORM FOR SOUTHERN WILLOW SCRUB (NC63320) 1987-04-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92345	**EO Index:**	11607
Key Quad:	La Mesa (3211771)	**Element Code:**	ICBRA03060
Occurrence Number:	2	**Occurrence Last Updated:**	2014-05-27

Scientific Name: *Branchinecta sandiegonensis* **Common Name:** San Diego fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:

VERNAL POOLS.

Last Date Observed:	2003-04-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-04-24	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD, USFWS, CALTRANS	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

TIERRASANTA, JUST OUTSIDE MCAS MIRAMAR; FROM ABOUT 0.3 TO 0.7 MILE NE OF SR 52 AT SANTO RD, SAN DIEGO.

Detailed Location:

COMPLEX A4 IN BAUDER (1986). NE POLYGON MAPPED TO 2001 DETECTION IN "POOL #1" AT "SITE 19." SW POLYGON MAPPED TO COORDS GIVEN FOR 2003 DETECTION AT POOL 105, COORDS NOT GIVEN FOR 20 OTHER OCCUPIED POOLS, MAY BE MORE EXTENSIVE THAN MAPPED.

Ecological:

A DIVERSE SERIES OF 38 VERNAL POOLS (1986). SINGLE POOL IN AN ELONGATED ROAD RUT (2001).

Threats:

SOME ORV DAMAGE, DUMPING, & BRUSHING; POSSIBLE RV PARK SITE (2001). NON-NATIVE PLANTS, FIRE CONTROL, MILITARY OPS ('08).

General:

DETECTED IN 9 OUT OF 9 POOLS STUDIED AT A4 FROM 1997-2003. ESTIMATED ABUNDANCE 6560 IN POOL #1, 15 MAR 2001; VOUCHERS COLLECTED. DETECTED IN 21 OUT OF 23 POOLS SURVEYED DEC 2002-APR 2003.

PLSS:	T15S, R02W, Sec. 28, NW (S)	**Accuracy:**	non-specific area	**Area (acres):**	25
UTM:	Zone-11 N3633905 E491295	**Latitude/Longitude:**	32.84317 / -117.09301	**Elevation (feet):**	520

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BLA01R0003	BLACK, C. (ECOLOGICAL RESTORATION SERVICE) - INTERIM FAIRY SHRIMP SURVEY REPORT AT POTENTIAL RV PARK SITES - WET SEASON 2000-2001 SAMPLING 2001-XX-XX
FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
RIP08A0001	RIPLEY, B. & M. SIMOVICH - SPECIES RICHNESS ON ISLANDS IN TIME: VARIATION IN EPHEMERAL POND CRUSTACEAN COMMUNITIES IN RELATION TO HABITAT DURATION AND SIZE. HYDROBIOLOGIA 2008. 2008-XX-XX
SIM03U0001	SIMOVICH, M. - 2002-2003 BRANCHIOPOD DETECTION DATABASE, BRANCHIOPOD RESEARCH GROUP, UNIVERSITY OF SAN DIEGO 2003-11-20
SIM90R0001	SIMOVICH, M. & M. FUGATE - "FAIRY SHRIMP OF THE VERNAL POOLS OF SAN DIEGO", UC SAN DIEGO, DEPT OF BIOLOGY 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04124	**EO Index:**	11608
Key Quad:	La Mesa (3211771)	**Element Code:**	ICBRA03060
Occurrence Number:	3	**Occurrence Last Updated:**	1995-11-14

Scientific Name: *Branchinecta sandiegonensis* **Common Name:** San Diego fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:

VERNAL POOLS.

Last Date Observed:	1990-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1990-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MARINE CORPS AIR STATION MIRAMAR, BETWEEN MURPHY CANYON AND ELAMUS CANYON, SAN DIEGO.

Detailed Location:

A GROUP OF 17 POOLS WITH MODERATE SIZE AND DEPTH DIVERSITY.

Ecological:

Threats:

MODERATE ORV DISTURBANCE.

General:

PLSS:	T15S, R02W, Sec. 20 (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3634655 E490320	**Latitude/Longitude:**	32.84993 / -117.10344	**Elevation (feet):**	450

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
SIM90R0001	SIMOVICH, M. & M. FUGATE - "FAIRY SHRIMP OF THE VERNAL POOLS OF SAN DIEGO", UC SAN DIEGO, DEPT OF BIOLOGY 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03899
EO Index: 11635
Key Quad: La Jolla (3211772)
Element Code: ICBRA03060
Occurrence Number: 4
Occurrence Last Updated: 2014-05-27

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
Rare Plant Rank:
State: None
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: 2008-03-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2008-03-11
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:
MCAS MIRAMAR, FROM THE S SIDE OF MIRAMAR WAY ABOUT 0.1 MI E OF GONSALVES AVE, SW TO 0.6 MI E OF I-805 AT GOVERNOR DR.

Detailed Location:
HUNDREDS OF VERNAL POOLS DISTRIBUTED AMONGST SEVERAL "GROUPS" OR COMPLEXES; CLOCKWISE FROM NE: GG3+, GG1, FF1-2, EE2, EE1/HH2+, W1-4, HH. COVERED BY MIRAMAR INRMP.

Ecological:
1990: W COMPLEX POOLS SURVEYED FENCED; DESIGNATED ECOLOGICAL STUDY AREA. 2004: MIX OF FAIRLY NATURAL POOLS, ROAD RUTS/PUDDLES, DITCHES; IN MARSH, CHAPARRAL, DISTURBED GRASSLAND. SOME MAY HAVE BEEN GRADED SINCE THE 1990S.

Threats:
1986: VEHICLES, IMPACTS FROM PAST AGRICULTURE, NEARBY LANDFILL. 2008: NON-NATIVE PLANTS, FIRE CONTROL, MILITARY OPS.

General:
1990 DETECTIONS IN W COMPLEX. IN 22 OF 54 POOLS SURVEYED, 1994. IN 21 PLS (EE2, FF1-2, GG3), 2001. IN 19 OF 58 PLS (RECON SURVEY, EE1/W); IN14 PLS (BLACK SURVEY, GG1); IN 33 (BLACK, HH2/EE1), 2003. IN 8 PLS (GG), 2005. IN 3 PLS (GG), 2008.

PLSS: T15S, R03W, Sec. 23 (S)
Accuracy: specific area
Area (acres): 324
UTM: Zone-11 N3635920 E484907
Latitude/Longitude: 32.86127 / -117.16130
Elevation (feet): 430

County Summary:
San Diego

Quad Summary:
La Mesa (3211771), La Jolla (3211772), Poway (3211781), Del Mar (3211782)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BLA04R0001	BLACK, C. (ECOLOGICAL RESTORATION SERVICE) - VERNAL POOL DELINEATION, RARE PLANT AND FAIRY SHRIMP SURVEY REPORTS ON MIRAMAR VERNAL POOLS, 2000-2001 THROUGH 2002-03 FIELD SEASONS, COMPREHENSIVE FINDINGS 2004-06-XX
FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
HAR94R0001	HART, C. (OGDEN ENVIRONMENTAL) - FAIRY SHRIMP SURVEY COMPLETION REPORT: NAS MIRAMAR ANOSTRACAN SURVEY 1994-09-26
REC03R0003	RECON ENVIRONMENTAL, INC. - POST-SURVEY NOTIFICATION OF FAIRY SHRIMP SURVEYS ON MARINE CORPS AIR STATION MIRAMAR FOR THE SAN DIEGO GAS AND ELECTRIC PIPELINE ACCESS ROAD REGRADE 2003-01-20
RIT08U0001	RITENOUR, D. (HELIX ENVIRONMENTAL PLANNING, INC.) - USFWS WET SEASON PROTOCOL LEVEL SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP, GROW THE FORCE INITIATIVE PROJECT 2008-07-29
SIM90R0001	SIMOVICH, M. & M. FUGATE - "FAIRY SHRIMP OF THE VERNAL POOLS OF SAN DIEGO", UC SAN DIEGO, DEPT OF BIOLOGY 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 39561
EO Index: 34563
Key Quad: National City (3211761)
Element Code: ICBRA03060
Occurrence Number: 14
Occurrence Last Updated: 2014-05-12

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
Rare Plant Rank:
State: None
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: 2010-02-01
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2010-02-01
Occurrence Rank: Fair
Owner/Manager: DOD-NAVAL RADIO STATION
Trend: Unknown
Presence: Presumed Extant

Location:
CHOLLAS HEIGHTS NAVAL PRESERVE, SOUTH OF THORN STREET AND NORTH OF CHOLLAS RESERVOIR, SAN DIEGO.

Detailed Location:
1997/98: DETECTED IN POOLS ON BOTH SIDES OF COLLEGE GROVE WAY. 2009/10: POSITIVELY IDENTIFIED B. SANDIEGONENSIS (SDFS) ONLY IN POOLS ON NORTH SIDE (POOLS DRIED BEFORE IMMATURE SHRIMP IN OTHER POOLS COULD BE IDED).

Ecological:
FRAGMENTED, ISOLATED VERNAL POOL HABITAT SURROUNDED BY URBAN DEVELOPMENT WITH DISTURBED COASTAL SAGE SCRUB TO SOUTH. PARTIALLY DEVELOPED PRIOR TO LISTING. SPADEFOOT TOADS & CALIFORNIA GNATCATCHERS PRESENT IN 1998. TREE FROG PRESENT IN 2009.

Threats:
NON-NATIVE PLANTS, ORVS, FIRE CONTROL (2008).

General:
SDFS DETECTED IN 17-19 OF 23 POOLS DEC 1997-MAY 1998, 100S OBSERVED. IMMATURE FAIRY SHRIMP DETECTED IN 5 POOLS & ADULT SDFS IN 8 OF 24 POOLS SAMPLED 2008/09. DETECTED IN 9 OF 27 POOLS, 2009/10; 1S TO OVER 10,000 ADULTS IN EACH POOL.

PLSS: T16S, R02W, Sec. 35, NW (S)
Accuracy: non-specific area
Area (acres): 18
UTM: Zone-11 N3622519 E494208
Latitude/Longitude: 32.74048 / -117.06181
Elevation (feet): 450

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
LOE09R0001	LOEFFLER, W. ET AL. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY REPORT OF FIRST VERNAL POOL BRANCHIOPOD WET SEASON SURVEYS ON THE CHOLLAS HEIGHTS NAVY FAMILY HOUSING AREA, SAN DIEGO, CALIFORNIA (RECON NUMBER 4896) 2009-11-11
MCD10D0001	MCDERMOTT, F. (RECON ENVIRONMENTAL, INC.) - SHAPEFILES OF POOLS SURVEYED FOR SAN DIEGO FAIRY SHRIMP 2010-XX-XX
SPI98F0001	SPIEGELBERG, M. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR BRANCHINECTA SANDIEGONENSIS 1998-05-XX
SPI98R0001	SPIEGELBERG, M. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION OF FOCUSED SURVEYS FOR FAIRY SHRIMP AT THE CHOLLAS HEIGHTS AND MURPHY CANYON NAVAL FAMILY HOUSING PRESERVES 1998-08-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92338
EO Index: 34564
Key Quad: La Mesa (3211771)
Element Code: ICBRA03060
Occurrence Number: 15
Occurrence Last Updated: 2014-06-20

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
Rare Plant Rank:
State: None
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: 2003-05-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-05-12
Occurrence Rank: Good
Owner/Manager: DOD-NAVY, USFWS
Trend: Unknown
Presence: Presumed Extant

Location:
MURPHY CANYON NAVAL PRESERVE, BETWEEN I-15 AND ADMIRAL BAKER RD, SAN DIEGO.

Detailed Location:
ENTIRE PRESERVE SURVEYED IN 1998; MAPPED TO OCCUPIED POOLS. FEATURE INCLUDES OCCUPIED POOLS 1, 3, 6, 7, & 9 OF 14 POOLS SURVEYED IN 2003 ON SDG&E ACCESS ROADS.

Ecological:
VERNAL POOLS SURROUNDED BY COASTAL SAGE SCRUB VEGETATION. WESTERN SPADEFOOT TOADS AND CALIFORNIA GNATCATCHERS ALSO PRESENT.

Threats:
THREATENED BY RECREATIONAL USE OF THE AREA (1998). NON-NATIVE PLANTS, ORVS, FIRE CONTROL (2008).

General:
DETECTED IN 111-120 OF 228-230 POOLS, NOV 1997-MAY 1998; 1000S OBSERVED. ADULTS DETECTED IN 5 DEPRESSIONS IN SDG&E ACCESS ROADS, MAR-APR & 12 MAY 2003; IMMATURE SHRIMP IN AN ADDITIONAL 2 POOLS.

PLSS: T16S, R02W, Sec. 08 (S)
Accuracy: non-specific area
Area (acres): 36
UTM: Zone-11 N3629089 E490133
Latitude/Longitude: 32.79972 / -117.10538
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
KIM03F0030	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR BRANCHINECTA SANDIEGONENSIS 2003-05-12
KIM03R0001	KIM, C. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION-FOCUSED WET SEASON SURVEY RESULTS FOR LISTED FAIRY SHRIMP SPECIES FOR THE SAN DIEGO GAS & ELECTRIC MISSION TO MIGUEL 230 KILOVOLT #2 PROJECT 2003-06-20
SPI98F0002	SPIEGELBERG, M. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR BRANCHINECTA SANDIEGONENSIS 1998-05-XX
SPI98R0001	SPIEGELBERG, M. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION OF FOCUSED SURVEYS FOR FAIRY SHRIMP AT THE CHOLLAS HEIGHTS AND MURPHY CANYON NAVAL FAMILY HOUSING PRESERVES 1998-08-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	49333	**EO Index:**	49333
Key Quad:	La Mesa (3211771)	**Element Code:**	ICBRA03060
Occurrence Number:	38	**Occurrence Last Updated:**	2014-05-06

Scientific Name: *Branchinecta sandiegonensis* **Common Name:** San Diego fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:

VERNAL POOLS.

Last Date Observed:	2000-03-12	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2000-03-12	**Occurrence Rank:**	Unknown
Owner/Manager:	CALTRANS ROW, MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MCAS MIRAMAR, ON EAST AND WEST SIDES OF I-15 ABOUT 0.6 MILE SOUTH OF THE AMMO RD OVERPASS, SAN DIEGO.

Detailed Location:

WEST POLYGONS MAPPED TO DETECTION LOCATIONS FROM 2000 REPORT, FROM N TO S: POOL 2 (P2), P4, P5, AND RUT 3 (R3); ALONG THE WEST SIDE OF I-15. EAST POLYGON MAPPED TO DETECTION LOCATIONS AT "AA12 NORTH" GROUP FROM 2004 REPORT, EAST OF I-15.

Ecological:

WEST POLYGONS: RUDERAL AREA WITH POOLS AND RUTS SURROUNDED BY NON-NATIVE ANNUAL GRASSLAND. EAST POLYGON: BASINS FORMED BY ROAD BERMS ON HIGHLY DISTURBED, GRADED SURFACE OF THE OLD CAMP ELLIOTT RIFLE RANGE.

Threats:

ACTIVITY ALONG RIGHT-OF-WAY (2000).

General:

WEST POLYGONS: 100S OBSERVED IN P4; 1000S IN R3, P2 & P5. FEB-MAR 2000. E POLYGON: IMMATURE FAIRY SHRIMP OBSERVED IN 1 POOL THAT DRIED BEFORE SHRIMP MATURED ENOUGH TO ID IN 2000; BRANCHINECTA CYSTS FOUND IN 14 OF 19 BASINS, PRESUMED SDFS.

PLSS:	T15S, R02W, Sec. 17, SE (S)	**Accuracy:**	specific area	**Area (acres):**	53
UTM:	Zone-11 N3636464 E489728	**Latitude/Longitude:**	32.86624 / -117.10978	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BLA04R0001	BLACK, C. (ECOLOGICAL RESTORATION SERVICE) - VERNAL POOL DELINEATION, RARE PLANT AND FAIRY SHRIMP SURVEY REPORTS ON MIRAMAR VERNAL POOLS, 2000-2001 THROUGH 2002-03 FIELD SEASONS, COMPREHENSIVE FINDINGS 2004-06-XX
DUD00R0002	DUDEK & ASSOCIATES, INC. - WET SEASON PRESENCE/ABSENCE SURVEY FOR VERNAL POOL BRANCHIOPODS FOR THE CALTRANS DISTRICT 11 INTERSTATE 15 / MIRAMAR SITE, CITY OF SAN DIEGO, CALIFORNIA. 2000-06-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 49344
EO Index: 49344
Key Quad: Otay Mesa (3211658)
Element Code: ICBRA03060
Occurrence Number: 39
Occurrence Last Updated: 2014-05-15

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
Rare Plant Rank:
State: None
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: 2006-03-27
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-03-27
Occurrence Rank: Unknown
Owner/Manager: DHS
Trend: Unknown
Presence: Presumed Extant

Location:
ARNIE'S POINT, 3 MILES SE OF SAN DIEGO; ABOUT 0.75 MILE SW OF CACTUS RD AT SIEMPRE VIVA RD ON THE US/MEXICO BORDER.

Detailed Location:
ALSO KNOWN AS J15 COMPLEX (BAUDER 1986). 2000: DETECTION IN DEPRESSION JUST NORTH OF PATROL ROAD.

Ecological:
2000: 2 ROADSIDE DEPRESSIONS SURROUNDED BY MOSTLY NON-NATIVE PLANTS. 2003: AREA PROTECTED AS 150 ACRE MITIGATION SITE. 2006: ADDITIONAL POOLS BUILT 2002-04 TO TOTAL 57 POOLS WITH RESTORED NATIVE VEGETATION. RIVERSIDE FAIRY SHRIMP PRESENT.

Threats:
HEAVY TRAFFIC BY BORDER PATROL AND PERSONAL OFFROAD VEHICLES (2000). NON-NATIVE PLANTS (2008).

General:
DETECTED IN 1 OF 2 DEPRESSIONS SAMPLED 8 MAR 2000. DETECTED IN 41 BASINS, 2003. DETECTED IN 28 OUT OF 29 PONDED BASINS IN 2006.

PLSS: T19S, R01W, Sec. 05, SE (S)
Accuracy: specific area
Area (acres): 47
UTM: Zone-11 N3600949 E500015
Latitude/Longitude: 32.54592 / -116.99983
Elevation (feet): 480

County Summary:
San Diego, Mexico

Quad Summary:
Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

ERS06R0001	ECOLOGICAL RESTORATION SERVICE - MAINTENANCE AND MONITORING OF VERNAL POOLS AND UPLAND VEGETATION AT ARNIE'S POINT, SAN DIEGO, CA: AREA A (YEAR 4) AND AREA B (YEAR 3), 2005-2006 HYDROLOGICAL YEAR 2006-XX-XX
FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
RAD00R0001	RADTKEY, J. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION - FOCUSED WET SEASON SURVEY RESULTS FOR LISTED ENDANGERED FAIRY SHRIMP SPECIES ALONG INS BORDER FENCE, SAN DIEGO COUNTY 2000-08-09
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 49412
EO Index: 49412
Key Quad: Imperial Beach (3211751)
Element Code: ICBRA03060
Occurrence Number: 46
Occurrence Last Updated: 2017-05-11

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
Rare Plant Rank:
State: None
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: 2016-01-18
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2016-01-18
Occurrence Rank: Good
Owner/Manager: PVT, CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
FROM DENNERY CANYON TO US/MEXICO BORDER, EAST OF I-805 TO HERITAGE ROAD, WESTERN PART OF OTAY MESA, SAN YSIDRO.

Detailed Location:
MAPPED TO DETECTION LOCATIONS. INCLUDES MULTIPLE POOL COMPLEXES (AFTER BAUDER, 1986): J4, 2N,S,W; J2S; J2W; J11E & W; J14; J13N; & J32; AND SEVERAL MITIGATION/RESTORATION SITES INCLUDING WAHL-HUDSON, DENNERY CANYON WEST, AND OTHERS.

Ecological:
SEVERAL SITES (SR 905, ST. JEROMES, CANDLELIGHT EAST/WEST VILLAGE, & MORE) PROPOSED FOR DEVELOPMENT. SR 905 CONSTRUCTION (2009-2011) ELIMINATED UP TO 12 OCCUPIED BASINS. RIVERSIDE & VERSATILE FAIRY SHRIMP PRESENT.

Threats:
ROAD CONSTRUCTION, DEVELOPMENT, ORVS, WEEDS, FRAGMENTATION, TRESPASS, TRASH. B. LINDAHLI MAY POSE HYBRIDIZATION THREAT.

General:
YEAR/# OF OCCUPIED POOLS FOUND: 1998/3, 1999/25, 2001/12, 2002/11(CYSTS)/5-6 (ADULTS), 2003/234+, 2004/49+, 2005/32+, 2006/6, 2007/1, 2008/24(CYSTS)/13(ADULTS), 2009/14, 2010/73, 2012/56, 2013/27, 2014/30+, 2015/13, 2016/2.

PLSS: T18S, R01W, Sec. 32 (S)
Accuracy: non-specific area
Area (acres): 549
UTM: Zone-11 N3602960 E499024
Latitude/Longitude: 32.56406 / -117.01039
Elevation (feet): 513

County Summary:
San Diego

Quad Summary:
Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

AEC10U0003	AECOM - 90-DAY REPORT OF PROTOCOL WET SEASON FAIRY SHRIMP SURVEYS FOR LISTED BRANCHIOPOD SPECIES FOR DENNERY CANYON WEST RESTORATION SITE 2010-09-30
AEC12U0001	AECOM - 90-DAY REPORT OF PROTOCOL WET SEASON FAIRY SHRIMP SURVEYS FOR LISTED BRANCHIOPOD SPECIES FOR DENNERY CANYON WEST RESTORATION SITE 2012-06-27
AEC13U0001	AECOM - 90-DAY REPORT OF PROTOCOL WET SEASON FAIRY SHRIMP SURVEYS FOR LISTED BRANCHIOPOD SPECIES FOR DENNERY CANYON WEST RESTORATION SITE 2013-07-16
ALD14R0001	ALDEN ENVIRONMENTAL, INC. - 2014 DRY SEASON FAIRY SHRIMP SAMPLING RESULTS REPORT U.S. FISH AND WILDLIFE SERVICE PROTOCOL LEVEL DRY SEASON SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP. 2014-08-19
BAL05U0001	BALO, K. (HELIX ENVIRONMENTAL PLANNING, INC.) - BACHMANN PROPERTY WET SEASON FAIRY SHRIMP SURVEY. 2005-07-28
BLA05U0018	BLACK, C. (ECOLOGICAL RESTORATION SERVICE) - FAIRY SHRIMP SURVEY, WET SAMPLING OF SOUTHVIEW SUBDIVISION, OTAY MESA ROAD RUTS: WINTER-SPRING 2005 2005-05-23
DUD01R0005	DUDEK & ASSOCIATES, INC. - WET SEASON PRESENCE/ABSENCE SURVEY FOR VERNAL POOL BRANCHIOPODS FOR THE ST. JEROME CHURCH PROJECT SITE, CITY OF SAN DIEGO, CALIFORNIA 2001-08-03
ENR03R0002	ENRIGHT, M. (DUDEK AND ASSOCIATES) - WET SEASON PRESENCE/ABSENCE SURVEY FOR VERNAL POOL BRANCHIOPODS FOR THE ST. JEROME CHURCH PROJECT SITE, CITY OF SAN DIEGO, CALIFORNIA 2003-08-04

FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
GLE04R0001	GLENN LUKOS ASSOCIATES - 90-DAY REPORT FOR THE WET SEASON PRESENCE/ABSENCE SURVEYS FOR VERNAL POOL BRANCHIOPODS CONDUCTED ON THE SOUTH OTAY PROPERTY, SAN DIEGO COUNTY, CALIFORNIA 2004-11-29
HAY05U0001	HAYWORTH, A. (DUDEK AND ASSOCIATES) - WET SEASON PRESENCE/ABSENCE SURVEY FOR VERNAL POOL BRANCHIOPODS FOR NEW POOLS DETECTED ON THE ST. JEROME CHURCH PROJECT SITE, CITY OF SAN DIEGO, CALIFORNIA. 2005-01-12
HEL02R0003	HELIX ENVIRONMENTAL PLANNING, INC. - WET SEASON SURVEYS FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP 2002-10-07
HEL05R0015	HELIX ENVIRONMENTAL PLANNING, INC. - 2005 ANNUAL REPORT WET SEASON SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP, CANDLELIGHT EAST & WEST VILLAGE PROJECTS 2005-06-10
HEL05R0016	HELIX ENVIRONMENTAL PLANNING, INC. - 2005 ANNUAL REPORT WET SEASON SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP FOR 160-ACRE SAN YSIDRO SITE 2005-02-14
HEL08R0004	HELM, B. (HELM BIOLOGICAL CONSULTING) - WET SEASON SAMPLING FOR FEDERALLY-LISTED LARGE BRANCHIOPODS AT THE DEXSTAR PROPERTY, 2008 2008-07-05
HEL98R0002	HELIX ENVIRONMENTAL PLANNING, INC. - 1998 ANNUAL REPORT- WET SEASON SURVEYS FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP, SR 905 1998-08-25
HEL99R0001	HELIX ENVIRONMENTAL PLANNING, INC. - 1999 ANNUAL REPORT FOR PROTOCOL LEVEL WET SEASON SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP 1999-07-28
HEL99R0002	HELIX ENVIRONMENTAL PLANNING, INC. - 1999 ANNUAL REPORT- WET SEASON SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP 1999-07-01
HUM15U0001	HUMPHREY, R. & M. ROCKS (ESA) - FAIRY SHRIMP SURVEY REPORT FOR THE VISTA DEL MAR ELEMENTARY SCHOOL PROJECT. 2015-06-19
JAM15R0001	JAMES, R. - 90 DAY FAIRY SHRIMP SURVEY YEAR 2 REPORT FOR OTAY MESA PARCEL 'A'. 2015-05-29
JAM15U0001	JAMES, R. - 90 DAY FAIRY SHRIMP SURVEY REPORT FOR ANDERPRISES PARCELS, SAN DIEGO CALIF. PERMIT NO. TE-03269-7 2015-05-26
KUR06U0001	KURNOW, J. & D. RITENOUR (HELIX ENVIRONMENTAL PLANNING, INC.) - 2006 ANNUAL REPORT: USFWS PROTOCOL LEVEL WET SEASON SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS & STREPTOCEPHALUS WOOTTONI), ANDERSON PROPERTY 2006-06-29
KUR10U0001	KURNOW, J. & D. RITENOUR (HELIX ENVIRONMENTAL PLANNING, INC.) - USFWS WET SEASON PROTOCOL LEVEL SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP, SAN YSIDRO RAILROAD YARD IMPROVEMENT PROJECT. 2010-06-29
MAS02R0001	MASON, G. (HELIX ENVIRONMENTAL PLANNING, INC.) - COUNTY OF SAN DIEGO SR 905 2002 DRY SEASON FAIRY SHRIMP SAMPLING RESULTS 2002-12-16
MAS04R0001	MASON, G. & K. BALO (HELIX ENVIRONMENTAL PLANNING, INC.) - 2004 ANNUAL REPORT: U.S. FISH AND WILDLIFE SERVICE PROTOCOL LEVEL WET SEASON SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP, CANDLELIGHT EAST & WEST VILLAGE PROJECTS. 2004-07-30
MOS07U0001	MOSKOVITZ, D. (GLENN LUKOS ASSOCIATES) - REPORT OF A WET-SEASON PRESENCE/ABSENCE SURVEY FOR LISTED BRANCHIOPODS CONDUCTED FOR TWO SEASONAL POOLS AT THE SOUTH OTAY MESA VESTING TENTATIVE MAP 2 PROJECT SITE. 2007-08-14
MOS09R0001	MOSKOVITZ, D. (GLENN LUKOS ASSOCIATES) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-007888] 2009-01-26
POW08F0002	POWERS, C. (ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC) - FIELD SURVEY FORM FOR BRANCHINECTA SANDIEGONENSIS 2008-02-04
POW08U0001	POWERS, C. ET AL. (ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC) - 90-DAY PROTOCOL SURVEY REPORT FOR USFWS LISTED VERNAL POOL BRANCHIOPODS, DEXSTAR PROPERTY, OTAY MESA, CALIFORNIA. 2008-07-08
RIT10U0001	RITENOUR, D. & J. KURNOW (HELIX ENVIRONMENTAL PLANNING, INC.) - USFWS WET SEASON PROTOCOL LEVEL SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP, ROBINHOOD RIDGE VERNAL POOL PRESERVE 2010-08-03
ROC12F0002	ROCKS, J. - FIELD SURVEY FORM FOR BRANCHINECTA SANDIEGONENSIS 2012-12-27
ROC13U0007	ROCKS, J. ET AL. - 90-DAY REPORT: POST-SURVEY NOTIFICATION OF FAIRY SHRIMP SURVEYS ON THE SAN YSIDRO SCHOOL DISTRICT'S VISTA DEL MAR ELEMENTARY VERNAL POOL RESTORATION AREA, COMMUNITY OF SAN YSIDRO. 2013-06-06
ROC14F0001	ROCKS, J. (ROCKS BIOLOGICAL CONSULTING) - FIELD SURVEY FORM FOR BRANCHINECTA SANDIEGONENSIS 2014-12-16
ROC14U0001	ROCKS, M. & R. HUMPHREY (ESA) - FAIRY SHRIMP SURVEY REPORT FOR THE VISTA DEL MAR ELEMENTARY SCHOOL PROJECT, SAN DIEGO COUNTY, CA. 2014-06-06
ROC16F0001	ROCKS, M. - FIELD SURVEY FORM FOR BRANCHINECTA SANDIEGONENSIS 2016-01-18
ROC16F0002	ROCKS, M. - FIELD SURVEY FORM FOR BRANCHINECTA SANDIEGONENSIS 2016-01-18
SCA04U0001	SCATOLINI, S. ET AL. (CALIFORNIA DEPARTMENT OF TRANSPORTATION) - WALL HUDSON VERNAL POOL FIELD SURVEY FORMS AND PHOTOGRAPHS. 2004-11-01
SCA09U0002	SCATOLINI, S. ET AL. - 90-DAY REPORT FOR FAIRY SHRIMP FOR THE ANDERPRISE MITIGATION SITE ALONG STATE ROUTE 905 IN SAN DIEGO. 2009-XX-XX
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX

SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
SWA05U0002	SWARD, W. ET AL. (HELIX ENVIRONMENTAL PLANNING, INC.) - 2005 ANNUAL REPORT, USFWS PROTOCOL LEVEL WET SEASON SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP, HANDLER SITE. 2005-08-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 49414
EO Index: 49414
Key Quad: Imperial Beach (3211751)
Element Code: ICBRA03060
Occurrence Number: 47
Occurrence Last Updated: 2014-05-21

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
Rare Plant Rank:
State: None
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: 2011-08-29
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2011-08-29
Occurrence Rank: Unknown
Owner/Manager: DOD
Trend: Unknown
Presence: Presumed Extant

Location:
SILVER STRAND TRANING COMPLEX SOUTH, NW OF IMPERIAL BEACH; W SIDE OF HWY 75 BETWEEN CARNATION AVE TO S & STONE ST TO N.

Detailed Location:
MAPPED TO POOLS CONTAINING B. SANDIEGONENSIS (SDFS) OR CYSTS.

Ecological:
SMALL, SHALLOW DEPRESSIONS, VERNAL POOLS, AND SEASONAL WETLANDS ON 566-ACRE SITE CHARACTERIZED BY DIEGAN COASTAL SAGE SCRUB, MARITIME SUCCULENT SCRUB, ANNUAL GRASSLAND, ETC. ONLY SDFS WERE CULTURED FROM CYSTS COLLECTED IN 2011.

Threats:
MILITARY TRAINING ACTIVITIES (2001).

General:
10S-100S DETECTED IN 10 OF 25 POOLS, 22 JAN 2001-23 MAY 2001. DETECTED IN 12 OF 32 BASINS SURVEYED, 2003. 10S-1,000S DETECTED IN 19 OF 54 BASINS SURVEYED OCT 2010-MAY 2011. CYSTS IN 8 OF 34 BASINS, SDFS CULTURED FROM 7 IN 2011.

PLSS: T18S, R02W, Sec. 19, NW (S)
Accuracy: specific area
Area (acres): 89
UTM: Zone-11 N3606230 E488045
Latitude/Longitude: 32.59349 / -117.12739
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

ALL12U0002	ALLEN, D. ET AL. (ICF INTERNATIONAL, INC.) - DRAFT REPORT, RESULTS OF PROTOCOL SURVEYS FOR LISTED FAIRY SHRIMP, SILVER STRAND TRAINING COMPLEX-SOUTH, NAVAL BASE CORONADO 2012-01-XX
COB02R0001	COBB, C. - PRESENCE/ABSENCE SURVEYS FOR FAIRY SHRIMP AT NAVAL RADIO RECEIVING FACILITY, IMPERIAL BEACH 2002-02-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92284	**EO Index:**	57149
Key Quad:	La Jolla (3211772)	**Element Code:**	ICBRA03060
Occurrence Number:	54	**Occurrence Last Updated:**	2014-06-18

Scientific Name: *Branchinecta sandiegonensis* **Common Name:** San Diego fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:

VERNAL POOLS.

Last Date Observed:	2003-04-02	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-04-02	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SE END OF MONTGOMERY FIELD AIRPORT, NORTH SIDE OF AERO DRIVE FROM 0.25 TO 0.6 MILE WNW OF WEST CANYON AVE, SAN DIEGO.

Detailed Location:

PART OF N1-6 COMPLEX (AFTER BAUDER, 1986). MAPPED TO POINTS FROM 2003 DATABASE (SIMOVICH) & 2003 SHAPEFILE (CITY OF SAN DIEGO) (SEE ALSO OCC #101).

Ecological:

IN COMPLEX OF 276 BASINS ON 544-ACRE SITE SUPPORTING MANY OF THE HIGHEST-QUALITY VERNAL POOLS IN CITY OF SAN DIEGO. SECURE SITE, MINIMAL HUMAN TRESPASS; WAS PARTIALLY DEVELOPED PRIOR TO SPECIES LISTING.

Threats:

PROPOSED CONSTRUCTION ON SITE SOUTH OF AERO DRIVE (2003). DEVELOPMENT, NON-NATIVE PLANTS, EMERGENCY RESPONSE (2008).

General:

DETECTED IN 3 POOLS, FEB-MAR 2003 (SIMOVICH). B. SANDIEGONENSIS CONCLUSIVELY IDENTIFIED IN 11 OF 19 POOLS CONTAINING FAIRY SHRIMP, 2 APR 2003 (CITY OF SAN DIEGO); 9 OF THESE POOLS MAPPED HERE (SEE ALSO OCC #101).

PLSS:	T16S, R02W, Sec. 06, W (S)	**Accuracy:**	specific area	**Area (acres):**	34
UTM:	Zone-11 N3630410 E488094	**Latitude/Longitude:**	32.81162 / -117.12718	**Elevation (feet):**	420

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), La Jolla (3211772)

Sources:

FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
SIM03U0001	SIMOVICH, M. - 2002-2003 BRANCHIOPOD DETECTION DATABASE, BRANCHIOPOD RESEARCH GROUP, UNIVERSITY OF SAN DIEGO 2003-11-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 54869
Key Quad: La Mesa (3211771)
Occurrence Number: 55
EO Index: 57157
Element Code: ICBRA03060
Occurrence Last Updated: 2014-05-08

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
State: None
Rare Plant Rank:
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: 2003-05-08
Last Survey Date: 2003-05-08
Owner/Manager: PVT-SDGE
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:
SOUTHWEST SIDE OF CALLE DE VIDA, 0.1 MILE SE OF THE RUEDA DR INTERSECTION & 2.2 MILES NE OF I-15 AT AERO DR, SAN DIEGO.

Detailed Location:
MAPPED TO DETECTION LOCATION AT POOL #11 OF 14 POOLS SURVEYED IN 2003 ALONG SDG&E'S TRANSMISSION LINE ACCESS ROADS.

Ecological:
A DEPRESSION IN THE SDG&E ACCESS ROAD, EXHIBITING VERNAL POOL CHARACTERISTICS; IN COASTAL SAGE SCRUB & VERNAL POOLS. WITH DEVELOPMENT TO NORTH & SOUTH. SPADEFOOT TOAD TADPOLES PRESENT.

Threats:

General:
DETECTED ON 22 APR 2003. 200 ADULTS OBSERVED 8 MAY 2003.

PLSS: T15S, R02W, Sec. 34, SW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3631584 E492552
Latitude/Longitude: 32.82224 / -117.07956
Elevation (feet): 560

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

KIM03F0031	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR BRANCHINECTA SANDIEGONENSIS 2003-05-08
KIM03R0001	KIM, C. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION-FOCUSED WET SEASON SURVEY RESULTS FOR LISTED FAIRY SHRIMP SPECIES FOR THE SAN DIEGO GAS & ELECTRIC MISSION TO MIGUEL 230 KILOVOLT #2 PROJECT 2003-06-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 56616
EO Index: 57279
Key Quad: La Jolla (3211772)
Element Code: ICBRA03060
Occurrence Number: 56
Occurrence Last Updated: 2014-05-08

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
State: None
Rare Plant Rank:
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: 2004-03-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2004-03-11
Occurrence Rank: Fair
Owner/Manager: PVT-SDGE
Trend: Unknown
Presence: Presumed Extant

Location:
ABOUT 0.3 MILE NNW OF FRIARS ROAD AT NORTHSIDE DRIVE, NW OF QUALCOMM STADIUM, SAN DIEGO.

Detailed Location:
SITE LOCATED ALONG A TRANSMISSION LINE CORRIDOR.

Ecological:
22 ROAD RUT POOLS IN COASTAL SAGE SCRUB AND RUDERAL VEGETATION, SURROUNDED BY MAINLY RESIDENTIAL DEVELOPMENT. SPADEFOOT TOAD TADPOLES PRESENT.

Threats:
ACCESS ROADS DRIVEN ON PERIODICALLY FOR MAINTENANCE (2004).

General:
B. SANDIEGONENSIS DETECTED IN THE 2 POOLS THAT HELD WATER IN 2004; ABOUT 500 ADULTS OBSERVED ON 11 MAR 2004.

PLSS: T16S, R02W, Sec. 18, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3627815 E487873
Latitude/Longitude: 32.78820 / -117.12950
Elevation (feet): 320

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

KIM04F0005	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR BRANCHINECTA SANDIEGONENSIS 2004-03-11
KIM04R0001	KIM, C. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION- FOCUSED WET SEASON SURVEY RESULTS FOR LISTED ENDANGERED FAIRY SHRIMP SPECIES FOR THE SAN DIEGO GAS & ELECTRIC MISSSION TO MIGUEL 230 KILOVOLT #2 PROJECT 2004-06-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 57831
EO Index: 57847
Key Quad: La Mesa (3211771)
Element Code: ICBRA03060
Occurrence Number: 60
Occurrence Last Updated: 2004-11-02

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
Rare Plant Rank:
State: None
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: 2001-02-27
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-02-27
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:
MURPHY CANYON, MIRAMAR MARINE CORPS AIR STATION; ABOUT 0.6 MI SE OF CABRILLO FWY X KEARNY VILLA RD.

Detailed Location:
FOUND IN A PUDDLE OF WATER LOCATED IN A DIRT ACCESS ROAD IN MURPHY CANYON.

Ecological:

Threats:

General:
TWO MALES AND TWO FEMALES COLLECTED.

PLSS: T15S, R02W, Sec. 29 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3634497 E489488
Latitude/Longitude: 32.84850 / -117.11233
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
COB01U0001 COBB, C. - PRESENCE/ABSENCE SURVEY FOR FAIRY SHRIMP AT MARINE CORPS AIR STATION MIRAMAR, SAN DIEGO, CALIFORNIA 2001-09-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	69828	**EO Index:**	70646
Key Quad:	La Mesa (3211771)	**Element Code:**	ICBRA03060
Occurrence Number:	64	**Occurrence Last Updated:**	2014-05-28

Scientific Name: *Branchinecta sandiegonensis* **Common Name:** San Diego fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:

VERNAL POOLS.

Last Date Observed:	2005-03-25	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2005-03-25	**Occurrence Rank:**	Good
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

VICINITY OF KEARNY VILLA ROAD BETWEEN HWY 52 AND HWY 163, AT THE FORMER CAMP ELLIOTT AREA OF MIRAMAR MCAS, SAN DIEGO.

Detailed Location:

COMPLEX "F"/"F-NORTH" ON 279-ACRE SITE BORDERED BY HWY 163, HWY 52, & I-15. EXACT LOCATIONS NOT GIVEN FOR 1992, 2001, AND 2005 DETECTIONS; MAPPED GENERALLY TO SITE BOUNDARIES. POOLS SURVEYED IN 2003 ALL IN NW CORNER OF MAPPED FEATURE.

Ecological:

DISTURBED AND UNDISTURBED NATURAL VERNAL POOLS AND ARTIFICIALLY-CREATED DITCHES, RUTS, AND PUDDLES SURROUNDED BY DISTURBED NATIVE GRASSLAND AND CHAMISE CHAPARRAL ON LEVEL MESA TOP.

Threats:

PROPOSED DEVELOPMENT FOR CEMETERY, CLIMATE CHANGE (2005). NON-NATIVE PLANTS, FIRE CONTROL, MILITARY OPS (2008).

General:

COLLECTED, 1992. IN 31 OF 46 POOLS SAMPLED 13 MAR 2001. 100S-10,000S IN 15 OF 25 POOLS SAMPLED MAR 2003. SHRIMP OR CYSTS IN 241 OF 516 POOLS SAMPLED IN 2005; ESTIMATED ABUNDANCE 10,000 ADULTS AND 100,000 EGG MASSES (VOUCHERS AT LACM).

PLSS:	T15S, R02W, Sec. 30 (S)	**Accuracy:**	non-specific area	**Area (acres):**	270
UTM:	Zone-11 N3634530 E488628	**Latitude/Longitude:**	32.84878 / -117.12151	**Elevation (feet):**	410

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), La Jolla (3211772)

Sources:

BLA04R0001	BLACK, C. (ECOLOGICAL RESTORATION SERVICE) - VERNAL POOL DELINEATION, RARE PLANT AND FAIRY SHRIMP SURVEY REPORTS ON MIRAMAR VERNAL POOLS, 2000-2001 THROUGH 2002-03 FIELD SEASONS, COMPREHENSIVE FINDINGS 2004-06-XX
BLA05F0010	BLACK, C. (SAN DIEGO STATE UNIVERSITY) - FIELD SURVEY FORM FOR BRANCHINECTA SANDIEGONENSIS 2005-03-25
COB01U0001	COBB, C. - PRESENCE/ABSENCE SURVEY FOR FAIRY SHRIMP AT MARINE CORPS AIR STATION MIRAMAR, SAN DIEGO, CALIFORNIA 2001-09-XX
DOD05U0001	DEPARTMENT OF DEFENSE (U.S. NAVY) - NOTICE OF INTENT TO PREPARE AN EIS FOR AN ANNEX TO THE FORT ROSECRANS NATIONAL CEMETERY AT MCAS MIRAMAR, SAN DIEGO, CA (FEDERAL REGISTER, VOL 70, NO. 196) 2005-10-12
FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
WIE92S0001	WIER, H. - WIER #DB 1050 USNM #1084052 1992-03-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	69832	**EO Index:**	70650
Key Quad:	Del Mar (3211782)	**Element Code:**	ICBRA03060
Occurrence Number:	65	**Occurrence Last Updated:**	2014-04-30

Scientific Name: *Branchinecta sandiegonensis*

Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank:

Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:

VERNAL POOLS.

Last Date Observed:	2005-03-25	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2005-03-25	**Occurrence Rank:**	Good
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

"WEST MIRAMAR" SITE, MIRAMAR MCAS; ON THE S SIDE OF MIRAMAR RD ABOUT 1 MILE EAST OF THE I-805 INTERCHANGE, SAN DIEGO.

Detailed Location:

ON 327 AC PARCEL BORDERED BY MIRAMAR RD TO N, RAILWAY TO S & E, & MIRAMAR MCAS TO W. VERNAL POOLS (X1-4, BAUDER 1986) TOWARDS E END OF PARCEL; MAPPED GENERALLY TO LAT/LONG FROM 2005 FIELD SURVEY FORM. W PART OF PARCEL CONVERTED TO CEMETERY.

Ecological:

DISTURBED AND UNDISTURBED NATURAL VERNAL POOLS AND ARTIFICIALLY-CREATED DITCHES, RUTS, AND PUDDLES; SURROUNDED BY DISTURBED NATIVE GRASSLAND AND CHAMISE CHAPARRAL, ON A LEVEL MESA TOP. 375 POOLS CONTAINED SAN DIEGO FAIRY SHRIMP.

Threats:

MOUNTAIN BIKES, CEMETERY DEVELOPMENT, CLIMATE CHANGE (2005). NON-NATIVE PLANTS, FIRE CONTROL, MILITARY OPS (2008).

General:

10,000 ADULTS AND 100,000 EGG MASSES DETECTED IN 2005.

PLSS:	T15S, R03W, Sec. 15 (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3637504 E483143	**Latitude/Longitude:**	32.87554 / -117.18019	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772), Del Mar (3211782)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BLA05F0009	BLACK, C. (SAN DIEGO STATE UNIVERSITY) - FIELD SURVEY FORM FOR BRANCHINECTA SANDIEGONENSIS 2005-03-25
DOD05U0001	DEPARTMENT OF DEFENSE (U.S. NAVY) - NOTICE OF INTENT TO PREPARE AN EIS FOR AN ANNEX TO THE FORT ROSECRANS NATIONAL CEMETERY AT MCAS MIRAMAR, SAN DIEGO, CA (FEDERAL REGISTER, VOL 70, NO. 196) 2005-10-12
FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92140	**EO Index:**	93234
Key Quad:	La Mesa (3211771)	**Element Code:**	ICBRA03060
Occurrence Number:	73	**Occurrence Last Updated:**	2014-04-24

Scientific Name: *Branchinecta sandiegonensis* **Common Name:** San Diego fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:

VERNAL POOLS.

Last Date Observed:	2005-03-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2005-03-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

"CASTLEROCK" SITE, W OF MEDINA DRIVE FROM ABOUT 0.1 MI N TO 0.1 MI S OF THE GRASS VALLEY LANE INTERSECTION, SANTEE.

Detailed Location:

MAPPED TO LOCATIONS OF POSITIVE DETECTIONS AT 3 OF 11 POOLS SURVEYED IN 2004/2005.

Ecological:

SPADEFOOT TOAD PRESENT. POOLS 1, 3, & 6 WERE NATURAL FEATURES DISTURBED BY RIDING/HIKING TRAIL, AND POOL 2 WAS A BORROW PIT.

Threats:

DEVELOPMENT, ORVS, NON-NATIVE PLANTS, FRAGMENTATION (2008). PLANNED CONSTRUCTION WOULD ELIMINATE OCCUPIED POOLS (2013).

General:

DETECTED IN POOLS #1, 2, AND 6, WITH "EXPECTED POPULATIONS" IN POOL 3, NOV 2004-MAR 2005. ADDITIONAL SURVEYS CONDUCTED IN 2006 (DRY-SEASON) AND 2003/2004 & 2011 (WET-SEASON) (RESULTS NOT READILY AVAILABLE).

PLSS:	T15S, R01W, Sec. 20, NW (S)	**Accuracy:**	specific area	**Area (acres):**	12
UTM:	Zone-11 N3635619 E499000	**Latitude/Longitude:**	32.85866 / -117.01068	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
MAT05R0001	MATTSON, M. (GLENN LUKOS ASSOCIATES) - 90-DAY REPORT FOR THE SECOND YEAR WET SEASON PRESENCE/ABSENCE SURVEYS FOR VERNAL POOL BRANCHIOPODS CONDUCTED ON THE CASTLEROCK PROPERTY, EAST ELLIOTT, SAN DIEGO COUNTY, CALIFORNIA 2005-05-13
SDG13R0001	CITY OF SAN DIEGO - FINAL ENVIRONMENTAL IMPACT REPORT FOR THE CASTLEROCK PROJECT 2013-06-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92192
EO Index: 93292
Key Quad: La Jolla (3211772)
Element Code: ICBRA03060
Occurrence Number: 83
Occurrence Last Updated: 2014-04-30

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
Rare Plant Rank:
State: None
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: 2003-03-27
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-03-27
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO, SDG&E
Trend: Unknown
Presence: Presumed Extant

Location:
ROSE CANYON, ABOUT 0.1 AIR MILE SW OF INTERSECTION OF NOBEL DR AND SHORELINE DR, WEST OF MCAS MIRAMAR, SAN DIEGO.

Detailed Location:
MIRAMAR TRUNK SEWER REPLACEMENT PROJECT SITE; 25 BASINS EAST OF I-805 & 2 BASINS WEST OF I-805. MAPPED TO DETECTION ON W SIDE OF I-805, SEE OCCURRENCE #84 & 87 FOR E SIDE DETECTIONS.

Ecological:
SITE ADJACENT TO STREAM CHANNEL. PRIMARY VEGETATION TYPES INCLUDE MULEFAT SCRUB, SOUTHERN WILLOW SCRUB/WILLOW WOODLAND, VALLEY NEEDLEGRASS AND ANNUAL GRASSLANDS. B. LINDAHLI ALSO DETECTED.

Threats:
SEWER CONSTRUCTION & MAINTENANCE.

General:
10S DETECTED IN 1 OF 2 BASINS ("POOL B") ON W SIDE OF I-805, 27 MAR 2003.

PLSS: T15S, R03W, Sec. 21, NW (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3636073 E481053
Latitude/Longitude: 32.86260 / -117.20250
Elevation (feet): 210

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

DUD03R0002 DUDEK & ASSOCIATES - WET SEASON PRESENCE/ABSENCE SURVEY FOR VERNAL POOL BRANCHIOPODS FOR THE MIRAMAR TRUNK SEWER REPLACEMENT AND PERMANENT ACCESS PROJECT, CITY OF SAN DIEGO, CALIFORNIA 2003-08-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92194
EO Index: 93293
Key Quad: La Jolla (3211772)
Element Code: ICBRA03060
Occurrence Number: 84
Occurrence Last Updated: 2014-04-30

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
State: None
Rare Plant Rank:
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: 2003-04-10
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-04-10
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO, SDG&E
Trend: Unknown
Presence: Presumed Extant

Location:
ROSE CANYON, ABOUT 0.4 MILE SOUTH OF MIRAMAR ROAD AT COMMERCE AVE AND 1.6 MILES ESE OF I-805 AT NOBEL DRIVE, SAN DIEGO.

Detailed Location:
MIRAMAR TRUNK SEWER REPLACEMENT PROJECT SITE; 25 BASINS EAST OF I-805 & 2 BASINS WEST OF I-805. MAPPED TO DETECTION AT "POOL 22" ON E SIDE OF I-805, SEE OCCURRENCE #83 & 87 FOR OTHER DETECTIONS.

Ecological:
SITE ADJACENT TO STREAM CHANNEL. PRIMARY VEGETATION TYPES INCLUDE MULEFAT SCRUB, SOUTHERN WILLOW SCRUB/WILLOW WOODLAND, VALLEY NEEDLEGRASS AND ANNUAL GRASSLANDS.

Threats:

General:
ESTIMATED ABUNDANCE 100S TO 1,000S DURING SITE VISITS BETWEEN 11 MAR & 10 APR 2003.

PLSS: T15S, R03W, Sec. 14, NW (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3637198 E484311
Latitude/Longitude: 32.87280 / -117.16770
Elevation (feet): 320

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

DUD03R0002 DUDEK & ASSOCIATES - WET SEASON PRESENCE/ABSENCE SURVEY FOR VERNAL POOL BRANCHIOPODS FOR THE MIRAMAR TRUNK SEWER REPLACEMENT AND PERMANENT ACCESS PROJECT, CITY OF SAN DIEGO, CALIFORNIA 2003-08-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92195
EO Index: 93294
Key Quad: La Jolla (3211772)
Element Code: ICBRA03060
Occurrence Number: 85
Occurrence Last Updated: 2014-06-24

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
State: None
Rare Plant Rank:
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: 2010-03-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2010-03-12
Occurrence Rank: Fair
Owner/Manager: CITY OF SAN DIEGO, UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
VICINITY OF NOBEL RESEARCH PARK, ON BOTH SIDES OF I-805 AT NOBEL DRIVE, WEST OF MCAS MIRAMAR, SAN DIEGO.

Detailed Location:
W SIDE I-805: "NOBEL DRIVE" (BAUDER'S X5) SITE ON S SIDE OF NOBEL DR; RESEARCH PARK (X7) TO NORTH. E SIDE: DETECTIONS ALONG SDG&E ACCESS ROAD AND SEWER CONSTRUCTION SITE ADJACENT TO STREAM CHANNEL.

Ecological:
W SIDE I-805: 54 ACRE CITY PRESERVE WITH 7 FENCED POOLS AT X5, PRIVATE PRESERVE WITH 28 POOLS AT X7. E SIDE: ROAD RUTS, DISTURBED POOL IN POWERLINE CORRIDOR, AND 16 VERNAL POOLS.

Threats:
PLANNED REGRADING OF SDG&E ACCESS ROADS (2001), ORVS (2010). NON-NATIVE PLANTS, FRAGMENTATION (2008).

General:
W SIDE: FOUND IN AT LEAST 15 POOLS, FEB-MAR 2003; CYSTS IN AT LEAST 8 ADDITIONAL POOLS, 2006. E SIDE: PRESENT, 2001; 10S FOUND 11 MAR-10 APR 2003; CYSTS IN AT LEAST 3 POOLS, 2006 & IN 3 POOLS, 2008; 30 ADULTS IN 1 OF 16 POOLS, 12 MAR 2010.

PLSS: T15S, R03W, Sec. 16 (S)
Accuracy: specific area
Area (acres): 60
UTM: Zone-11 N3636700 E481720
Latitude/Longitude: 32.86827 / -117.19538
Elevation (feet): 380

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

ANO10R0001	ANONYMOUS - EXHIBIT J: KNOWN BIOLOGICAL RESOURCES ON THE NOBEL DR. SITE AND NEARBY PROPERTIES 2010-XX-XX
BLA08U0002	BLACK, C. (ECOLOGICAL RESTORATION SERVICE) - DRY SAMPLING OF THREE BASINS AT A SAN DIEGO SITE FOR THE PRESENCE OF LISTED FAIRY SHRIMP SPECIES 2008-11-06
DUD03R0002	DUDEK & ASSOCIATES - WET SEASON PRESENCE/ABSENCE SURVEY FOR VERNAL POOL BRANCHIOPODS FOR THE MIRAMAR TRUNK SEWER REPLACEMENT AND PERMANENT ACCESS PROJECT, CITY OF SAN DIEGO, CALIFORNIA 2003-08-29
FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
OSM10U0001	OSMUNDSON, K. (PBS&J) - 90-DAY REPORT OF POSITIVE FINDINGS - YEAR 2010 WET SEASON PROTOCOL SURVEYS FOR LISTED VERNAL POOL BRANCHIOPODS ON A 33.6-ACRE PROPERTY (APN 345-02-102), SAN DIEGO, CALIFORNIA 2010-08-19
REC03R0003	RECON ENVIRONMENTAL, INC. - POST-SURVEY NOTIFICATION OF FAIRY SHRIMP SURVEYS ON MARINE CORPS AIR STATION MIRAMAR FOR THE SAN DIEGO GAS AND ELECTRIC PIPELINE ACCESS ROAD REGRADE 2003-01-20
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
SIM03U0001	SIMOVICH, M. - 2002-2003 BRANCHIOPOD DETECTION DATABASE, BRANCHIOPOD RESEARCH GROUP, UNIVERSITY OF SAN DIEGO 2003-11-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92257	**EO Index:**	93361
Key Quad:	La Jolla (3211772)	**Element Code:**	ICBRA03060
Occurrence Number:	91	**Occurrence Last Updated:**	2014-05-05

Scientific Name: *Branchinecta sandiegonensis* **Common Name:** San Diego fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:

VERNAL POOLS.

Last Date Observed:	2001-03-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-03-15	**Occurrence Rank:**	Unknown
Owner/Manager:	MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MCAS MIRAMAR, ABOUT 0.4 AIR MILE SSW OF SIDEWINDER ROAD AT WILLIAMS WAY, NORTH OF THE RUNWAYS, SAN DIEGO.

Detailed Location:

DETECTIONS IN "Z 11+" GROUP OF POOLS. MAPPED TO POOL #35 SURVEYED IN MAR 1994, AND POOLS #1, 2, 3, 7, 8 & 10 OF 10 SURVEYED MAR 2001.

Ecological:

BASINS WERE LOW AREAS IN DITCHES INCLUDING A MAJOR WATERCOURSE THAT RAN THROUGH THE SITE. JUNCUS DUBIUS MARSH IN VICINITY.

Threats:

PLANNED CONSTRUCTION (1994). 2012 AERIAL IMAGERY SHOWS MUCH OF THIS SITE HAS BEEN DEVELOPED.

General:

CYSTS DETECTED IN 1 POOL, 8 APR 1994. DETECTED IN 6 OF 10 POOLS ON 15 MAR 2001.

PLSS:	T15S, R03W, Sec. 13, NW (S)	**Accuracy:**	specific area	**Area (acres):**	22
UTM:	Zone-11 N3636909 E485977	**Latitude/Longitude:**	32.87021 / -117.14988	**Elevation (feet):**	440

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BLA04R0001	BLACK, C. (ECOLOGICAL RESTORATION SERVICE) - VERNAL POOL DELINEATION, RARE PLANT AND FAIRY SHRIMP SURVEY REPORTS ON MIRAMAR VERNAL POOLS, 2000-2001 THROUGH 2002-03 FIELD SEASONS, COMPREHENSIVE FINDINGS 2004-06-XX
HAR94R0001	HART, C. (OGDEN ENVIRONMENTAL) - FAIRY SHRIMP SURVEY COMPLETION REPORT: NAS MIRAMAR ANOSTRACAN SURVEY 1994-09-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92260	**EO Index:**	93362
Key Quad:	La Jolla (3211772)	**Element Code:**	ICBRA03060
Occurrence Number:	92	**Occurrence Last Updated:**	2014-05-05

Scientific Name: *Branchinecta sandiegonensis* **Common Name:** San Diego fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:

VERNAL POOLS.

Last Date Observed:	1994-03-21	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1994-03-21	**Occurrence Rank:**	None
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

MCAS MIRAMAR, ABOUT 0.5 AIR MILE SW OF SIDEWINDER ROAD AT WILLIAMS WAY, NORTH OF THE RUNWAYS, SAN DIEGO.

Detailed Location:

MAPPED TO POOLS #8 & 9 OF 54 SURVEYED IN 1994; IN "HH3+" GROUP.

Ecological:

AERIAL PHOTOS INDICATE THAT THE SITE HAS BEEN GRADED AND PAVED SINCE THE TIME OF DETECTION.

Threats:

AERIALS INDICATE POOLS HAVE BEEN LOST TO DEVELOPMENT; FWS' 5-YEAR REVIEW (2008) IMPLIED HH3+ GROUP WAS ONLY 80% FILLED.

General:

DETECTED IN BOTH POOLS ON 28 FEB 1994; ABSENT IN BOTH POOLS BY 8 APR 1994.

PLSS:	T15S, R03W, Sec. 13 (S)	**Accuracy:**	specific area	**Area (acres):**	9
UTM:	Zone-11 N3637296 E485689	**Latitude/Longitude:**	32.87370 / -117.15296	**Elevation (feet):**	430

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
HAR94R0001	HART, C. (OGDEN ENVIRONMENTAL) - FAIRY SHRIMP SURVEY COMPLETION REPORT: NAS MIRAMAR ANOSTRACAN SURVEY 1994-09-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92277
EO Index: 93381
Key Quad: Poway (3211781)
Element Code: ICBRA03060
Occurrence Number: 94
Occurrence Last Updated: 2014-05-28

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
Rare Plant Rank:
State: None
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: 2003-04-24
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-04-24
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:
MCAS MIRAMAR, ON THE NORTH SIDE OF AMMO ROAD ABOUT 0.4 MILE EAST OF THE OVERPASS OVER I-15, SAN DIEGO.

Detailed Location:
IN AA10 COMPLEX (BAUDER, 1986). 1994 COLLECTION LOCATION GIVEN AS "...AA10, VERNAL POOL IN CENTER." MAPPED TO COORDINATES FOR POOLS 68.3E, MC5, & MC6 FROM 2003 DATABASE. ALSO DETECTED IN 9 OTHER POOLS; NO COORDINATES GIVEN.

Ecological:
POOLS FROM 1 TO 100 CM DEEP, FROM ABOUT 5 TO 460 SQUARE M IN AREA.

Threats:
NON-NATIVE PLANTS, FIRE CONTROL, MILITARY OPERATIONS (2008).

General:
COLLECTED 17 FEB 1994. DETECTED IN 12 OF 12 POOLS STUDIED AT AA10 FROM 1997 TO 2003. DETECTED IN 12 POOLS, 2 JAN TO 24 APR 2003.

PLSS: T15S, R02W, Sec. 09, SW (S)
Accuracy: specific area
Area (acres): 8
UTM: Zone-11 N3637513 E490640
Latitude/Longitude: 32.87571 / -117.10005
Elevation (feet): 530

County Summary:	Quad Summary:
San Diego	La Mesa (3211771), Poway (3211781)

Sources:

FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
HAT94S0001	HATHAWAY, S. - HATHAWAY #758-L USNM #1084062 1994-02-17
RIP08A0001	RIPLEY, B. & M. SIMOVICH - SPECIES RICHNESS ON ISLANDS IN TIME: VARIATION IN EPHEMERAL POND CRUSTACEAN COMMUNITIES IN RELATION TO HABITAT DURATION AND SIZE. HYDROBIOLOGIA 2008. 2008-XX-XX
SIM03U0001	SIMOVICH, M. - 2002-2003 BRANCHIOPOD DETECTION DATABASE, BRANCHIOPOD RESEARCH GROUP, UNIVERSITY OF SAN DIEGO 2003-11-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	71923	**EO Index:**	93387
Key Quad:	La Jolla (3211772)	**Element Code:**	ICBRA03060
Occurrence Number:	95	**Occurrence Last Updated:**	2014-05-28

Scientific Name: *Branchinecta sandiegonensis* **Common Name:** San Diego fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:

VERNAL POOLS.

Last Date Observed:	2003-04-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-04-11	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

"GENERAL DYNAMICS" SITE, ON WEST SIDE OF RUFFIN ROAD ABOUT 0.1 MILE NORTH OF BALBOA AVE, SAN DIEGO.

Detailed Location:

ALSO KNOWN AS N8 COMPLEX. MAPPED TO POSITIVE DETECTION LOCATIONS FROM 2003 DATABASE (SIMOVICH) & 2003 SHAPEFILE (CITY OF SAN DIEGO).

Ecological:

A 4.74-ACRE FENCED MITIGATION SITE SUPPORTING 21 VERNAL POOLS. INDICATOR PLANT PRESENT. PACIFIC TREE FROGS FOUND IN 2003.

Threats:

NON-NATIVE PLANTS, FRAGMENTATION (2008).

General:

DETECTED IN 3 OF 3 POOLS SURVEYED, 21 FEB 2003. DETECTED IN 1 POOL 11 APR 2003.

PLSS:	T15S, R02W, Sec. 31, SW (S)	**Accuracy:**	specific area	**Area (acres):**	8
UTM:	Zone-11 N3631795 E487905	**Latitude/Longitude:**	32.82411 / -117.12921	**Elevation (feet):**	430

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
SIM03U0001	SIMOVICH, M. - 2002-2003 BRANCHIOPOD DETECTION DATABASE, BRANCHIOPOD RESEARCH GROUP, UNIVERSITY OF SAN DIEGO 2003-11-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92299	**EO Index:**	93405
Key Quad:	La Jolla (3211772)	**Element Code:**	ICBRA03060
Occurrence Number:	97	**Occurrence Last Updated:**	2014-05-07

Scientific Name: *Branchinecta sandiegonensis* **Common Name:** San Diego fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:

VERNAL POOLS.

Last Date Observed:	2001-03-21	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-03-21	**Occurrence Rank:**	Unknown
Owner/Manager:	SDG&E	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ROSE CANYON, ABOUT 0.6 MILE SSW OF MIRAMAR ROAD AT CAMINO SANTA FE & 0.9 MILE EAST OF I-805 AT NOBEL DRIVE, SAN DIEGO.

Detailed Location:

MAPPED TO 2001 DETECTION LOCATION; 58 SEASONAL POOLS WERE SURVEYED ON SDG&E ACCESS ROADS.

Ecological:

POOLS IN RUTS AND DEPRESSIONS ON ACCESS ROADS. ROADS LARGELY UNVEGETATED, WITH SOME VERNAL POOL INDICATOR PLANTS SURROUNDING THE PONDED AREAS.

Threats:

PLANNED ROAD REGRADING (2001).

General:

DETECTED DURING SURVEYS FEB-MAR 2001; ESTIMATED ABUNDANCE 100S IN MOST POOLS SURVEYED.

PLSS:	T15S, R03W, Sec. 15, N (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3636852 E483318	**Latitude/Longitude:**	32.86966 / -117.17831	**Elevation (feet):**	280

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

REC03R0003 RECON ENVIRONMENTAL, INC. - POST-SURVEY NOTIFICATION OF FAIRY SHRIMP SURVEYS ON MARINE CORPS AIR STATION MIRAMAR FOR THE SAN DIEGO GAS AND ELECTRIC PIPELINE ACCESS ROAD REGRADE 2003-01-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92310
EO Index: 93417
Key Quad: La Jolla (3211772)
Element Code: ICBRA03060
Occurrence Number: 98
Occurrence Last Updated: 2014-05-07

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
State: None
Rare Plant Rank:
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: 2010-01-29
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2010-01-29
Occurrence Rank: Unknown
Owner/Manager: CALTRANS
Trend: Unknown
Presence: Presumed Extant

Location:
NORTH SIDE OF HIGHWAY 52, 0.3 MILE WEST OF THE CONVOY STREET OVERPASS, SAN DIEGO.

Detailed Location:
MAPPED TO "POOL 9" OF 11 POOLS SAMPLED IN 2010.

Ecological:
POOL WITH REDDISH COLOR, AVENA AT EDGES, MOSTLY OPEN WATER, NO VERNAL POOL PLANTS. SOME EROSION FROM THE SLOPE TO THE EDGE OF THE POOL.

Threats:
SITE OF PROPOSED SR 52 DIP REPAIR PROJECT (2011).

General:
25-50 IMMATURE B. SANDIEGONENSIS OBSERVED ON 29 JAN 2010.

PLSS: T15S, R03W, Sec. 26, SE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3633318 E485338
Latitude/Longitude: 32.83781 / -117.15665
Elevation (feet): 400

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

SCA11U0001 SCATOLINI, S. ET AL. (CALIFORNIA DEPARTMENT OF TRANSPORTATION) - 90-DAY REPORT FOR FAIRY SHRIMP FOR THE STATE ROUTE 52 DIP CORRECTION PROJECT, KEARNY MESA, SAN DIEGO COUNTY, CALIFORNIA 2011-01-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92319
EO Index: 93422
Key Quad: La Jolla (3211772)
Element Code: ICBRA03060
Occurrence Number: 99
Occurrence Last Updated: 2014-05-30

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
Rare Plant Rank:
State: None
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: 2010-02-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2010-02-16
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO, CALTRANS
Trend: Unknown
Presence: Presumed Extant

Location:
NORTH AND SOUTH SIDES OF HIGHWAY 52, FROM ABOUT 0.2 TO 0.8 MILE WEST OF THE JUNCTION WITH HIGHWAY 163, SAN DIEGO.

Detailed Location:
NORTH OF HWY 52: MAPPED TO DETECTIONS FROM 2005, 2006 & 2010. 10 POOLS SURVEYED IN 2006, 11 IN 2010. SOUTH OF HWY 52: 1992 COLLECTION, EXACT LOCATION UNKNOWN. MAPPED TO DETECTIONS FROM 2003 AT "SANDER" SITE (AKA U15) & 2005.

Ecological:
NORTH OF HWY 52: ROADSIDE POOLS WITH SOME DISTURBANCE FROM TIRE TRACKS, DUMPING, MOWING (2006). SOUTH OF HWY 52: 33 VERNAL POOLS ON 30.6-ACRE SITE, SOME INDICATOR PLANTS AND SPADEFOOT TOAD PRESENT (2003).

Threats:
DEVELOPMENT, FRAGMENTATION (2008).

General:
4 COLLECTED, 1992. FOUND IN 3 POOLS, JAN-FEB 2003 (SIMOVICH). IN 2 OF 33, FEB-APR 2003 (CITY OF SAN DIEGO). CULTURED FROM CYSTS FOUND IN 6 OF 15, 2005. 10-100 IN 2 OF 10, 21 MAR 2006. 10S-100S, INCL GRAVID FEMALES, IN 4 POOLS, 16 FEB 2010.

PLSS: T15S, R03W, Sec. 25, SE (S)
Accuracy: specific area
Area (acres): 34
UTM: Zone-11 N3633539 E486602
Latitude/Longitude: 32.83982 / -117.14315
Elevation (feet): 410

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
ROG05U0005	ROGERS, D. (ECOANALYSTS, INC.) - SPECIAL-STATUS SHRIMP DRY SEASON SURVEYS AT THE PROPOSED CALIFORNIA DEPARTMENT OF TRASPORTATION SR-52 PROJECT SITE IN SAN DIEGO COUNTY 2005-10-28
SCA06U0001	SCATOLINI, S. - RECOVERY PERMIT SUMMARY FOR 2006, PERMIT TE 074955-0 2006-XX-XX
SCA11U0001	SCATOLINI, S. ET AL. (CALIFORNIA DEPARTMENT OF TRANSPORTATION) - 90-DAY REPORT FOR FAIRY SHRIMP FOR THE STATE ROUTE 52 DIP CORRECTION PROJECT, KEARNY MESA, SAN DIEGO COUNTY, CALIFORNIA 2011-01-10
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
SIM03U0001	SIMOVICH, M. - 2002-2003 BRANCHIOPOD DETECTION DATABASE, BRANCHIOPOD RESEARCH GROUP, UNIVERSITY OF SAN DIEGO 2003-11-20
WIE92S0002	WIER, H. - WIER #DB 1068 USNM #1084055 1992-03-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92321	**EO Index:**	93428
Key Quad:	La Jolla (3211772)	**Element Code:**	ICBRA03060
Occurrence Number:	100	**Occurrence Last Updated:**	2014-05-30

Scientific Name: *Branchinecta sandiegonensis* **Common Name:** San Diego fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:

VERNAL POOLS.

Last Date Observed:	2011-01-07	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2011-01-07	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH SIDE OF KEARNY VILLA ROAD, JUST EAST OF INTERSECTION WITH CHESAPEAKE DRIVE, SAN DIEGO.

Detailed Location:

MAPPED TO DETECTION LOCATIONS FROM 2006, 2008, AND 2011.

Ecological:

Threats:

General:

B. SANDIEGONENSIS CULTURED FROM CYSTS RECOVERED FROM 1 POOL, 2006. ADULTS DETECTED IN 2 POOLS, 2008. DETECTED IN 6 OF 16 POOLS SURVEYED JAN 2011, WITH GRAVID FEMALES IN 4 POOLS.

PLSS:	T15S, R02W, Sec. 30, SW (S)	**Accuracy:**	specific area	**Area (acres):**	10
UTM:	Zone-11 N3633553 E487730	**Latitude/Longitude:**	32.83997 / -117.13110	**Elevation (feet):**	420

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

HOW06U0002	HOWARD, E. & B. LOHSTROH (URS CORPORATION) - YEAR 2006 90-DAY REPORT, DRY SEASON VERNAL POOL BRANCHIOPOD SURVEY, KEARNEY VILLA PROJECT 2006-11-03
MAS06U0001	MASON, G. & D. RITENOUR (HELIX ENVIRONMENTAL PLANNING, INC.) - 2006 ANNUAL REPORT OF USFWS PROTOCOL LEVEL DRY SEASON SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP, CRUZAN MONROE KEARNEY MESA PROJECT 2006-03-01
MIL11U0001	MILLER, T. ET AL. (URS CORPORATION) - YEAR 2011 90-DAY REPORT, WET-SEASON VERNAL POOL BRANCHIOPOD SURVEY, MENLO EQUITIES KEARNY MESA PROJECT 2011-09-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92322	**EO Index:**	93429
Key Quad:	La Jolla (3211772)	**Element Code:**	ICBRA03060
Occurrence Number:	101	**Occurrence Last Updated:**	2014-05-07

Scientific Name: *Branchinecta sandiegonensis* **Common Name:** San Diego fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:

VERNAL POOLS.

Last Date Observed:	2003-04-02	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-04-02	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NE SIDE OF MONTGOMERY FIELD AIRPORT, JUST NW OF THE SOUTH END OF PONDEROSA AVE, SAN DIEGO.

Detailed Location:

PART OF N1-6 COMPLEX (AFTER BAUDER, 1986). MAPPED TO DETECTION LOCATIONS FROM 2003 SHAPEFILE (CITY OF SAN DIEGO) (SEE ALSO OCC #96).

Ecological:

IN COMPLEX OF 276 BASINS ON 544-ACRE SITE SUPPORTING MANY OF THE HIGHEST-QUALITY VERNAL POOLS IN CITY OF SAN DIEGO. SECURE SITE, MINIMAL HUMAN TRESPASS; WAS PARTIALLY DEVELOPED PRIOR TO SPECIES LISTING.

Threats:

DEVELOPMENT, NON-NATIVE PLANTS, EMERGENCY RESPONSE (2008).

General:

B. SANDIEGONENSIS CONCLUSIVELY IDENTIFIED IN 11 OF 19 POOLS CONTAINING FAIRY SHRIMP, 2 APR 2003; 2 OF THESE POOLS MAPPED HERE (SEE ALSO OCCURRENCE #96).

PLSS:	T16S, R02W, Sec. 06, NW (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3631241 E487530	**Latitude/Longitude:**	32.81910 / -117.13320	**Elevation (feet):**	425

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92328
EO Index: 93435
Key Quad: La Jolla (3211772)
Element Code: ICBRA03060
Occurrence Number: 102
Occurrence Last Updated: 2014-05-08

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
State: None
Rare Plant Rank:
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: 2007-03-03
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2007-03-03
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
"KEARNY TECH" SITE, ON THE SOUTH SIDE OF TECH WAY, 0.25 MILE SE OF KEARNY VILLA ROAD, SAN DIEGO.

Detailed Location:
MAPPED TO DETECTION LOCATIONS FROM 2007 REPORT.

Ecological:
21 POOLS (VERNAL DEPRESSIONS AND A PONDED TIRE RUT) ON A FLAT, LARGELY UNDISTURBED PROPERTY COVERED MAINLY BY NON-NATIVE GRASSLAND. SOME DISTURBANCE FROM TIRE TRACKS AND GARBAGE. PACIFIC TREE FROG TADPOLES PRESENT.

Threats:

General:
100S-1000S OF ADULTS DETECTED IN 4 OUT OF 20 PONDED POOLS SAMPLED 1 & 3 MAR 2007; IMMATURE FAIRY SHRIMP (PRESUMABLY B. SANDIEGONENSIS) DETECTED IN AN ADDITIONAL 3 POOLS.

PLSS: T15S, R03W, Sec. 36, SE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3631707 E486829
Latitude/Longitude: 32.82330 / -117.14070
Elevation (feet): 420

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

LAC07U0001 LACOSTE, E. - RESULTS OF WET SEASON SURVEYS FOR LISTED BRANCHIOPOD SPECIES FOR THE KEARNY TECH WAY PROPERTY, LOCATED IN KEARNY MESA, CALIFORNIA. 2007-04-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92332	**EO Index:**	93438
Key Quad:	La Jolla (3211772)	**Element Code:**	ICBRA03060
Occurrence Number:	103	**Occurrence Last Updated:**	2014-05-08

Scientific Name: *Branchinecta sandiegonensis* **Common Name:** San Diego fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:

VERNAL POOLS.

Last Date Observed:	2008-02-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2008-02-26	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

WEST SIDE OF MONTGOMERY FIELD AIRPORT, EAST OF KEARNY VILLA ROAD BETWEEN BALBOA AVE AND AERO DRIVE, SAN DIEGO.

Detailed Location:

1988 COLLECTIONS FROM "MONTGOMERY FIELD...SE OF HWY 163 & BALBOA BLVD INTERSECTION" ATTRIBUTED HERE, EXACT LOCATIONS UNKNOWN. MAPPED BY CNDDB AS 3 POLYGONS BASED ON DETECTION LOCATIONS FROM 2007 REPORT.

Ecological:

60 DEPRESSIONS SURVEYED IN 2007 INCLUDED VERNAL POOLS, DIRT AND GRAVEL ROAD RUTS, AND PONDED DITCHES. TIRE TRACKS IN MANY POOLS; VEHICLE AND GRADING ACTIVITY PROBABLY SPREAD CYSTS THROUGH THE AREA. TREE FROG & WESTERN TOAD TADPOLES PRESENT.

Threats:

DEVELOPMENT, NON-NATIVE PLANTS, EMERGENCY RESPONSE (2008).

General:

COLLECTED IN 1988. SURVEYED DEC 2007-MAR 2008. PRESENT IN MOST PONDED AREAS, WITH DENSEST CONCENTRATION NEAR KEARNY VILLA RD. 100S-1,000,000S ESTIMATED IN EACH OF 44 POOLS CONTAINING ADULT SDFS; IMMATURE SHRIMP IN ANOTHER 5 POOLS.

PLSS:	T16S, R03W, Sec. 01, N (S)	**Accuracy:**	specific area	**Area (acres):**	88
UTM:	Zone-11 N3631265 E486393	**Latitude/Longitude:**	32.81930 / -117.14535	**Elevation (feet):**	410

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BEL88D0001	BELK, D. - DELTON BELK'S DATABASE OF CRUSTACEAN COLLECTIONS 1988-09-XX
BOU08U0001	BOUCHER, C. ET AL. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION - PRESENCE/ABSENCE WET SEASON 2008 SURVEY RESULTS FOR LISTED ENDANGERED FAIRY SHRIMP SPECIES FOR MONTGOMERY FIELD 2008-07-14
FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	68465	**EO Index:**	93445
Key Quad:	La Jolla (3211772)	**Element Code:**	ICBRA03060
Occurrence Number:	104	**Occurrence Last Updated:**	2014-05-08

Scientific Name: *Branchinecta sandiegonensis* **Common Name:** San Diego fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:

VERNAL POOLS.

Last Date Observed:	1978-01-27	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1978-01-27	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

LINDA VISTA MESA, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS A BEST GUESS BASED UPON LOCALITY GIVEN AS "LINDA VISTA MESA" WITH COORDINATES. EXACT COLLECTION LOCATION UNKNOWN.

Ecological:

SEASONALLY ASTATIC VERNAL POOL IN COASTAL SAGE SCRUB.

Threats:

HEAVY DEVELOPMENT IN AREA PRIOR TO LISTING HAS PROBABLY ELIMINATED THE ORIGINAL VERNAL POOL HABITAT.

General:

COLLECTED BY BALKO ON 27 JAN 1978, LATER IDENTIFIED AS B. SANDIEGONENSIS BY D. BELK.

PLSS:	T16S, R03W, Sec. 14 (S)	**Accuracy:**	1 mile	**Area (acres):**	0
UTM:	Zone-11 N3627458 E484290	**Latitude/Longitude:**	32.78493 / -117.16776	**Elevation (feet):**	340

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BEL88D0001 BELK, D. - DELTON BELK'S DATABASE OF CRUSTACEAN COLLECTIONS 1988-09-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92347
EO Index: 93453
Key Quad: La Mesa (3211771)
Element Code: ICBRA03060
Occurrence Number: 105
Occurrence Last Updated: 2014-05-30

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
Rare Plant Rank:
State: None
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: 2012-04-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-04-XX
Occurrence Rank: Good
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
MISSION TRAILS REGIONAL PARK, ABOUT 0.9-1.0 MILE NE OF CLAIREMONT MESA BLVD AT VIA VALARTA, SAN DIEGO.

Detailed Location:
2003: "MISSION TRAILS REGIONAL PARK"/"Q2" SITE; OF 15 POOLS SURVEYED THROUGHOUT THE PARK, 5 OCCUPIED POOLS ARE MAPPED HERE (SEE ALSO OCC#106). 2010: LOCATIONS OF 13 OCCUPIED POOLS GIVEN. 2012: "FRS II VERNAL POOL HABITAT ENHANCEMENT SITE."

Ecological:
2003: 15 POOLS IN 5,760-AC PARK. WESTERN & SPADEFOOT TOADS & TREE FROG PRESENT. 2010: RESTORED CHAPARRAL. 2012: 26 VERNAL POOLS ENHANCED AS MITIGATION. INDICATOR PLANTS PRESENT; IN SOUTHERN MIXED CHAPARRAL. TREE FROGS & TADPOLES PRESENT.

Threats:
PROPOSED DEVELOPMENT, NON-NATIVE PLANTS, FIRE CONTROL (2008). FREQUENT TRESPASS BY TRAIL USERS & DOGS (2012).

General:
FOUND IN 6 OF 15 BASINS SURVEYED 2003 (5 MAPPED HERE, SEE ALSO OCC #106). ADULTS IN 5 BASINS, CYSTS IN 3, 2005. 1S-100S IN 13 POOLS, MAR 2010. 1S-100S OF ADULTS IN 13 OF 26 POOLS NOV 2011-APR 2012, WITH IMMATURE BRANCHINECTA IN 5 POOLS.

PLSS: T15S, R02W, Sec. 27, SE (S)
Accuracy: specific area
Area (acres): 25
UTM: Zone-11 N3633174 E493248
Latitude/Longitude: 32.83659 / -117.07214
Elevation (feet): 830

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

BLA05U0016	BLACK, C. (ECOLOGICAL RESTORATION SERVICE) - FOCUSED SAMPLING FOR THE PRESENCE OF LISTED FAIRY SHRIMP AT A SITE IN MISSION TRAILS REGIONAL PARK, SAN DIEGO, CA: 2004-05 WET SEASON SAMPLING AND 2005 DRY SEASON SAMPLING 2005-07-01
FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
MCD10D0002	MCDERMOTT, F. (RECON ENVIRONMENTAL, INC.) - SHAPEFILE OF VERNAL POOLS CONTAINING SAN DIEGO FAIRY SHRIMP, MISSION TRAILS REGIONAL PARK (RECON PROJECT JN 4729) 2010-03-05
OGG12U0001	OGG, B. ET AL. (RECON ENVIRONMENTAL, INC.) - SAN DIEGO COUNTY WATER AUTHORITY'S FLOW REGULATORY STRUCTURE II VERNAL POOL HABITAT ENHANCEMENT SITE, VERNAL POOL BRANCHIOPOD WET SEASON SURVEY IN MISSION TRAILS REGIONAL PARK 2012-07-06
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92350	**EO Index:**	93456
Key Quad:	La Mesa (3211771)	**Element Code:**	ICBRA03060
Occurrence Number:	106	**Occurrence Last Updated:**	2014-05-12

Scientific Name: *Branchinecta sandiegonensis* **Common Name:** San Diego fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:

VERNAL POOLS.

Last Date Observed:	2003-04-02	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-04-02	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MISSION TRAILS REGIONAL PARK, ABOUT 0.5 MILE EAST OF INTERSECTION OF CALLE DE VIDA AND RUEDA DRIVE, SAN DIEGO.

Detailed Location:

"MISSION TRAILS REGIONAL PARK" OR "Q2" SITE; OF 15 POOLS THAT WERE SURVEYED THROUGHOUT THE PARK IN 2003, 1 OCCUPIED POOL IS MAPPED HERE (SEE ALSO OCCURRENCE #105).

Ecological:

15 POOLS IN 5,760-ACRE PARK. WESTERN AND SPADEFOOT TOADS, AS WELL AS TREE FROGS PRESENT.

Threats:

PROPOSED DEVELOPMENT, NON-NATIVE PLANTS, FIRE CONTROL (2008).

General:

DETECTED IN 6 OF 15 BASINS SURVEYED 11 MAR & 2 APR 2003.

PLSS:	T15S, R02W, Sec. 34, SE (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3631649 E493366	**Latitude/Longitude:**	32.82284 / -117.07086	**Elevation (feet):**	780

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92370
EO Index: 93480
Key Quad: Imperial Beach (3211751)
Element Code: ICBRA03060
Occurrence Number: 109
Occurrence Last Updated: 2014-05-13

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
Rare Plant Rank:
State: None
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: USFWS-TIJUANA SLOUGH NWR
Trend: Unknown
Presence: Presumed Extant

Location:
TIJUANA SLOUGH NWR, 0.2 MILE NNW OF THE SW CORNER OF IMPERIAL BEACH AIR STATION, SOUTH OF IMPERIAL BEACH.

Detailed Location:
MAPPED TO PROVIDED COORDINATES.

Ecological:

Threats:
NON-NATIVE PLANTS (2008).

General:
DETECTED PRIOR TO 1999 AND PRESUMED EXTANT IN USFWS 5-YEAR REVIEW (2008).

PLSS: T18S, R02W, Sec. 31 (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3602694 E488299
Latitude/Longitude: 32.56159 / -117.12463
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

COL99U0003	COLLINS, B. - EMAIL REGARDING SAN DIEGO FAIRY SHRIMP DETECTION ON TIJUANA SLOUGH NWR 1999-11-30
FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92371	**EO Index:**	93481
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ICBRA03060
Occurrence Number:	110	**Occurrence Last Updated:**	2017-05-02

Scientific Name: *Branchinecta sandiegonensis* **Common Name:** San Diego fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:

VERNAL POOLS.

Last Date Observed:	2008-04-07	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2008-04-07	**Occurrence Rank:**	None
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

VISTA DEL MAR ELEMENTARY SCHOOL AND VICINITY, FROM ABOUT 0.7 TO 1.4 MILES NE OF I-805 AT HWY 905, SAN YSIDRO.

Detailed Location:

MAPPED TO LOCATIONS AT WHICH B. SANDIEGONENSIS (SDFS) WERE DETECTED IN PRE-CONSTRUCTION SURVEYS IN 1995, AND POOLS FROM WHICH SDFS CYSTS WERE RECOVERED IN 2008.

Ecological:

1995: NATURAL AND ARTIFICIAL SEASONAL WETLANDS; TRANSLOCATION WAS PLANNED FOR THE POPULATIONS IN POOLS IMPACTED BY CONSTRUCTION (OUTCOME UNKNOWN). 2008: MULTIPLE SMALL DEPRESSIONS. THESE SITES HAVE BEEN DEVELOPED.

Threats:

2012 AERIALS SHOW THAT SITES HAVE BEEN DEVELOPED.

General:

ADULTS FOUND IN 47-57 BASINS IN 1995. BRANCHINECTA CYSTS FOUND IN 2 OF 10 DEPRESSIONS SAMPLED 7 APR 2008; MATURE SDFS CULTURED FROM BOTH SAMPLES.

PLSS:	T18S, R01W, Sec. 30, SW (S)	**Accuracy:**	specific area	**Area (acres):**	78
UTM:	Zone-11 N3604066 E497910	**Latitude/Longitude:**	32.57403 / -117.02227	**Elevation (feet):**	516

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

PAT97U0001	PATTERSON, C. (RECON ENVIRONMENTAL, INC.) - DENNERY CANYON VERNAL POOL, COASTAL SAGE SCRUB, AND MULE FAT SCRUB RESTORATION AND PRESERVATION PLAN. 1997-03-05
RIT08U0003	RITENOUR, D. & J. KURNOW (HELIX ENVIRONMENTAL PLANNING, INC.) - DRY SEASON PROTOCOL LEVEL SURVEY REPORT FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP, SAN YSIDRO ELEMENTARY SCHOOL #8. 2008-07-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	17503	**EO Index:**	93483
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ICBRA03060
Occurrence Number:	111	**Occurrence Last Updated:**	2014-05-13

Scientific Name: *Branchinecta sandiegonensis* **Common Name:** San Diego fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:

VERNAL POOLS.

Last Date Observed:	2010-02-09	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2010-02-09	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ROBINHOOD RIDGE PRESERVE, 0.1 MI S OF AVENIDA DE LAS VISTAS, BETWEEN VISTA SAN JAVIER AND VISTA SAN MATIAS, SAN YSIDRO.

Detailed Location:

POOLS 1, 2, 3/5, AND 4 IN COMPLEX OF 82 PRESERVED (NATURAL) AND RESTORED/CREATED POOLS SURVEYED IN 2010.

Ecological:

NATURAL POOL IN DIEGAN COASTAL SAGE SCRUB AND NATIVE GRASSLAND UPLANDS. 2 NATURAL AND 54 RESTORED/CREATED POOLS HELD WATER IN 2010. STREPTOCEPHALUS WOOTTONI ALSO PRESENT.

Threats:

NON-NATIVE PLANTS, FRAGMENTATION. COMPLEX PARTIALLY DEVELOPED (2008).

General:

4 POOLS MAPPED AS OCCUPIED BY B. SANDIEGONENSIS IN 2010 REPORT; DETECTED IN POOL #3/5 ON 9 FEB 2010.

PLSS:	T18S, R01W, Sec. 29, NW (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3604900 E499070	**Latitude/Longitude:**	32.58156 / -117.00990	**Elevation (feet):**	470

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

FWS08R0006	U.S. FISH AND WILDLIFE SERVICE - SAN DIEGO FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
RIT10U0001	RITENOUR, D. & J. KURNOW (HELIX ENVIRONMENTAL PLANNING, INC.) - USFWS WET SEASON PROTOCOL LEVEL SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP, ROBINHOOD RIDGE VERNAL POOL PRESERVE 2010-08-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B0771
EO Index: 112643
Key Quad: Imperial Beach (3211751)
Element Code: ICBRA03060
Occurrence Number: 116
Occurrence Last Updated: 2018-09-24

Scientific Name: *Branchinecta sandiegonensis*
Common Name: San Diego fairy shrimp

Listing Status: **Federal:** Endangered
Rare Plant Rank:
State: None
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS.

Micro Habitat:
VERNAL POOLS.

Last Date Observed: 2017-01-05
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2017-01-05
Occurrence Rank: Good
Owner/Manager: CITY OF SAN DIEGO, UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
ABOUT 0.2 MILES SE OF OTAY MESA RD AT BEYER BLVD AND 0.3 MILES NE OF I-805 AT SAN YSIDRO BLVD, W SIDE OF OTAY MESA.

Detailed Location:
MAPPED TO GIVEN COORDINATES, WITHIN BEYER COMMUNITY PARK.

Ecological:
DETECTED IN ARTIFICIAL DITCH BETWEEN OLD DIRT ROAD & TOP OF MANUFACTURED SLOPE. SURVEYED FOR "BEYER PARK DEVELOPMENT PROJECT." A GOOGLE SEARCH INDICATED THAT THE SITE IS SLATED FOR DEVELOPMENT OF PARK RECREATIONAL FACILITIES AS OF 2018.

Threats:
OHV USE. DEVELOPMENT OF CITY PARK.

General:
10 ADULTS, INCLUDING GRAVID FEMALE, OBSERVED ON 5 JAN 2017.

PLSS: T18S, R02W, Sec. 36, SE (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3602008 E496410
Latitude/Longitude: 32.55546 / -117.03824
Elevation (feet): 198

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
VAL17F0001 VALENTI, K. ET AL. - FIELD SURVEY FORM FOR BRANCHINECTA SANDIEGONENSIS 2017-01-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	49413	**EO Index:**	49413
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ICBRA07010
Occurrence Number:	18	**Occurrence Last Updated:**	2014-05-21

Scientific Name: *Streptocephalus woottoni* **Common Name:** Riverside fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G1G2

State: S1S2

General Habitat:

ENDEMIC TO WESTERN RIVERSIDE, ORANGE, AND SAN DIEGO COUNTIES IN AREAS OF TECTONIC SWALES/EARTH SLUMP BASINS IN GRASSLAND AND COASTAL SAGE SCRUB.

Micro Habitat:

INHABIT SEASONALLY ASTATIC POOLS FILLED BY WINTER/SPRING RAINS. HATCH IN WARM WATER LATER IN THE SEASON.

Last Date Observed:	2013-03-04	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2013-03-04	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY MESA, AT THE SOUTH END OF DENNERY CANYON, NORTH OF HIGHWAY 905, SAN YSIDRO.

Detailed Location:

MAPPED BY CNDDB AS 7 POLYGONS BASED ON MULTIPLE SOURCES AND MAPS.

Ecological:

MIXTURE OF NATURAL AND MAN-MADE POOLS WHICH WERE CREATED FOR MITIGATION.

Threats:

DEVELOPMENT, ORVS, DUMPING, FRAGMENTATION, NONNATIVE PLANTS.

General:

POPULATION NUMBERS DIFFICULT TO SUMMARIZE DUE TO MULTIPLE SURVEYS WHICH COVER ONLY A SMALL PORTION OF THE OCCURRENCE AT ANY ONE TIME. NO S. WOOTTONII ARE TYPICALLY FOUND IN MOST POOLS MOST YEARS, BUT SOME POOLS WILL HAVE 100S IN WET YEARS.

PLSS:	T18S, R01W, Sec. 29, SE (S)	**Accuracy:**	specific area	**Area (acres):**	68
UTM:	Zone-11 N3603785 E499253	**Latitude/Longitude:**	32.57150 / -117.00794	**Elevation (feet):**	530

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

AEC10U0003	AECOM - 90-DAY REPORT OF PROTOCOL WET SEASON FAIRY SHRIMP SURVEYS FOR LISTED BRANCHIOPOD SPECIES FOR DENNERY CANYON WEST RESTORATION SITE 2010-09-30
AEC12U0001	AECOM - 90-DAY REPORT OF PROTOCOL WET SEASON FAIRY SHRIMP SURVEYS FOR LISTED BRANCHIOPOD SPECIES FOR DENNERY CANYON WEST RESTORATION SITE 2012-06-27
AEC13U0001	AECOM - 90-DAY REPORT OF PROTOCOL WET SEASON FAIRY SHRIMP SURVEYS FOR LISTED BRANCHIOPOD SPECIES FOR DENNERY CANYON WEST RESTORATION SITE 2013-07-16
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
DUD01R0005	DUDEK & ASSOCIATES, INC. - WET SEASON PRESENCE/ABSENCE SURVEY FOR VERNAL POOL BRANCHIOPODS FOR THE ST. JEROME CHURCH PROJECT SITE, CITY OF SAN DIEGO, CALIFORNIA 2001-08-03
ENR03R0002	ENRIGHT, M. (DUDEK AND ASSOCIATES) - WET SEASON PRESENCE/ABSENCE SURVEY FOR VERNAL POOL BRANCHIOPODS FOR THE ST. JEROME CHURCH PROJECT SITE, CITY OF SAN DIEGO, CALIFORNIA 2003-08-04
FWS08R0005	U.S. FISH AND WILDLIFE SERVICE - RIVERSIDE FAIRY SHRIMP (STREPTOCEPHALUS WOOTTONI) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
RIT10U0001	RITENOUR, D. & J. KURNOW (HELIX ENVIRONMENTAL PLANNING, INC.) - USFWS WET SEASON PROTOCOL LEVEL SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP, ROBINHOOD RIDGE VERNAL POOL PRESERVE 2010-08-03
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 91974
EO Index: 93048
Key Quad: Otay Mesa (3211658)
Element Code: ICBRA07010
Occurrence Number: 50
Occurrence Last Updated: 2014-04-30

Scientific Name: *Streptocephalus woottoni*
Common Name: Riverside fairy shrimp

Listing Status: **Federal:** Endangered
Rare Plant Rank:
State: None
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G1G2
State: S1S2

General Habitat:

ENDEMIC TO WESTERN RIVERSIDE, ORANGE, AND SAN DIEGO COUNTIES IN AREAS OF TECTONIC SWALES/EARTH SLUMP BASINS IN GRASSLAND AND COASTAL SAGE SCRUB.

Micro Habitat:

INHABIT SEASONALLY ASTATIC POOLS FILLED BY WINTER/SPRING RAINS. HATCH IN WARM WATER LATER IN THE SEASON.

Last Date Observed: 2010-04-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2010-04-14
Occurrence Rank: Unknown
Owner/Manager: DHS
Trend: Unknown
Presence: Presumed Extant

Location:

"ARNIE'S POINT." 0.7-1.0 AIR MI SW OF CACTUS RD AT SIEMPRE VIVA RD, IMMEDIATELY NORTH OF US/MEXICO BORDER, SAN YSIDRO.

Detailed Location:

ALSO KNOWN AS "J15" COMPLEX (BAUDER 1986). 57 POOLS (OF WHICH 3 WERE NATURAL, REFERENCE POOLS) MONITORED 2003-2006. MAPPED TO INCLUDE POSITIVE DETECTIONS FROM 2006 AND 2010 REPORTS.

Ecological:

CONSTRUCTION & ENHANCEMENT TO MITIGATE FOR LOSS OF POOL, 2002-2004.

Threats:

LOSS OF ONE OCCUPIED VERNAL POOL DUE TO BORDER CONSTRUCTION (2006). NON-NATIVE PLANTS (2008).

General:

NONE FOUND ON 25 APR 2003. DETECTED IN LOW NUMBERS IN 8 OR 9 POOLS IN WET-SEASON SURVEYS MAR-APR 2006 (ADULTS IN 7 POOLS). OVER 100 IN EACH OF TWO POOLS SAMPLED IN WET-SEASON SURVEYS MAR-APR 2010.

PLSS: T19S, R01W, Sec. 05, SE (S)
Accuracy: specific area
Area (acres): 26
UTM: Zone-11 N3601016 E500101
Latitude/Longitude: 32.54652 / -116.99891
Elevation (feet): 470

County Summary:

San Diego

Quad Summary:

Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

ERS06R0001	ECOLOGICAL RESTORATION SERVICE - MAINTENANCE AND MONITORING OF VERNAL POOLS AND UPLAND VEGETATION AT ARNIE'S POINT, SAN DIEGO, CA: AREA A (YEAR 4) AND AREA B (YEAR 3), 2005-2006 HYDROLOGICAL YEAR 2006-XX-XX
FWS08R0005	U.S. FISH AND WILDLIFE SERVICE - RIVERSIDE FAIRY SHRIMP (STREPTOCEPHALUS WOOTTONI) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
LAH10R0001	LAHTI, M. ET AL. (U.S. GEOLOGICAL SURVEY) - DATA SUMMARY FOR THE 2010 FIELD AND GENETIC SURVEYS OF THE RIVERSIDE FAIRY SHRIMP (STREPTOCEPHALUS WOOTTONI) IN SOUTHERN CALIFORNIA. 2010-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	91985	**EO Index:**	93058
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ICBRA07010
Occurrence Number:	51	**Occurrence Last Updated:**	2014-04-14

Scientific Name: *Streptocephalus woottoni* **Common Name:** Riverside fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G1G2

State: S1S2

General Habitat:

ENDEMIC TO WESTERN RIVERSIDE, ORANGE, AND SAN DIEGO COUNTIES IN AREAS OF TECTONIC SWALES/EARTH SLUMP BASINS IN GRASSLAND AND COASTAL SAGE SCRUB.

Micro Habitat:

INHABIT SEASONALLY ASTATIC POOLS FILLED BY WINTER/SPRING RAINS. HATCH IN WARM WATER LATER IN THE SEASON.

Last Date Observed:	2004-12-16	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2004-12-16	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

"AIRWAY ROAD" SITE, OTAY MESA; ABOUT 1.25 MILES EAST OF I-805 AT SR-905, SAN YSIDRO.

Detailed Location:

AMONG 80 BASINS SAMPLED AT "STATE ROUTE 905" PROJECT SITE IN 2001 (SEE ALSO OCC #52 & 53). MAPPED TO DETECTION LOCATIONS, 2002-04. 2002 DETECTION IN "POOL 7" IN A CLUSTER OF 11 POOLS ALONG AIRWAY RD. 5 POOLS SURVEYED IN 2003.

Ecological:

POOL 7 ESTIMATED MAXIMUM DEPTH 24 CM, MAX AREA 125 SQ M. MODERATELY DISTURBED BY DISKING. BRANCHINECTA CYSTS FOUND IN POOL 7 & 1 OTHER POOL IN 2002. AERIAL PHOTOS SHOW THAT THE POOLS WERE ELIMINATED BY SR-905 CONSTRUCTION AFTER 2004.

Threats:

POOLS ELIMINATED IN ROAD REALIGNMENT.

General:

LOW NUMBERS OF S. WOOTTONI CYSTS FOUND IN 1 OF 11 POOLS IN DRY SEASON SAMPLES COLLECTED AUG-SEP 2002. FOUND IN 1 OF 5 BASINS IN 2003. ESTIMATED ABUNDANCE 10S IN ONE POOL, 100S IN 2ND POOL, INCLUDING GRAVID FEMALES, ON 16 DEC 2004.

PLSS:	T18S, R01W, Sec. 31, NE (S)	**Accuracy:**	specific area	**Area (acres):**	9
UTM:	Zone-11 N3603359 E498221	**Latitude/Longitude:**	32.56765 / -117.01894	**Elevation (feet):**	530

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

MAS02R0001	MASON, G. (HELIX ENVIRONMENTAL PLANNING, INC.) - COUNTY OF SAN DIEGO SR 905 2002 DRY SEASON FAIRY SHRIMP SAMPLING RESULTS 2002-12-16
SCA04F0001	SCATOLINI, S. ET AL - USFWS WET SEASON SURVEY DATA SHEETS. 2004-12-16
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 91989
EO Index: 93063
Key Quad: Imperial Beach (3211751)
Element Code: ICBRA07010
Occurrence Number: 52
Occurrence Last Updated: 2014-04-07

Scientific Name: *Streptocephalus woottoni*
Common Name: Riverside fairy shrimp

Listing Status: **Federal:** Endangered
State: None
Rare Plant Rank:
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G1G2
State: S1S2

General Habitat:

ENDEMIC TO WESTERN RIVERSIDE, ORANGE, AND SAN DIEGO COUNTIES IN AREAS OF TECTONIC SWALES/EARTH SLUMP BASINS IN GRASSLAND AND COASTAL SAGE SCRUB.

Micro Habitat:

INHABIT SEASONALLY ASTATIC POOLS FILLED BY WINTER/SPRING RAINS. HATCH IN WARM WATER LATER IN THE SEASON.

Last Date Observed: 2002-09-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2002-09-16
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

BETWEEN OTAY MESA ROAD AND HIGHWAY 905 JUST EAST OF CALIENTE AVENUE, SAN YSIDRO.

Detailed Location:

"POOL 78" IN COMPLEX OF 80 BASINS SURVEYED AT "STATE ROUTE 905" PROJECT SITE IN 2001 (SEE ALSO OCC #51 & 53).

Ecological:

NEARBY POOL DESCRIBED AS DISTURBED. IN FLAT TOPOGRAPHY SURROUNDED BY AGRICULTURAL, INDUSTRIAL, COMMERCIAL LAND USES.

Threats:

DEVELOPMENT, FRAGMENTATION, ORV USE, NON-NATIVE PLANTS (2008).

General:

2 STREPTOCEPHALUS CYSTS FOUND IN DRY-SEASON SAMPLES COLLECTED AUG-SEP 2002.

PLSS: T18S, R01W, Sec. 32, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3603312 E498738
Latitude/Longitude: 32.56723 / -117.01344
Elevation (feet): 530

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

FWS08R0005 U.S. FISH AND WILDLIFE SERVICE - RIVERSIDE FAIRY SHRIMP (STREPTOCEPHALUS WOOTTONI) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX

MAS02R0001 MASON, G. (HELIX ENVIRONMENTAL PLANNING, INC.) - COUNTY OF SAN DIEGO SR 905 2002 DRY SEASON FAIRY SHRIMP SAMPLING RESULTS 2002-12-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	91991	**EO Index:**	93065
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ICBRA07010
Occurrence Number:	53	**Occurrence Last Updated:**	2014-06-20

Scientific Name: *Streptocephalus woottoni* **Common Name:** Riverside fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G1G2

State: S1S2

General Habitat:

ENDEMIC TO WESTERN RIVERSIDE, ORANGE, AND SAN DIEGO COUNTIES IN AREAS OF TECTONIC SWALES/EARTH SLUMP BASINS IN GRASSLAND AND COASTAL SAGE SCRUB.

Micro Habitat:

INHABIT SEASONALLY ASTATIC POOLS FILLED BY WINTER/SPRING RAINS. HATCH IN WARM WATER LATER IN THE SEASON.

Last Date Observed:	2006-05-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-12-21	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY MESA, ON NORTH AND SOUTH SIDES OF HWY 905 FROM 0.1 TO 0.5 MILE WEST OF THE HERITAGE ROAD UNDERCROSSING, SAN YSIDRO.

Detailed Location:

"J14" IN BAUDER (1986). N SIDE OF SR-905: "RECON SOUTH" SITE, 64 POOLS SURVEYED 2003. S OF SR-905: PART OF "STATE ROUTE 905" SITE, 80 BASINS SURVEYED 2001; 58 BASINS AT "J14" SURVEYED 2003; 75 BASINS ON "ANDERSON PARCEL" SURVEYED 2006.

Ecological:

N SIDE: CREATED POOLS ON 17.7 AC MITIGATION SITE; INDICATOR PLANTS, B. LINDAHLI, SDFS, SPADEFOOT TOAD PRESENT. S SIDE: BASINS MAINLY PONDED ROAD RUTS IN UNDEVELOPED LOT, HEAVY ORV ACTIVITY. BRANCHINECTA SANDIEGONENSIS (SDFS) ALSO FOUND.

Threats:

S SIDE: PROPOSED DEVELOPMENT, FRAGMENTATION, ORV USE, NON-NATIVE PLANTS.

General:

N SIDE: ADULTS FOUND IN 24 OF 64 BASINS, 16 APR 2003. S SIDE: 0 FOUND, 1997/98. CYSTS FOUND IN 3 POOLS, 2001. 0 FOUND, 2002. ADULTS IN 3 OF 58 BASINS, 2003. 1S-10,000S IN 18 BASINS, 14 MAR-11 MAY 2006; INCL GRAVID FEMALES. 0 FOUND DEC 2009.

PLSS:	T18S, R01W, Sec. 32, NE (S)	**Accuracy:**	non-specific area	**Area (acres):**	78
UTM:	Zone-11 N3603003 E499675	**Latitude/Longitude:**	32.56444 / -117.00345	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
FWS08R0005	U.S. FISH AND WILDLIFE SERVICE - RIVERSIDE FAIRY SHRIMP (STREPTOCEPHALUS WOOTTONI) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
HEL02R0003	HELIX ENVIRONMENTAL PLANNING, INC. - WET SEASON SURVEYS FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP 2002-10-07
HEL98R0002	HELIX ENVIRONMENTAL PLANNING, INC. - 1998 ANNUAL REPORT- WET SEASON SURVEYS FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP, SR 905 1998-08-25
KUR06U0001	KURNOW, J. & D. RITENOUR (HELIX ENVIRONMENTAL PLANNING, INC.) - 2006 ANNUAL REPORT: USFWS PROTOCOL LEVEL WET SEASON SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP (BRANCHINECTA SANDIEGONENSIS & STREPTOCEPHALUS WOOTTONI), ANDERSON PROPERTY 2006-06-29
MAS02R0001	MASON, G. (HELIX ENVIRONMENTAL PLANNING, INC.) - COUNTY OF SAN DIEGO SR 905 2002 DRY SEASON FAIRY SHRIMP SAMPLING RESULTS 2002-12-16
SCA09U0002	SCATOLINI, S. ET AL. - 90-DAY REPORT FOR FAIRY SHRIMP FOR THE ANDERPRISE MITIGATION SITE ALONG STATE ROUTE 905 IN SAN DIEGO. 2009-XX-XX
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	91993	**EO Index:**	93066
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ICBRA07010
Occurrence Number:	54	**Occurrence Last Updated:**	2014-06-18

Scientific Name: *Streptocephalus woottoni*

Common Name: Riverside fairy shrimp

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank:

Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G1G2

State: S1S2

General Habitat:

ENDEMIC TO WESTERN RIVERSIDE, ORANGE, AND SAN DIEGO COUNTIES IN AREAS OF TECTONIC SWALES/EARTH SLUMP BASINS IN GRASSLAND AND COASTAL SAGE SCRUB.

Micro Habitat:

INHABIT SEASONALLY ASTATIC POOLS FILLED BY WINTER/SPRING RAINS. HATCH IN WARM WATER LATER IN THE SEASON.

Last Date Observed:	2004-02-20	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2005-05-05	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

0.15 MILE SOUTH OF THE INTERSECTION OF AIRWAY ROAD AND CALIENTE AVENUE, JUST SE OF SAN YSIDRO HIGH SCHOOL, SAN YSIDRO.

Detailed Location:

"CANDLELIGHT EAST" SITE. MAPPED TO "POOL 2" IN COMPLEX OF 65 BASINS SURVEYED IN 2004. ALSO KNOWN AS J34 COMPLEX (FROM CITY OF SAN DIEGO'S VERNAL POOL INVENTORY 2002-03, MODIFIED FROM BAUDER 1986).

Ecological:

MAX DEPTH 40.6 CM, AREA 67 X 6 M DURING 2004 SURVEYS. SEVERAL INDICATOR PLANTS PRESENT 2002-03. PROPERTY PREVIOUSLY USED FOR AGRICULTURE, REPEATEDLY DISKED AND TILLED. EARTHEN BERMS BUILT ONSITE TO RESTRICT ACCESS AND ILLEGAL DUMPING.

Threats:

SILTATION, ORVS, DUMPING DESTROYED SEVERAL POOLS (2004). PROPOSED DEVELOPMENT, FRAGMENTATION, NON-NATIVE PLANTS (2008).

General:

WET-SEASON SURVEY CONDUCTED 9 JAN - 30 APR 2004; ABUNDANCE ESTIMATED AT 100S OF IMMATURE FAIRY SHRIMP ON 9 & 23 JAN, PRESENT 6 FEB, 100S ON 20 FEB, NONE FOUND ON OR AFTER 5 MAR 2004. NONE FOUND IN WET-SEASON SURVEYS NOV 2004-MAY 2005.

PLSS:	T18S, R01W, Sec. 31, NE (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3602776 E498506	**Latitude/Longitude:**	32.56240 / -117.01590	**Elevation (feet):**	530

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

FWS08R0005	U.S. FISH AND WILDLIFE SERVICE - RIVERSIDE FAIRY SHRIMP (STREPTOCEPHALUS WOOTTONI) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
HEL05R0015	HELIX ENVIRONMENTAL PLANNING, INC. - 2005 ANNUAL REPORT WET SEASON SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP, CANDLELIGHT EAST & WEST VILLAGE PROJECTS 2005-06-10
MAS04R0001	MASON, G. & K. BALO (HELIX ENVIRONMENTAL PLANNING, INC.) - 2004 ANNUAL REPORT: U.S. FISH AND WILDLIFE SERVICE PROTOCOL LEVEL WET SEASON SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP, CANDLELIGHT EAST & WEST VILLAGE PROJECTS. 2004-07-30
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17503
EO Index: 93072
Key Quad: Imperial Beach (3211751)
Element Code: ICBRA07010
Occurrence Number: 55
Occurrence Last Updated: 2014-04-08

Scientific Name: *Streptocephalus woottoni*
Common Name: Riverside fairy shrimp

Listing Status: **Federal:** Endangered
State: None
Rare Plant Rank:
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G1G2
State: S1S2

General Habitat:

ENDEMIC TO WESTERN RIVERSIDE, ORANGE, AND SAN DIEGO COUNTIES IN AREAS OF TECTONIC SWALES/EARTH SLUMP BASINS IN GRASSLAND AND COASTAL SAGE SCRUB.

Micro Habitat:

INHABIT SEASONALLY ASTATIC POOLS FILLED BY WINTER/SPRING RAINS. HATCH IN WARM WATER LATER IN THE SEASON.

Last Date Observed: 2010-04-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2010-04-07
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

ROBINHOOD RIDGE VP PRESERVE, 0.1 MI S OF AVENIDA DE LAS VISTAS, BETWEEN VISTA SAN JAVIER & V. SAN MATIAS, SAN YSIDRO.

Detailed Location:

"POOL 3" IN COMPLEX OF 82 PRESERVED (NATURAL) AND RESTORED/CREATED POOLS SURVEYED IN 2010. "J5" COMPLEX IN BAUDER (1986).

Ecological:

NATURAL POOL IN DIEGAN COASTAL SAGE SCRUB AND NATIVE GRASSLAND UPLANDS. 2 NATURAL AND 54 RESTORED/CREATED POOLS HELD WATER IN 2010.

Threats:

NON-NATIVE PLANTS, FRAGMENTATION (2008).

General:

WET-SEASON SURVEYS CONDUCTED 9 FEB - 4 MAY 2010; S. WOOTTONI OBSERVED ON FOUR VISITS 22 FEB - 7 APR. ESTIMATED ABUNDANCE 10S, INCLUDING GRAVID FEMALES.

PLSS: T18S, R01W, Sec. 29, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3604900 E499070
Latitude/Longitude: 32.58156 / -117.00990
Elevation (feet): 470

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
FWS08R0005	U.S. FISH AND WILDLIFE SERVICE - RIVERSIDE FAIRY SHRIMP (STREPTOCEPHALUS WOOTTONI) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
RIT10U0001	RITENOUR, D. & J. KURNOW (HELIX ENVIRONMENTAL PLANNING, INC.) - USFWS WET SEASON PROTOCOL LEVEL SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP, ROBINHOOD RIDGE VERNAL POOL PRESERVE 2010-08-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92042	**EO Index:**	93122
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ICBRA07010
Occurrence Number:	65	**Occurrence Last Updated:**	2014-04-11

Scientific Name: *Streptocephalus woottoni* **Common Name:** Riverside fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G1G2

State: S1S2

General Habitat:

ENDEMIC TO WESTERN RIVERSIDE, ORANGE, AND SAN DIEGO COUNTIES IN AREAS OF TECTONIC SWALES/EARTH SLUMP BASINS IN GRASSLAND AND COASTAL SAGE SCRUB.

Micro Habitat:

INHABIT SEASONALLY ASTATIC POOLS FILLED BY WINTER/SPRING RAINS. HATCH IN WARM WATER LATER IN THE SEASON.

Last Date Observed:	2003-02-21	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-02-21	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

IMMEDIATELY SW OF ATHELETIC FIELDS AT SAN YSIDRO HIGH SCHOOL, SOUTH OF HIGHWAY 905, SAN YSIDRO.

Detailed Location:

"J33" (AFTER BAUDER, 1986) IN CITY OF SAN DIEGO'S 2003 VERNAL POOL INVENTORY. MAPPED USING 2003 SHAPEFILE.

Ecological:

A 50-ACRE PARCEL WITH 8 CREATED BASINS. VERNAL POOL INDICATOR PLANTS PRESENT INCLUDING OTAY MESA MINT AND SAN DIEGO BUTTON CELERY. BRANCHINECTA SANDIEGONENSIS AND SPEA HAMMONDII ALSO PRESENT.

Threats:

NON-NATIVE PLANTS (2008).

General:

S. WOOTTONI OBSERVED IN 3 OF 8 BASINS ON 21 FEB 2003.

PLSS:	T18S, R01W, Sec. 31, NE (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3602887 E497953	**Latitude/Longitude:**	32.56340 / -117.02180	**Elevation (feet):**	520

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

FWS08R0005	U.S. FISH AND WILDLIFE SERVICE - RIVERSIDE FAIRY SHRIMP (STREPTOCEPHALUS WOOTTONI) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92045	**EO Index:**	93125
Key Quad:	Imperial Beach (3211751)	**Element Code:**	ICBRA07010
Occurrence Number:	66	**Occurrence Last Updated:**	2014-04-14

Scientific Name: *Streptocephalus woottoni* **Common Name:** Riverside fairy shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G1G2

State: S1S2

General Habitat:

ENDEMIC TO WESTERN RIVERSIDE, ORANGE, AND SAN DIEGO COUNTIES IN AREAS OF TECTONIC SWALES/EARTH SLUMP BASINS IN GRASSLAND AND COASTAL SAGE SCRUB.

Micro Habitat:

INHABIT SEASONALLY ASTATIC POOLS FILLED BY WINTER/SPRING RAINS. HATCH IN WARM WATER LATER IN THE SEASON.

Last Date Observed:	2003-02-21	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-02-21	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

"OTAY MESA A+B" SITE, 0.3 MILE SE OF OTAY MESA RD AT HAWKEN DR AND 1.3 MI NNE OF I-5 AT US/MEXICO BORDER, SAN YSIDRO.

Detailed Location:

ALSO CALLED "J32" COMPLEX AFTER BAUDER (1986). MAPPED USING THE CITY OF SAN DIEGO'S SHAPEFILE OF VERNAL POOLS (2003).

Ecological:

177-ACRE MITIGATION SITE WITH 44 VERNAL POOLS (PONDED RUTS, CREATED BASINS, AND A FEW NATURAL DEPRESSIONS). VERNAL POOL INDICATOR PLANTS PRESENT INCLUDING SEVERAL RARE SPP. SAN DIEGO AND LINDAHL'S FAIRY SHRIMP & SPADEFOOT TOAD ALSO PRESENT.

Threats:

ORVS, NON-NATIVE PLANTS (2008).

General:

S. WOOTTONI FOUND IN 1 OF 44 POOLS ON 21 FEB 2003.

PLSS:	T18S, R01W, Sec. 31, SW (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3602633 E497379	**Latitude/Longitude:**	32.56110 / -117.02791	**Elevation (feet):**	480

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

FWS08R0005	U.S. FISH AND WILDLIFE SERVICE - RIVERSIDE FAIRY SHRIMP (STREPTOCEPHALUS WOOTTONI) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2008-09-XX
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 72496
EO Index: 22684
Key Quad: National City (3211761)
Element Code: IICOL02080
Occurrence Number: 2
Occurrence Last Updated: 2012-09-14

Scientific Name: *Habroscelimorpha gabbii*
Common Name: western tidal-flat tiger beetle

Listing Status: **Federal:** None
*** SENSITIVE *** **State:** None
CNDDB Element Ranks: **Global:** G2G4
State: S1
Rare Plant Rank:
Other Lists:

General Habitat:
INHABITS ESTUARIES AND MUDFLATS ALONG THE COAST OF SOUTHERN CALIFORNIA.

Micro Habitat:
GENERALLY FOUND ON DARK-COLORED MUD IN THE LOWER ZONE; OCCASIONALLY FOUND ON DRY SALINE FLATS OF ESTUARIES.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager:
Trend: Unknown
Presence: Presumed Extant

Location:
SENSITIVE LOCATION INFORMATION SUPPRESSED.

Detailed Location:
PLEASE CONTACT THE CALIFORNIA NATURAL DIVERSITY DATABASE, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, FOR MORE INFORMATION: (916) 322-2493

Ecological:
SAND/ALKALI FLATS AROUND MOUTH OF RIVER.

Threats:
AREA USED BY DIRT-BIKE MOTORCYCLES.

General:

PLSS:
Accuracy: non-specific area
Area (acres): 286
UTM:
Latitude/Longitude:
Elevation (feet):

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

NAG80A0001 NAGANO, C.D. (LOS ANGELES COUNTY MUSEUM) - POPULATION STATUS OF THE TIGER BEETLES OF THE GENUS CICINDELA (COLEOPTERA: CICINDELIDAE) INHABITING THE MARINE SHORELINE OF SOUTHERN CALIFORNIA. ATALA 1980(82) 8(2):33-42. 1980-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03959
EO Index: 22683
Key Quad: Point Loma (3211762)
Element Code: IICOL02080
Occurrence Number: 3
Occurrence Last Updated: 2012-09-14

Scientific Name: *Habroscelimorpha gabbii*
Common Name: western tidal-flat tiger beetle

Listing Status: **Federal:** None
*** SENSITIVE *** **State:** None
CNDDB Element Ranks: **Global:** G2G4
State: S1

Rare Plant Rank:
Other Lists:

General Habitat:
INHABITS ESTUARIES AND MUDFLATS ALONG THE COAST OF SOUTHERN CALIFORNIA.

Micro Habitat:
GENERALLY FOUND ON DARK-COLORED MUD IN THE LOWER ZONE; OCCASIONALLY FOUND ON DRY SALINE FLATS OF ESTUARIES.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager:
Trend: Unknown
Presence: Presumed Extant

Location:
SENSITIVE LOCATION INFORMATION SUPPRESSED.

Detailed Location:
PLEASE CONTACT THE CALIFORNIA NATURAL DIVERSITY DATABASE, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, FOR MORE INFORMATION: (916) 322-2493

Ecological:

Threats:

General:

PLSS:
Accuracy: 1 mile
Area (acres): 0
UTM:
Latitude/Longitude:
Elevation (feet):

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

NAG80A0001 NAGANO, C.D. (LOS ANGELES COUNTY MUSEUM) - POPULATION STATUS OF THE TIGER BEETLES OF THE GENUS CICINDELA (COLEOPTERA: CICINDELIDAE) INHABITING THE MARINE SHORELINE OF SOUTHERN CALIFORNIA. ATALA 1980(82) 8(2):33-42. 1980-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86732
EO Index: 22680
Key Quad: Imperial Beach (3211751)
Element Code: IICOL02080
Occurrence Number: 4
Occurrence Last Updated: 2012-09-18

Scientific Name: *Habroscelimorpha gabbii*
Common Name: western tidal-flat tiger beetle

Listing Status: **Federal:** None
*** SENSITIVE *** **State:** None
CNDDB Element Ranks: **Global:** G2G4
State: S1

Rare Plant Rank:
Other Lists:

General Habitat:
INHABITS ESTUARIES AND MUDFLATS ALONG THE COAST OF SOUTHERN CALIFORNIA.

Micro Habitat:
GENERALLY FOUND ON DARK-COLORED MUD IN THE LOWER ZONE; OCCASIONALLY FOUND ON DRY SALINE FLATS OF ESTUARIES.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager:
Trend: Unknown
Presence: Presumed Extant

Location:
SENSITIVE LOCATION INFORMATION SUPPRESSED.

Detailed Location:
PLEASE CONTACT THE CALIFORNIA NATURAL DIVERSITY DATABASE, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, FOR MORE INFORMATION: (916) 322-2493

Ecological:

Threats:

General:

PLSS:
Accuracy: non-specific area
Area (acres): 1,618
UTM:
Latitude/Longitude:
Elevation (feet): 10

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

NAG80A0001 NAGANO, C.D. (LOS ANGELES COUNTY MUSEUM) - POPULATION STATUS OF THE TIGER BEETLES OF THE GENUS CICINDELA (COLEOPTERA: CICINDELIDAE) INHABITING THE MARINE SHORELINE OF SOUTHERN CALIFORNIA. ATALA 1980(82) 8(2):33-42. 1980-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04076
EO Index: 5346
Key Quad: Imperial Beach (3211751)
Element Code: IICOL02101
Occurrence Number: 4
Occurrence Last Updated: 2012-09-14

Scientific Name: *Cicindela hirticollis gravida*
Common Name: sandy beach tiger beetle

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

INHABITS AREAS ADJACENT TO NON-BRACKISH WATER ALONG THE COAST OF CALIFORNIA FROM SAN FRANCISCO BAY TO NORTHERN MEXICO.

Micro Habitat:

CLEAN, DRY, LIGHT-COLORED SAND IN THE UPPER ZONE. SUBTERRANEAN LARVAE PREFER MOIST SAND NOT AFFECTED BY WAVE ACTION.

Last Date Observed: 1984-08-20
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1984-08-20
Occurrence Rank: Unknown
Owner/Manager: DPR-BORDER FIELD SP
Trend: Unknown
Presence: Presumed Extant

Location:

BORDER FIELD STATE PARK, ADJACENT TO TIJUANA, MEXICO.

Detailed Location:

Ecological:

INHABITS CLEAN, DRY, LIGHT-COLORED SAND IN THE UPPER ZONE OF THE BEACH DUNES.

Threats:

SENSITIVE TO HUMAN CONTACT.

General:

POPULATION EXTANT IN 1979. ONE OF VERY FEW KNOWN EXTANT POPULATIONS. COLLECTED HERE ON 9 AUG 1983 & 20 AUG 1984.

PLSS: T19S, R02W, Sec. 07 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3599951 E488543
Latitude/Longitude: 32.53686 / -117.12200
Elevation (feet): 10

County Summary:

San Diego, Mexico

Quad Summary:

Imperial Beach (3211751)

Sources:

KNI04R0002 KNISLEY, C.B. (RANDOLPH-MACON COLLEGE) - BIOLOGY AND CONSERVATION OF THE SACRAMENTO VALLEY TIGER BEETLE, CICINDELA HIRTICOLLIS ABRUPTA. REPORT TO USFWS SACRAMENTO FIELD OFFICE. 2004-11-10

NAG80A0001 NAGANO, C.D. (LOS ANGELES COUNTY MUSEUM) - POPULATION STATUS OF THE TIGER BEETLES OF THE GENUS CICINDELA (COLEOPTERA: CICINDELIDAE) INHABITING THE MARINE SHORELINE OF SOUTHERN CALIFORNIA. ATALA 1980(82) 8(2):33-42. 1980-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36802
EO Index: 885
Key Quad: La Jolla (3211772)
Element Code: IICOL02101
Occurrence Number: 6
Occurrence Last Updated: 2012-09-14

Scientific Name: *Cicindela hirticollis gravida*
Common Name: sandy beach tiger beetle

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

INHABITS AREAS ADJACENT TO NON-BRACKISH WATER ALONG THE COAST OF CALIFORNIA FROM SAN FRANCISCO BAY TO NORTHERN MEXICO.

Micro Habitat:

CLEAN, DRY, LIGHT-COLORED SAND IN THE UPPER ZONE. SUBTERRANEAN LARVAE PREFER MOIST SAND NOT AFFECTED BY WAVE ACTION.

Last Date Observed: 1928-04-05
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1928-04-05
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:

MISSION BEACH.

Detailed Location:

Ecological:

INHABITED CLEAN, DRY, LIGHT-COLORED SAND IN THE UPPER ZONE.

Threats:

VERY SENSITIVE TO HUMAN CONTACT.

General:

HISTORICAL RECORD.

PLSS: T16S, R04W, Sec. 24 (S)
Accuracy: non-specific area
Area (acres): 139
UTM: Zone-11 N3626235 E476330
Latitude/Longitude: 32.77377 / -117.25274
Elevation (feet): 10

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

KNI03R0001 KNISLEY, C.B. (RANDOLPH-MACON COLLEGE) - A STATUS REVIEW OF THE SACRAMENTO VALLEY TIGER BEETLE, CICINDELA HIRTICOLLIS ABRUPTA. REPORT TO THE USFWS SACRAMENTO FIELD OFFICE. 2003-02-05

KNI04R0002 KNISLEY, C.B. (RANDOLPH-MACON COLLEGE) - BIOLOGY AND CONSERVATION OF THE SACRAMENTO VALLEY TIGER BEETLE, CICINDELA HIRTICOLLIS ABRUPTA. REPORT TO USFWS SACRAMENTO FIELD OFFICE. 2004-11-10

NAG80A0001 NAGANO, C.D. (LOS ANGELES COUNTY MUSEUM) - POPULATION STATUS OF THE TIGER BEETLES OF THE GENUS CICINDELA (COLEOPTERA: CICINDELIDAE) INHABITING THE MARINE SHORELINE OF SOUTHERN CALIFORNIA. ATALA 1980(82) 8(2):33-42. 1980-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 28002
EO Index: 22671
Key Quad: Point Loma (3211762)
Element Code: IICOL02101
Occurrence Number: 7
Occurrence Last Updated: 2012-09-14

Scientific Name: *Cicindela hirticollis gravida*
Common Name: sandy beach tiger beetle

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

INHABITS AREAS ADJACENT TO NON-BRACKISH WATER ALONG THE COAST OF CALIFORNIA FROM SAN FRANCISCO BAY TO NORTHERN MEXICO.

Micro Habitat:

CLEAN, DRY, LIGHT-COLORED SAND IN THE UPPER ZONE. SUBTERRANEAN LARVAE PREFER MOIST SAND NOT AFFECTED BY WAVE ACTION.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1979-XX-XX
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:

OCEAN BEACH, SOUTH SIDE OF SAN DIEGO RIVER MOUTH.

Detailed Location:

Ecological:

INHABITED CLEAN, DRY, LIGHT-COLORED SAND IN THE UPPER ZONE.

Threats:

VERY SENSITIVE TO HUMAN CONTACT.

General:

HISTORICAL RECORD.

PLSS: T16S, R04W (S)
Accuracy: non-specific area
Area (acres): 93
UTM: Zone-11 N3623177 E476249
Latitude/Longitude: 32.74618 / -117.25352
Elevation (feet): 10

County Summary:

San Diego

Quad Summary:

Point Loma (3211762), La Jolla (3211772)

Sources:

NAG80A0001 NAGANO, C.D. (LOS ANGELES COUNTY MUSEUM) - POPULATION STATUS OF THE TIGER BEETLES OF THE GENUS CICINDELA (COLEOPTERA: CICINDELIDAE) INHABITING THE MARINE SHORELINE OF SOUTHERN CALIFORNIA. ATALA 1980(82) 8(2):33-42. 1980-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04004
EO Index: 60537
Key Quad: Point Loma (3211762)
Element Code: IICOL02101
Occurrence Number: 8
Occurrence Last Updated: 2005-03-11

Scientific Name: *Cicindela hirticollis gravida*
Common Name: sandy beach tiger beetle

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

INHABITS AREAS ADJACENT TO NON-BRACKISH WATER ALONG THE COAST OF CALIFORNIA FROM SAN FRANCISCO BAY TO NORTHERN MEXICO.

Micro Habitat:

CLEAN, DRY, LIGHT-COLORED SAND IN THE UPPER ZONE. SUBTERRANEAN LARVAE PREFER MOIST SAND NOT AFFECTED BY WAVE ACTION.

Last Date Observed: 1946-07-05
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1946-07-05
Occurrence Rank: None
Owner/Manager: DPR-SILVER STRAND SB, DOD
Trend: Unknown
Presence: Extirpated

Location:

CORONADO, SILVER STRAND STATE BEACH.

Detailed Location:

Ecological:

Threats:

General:

HISTORICAL RECORD; 12 SPECIMENS.

PLSS: T18S, R03W, Sec. 01 (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3610898 E486944
Latitude/Longitude: 32.63559 / -117.13919
Elevation (feet): 10

County Summary:

San Diego, Pacific Ocean

Quad Summary:

Point Loma (3211762)

Sources:

KNI04R0002 KNISLEY, C.B. (RANDOLPH-MACON COLLEGE) - BIOLOGY AND CONSERVATION OF THE SACRAMENTO VALLEY TIGER BEETLE, CICINDELA HIRTICOLLIS ABRUPTA. REPORT TO USFWS SACRAMENTO FIELD OFFICE. 2004-11-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 60527
EO Index: 60563
Key Quad: Imperial Beach (3211751)
Element Code: IICOL02101
Occurrence Number: 42
Occurrence Last Updated: 2005-03-14

Scientific Name: *Cicindela hirticollis gravida*
Common Name: sandy beach tiger beetle

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

INHABITS AREAS ADJACENT TO NON-BRACKISH WATER ALONG THE COAST OF CALIFORNIA FROM SAN FRANCISCO BAY TO NORTHERN MEXICO.

Micro Habitat:

CLEAN, DRY, LIGHT-COLORED SAND IN THE UPPER ZONE. SUBTERRANEAN LARVAE PREFER MOIST SAND NOT AFFECTED BY WAVE ACTION.

Last Date Observed: 2004-07-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2004-07-17
Occurrence Rank: Unknown
Owner/Manager: USFWS-TIJUANA SLOUGH NWR
Trend: Unknown
Presence: Presumed Extant

Location:

TIJUANA SLOUGH NATIONAL WILDLIFE REFUGE, RIVER MOUTH.

Detailed Location:

Ecological:

Threats:

General:

UNKNOWN NUMBER COLLECTED ON 15 JUL 1987, 27 JUL 1992 AND 17 JUL 2004.

PLSS: T18S, R02W, Sec. 31 (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3602197 E487828
Latitude/Longitude: 32.55711 / -117.12965
Elevation (feet): 10

County Summary:

San Diego, Pacific Ocean

Quad Summary:

Imperial Beach (3211751)

Sources:

KNI04R0002 KNISLEY, C.B. (RANDOLPH-MACON COLLEGE) - BIOLOGY AND CONSERVATION OF THE SACRAMENTO VALLEY TIGER BEETLE, CICINDELA HIRTICOLLIS ABRUPTA. REPORT TO USFWS SACRAMENTO FIELD OFFICE. 2004-11-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 72496
EO Index: 22666
Key Quad: National City (3211761)
Element Code: IICOL02113
Occurrence Number: 1
Occurrence Last Updated: 2015-05-29

Scientific Name: *Cicindela latesignata latesignata*
Common Name: western beach tiger beetle

Listing Status: **Federal:** None
*** SENSITIVE *** **State:** None
CNDDB Element Ranks: **Global:** G2G4T1T2
State: S1

Rare Plant Rank:
Other Lists:

General Habitat:
MUDFLATS AND BEACHES IN COASTAL SOUTHERN CALIFORNIA.

Micro Habitat:

Last Date Observed: 1987-03-14
Last Survey Date: 1987-03-14
Owner/Manager:
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SENSITIVE LOCATION INFORMATION SUPPRESSED.

Detailed Location:
PLEASE CONTACT THE CALIFORNIA NATURAL DIVERSITY DATABASE, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, FOR MORE INFORMATION: (916) 322-2493

Ecological:
SAND/ALKALI FLATS AROUND MOUTH OF RIVER.

Threats:
DEVELOPMENT.

General:

PLSS:
Accuracy: non-specific area
Area (acres): 286
UTM:
Latitude/Longitude:
Elevation (feet):

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

BRZ98F0005	BRZOSKA, D. - FIELD SURVEY FORM FOR CICINDELA LATESIGNATA LATESIGNATA 1998-01-30
NAG80A0001	NAGANO, C.D. (LOS ANGELES COUNTY MUSEUM) - POPULATION STATUS OF THE TIGER BEETLES OF THE GENUS CICINDELA (COLEOPTERA: CICINDELIDAE) INHABITING THE MARINE SHORELINE OF SOUTHERN CALIFORNIA. ATALA 1980(82) 8(2):33-42. 1980-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 72497
EO Index: 22663
Key Quad: Imperial Beach (3211751)
Element Code: IICOL02113
Occurrence Number: 2
Occurrence Last Updated: 2015-05-29

Scientific Name: *Cicindela latesignata latesignata*
Common Name: western beach tiger beetle

Listing Status: **Federal:** None
*** SENSITIVE *** **State:** None
CNDDB Element Ranks: **Global:** G2G4T1T2
State: S1
Rare Plant Rank:
Other Lists:

General Habitat:
MUDFLATS AND BEACHES IN COASTAL SOUTHERN CALIFORNIA.

Micro Habitat:

Last Date Observed: 1992-04-18
Last Survey Date: 1992-04-18
Owner/Manager:
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SENSITIVE LOCATION INFORMATION SUPPRESSED.

Detailed Location:
PLEASE CONTACT THE CALIFORNIA NATURAL DIVERSITY DATABASE, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, FOR MORE INFORMATION: (916) 322-2493

Ecological:
"SANDY AREAS NEAR TIJUANA SLOUGH."

Threats:

General:

PLSS:
Accuracy: non-specific area
Area (acres): 166
UTM:
Latitude/Longitude:
Elevation (feet): 10

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

BRZ98F0005	BRZOSKA, D. - FIELD SURVEY FORM FOR CICINDELA LATESIGNATA LATESIGNATA 1998-01-30
NAG80A0001	NAGANO, C.D. (LOS ANGELES COUNTY MUSEUM) - POPULATION STATUS OF THE TIGER BEETLES OF THE GENUS CICINDELA (COLEOPTERA: CICINDELIDAE) INHABITING THE MARINE SHORELINE OF SOUTHERN CALIFORNIA. ATALA 1980(82) 8(2):33-42. 1980-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03858
EO Index: 310
Key Quad: Point Loma (3211762)
Element Code: IICOL02113
Occurrence Number: 12
Occurrence Last Updated: 2012-09-14

Scientific Name: *Cicindela latesignata latesignata*
Common Name: western beach tiger beetle

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2G4T1T2
State: S1

General Habitat:
MUDFLATS AND BEACHES IN COASTAL SOUTHERN CALIFORNIA.

Micro Habitat:

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:
CORONADO.

Detailed Location:

Ecological:

Threats:

General:
HISTORICAL LOCALITY. THIS POPULATION IS CONSIDERED EXTIRPATED. A POPULATION WAS FOUND FURTHER SOUTH AT CORONADO NAS ALONG HWY 75 (SEE OCC. #22) IN 1982.

PLSS: T17S, R03W, Sec. 15 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3617001 E483723
Latitude/Longitude: 32.69060 / -117.17364
Elevation (feet): 20

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

NAG80A0001 NAGANO, C.D. (LOS ANGELES COUNTY MUSEUM) - POPULATION STATUS OF THE TIGER BEETLES OF THE GENUS CICINDELA (COLEOPTERA: CICINDELIDAE) INHABITING THE MARINE SHORELINE OF SOUTHERN CALIFORNIA. ATALA 1980(82) 8(2):33-42. 1980-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 60926
EO Index: 60962
Key Quad: Imperial Beach (3211751)
Element Code: IICOL02113
Occurrence Number: 13
Occurrence Last Updated: 2012-09-14

Scientific Name: *Cicindela latesignata latesignata*
Common Name: western beach tiger beetle

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2G4T1T2
State: S1

General Habitat:
MUDFLATS AND BEACHES IN COASTAL SOUTHERN CALIFORNIA.

Micro Habitat:

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:
IMPERIAL BEACH.

Detailed Location:
MAPPED ALONG BEACH, AS THIS BEETLE LIVES IN SANDY AREAS.

Ecological:

Threats:

General:
HISTORICAL LOCALITY.

PLSS: T18S, R02W, Sec. 30 (S)
Accuracy: non-specific area
Area (acres): 158
UTM: Zone-11 N3604898 E487562
Latitude/Longitude: 32.58147 / -117.13251
Elevation (feet): 20

County Summary:
San Diego, Pacific Ocean

Quad Summary:
Imperial Beach (3211751)

Sources:

NAG80A0001 NAGANO, C.D. (LOS ANGELES COUNTY MUSEUM) - POPULATION STATUS OF THE TIGER BEETLES OF THE GENUS CICINDELA (COLEOPTERA: CICINDELIDAE) INHABITING THE MARINE SHORELINE OF SOUTHERN CALIFORNIA. ATALA 1980(82) 8(2):33-42. 1980-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 28002
EO Index: 7340
Key Quad: Point Loma (3211762)
Element Code: IICOL02113
Occurrence Number: 14
Occurrence Last Updated: 2012-09-14

Scientific Name: *Cicindela latesignata latesignata*
Common Name: western beach tiger beetle

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2G4T1T2
State: S1

General Habitat:
MUDFLATS AND BEACHES IN COASTAL SOUTHERN CALIFORNIA.

Micro Habitat:

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:
OCEAN BEACH.

Detailed Location:

Ecological:

Threats:

General:
HISTORICAL LOCALITY.

PLSS: T16S, R04W (S)
Accuracy: non-specific area
Area (acres): 93
UTM: Zone-11 N3623177 E476249
Latitude/Longitude: 32.74618 / -117.25352
Elevation (feet): 5

County Summary:
San Diego

Quad Summary:
Point Loma (3211762), La Jolla (3211772)

Sources:

NAG80A0001 NAGANO, C.D. (LOS ANGELES COUNTY MUSEUM) - POPULATION STATUS OF THE TIGER BEETLES OF THE GENUS CICINDELA (COLEOPTERA: CICINDELIDAE) INHABITING THE MARINE SHORELINE OF SOUTHERN CALIFORNIA. ATALA 1980(82) 8(2):33-42. 1980-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17841
EO Index: 60965
Key Quad: National City (3211761)
Element Code: IICOL02113
Occurrence Number: 16
Occurrence Last Updated: 2012-09-14

Scientific Name: *Cicindela latesignata latesignata*
Common Name: western beach tiger beetle

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2G4T1T2
State: S1

General Habitat:
MUDFLATS AND BEACHES IN COASTAL SOUTHERN CALIFORNIA.

Micro Habitat:

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:
NATIONAL CITY.

Detailed Location:
MAPPED AROUND NATIONAL CITY PROPER AS SHORE AREA IS DEVELOPED, SO NO OBVIOUS TIGER BEETLE HABITAT SHOWS ON MAP.

Ecological:

Threats:

General:
HISTORICAL LOCALITY.

PLSS: T17S, R02W (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3615016 E491044
Latitude/Longitude: 32.67278 / -117.09552
Elevation (feet): 20

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

NAG80A0001 NAGANO, C.D. (LOS ANGELES COUNTY MUSEUM) - POPULATION STATUS OF THE TIGER BEETLES OF THE GENUS CICINDELA (COLEOPTERA: CICINDELIDAE) INHABITING THE MARINE SHORELINE OF SOUTHERN CALIFORNIA. ATALA 1980(82) 8(2):33-42. 1980-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36802
EO Index: 60967
Key Quad: La Jolla (3211772)
Element Code: IICOL02113
Occurrence Number: 17
Occurrence Last Updated: 2012-09-14

Scientific Name: *Cicindela latesignata latesignata*
Common Name: western beach tiger beetle

Listing Status: **Federal:** None
Rare Plant Rank:
State: None
Other Lists:
CNDDB Element Ranks: **Global:** G2G4T1T2
State: S1

General Habitat:
MUDFLATS AND BEACHES IN COASTAL SOUTHERN CALIFORNIA.

Micro Habitat:

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:
MISSION BEACH.

Detailed Location:

Ecological:

Threats:

General:
HISTORICAL LOCALITY.

PLSS: T16S, R04W, Sec. 24 (S)
Accuracy: non-specific area
Area (acres): 139
UTM: Zone-11 N3626235 E476330
Latitude/Longitude: 32.77377 / -117.25274
Elevation (feet): 20

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

NAG80A0001 NAGANO, C.D. (LOS ANGELES COUNTY MUSEUM) - POPULATION STATUS OF THE TIGER BEETLES OF THE GENUS CICINDELA (COLEOPTERA: CICINDELIDAE) INHABITING THE MARINE SHORELINE OF SOUTHERN CALIFORNIA. ATALA 1980(82) 8(2):33-42. 1980-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03758
EO Index: 60963
Key Quad: Point Loma (3211762)
Element Code: IICOL02113
Occurrence Number: 18
Occurrence Last Updated: 2012-09-14

Scientific Name: *Cicindela latesignata latesignata*
Common Name: western beach tiger beetle

Listing Status: **Federal:** None
Rare Plant Rank:
State: None
Other Lists:
CNDDB Element Ranks: **Global:** G2G4T1T2
State: S1

General Habitat:
MUDFLATS AND BEACHES IN COASTAL SOUTHERN CALIFORNIA.

Micro Habitat:

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: None
Owner/Manager: DOD-NAVY
Trend: Unknown
Presence: Extirpated

Location:
NORTH ISLAND.

Detailed Location:
MAPPED OVER ENTIRE AREA; BEETLE MOST LIKELY OCCURRED ALONG BEACH, BUT EXACT LOCATION UNKNOWN.

Ecological:

Threats:

General:
HISTORICAL LOCALITY.

PLSS: T17S, R03W, Sec. 17 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3618040 E480464
Latitude/Longitude: 32.69992 / -117.20842
Elevation (feet): 20

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

NAG80A0001 NAGANO, C.D. (LOS ANGELES COUNTY MUSEUM) - POPULATION STATUS OF THE TIGER BEETLES OF THE GENUS CICINDELA (COLEOPTERA: CICINDELIDAE) INHABITING THE MARINE SHORELINE OF SOUTHERN CALIFORNIA. ATALA 1980(82) 8(2):33-42. 1980-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 60912
EO Index: 60948
Key Quad: Point Loma (3211762)
Element Code: IICOL02113
Occurrence Number: 22
Occurrence Last Updated: 2005-04-11

Scientific Name: *Cicindela latesignata latesignata*
Common Name: western beach tiger beetle

Listing Status: **Federal:** None
*** SENSITIVE *** **State:** None
CNDDB Element Ranks: **Global:** G2G4T1T2
State: S1
Rare Plant Rank:
Other Lists:

General Habitat:
MUDFLATS AND BEACHES IN COASTAL SOUTHERN CALIFORNIA.

Micro Habitat:

Last Date Observed: 1984-08-20
Last Survey Date: 1984-08-20
Owner/Manager:
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SENSITIVE LOCATION INFORMATION SUPPRESSED.

Detailed Location:
PLEASE CONTACT THE CALIFORNIA NATURAL DIVERSITY DATABASE, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, FOR MORE INFORMATION: (916) 322-2493

Ecological:

Threats:

General:

PLSS:
Accuracy: non-specific area
Area (acres): 175
UTM:
Latitude/Longitude:
Elevation (feet): 10

County Summary:
San Diego, Pacific Ocean

Quad Summary:
Point Loma (3211762)

Sources:
BRZ98F0005 BRZOSKA, D. - FIELD SURVEY FORM FOR CICINDELA LATESIGNATA LATESIGNATA 1998-01-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04076
EO Index: 60947
Key Quad: Imperial Beach (3211751)
Element Code: IICOL02121
Occurrence Number: 13
Occurrence Last Updated: 2015-05-29

Scientific Name: *Cicindela senilis frosti*
Common Name: senile tiger beetle

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2G3T1T3
State: S1

General Habitat:

INHABITS MARINE SHORELINE, FROM CENTRAL CALIFORNIA COAST SOUTH TO SALT MARSHES OF SAN DIEGO. ALSO FOUND AT LAKE ELSINORE

Micro Habitat:

INHABITS DARK-COLORED MUD IN THE LOWER ZONE AND DRIED SALT PANS IN THE UPPER ZONE.

Last Date Observed: 1992-04-18
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1992-04-18
Occurrence Rank: Unknown
Owner/Manager: DPR-BORDER FIELD SP
Trend: Unknown
Presence: Presumed Extant

Location:

BORDER FIELD STATE PARK.

Detailed Location:

Ecological:

IN MUDDY ALKALI AREA.

Threats:

General:

UNKNOWN NUMBER COLLECTED 18 APR 1992 BY D. BRZOSKA.

PLSS: T19S, R02W, Sec. 07 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3599951 E488543
Latitude/Longitude: 32.53686 / -117.12200
Elevation (feet): 20

County Summary:

San Diego, Mexico

Quad Summary:

Imperial Beach (3211751)

Sources:

BRZ98F0002 BRZOSKA, D. - FIELD SURVEY FORM FOR CICINDELA SENILIS FROSTI 1998-01-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	16036	**EO Index:**	13261
Key Quad:	Imperial Beach (3211751)	**Element Code:**	IICOL4A010
Occurrence Number:	2	**Occurrence Last Updated:**	2010-04-06

Scientific Name: *Coelus globosus* **Common Name:** globose dune beetle

Listing Status: **Federal:** None **Rare Plant Rank:**

State: None **Other Lists:** IUCN_VU-Vulnerable

CNDDB Element Ranks: **Global:** G1G2

State: S1S2

General Habitat:

INHABITANT OF COASTAL SAND DUNE HABITAT; ERRATICALLY DISTRIBUTED FROM TEN MILE CREEK IN MENDOCINO COUNTY SOUTH TO ENSENADA, MEXICO.

Micro Habitat:

INHABITS FOREDUNES AND SAND HUMMOCKS; IT BURROWS BENEATH THE SAND SURFACE AND IS MOST COMMON BENEATH DUNE VEGETATION.

Last Date Observed:	2006-09-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2006-09-24	**Occurrence Rank:**	Unknown
Owner/Manager:	DPR-BORDER FIELD SP	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

TIJUANA ESTUARY. BORDER FIELD STATE PARK.

Detailed Location:

1982: FOUND IN LOW NUMBERS ON THE NORTH BARRIER BEACH AND IN VERY LOW NUMBERS ON THE SOUTH BARRIER BEACH. 2006: COLLECTED ABOUT 0.22 MI NORTH OF THE MEXICAN BORDER.

Ecological:

1982: FOUND IN ASSOCIATION WITH NATIVE DUNE VEGETATION.

Threats:

ORV'S AND HORSES POSE THREATS TO THE SOUTH BEACH POPULATION. HUMAN USE IS THE MAIN THREAT TO THE NORTH BEACH POPULATION.

General:

14 JUL 1982: LOW NUMBERS OBS. MAY BE DUE TO SURVEY DURING HOT, DRY SUMMER MONTHS. 24 SEP 2006: 16 COLLECTED BY CATERINO & CHATZIMANOLIS & DESPOSITED IN THE SANTA BARBARA MUSEUM OF NATURAL HISTORY.

PLSS:	T19S, R02W, Sec. 06 (S)	**Accuracy:**	non-specific area	**Area (acres):**	197
UTM:	Zone-11 N3601451 E488145	**Latitude/Longitude:**	32.55038 / -117.12627	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

NAG82R0002	NAGANO, C.D. (LOS ANGELES COUNTY MUSEUM) - THE POPULATION STATUS OF SEVEN SPECIES OF INSECTS INHABITING TIJUANA ESTUARY NWR, SAN DIEGO COUNTY, CALIFORNIA. CONTRACT #11310-1400-710. 1982-XX-XX
SBM10S0001	SBMNH (SANTA BARBARA MUSEUM OF NATURAL HISTORY) - PRINT OUT OF THE COELUS GLOBOSUS SPECIMENS IN THE SBMNH 2010-03-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	61089	**EO Index:**	61125
Key Quad:	Point Loma (3211762)	**Element Code:**	IICOL4A010
Occurrence Number:	23	**Occurrence Last Updated:**	2005-04-25

Scientific Name: *Coelus globosus*

Common Name: globose dune beetle

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: IUCN_VU-Vulnerable

CNDDB Element Ranks: **Global:** G1G2

State: S1S2

General Habitat:

INHABITANT OF COASTAL SAND DUNE HABITAT; ERRATICALLY DISTRIBUTED FROM TEN MILE CREEK IN MENDOCINO COUNTY SOUTH TO ENSENADA, MEXICO.

Micro Habitat:

INHABITS FOREDUNES AND SAND HUMMOCKS; IT BURROWS BENEATH THE SAND SURFACE AND IS MOST COMMON BENEATH DUNE VEGETATION.

Last Date Observed:	1971-03-25	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1971-03-25	**Occurrence Rank:**	Unknown
Owner/Manager:	DPR-SILVER STRAND SB	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SILVER STRAND STATE PARK, 1 MILE SOUTH OF CORONADO.

Detailed Location:

Ecological:

TAKEN ON ABRONIA.

Threats:

General:

8 SPECIMENS DEPOSITED IN CALIFORNIA STATE COLLECTION OF ARTHROPODS, CDFA.

PLSS:	T17S, R03W, Sec. 26 (S)	**Accuracy:**	non-specific area	**Area (acres):**	29
UTM:	Zone-11 N3614477 E484602	**Latitude/Longitude:**	32.66784 / -117.16421	**Elevation (feet):**	20

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

SHA05S0006	SHANKS, S. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-CALIFORNIA NATURAL DIVERSITY DATABASE) - MUSEUM SPECIMEN DATA TAKEN FROM CALIFORNIA STATE COLLECTION OF ARTHROPODS (CDFA). 2005-04-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86733
EO Index: 61126
Key Quad: Imperial Beach (3211751)
Element Code: IICOL4A010
Occurrence Number: 24
Occurrence Last Updated: 2012-09-18

Scientific Name: *Coelus globosus*
Common Name: globose dune beetle

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: IUCN_VU-Vulnerable

CNDDB Element Ranks: **Global:** G1G2
State: S1S2

General Habitat:

INHABITANT OF COASTAL SAND DUNE HABITAT; ERRATICALLY DISTRIBUTED FROM TEN MILE CREEK IN MENDOCINO COUNTY SOUTH TO ENSENADA, MEXICO.

Micro Habitat:

INHABITS FOREDUNES AND SAND HUMMOCKS; IT BURROWS BENEATH THE SAND SURFACE AND IS MOST COMMON BENEATH DUNE VEGETATION.

Last Date Observed: 1970-06-18
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1970-06-18
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

IMPERIAL BEACH.

Detailed Location:

MAPPED ALONG BEACH.

Ecological:

INHABITS FOREDUNES AND SAND HUMMOCKS WITHIN 50 M OF THE HIGH TIDE LINE.

Threats:

General:

3 SPECIMENS COLLECTED 16-18 JUN 1970 AND DEPOSITED IN CALIFORNIA STATE COLLECTION OF ARTHROPODS, CDFA.

PLSS: T18S, R02W, Sec. 30 (S)
Accuracy: non-specific area
Area (acres): 41
UTM: Zone-11 N3604966 E487550
Latitude/Longitude: 32.58208 / -117.13265
Elevation (feet): 20

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

SHA05S0006 SHANKS, S. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-CALIFORNIA NATURAL DIVERSITY DATABASE) - MUSEUM SPECIMEN DATA TAKEN FROM CALIFORNIA STATE COLLECTION OF ARTHROPODS (CDFA). 2005-04-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03519
Key Quad: La Jolla (3211772)
Occurrence Number: 174
EO Index: 98187
Element Code: IIHYM24380
Occurrence Last Updated: 2015-07-23

Scientific Name: *Bombus caliginosus*
Common Name: obscure bumble bee

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: IUCN_VU-Vulnerable

CNDDB Element Ranks: **Global:** G4?
State: S1S2

General Habitat:
COASTAL AREAS FROM SANTA BARABARA COUNTY TO NORTH TO WASHINGTON STATE.

Micro Habitat:
FOOD PLANT GENERA INCLUDE BACCHARIS, CIRSIUM, LUPINUS, LOTUS, GRINDELIA AND PHACELIA.

Last Date Observed: 1911-08-14
Last Survey Date: 1911-08-14
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
LA JOLLA.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN THE GENERAL VICINITY OF LA JOLLA.

Ecological:

Threats:

General:
COLLECTED 14 AUG 1911.

PLSS: T15S, R04W, Sec. 27 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3633342 E473790
Latitude/Longitude: 32.83782 / -117.28005
Elevation (feet): 50

County Summary:
San Diego, Pacific Ocean

Quad Summary:
La Jolla (3211772)

Sources:
ANO11S0008 ANONYMOUS - BBSL USNM #740725 COLLECTED FROM LA JOLLA 1911-08-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 97764
EO Index: 99148
Key Quad: Jamul Mountains (3211668)
Element Code: IIHYM24480
Occurrence Number: 225
Occurrence Last Updated: 2020-02-27

Scientific Name: *Bombus crotchii*
Common Name: Crotch bumble bee

Listing Status: **Federal:** None
State: Candidate Endangered
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G3G4
State: S1S2

General Habitat:

COASTAL CALIFORNIA EAST TO THE SIERRA-CASCADE CREST AND SOUTH INTO MEXICO.

Micro Habitat:

FOOD PLANT GENERA INCLUDE ANTIRRHINUM, PHACELIA, CLARKIA, DENDROMECON, ESCHSCHOLZIA, AND ERIOGONUM.

Last Date Observed: 1980-04-27
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1980-04-27
Occurrence Rank: Unknown
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:

DICTIONARY HILL BETWEEN THE COMMUNITIES OF SPRING VALLEY AND LA PRESA, ABOUT 9 MILES EAST OF DOWNTOWN SAN DIEGO.

Detailed Location:

LOCATION ONLY STATED AS DICTIONARY HILL. MAPPED NON-SPECIFICALLY TO THE OPEN SPACE AREA OF THE HILL.

Ecological:

175 ACRES OF DICTIONARY HILL HAS BEEN PRESERVED BY THE SAN DIEGO COUNTY BOARD OF SUPERVISORS AS OF NOV 2017 AND ADDED TO THE MSCP IN COOPERATION WITH COUNTY PARKS DEPARTMENT AND DICTIONARY HILL OPEN SPACE ADVOCATES.

Threats:

General:

COLLECTED 10 MAR 1979. TWO COLLECTED ON 27 APR 1980 AND DEPOSITED IN THE PINNED COLLECTION AT SDNHM.

PLSS: T17S, R01W, Sec. 04 (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3620900 E500621
Latitude/Longitude: 32.72589 / -116.99336
Elevation (feet): 1,050

County Summary:

San Diego

Quad Summary:

Jamul Mountains (3211668), National City (3211761)

Sources:

ANO80S0020 ANONYMOUS - SDNHM #114777 COLLECTED FROM DICTIONARY HILL 1980-04-27
ANO80S0024 ANONYMOUS - SDNHM #114797 COLLECTED FROM DICTIONARY HILL 1980-04-27
HAW79S0001 HAWKS, D. - UCRC ENT #289359 FROM DICTIONARY HILL 1979-03-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04388	**EO Index:**	99149
Key Quad:	La Mesa (3211771)	**Element Code:**	IIHYM24480
Occurrence Number:	226	**Occurrence Last Updated:**	2015-10-08

Scientific Name: *Bombus crotchii* **Common Name:** Crotch bumble bee

Listing Status: **Federal:** None **Rare Plant Rank:**

State: Candidate Endangered **Other Lists:**

CNDDB Element Ranks: **Global:** G3G4

State: S1S2

General Habitat:

COASTAL CALIFORNIA EAST TO THE SIERRA-CASCADE CREST AND SOUTH INTO MEXICO.

Micro Habitat:

FOOD PLANT GENERA INCLUDE ANTIRRHINUM, PHACELIA, CLARKIA, DENDROMECON, ESCHSCHOLZIA, AND ERIOGONUM.

Last Date Observed:	1957-04-18	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1957-04-18	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SPRING VALLEY.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AT THE COMMUNITY OF SPRING VALLEY, EAST OF SAN DIEGO.

Ecological:

Threats:

General:

COLLECTIONS WERE MADE IN THIS VICINITY ON 4 JUL 1956 AND 18 APR 1957.

PLSS:	T16S, R01W, Sec. 29 (S)	**Accuracy:**	1 mile	**Area (acres):**	0
UTM:	Zone-11 N3624100 E499268	**Latitude/Longitude:**	32.75476 / -117.00781	**Elevation (feet):**	500

County Summary:

San Diego

Quad Summary:

Jamul Mountains (3211668), El Cajon (3211678), National City (3211761), La Mesa (3211771)

Sources:

ANO56S0006	ANONYMOUS - CSCA #239 COLLECTED FROM SPRING VALLEY 1956-07-04
ANO57S0008	ANONYMOUS - CSCA #243 COLLECTED FROM SPRING VALLEY 1957-04-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B5155
EO Index: 118093
Key Quad: La Jolla (3211772)
Element Code: IIHYM24480
Occurrence Number: 240
Occurrence Last Updated: 2020-02-24

Scientific Name: *Bombus crotchii*
Common Name: Crotch bumble bee

Listing Status: **Federal:** None
State: Candidate Endangered
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G3G4
State: S1S2

General Habitat:

COASTAL CALIFORNIA EAST TO THE SIERRA-CASCADE CREST AND SOUTH INTO MEXICO.

Micro Habitat:

FOOD PLANT GENERA INCLUDE ANTIRRHINUM, PHACELIA, CLARKIA, DENDROMECON, ESCHSCHOLZIA, AND ERIOGONUM.

Last Date Observed: 2019-05-13
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2019-05-13
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

MISSION VALLEY PRESERVE, ABOUT 0.3 MILES NE OF MORENA BLVD AT I-8, NORTH SIDE OF SAN DIEGO RIVER, SAN DIEGO.

Detailed Location:

FOUND ON THE SOUTH SIDE OF A PARKING LOT, NORTH SIDE OF SAN DIEGO RIVER.

Ecological:

FORAGING ON SALVIA CLEVELANDII (CLEVELAND SAGE). HABITAT DESCRIBED AS MIXED RIPARIAN SCRUB/UPLAND TRANSITION, PREDOMINANTLY MULEFAT WITH CLEVELAND'S SAGE.

Threats:

General:

ONE FOUND NECTARING ON SALVIA CLEVELANDII AND PHOTOGRAPHED ON 13 MAY 2019; ID CONFIRMED FROM PHOTOGRAPH BY J. HUNG, UCSD.

PLSS: T16S, R03W, Sec. 21, SE (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3624995 E481894
Latitude/Longitude: 32.76268 / -117.1933
Elevation (feet): 11

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

LEE19F0003 LEE, A. (ESA) - FIELD SURVEY FORM FOR BOMBUS CROTCHII 2019-05-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B5163	**EO Index:**	118101
Key Quad:	Point Loma (3211762)	**Element Code:**	IIHYM24480
Occurrence Number:	248	**Occurrence Last Updated:**	2020-02-25

Scientific Name: *Bombus crotchii*

Common Name: Crotch bumble bee

Listing Status: **Federal:** None

State: Candidate Endangered

Rare Plant Rank:

Other Lists:

CNDDB Element Ranks: **Global:** G3G4

State: S1S2

General Habitat:

COASTAL CALIFORNIA EAST TO THE SIERRA-CASCADE CREST AND SOUTH INTO MEXICO.

Micro Habitat:

FOOD PLANT GENERA INCLUDE ANTIRRHINUM, PHACELIA, CLARKIA, DENDROMECON, ESCHSCHOLZIA, AND ERIOGONUM.

Last Date Observed:	1995-11-30	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1995-11-30	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

FLORIDA CANYON (AKA POWERHOUSE CANYON) JUST EAST OF THE SAN DIEGO NATURAL HISTORY MUSEUM, BALBOA PARK, SAN DIEGO.

Detailed Location:

MAPPED GENERALLY TO THE OPEN SPACE AREA OF FLORIDA CANYON NEXT TO THE MUSEUM. USGS TOPO MAPS LABLE THE CANYON AS POWERHOUSE CANYON AND THE ROAD THAT GOES THROUGH IT AS FLORIDA DRIVE. MANY CITY REFERENCES REFER TO IT AS FLORIDA CANYON.

Ecological:

THIS APPEARS TO BE AN OPEN SPACE AREA OF BALBOA PARK WITH NATIVE COASTAL SAGE SCUB VEGETATION.

Threats:

INSECTICIDE SPRAYING IN THE 1970S TO CONTROL A POSSIBLE JAPANESE BEETLE INFESTATION.

General:

THIS WAS THE FIRST BOMBUS COLLECTED BY D.K. FAULKNER AFTER THE PARK WAS SPRAYED WITH INSECTICIDE IN THE 1970S; COLLECTED ON 30 NOV 1995.

PLSS:	T16S, R03W, Sec. 36, S (S)	**Accuracy:**	non-specific area	**Area (acres):**	118
UTM:	Zone-11 N3622008 E486526	**Latitude/Longitude:**	32.7358 / -117.14381	**Elevation (feet):**	168

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

FAU19U0001	FAULKNER, D. - CORRESPONDENCE AND INFORMATION ON RECENT RECORDS FOR BOMBUS CROTCHII. 2019-09-09
FAU95S0001	FAULKNER, D. - SDNHM #114758 COLLECTED AT BALBOA PARK SDNHM [FLORIDA CANYON] 1995-11-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B5181	**EO Index:**	118122
Key Quad:	La Mesa (3211771)	**Element Code:**	IIHYM24480
Occurrence Number:	252	**Occurrence Last Updated:**	2020-02-27

Scientific Name: *Bombus crotchii* **Common Name:** Crotch bumble bee

Listing Status: **Federal:** None **Rare Plant Rank:**

State: Candidate Endangered **Other Lists:**

CNDDB Element Ranks: **Global:** G3G4

State: S1S2

General Habitat:

COASTAL CALIFORNIA EAST TO THE SIERRA-CASCADE CREST AND SOUTH INTO MEXICO.

Micro Habitat:

FOOD PLANT GENERA INCLUDE ANTIRRHINUM, PHACELIA, CLARKIA, DENDROMECON, ESCHSCHOLZIA, AND ERIOGONUM.

Last Date Observed:	1983-06-19	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1983-06-19	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MISSION GORGE, MISSION TRAILS REGIONAL PARK, SAN DIEGO.

Detailed Location:

LOCATION ONLY STATED AS MISSION GORGE; MAPPED GENERALLY TO THE 2.5 MILE GORGE AREA.

Ecological:

Threats:

General:

4 COLLECTED BY R.B PARKS ON 28 MAR 1981, 3 & 23 APR 1983, AND 19 JUN 1983; DEPOSITED IN THE PINNED COLLECTION AT SDNHM.

PLSS:	T15S, R02W, Sec. 35 (S)	**Accuracy:**	non-specific area	**Area (acres):**	1,480
UTM:	Zone-11 N3631900 E494937	**Latitude/Longitude:**	32.82511 / -117.05409	**Elevation (feet):**	198

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

PAR81S0041	PARKS, R. - SDNHM #114778 COLLECTED FROM MISSION GORGE 1981-03-28
PAR83S0008	PARKS, R. - SDNHM #114743 COLLECTED FROM MISSION GORGE 1983-06-19
PAR83S0010	PARKS, R. - SDNHM #114765 COLLECTED FROM MISSION GORGE 1983-04-23
PAR83S0011	PARKS, R. - SDNHM #114791 COLLECTED FROM MISSION GORGE 1983-04-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03519
EO Index: 119527
Key Quad: La Jolla (3211772)
Element Code: IIHYM24480
Occurrence Number: 356
Occurrence Last Updated: 2020-11-17

Scientific Name: *Bombus crotchii*
Common Name: Crotch bumble bee

Listing Status: **Federal:** None
Rare Plant Rank:
State: Candidate Endangered
Other Lists:

CNDDB Element Ranks: **Global:** G3G4
State: S1S2

General Habitat:

COASTAL CALIFORNIA EAST TO THE SIERRA-CASCADE CREST AND SOUTH INTO MEXICO.

Micro Habitat:

FOOD PLANT GENERA INCLUDE ANTIRRHINUM, PHACELIA, CLARKIA, DENDROMECON, ESCHSCHOLZIA, AND ERIOGONUM.

Last Date Observed: 1928-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1928-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

LA JOLLA.

Detailed Location:

MAPPED GENERALLY TO PROVIDED SPECIMEN LOCALITY.

Ecological:

Threats:

DEVELOPMENT SINCE THE TIME OF COLLECTION.

General:

11 SPECIMENS COLLECTED BETWEEN 1901 AND 1928, IN USNM.

PLSS: T15S, R04W, Sec. 27 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3633342 E473790
Latitude/Longitude: 32.83782 / -117.28005
Elevation (feet): 100

County Summary:

San Diego, Pacific Ocean

Quad Summary:

La Jolla (3211772)

Sources:

ANO28S0016 ANONYMOUS - USNM SPECIMENS COLLECTED FROM LA JOLLA BETWEEN 1901 & 1928 (USNMENT #997716, 997976, 1005916, 1002258, 1001443, 1007925, 1002312, 1001352, 1008460, 1004069, 1005982) 1928-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68466
Key Quad: Point Loma (3211762)
Occurrence Number: 359
EO Index: 119532
Element Code: IIHYM24480
Occurrence Last Updated: 2020-11-25

Scientific Name: *Bombus crotchii*
Common Name: Crotch bumble bee

Listing Status: **Federal:** None
State: Candidate Endangered
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G3G4
State: S1S2

General Habitat:

COASTAL CALIFORNIA EAST TO THE SIERRA-CASCADE CREST AND SOUTH INTO MEXICO.

Micro Habitat:

FOOD PLANT GENERA INCLUDE ANTIRRHINUM, PHACELIA, CLARKIA, DENDROMECON, ESCHSCHOLZIA, AND ERIOGONUM.

Last Date Observed: 1966-04-12
Last Survey Date: 1966-04-12
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SAN DIEGO.

Detailed Location:

MAPPED GENERALLY TO PROVIDED SPECIMEN LOCALITY.

Ecological:

Threats:

MUCH OF THIS AREA HAS BEEN DEVELOPED.

General:

1 COLLECTED ON 1 APR 1916. 1 COLLECTED ON 14 MAR 1953. 1 COLLECTED ON 12 APR 1966.

PLSS: T17S, R03W, Sec. 11 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3619708 E485384
Latitude/Longitude: 32.71505 / -117.15595
Elevation (feet): 80

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

ANO66S0010 ANONYMOUS - LACM ENT #264 COLLECTED FROM SAN DIEGO 1966-04-12
BAR53S0002 BARNES, A. - EMEC #554273 COLLECTED FROM SAN DIEGO 1953-03-14
DYA16S0001 DYAR - USNM ENT #1004780 COLLECTED FROM SAN DIEGO 1916-04-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B6474	**EO Index:**	119535
Key Quad:	La Mesa (3211771)	**Element Code:**	IIHYM24480
Occurrence Number:	360	**Occurrence Last Updated:**	2020-11-18

Scientific Name: *Bombus crotchii* **Common Name:** Crotch bumble bee

Listing Status: **Federal:** None **Rare Plant Rank:**

State: Candidate Endangered **Other Lists:**

CNDDB Element Ranks: **Global:** G3G4

State: S1S2

General Habitat:

COASTAL CALIFORNIA EAST TO THE SIERRA-CASCADE CREST AND SOUTH INTO MEXICO.

Micro Habitat:

FOOD PLANT GENERA INCLUDE ANTIRRHINUM, PHACELIA, CLARKIA, DENDROMECON, ESCHSCHOLZIA, AND ERIOGONUM.

Last Date Observed:	2011-05-31	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2011-05-31	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

1.4 AIR MILES NE OF THE INTERSECTION OF CLAIREMONT MESA BLVD AND RUEDA DR, IN MISSION TRAILS REGIONAL PARK, SAN DIEGO.

Detailed Location:

MAPPED TO COORDINATES GIVEN FOR HUNG ET AL. STUDY PLOT MTI2.

Ecological:

COLLECTED WITH AERIAL NET AND BOWL TRAPS DURING POLLINATOR SURVEYS. BOMBUS CALIFORNICUS, B. MELANOPYGUS & B. VOSNESENSKI ALSO FOUND.

Threats:

General:

2 COLLECTED ON 12 APR, 1 ON 19 MAY, AND 2 ON 31 MAY 2011.

PLSS:	T15S, R02W, Sec. 26, SW (S)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3633806 E493927	**Latitude/Longitude:**	32.8423 / -117.0649	**Elevation (feet):**	625

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

HUN20D0001 HUNG, K. - TABLE OF BUMBLE BEE DETECTION DATA FROM STUDIES CONDUCTED IN AND AROUND SAN DIEGO, 2011-2016 2020-10-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B6475	**EO Index:**	119536
Key Quad:	La Mesa (3211771)	**Element Code:**	IIHYM24480
Occurrence Number:	361	**Occurrence Last Updated:**	2020-11-17

Scientific Name: *Bombus crotchii* **Common Name:** Crotch bumble bee

Listing Status:	**Federal:**	None	**Rare Plant Rank:**	
	State:	Candidate Endangered	**Other Lists:**	
CNDDB Element Ranks:	**Global:**	G3G4		
	State:	S1S2		

General Habitat:

COASTAL CALIFORNIA EAST TO THE SIERRA-CASCADE CREST AND SOUTH INTO MEXICO.

Micro Habitat:

FOOD PLANT GENERA INCLUDE ANTIRRHINUM, PHACELIA, CLARKIA, DENDROMECON, ESCHSCHOLZIA, AND ERIOGONUM.

Last Date Observed:	2017-05-17	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-05-17	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALONG RIM TRAIL, 0.3 MILES SW OF SUYCOTT VALLEY TRAIL, MISSION TRAILS REGIONAL PARK, SAN DIEGO.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

DETECTED ON CALIFORNIA BUCKWHEAT IN REGIONAL PARK.

Threats:

General:

1 OBSERVED AND PHOTOGRAPHED ON 17 MAY 2017.

PLSS:	T15S, R02W, Sec. 27, SE (S)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3633517 E493354	**Latitude/Longitude:**	32.83969 / -117.07102	**Elevation (feet):**	852

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

INA17U0060 INATURALIST & T. BARNES - OBSERVATION 22038495 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2020-09-29 2017-05-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B6476
EO Index: 119538
Key Quad: La Mesa (3211771)
Element Code: IIHYM24480
Occurrence Number: 362
Occurrence Last Updated: 2020-11-17

Scientific Name: *Bombus crotchii*
Common Name: Crotch bumble bee

Listing Status: **Federal:** None
Rare Plant Rank:
State: Candidate Endangered
Other Lists:
CNDDB Element Ranks: **Global:** G3G4
State: S1S2

General Habitat:
COASTAL CALIFORNIA EAST TO THE SIERRA-CASCADE CREST AND SOUTH INTO MEXICO.

Micro Habitat:
FOOD PLANT GENERA INCLUDE ANTIRRHINUM, PHACELIA, CLARKIA, DENDROMECON, ESCHSCHOLZIA, AND ERIOGONUM.

Last Date Observed: 2016-04-05
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2016-04-05
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
0.2 MILES SOUTH OF THE NORTH END OF CORTE PLAYA CATALINA, MISSION TRAILS REGIONAL PARK, SAN DIEGO.

Detailed Location:
MAPPED TO COORDINATES PROVIDED FOR HUNG ET AL. STUDY PLOTS MTE2 & MTE4.

Ecological:
2011: COLLECTED FROM BOWL TRAP. 2016: OBSERVED ON SALVIA APIANA.

Threats:

General:
1 COLLECTED ON 19 MAY 2011. 1 OBSERVED ON 5 APR 2016.

PLSS: T15S, R02W, Sec. 27, SW (S)
Accuracy: specific area
Area (acres): 10
UTM: Zone-11 N3632904 E492702
Latitude/Longitude: 32.83416 / -117.07798
Elevation (feet): 643

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
HUN20D0001 HUNG, K. - TABLE OF BUMBLE BEE DETECTION DATA FROM STUDIES CONDUCTED IN AND AROUND SAN DIEGO, 2011-2016 2020-10-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B6480	**EO Index:**	119541
Key Quad:	La Mesa (3211771)	**Element Code:**	IIHYM24480
Occurrence Number:	363	**Occurrence Last Updated:**	2020-11-18

Scientific Name: *Bombus crotchii* **Common Name:** Crotch bumble bee

Listing Status: **Federal:** None **Rare Plant Rank:**

State: Candidate Endangered **Other Lists:**

CNDDB Element Ranks: **Global:** G3G4

State: S1S2

General Habitat:

COASTAL CALIFORNIA EAST TO THE SIERRA-CASCADE CREST AND SOUTH INTO MEXICO.

Micro Habitat:

FOOD PLANT GENERA INCLUDE ANTIRRHINUM, PHACELIA, CLARKIA, DENDROMECON, ESCHSCHOLZIA, AND ERIOGONUM.

Last Date Observed:	2020-07-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2020-07-26	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

1.7 MILES WNW OF THE INTERSECTION OF MAST BLVD AND WEST HILLS PARKWAY, EAST ELLIOTT PRESERVE, SAN DIEGO.

Detailed Location:

MAPPED TO PROVIDED COORDINATES, ALONG OAK CANYON BIKE PATH.

Ecological:

Threats:

General:

1 MALE OBSERVED AND PHOTOGRAPHED ON 26 JUL 2020.

PLSS:	T15S, R02W, Sec. 23, NE (S)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3635305 E495141	**Latitude/Longitude:**	32.85582 / -117.05193	**Elevation (feet):**	512

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

INA20U0093	INATURALIST & K. SWEENEY - OBSERVATION 54493639 FROM HTTPS://WWW.INATURALIST.ORG/ ACCESSED 2020-10-07 2020-07-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B6481	**EO Index:**	119542
Key Quad:	La Mesa (3211771)	**Element Code:**	IIHYM24480
Occurrence Number:	364	**Occurrence Last Updated:**	2020-11-18

Scientific Name: *Bombus crotchii*

Common Name: Crotch bumble bee

Listing Status: **Federal:** None

State: Candidate Endangered

Rare Plant Rank:

Other Lists:

CNDDB Element Ranks: **Global:** G3G4

State: S1S2

General Habitat:

COASTAL CALIFORNIA EAST TO THE SIERRA-CASCADE CREST AND SOUTH INTO MEXICO.

Micro Habitat:

FOOD PLANT GENERA INCLUDE ANTIRRHINUM, PHACELIA, CLARKIA, DENDROMECON, ESCHSCHOLZIA, AND ERIOGONUM.

Last Date Observed:	2020-07-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2020-07-26	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

2.0 MILES WNW OF THE INTERSECTION OF MAST BLVD AND WEST HILLS PARKWAY, EAST ELLIOTT PRESERVE, SAN DIEGO.

Detailed Location:

MAPPED TO PROVIDED COORDINATES, ALONG OAK CANYON BIKE PATH.

Ecological:

Threats:

General:

1 DEAD INDIVIDUAL OBSERVED AND PHOTOGRAPHED ON 26 JUL 2020.

PLSS:	T15S, R02W, Sec. 23, NE (S)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3635784 E494969	**Latitude/Longitude:**	32.86014 / -117.05377	**Elevation (feet):**	541

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

INA20U0094	INATURALIST & K. SWEENEY - OBSERVATION 54493889 FROM HTTPS://WWW.INATURALIST.ORG/ ACCESSED 2020-10-07 2020-07-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B6494	**EO Index:**	119555
Key Quad:	Imperial Beach (3211751)	**Element Code:**	IIHYM24480
Occurrence Number:	371	**Occurrence Last Updated:**	2020-11-18

Scientific Name: *Bombus crotchii* **Common Name:** Crotch bumble bee

Listing Status: **Federal:** None **Rare Plant Rank:**

State: Candidate Endangered **Other Lists:**

CNDDB Element Ranks: **Global:** G3G4

State: S1S2

General Habitat:

COASTAL CALIFORNIA EAST TO THE SIERRA-CASCADE CREST AND SOUTH INTO MEXICO.

Micro Habitat:

FOOD PLANT GENERA INCLUDE ANTIRRHINUM, PHACELIA, CLARKIA, DENDROMECON, ESCHSCHOLZIA, AND ERIOGONUM.

Last Date Observed:	2017-06-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-06-10	**Occurrence Rank:**	Unknown
Owner/Manager:	DPR-BORDER FIELD SP	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BORDER FIELD SP, ABOUT 1.3 MI WSW OF THE JCT OF MONUMENT RD & SATURN BLVD, 2.0 MI SSE OF THE JCT OF 5TH ST & IRIS AVE.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

Threats:

General:

UP TO 10 OBSERVED, AT LEAST 1 PHOTOGRAPHED ON 10 JUN 2017.

PLSS:	T19S, R02W, Sec. 5, SW (S)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3600467 E489246	**Latitude/Longitude:**	32.54152 / -117.11453	**Elevation (feet):**	13

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

INA17U0061 INATURALIST - OBSERVATION 6599351 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2020-09-29 2017-06-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B6522
EO Index: 119583
Key Quad: National City (3211761)
Element Code: IIHYM24480
Occurrence Number: 376
Occurrence Last Updated: 2020-11-20

Scientific Name: *Bombus crotchii*
Common Name: Crotch bumble bee

Listing Status: **Federal:** None
State: Candidate Endangered
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G3G4
State: S1S2

General Habitat:
COASTAL CALIFORNIA EAST TO THE SIERRA-CASCADE CREST AND SOUTH INTO MEXICO.

Micro Habitat:
FOOD PLANT GENERA INCLUDE ANTIRRHINUM, PHACELIA, CLARKIA, DENDROMECON, ESCHSCHOLZIA, AND ERIOGONUM.

Last Date Observed: 2017-06-02
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2017-06-02
Occurrence Rank: Unknown
Owner/Manager: USFWS-SAN DIEGO BAY NWR
Trend: Unknown
Presence: Presumed Extant

Location:
NEAR THE WESTERN END OF GUNPOWDER POINT DRIVE, SAN DIEGO BAY NATIONAL WILDLIFE REFUGE, CHULA VISTA.

Detailed Location:
MAPPED TO PROVIDED COORDINATES. LOCATION DESCRIBED AS LIVING COAST DISCOVERY CENTER.

Ecological:

Threats:

General:
1 OBSERVED AND PHOTOGRAPHED ON 2 JUN 2017.

PLSS: T18S, R02W, Sec. 5, N (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3611352 E489651
Latitude/Longitude: 32.63972 / -117.11034
Elevation (feet): 13

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
INA17U0069 INATURALIST - OBSERVATION 41984593 FROM HTTPS://WWW.INATURALIST.ORG/ ACCESSED 2020-10-07 2017-06-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03858
EO Index: 61723
Key Quad: Point Loma (3211762)
Element Code: IIHYM74010
Occurrence Number: 5
Occurrence Last Updated: 2005-06-21

Scientific Name: *Melitta californica*
Common Name: California mellitid bee

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G4?
State: S2?

General Habitat:

DESERT REGIONS OF SW ARIZONA, SE CALIFORNIA, AND BAJA CALIFORNIA, MEXICO. ALSO COLLECTED FROM TORREY PINES, SAN DIEGO CO

Micro Habitat:

EARLIER RECORDS OF M. WILMATTAE PERTAIN TO THIS SPECIES; SPECIES WAS SYNONYMIZED WITH M. CALIFORNICA IN 1981.

Last Date Observed: 1890-05-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1890-05-15
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:

CORONADO.

Detailed Location:

Ecological:

Threats:

General:

HISTORICAL RECORD. 1 MALE COLLECTED BY BLAISDELL AND DEPOSITED IN CALIFORNIA ACADEMY OF SCIENCES.

PLSS: T17S, R03W, Sec. 15 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3617001 E483723
Latitude/Longitude: 32.69060 / -117.17364
Elevation (feet): 25

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

SNE95A0001 SNELLING, R.R. & G.I. STAGE - A REVISION OF THE NEARCTIC MELITTIDAE: THE SUBFAMILY MELITTINAE (HYMENOPTERA: APOIDEA). LACM CONTRIBUTIONS IN SCIENCE NO. 451 1995-03-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04077
EO Index: 22994
Key Quad: Imperial Beach (3211751)
Element Code: IILEP84030
Occurrence Number: 5
Occurrence Last Updated: 1998-12-04

Scientific Name: *Panoquina errans*
Common Name: wandering (=saltmarsh) skipper

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: IUCN_NT-Near Threatened

CNDDB Element Ranks: **Global:** G4G5
State: S2

General Habitat:
SOUTHERN CALIFORNIA COASTAL SALT MARSHES.

Micro Habitat:
REQUIRES MOIST SALTGRASS FOR LARVAL DEVELOPMENT.

Last Date Observed: 1982-07-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1982-07-14
Occurrence Rank: Unknown
Owner/Manager: USFWS, DPR
Trend: Unknown
Presence: Presumed Extant

Location:
TIJUANA ESTUARY NATIONAL WILDLIFE REFUGE.

Detailed Location:

Ecological:
FOUND IN SALT MARSHES IN ASSOCIATION WITH SALTGRASS; ADULTS OCCASIONALLY OBSERVED ON BARRIER BEACHES AND UPLAND AREAS, NECTARING ON VARIOUS FLOWERS.

Threats:
INTERRUPTION OF TIDAL FLOW IS A MAJOR THREAT TO THE LARVAL FOODPLANT - SALTGRASS.

General:
FOUND THROUGHOUT THE NWR IN PREFERRED HABITAT.

PLSS: T18S, R02W, Sec. 31 (S)
Accuracy: specific area
Area (acres): 497
UTM: Zone-11 N3602218 E488441
Latitude/Longitude: 32.55731 / -117.12312
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

NAG82R0002 NAGANO, C.D. (LOS ANGELES COUNTY MUSEUM) - THE POPULATION STATUS OF SEVEN SPECIES OF INSECTS INHABITING TIJUANA ESTUARY NWR, SAN DIEGO COUNTY, CALIFORNIA. CONTRACT #11310-1400-710. 1982-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68225
EO Index: 68376
Key Quad: Point Loma (3211762)
Element Code: IILEP84030
Occurrence Number: 9
Occurrence Last Updated: 2007-02-22

Scientific Name: *Panoquina errans*
Common Name: wandering (=saltmarsh) skipper

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: IUCN_NT-Near Threatened

CNDDB Element Ranks: **Global:** G4G5
State: S2

General Habitat:
SOUTHERN CALIFORNIA COASTAL SALT MARSHES.

Micro Habitat:
REQUIRES MOIST SALTGRASS FOR LARVAL DEVELOPMENT.

Last Date Observed: 2005-06-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-06-11
Occurrence Rank: Unknown
Owner/Manager: DOD-NORTH ISLAND NAS
Trend: Unknown
Presence: Presumed Extant

Location:
GOLF COURSE SOUTH OF THE INTERSECTION OF ROGERS RD & SHERMAN RD. NORTH ISLAND NAVAL AIR STATION.

Detailed Location:

Ecological:

Threats:

General:
1 OBSERVED AT THIS LOCATION ON 11 JUN 2005.

PLSS: T17S, R03W, Sec. 21 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3616720 E481514
Latitude/Longitude: 32.68803 / -117.19718
Elevation (feet): 12

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

REC05D0002 RECON ENVIRONMENTAL, INC. - SHAPEFILES WITH SPECIES LOCATION DATA COLLECTED BY RECON FOR THE US NAVY AT NORTH ISLAND NAVAL AIR STATION (RECON PROJECT NUMBER 4050). 2005-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68226
EO Index: 68377
Key Quad: Point Loma (3211762)
Element Code: IILEP84030
Occurrence Number: 10
Occurrence Last Updated: 2007-02-22

Scientific Name: *Panoquina errans*
Common Name: wandering (=saltmarsh) skipper

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: IUCN_NT-Near Threatened

CNDDB Element Ranks: **Global:** G4G5
State: S2

General Habitat:
SOUTHERN CALIFORNIA COASTAL SALT MARSHES.

Micro Habitat:
REQUIRES MOIST SALTGRASS FOR LARVAL DEVELOPMENT.

Last Date Observed: 2005-06-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-06-11
Occurrence Rank: Unknown
Owner/Manager: DOD-NORTH ISLAND NAS
Trend: Unknown
Presence: Presumed Extant

Location:
BETWEEN ROGERS RD & THE EAST END OF THE RUNWAY. NORTH ISLAND NAVAL AIR STATION.

Detailed Location:

Ecological:
DEVELOPED AREA WITH EXTENSIVE LAWNS NEAR RUDERAL AREAS.

Threats:

General:
1 OBSERVED AT THIS LOCATION ON 11 JUN 2005.

PLSS: T17S, R03W, Sec. 16 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3616998 E481142
Latitude/Longitude: 32.69053 / -117.20116
Elevation (feet): 22

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

REC05D0002 RECON ENVIRONMENTAL, INC. - SHAPEFILES WITH SPECIES LOCATION DATA COLLECTED BY RECON FOR THE US NAVY AT NORTH ISLAND NAVAL AIR STATION (RECON PROJECT NUMBER 4050). 2005-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68228
EO Index: 68378
Key Quad: Point Loma (3211762)
Element Code: IILEP84030
Occurrence Number: 11
Occurrence Last Updated: 2007-02-23

Scientific Name: *Panoquina errans*
Common Name: wandering (=saltmarsh) skipper

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: IUCN_NT-Near Threatened

CNDDB Element Ranks: **Global:** G4G5
State: S2

General Habitat:
SOUTHERN CALIFORNIA COASTAL SALT MARSHES.

Micro Habitat:
REQUIRES MOIST SALTGRASS FOR LARVAL DEVELOPMENT.

Last Date Observed: 2005-06-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-06-11
Occurrence Rank: Unknown
Owner/Manager: DOD-NORTH ISLAND NAS
Trend: Unknown
Presence: Presumed Extant

Location:
BETWEEN S MOFFET RD AND THE BEACH, SE OF THE N-S RUNWAY. NORTH ISLAND NAVAL AIR STATION.

Detailed Location:

Ecological:
RUDERAL HABITAT.

Threats:

General:
2 OBSERVED ON 11 JUN 2005.

PLSS: T17S, R03W, Sec. 20 (S)
Accuracy: non-specific area
Area (acres): 9
UTM: Zone-11 N3616671 E479973
Latitude/Longitude: 32.68756 / -117.21363
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

REC05D0002 RECON ENVIRONMENTAL, INC. - SHAPEFILES WITH SPECIES LOCATION DATA COLLECTED BY RECON FOR THE US NAVY AT NORTH ISLAND NAVAL AIR STATION (RECON PROJECT NUMBER 4050). 2005-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68229
EO Index: 68379
Key Quad: Point Loma (3211762)
Element Code: IILEP84030
Occurrence Number: 12
Occurrence Last Updated: 2007-02-23

Scientific Name: *Panoquina errans*
Common Name: wandering (=saltmarsh) skipper

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: IUCN_NT-Near Threatened

CNDDB Element Ranks: **Global:** G4G5
State: S2

General Habitat:
SOUTHERN CALIFORNIA COASTAL SALT MARSHES.

Micro Habitat:
REQUIRES MOIST SALTGRASS FOR LARVAL DEVELOPMENT.

Last Date Observed: 2005-06-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-06-11
Occurrence Rank: Unknown
Owner/Manager: DOD-NORTH ISLAND NAS
Trend: Unknown
Presence: Presumed Extant

Location:
SOUTH OF THE INTERSECTION OF 4TH ST W AND N 3RD ST W. WEST OF THE RUNWAY. NORTH ISLAND NAVAL AIR STATION.

Detailed Location:

Ecological:
RUDERAL HABITAT.

Threats:

General:
1 OBSERVED 11 JUN 2005.

PLSS: T17S, R03W, Sec. 17 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3617403 E478920
Latitude/Longitude: 32.69415 / -117.22487
Elevation (feet): 12

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
REC05D0002 RECON ENVIRONMENTAL, INC. - SHAPEFILES WITH SPECIES LOCATION DATA COLLECTED BY RECON FOR THE US NAVY AT NORTH ISLAND NAVAL AIR STATION (RECON PROJECT NUMBER 4050). 2005-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86006
EO Index: 87038
Key Quad: La Jolla (3211772)
Element Code: IILEP84030
Occurrence Number: 15
Occurrence Last Updated: 2012-05-31

Scientific Name: *Panoquina errans*
Common Name: wandering (=saltmarsh) skipper

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: IUCN_NT-Near Threatened

CNDDB Element Ranks: **Global:** G4G5
State: S2

General Habitat:
SOUTHERN CALIFORNIA COASTAL SALT MARSHES.

Micro Habitat:
REQUIRES MOIST SALTGRASS FOR LARVAL DEVELOPMENT.

Last Date Observed: 2007-09-27
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2007-09-27
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
FAMOSA SLOUGH, NORTH AND SOUTH OF W POINT LOMA BLVD, SOUTH OF I-8. SAN DIEGO.

Detailed Location:

Ecological:
THIS WETLAND IS A CITY PARK AND IS MANAGED AS A WETLAND PRESERVE.

Threats:

General:
ONE FEMALE PHOTOGRAPHED ON 27 SEP 2007.

PLSS: T16S, R03W, Sec. 30 (S)
Accuracy: non-specific area
Area (acres): 30
UTM: Zone-11 N3623821 E478618
Latitude/Longitude: 32.75203 / -117.22824
Elevation (feet): 15

County Summary:
San Diego

Quad Summary:
Point Loma (3211762), La Jolla (3211772)

Sources:

SHI07I0001 SHIRAIWA, K. - PHOTO OF FEMALE PANOQUINA ERRANS AT FAMOSA SLOUGH SAN DIEGO CO. (ACCESSED FROM HTTP://WWW.BUTTERFLIESOFAMERICA.COM/PANOQUINA_ERRANS_LIVE1.HTM [D1379]) 2007-09-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 54965
EO Index: 54965
Key Quad: La Mesa (3211771)
Element Code: IILEPC1160
Occurrence Number: 2
Occurrence Last Updated: 2012-01-20

Scientific Name: *Lycaena hermes*
Common Name: Hermes copper butterfly

Listing Status: **Federal:** Proposed Threatened
State: None
Rare Plant Rank:
Other Lists: IUCN_VU-Vulnerable
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

FOUND IN SOUTHERN MIXED CHAPARRAL AND COASTAL SAGE SCRUB AT WESTERN EDGE OF LAGUNA MOUNTAINS.

Micro Habitat:

HOST PLANT IS RHAMNUS CROCEA. ALTHOUGH R. CROCEA IS WIDESPREAD THROUGHOUT THE COAST RANGE, LYCAENA HERMES IS NOT.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Poor
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

MISSION TRAILS REGIONAL PARK. BETWEEN FORTUNA MOUNTAIN AND MISSION GORGE, NORTH OF SAN DIEGO.

Detailed Location:

Ecological:

HABITAT CONSISTS OF COASTAL SAGE SCRUB AND COAST LIVE OAK WOODLAND; SURROUNDED BY UNDEVELOPED LAND (MISSION TRAILS REGIONAL PARK). SITE WAS RANKED "GOOD"; CHANGED TO "POOR" BECAUSE OF THE FIRE & SLOW RECOLONIZATION ABILITY.

Threats:

General:

2 ADULTS OBSERVED SUNNING ALONG THE DIRT ACCESS ROAD ON 29 APR 2003. IN 2003 THE CEDAR FIRE BURNED THROUGH FOUR POPULATIONS IN MISSION TRAILS REGIONAL PARK; THIS WAS THE SECOND LARGEST CONCENTRATION OF THE SPECIES.

PLSS: T15S, R02W, Sec. 26 (S)
Accuracy: specific area
Area (acres): 11
UTM: Zone-11 N3633097 E494029
Latitude/Longitude: 32.83590 / -117.06379
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

DEU10A0001 DEUTSCHMAN, D. ET AL. (SAN DIEGO STATE UNIVERSITY) - INITIAL EVALUATION OF THE STATUS OF HERMES COPPER (LYCAENA HERMES). PREPARED FOR SAN DIEGO ASSOCIATION OF GOVERNMENTS. 2010-10-31

HOG04U0001 HOGAN, D. - CENTER FOR BIOLOGICAL DIVERSITY WEBSITE: HERMES COPPER AND THORNE'S HAIRSTREAK. HTTP://WWW.BIOLOGICALDIVERSITY.ORG/SWCBD/SPECIES/HERMES/ 2004-XX-XX

KIM03F0005 KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR LYCAENA HERMES 2003-04-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 63313
EO Index: 63405
Key Quad: La Mesa (3211771)
Element Code: IILEPC1160
Occurrence Number: 13
Occurrence Last Updated: 2005-12-05

Scientific Name: *Lycaena hermes*
Common Name: Hermes copper butterfly

Listing Status: **Federal:** Proposed Threatened
State: None
Rare Plant Rank:
Other Lists: IUCN_VU-Vulnerable
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

FOUND IN SOUTHERN MIXED CHAPARRAL AND COASTAL SAGE SCRUB AT WESTERN EDGE OF LAGUNA MOUNTAINS.

Micro Habitat:

HOST PLANT IS RHAMNUS CROCEA. ALTHOUGH R. CROCEA IS WIDESPREAD THROUGHOUT THE COAST RANGE, LYCAENA HERMES IS NOT.

Last Date Observed: 2005-06-19
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-06-19
Occurrence Rank: Poor
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

MISSION TRAILS REGIONAL PARK, ABOUT 0.3 MI S TO SSW OF INTERSECTION OF FATHER JUNIPERO SERRA TRAIL & SIMEON DR.

Detailed Location:

Ecological:

DENSE COASTAL SAGE SCRUB DOMINATED BY BUCKWHEAT, SAGEBRUSH, LEMONADEBERRY AND REDBERRY. AREA HAS RECOVERED FROM 1983 FIRE.

Threats:

FIRE IS PRIMARY THREAT.

General:

3 BUTTERFLIES OBSERVED. ONE ADULT PHOTOGRAPHED BY KEITH GREER OF THE CITY OF SAN DIEGO MSCP.

PLSS: T15S, R02W, Sec. 25 (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3633106 E496306
Latitude/Longitude: 32.83599 / -117.03946
Elevation (feet): 518

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

KLE05F0003 KLEIN, M.W. - FIELD SURVEY FORM FOR LYCAENA HERMES 2005-06-19

KLE05F0004 KLEIN, M.W. - FIELD SURVEY FORM FOR LYCAENA HERMES 2005-06-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 75699
EO Index: 76724
Key Quad: La Mesa (3211771)
Element Code: IILEPC1160
Occurrence Number: 16
Occurrence Last Updated: 2009-07-29

Scientific Name: *Lycaena hermes*
Common Name: Hermes copper butterfly

Listing Status: **Federal:** Proposed Threatened
State: None
Rare Plant Rank:
Other Lists: IUCN_VU-Vulnerable
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

FOUND IN SOUTHERN MIXED CHAPARRAL AND COASTAL SAGE SCRUB AT WESTERN EDGE OF LAGUNA MOUNTAINS.

Micro Habitat:

HOST PLANT IS RHAMNUS CROCEA. ALTHOUGH R. CROCEA IS WIDESPREAD THROUGHOUT THE COAST RANGE, LYCAENA HERMES IS NOT.

Last Date Observed: 2007-05-26
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2007-05-26
Occurrence Rank: Excellent
Owner/Manager: MISSION TRAILS RP
Trend: Unknown
Presence: Presumed Extant

Location:

MISSION GORGE, 2.3 MILES WSW OF SANTEE RECREATIONAL LAKES AND SOUTHEAST OF MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

ALONG THE FATHER JUNIPERO SERRA TRAIL, APPROXIMATELY 0.85 AIR MILE DIRECTLY WEST THE JUNCTION OF THE FATHER JUNIPERO SERRA TRAIL AND MOSSION GORGE ROAD.

Ecological:

RIPARIAN AREA WITH A SMALL PATCH OF COASTAL SAGE SCRUB WITH AT LEAST 30 SPINY REDBERRY SHRUBS. BUCKWHEAT ON THE N SIDE OF THE TRAIL AND REDBERRY TO THE S. OPEN SPACE WITH MUCH OF THE HABITIAT N OF THE S.D. RIVER RECOVERING FROM CEDAR FIRE.

Threats:

FIRE.

General:

3 MALES WERE OBSERVED PATROLLING THEIR TERRITORIES ALONG A PUBLIC TRAIL. BUTTERFLIES WERE OBSERVED NECTARING ON BUCKWHEAT BUT WOULD ALSO MOVE SOUTH ACROSS THE TRAIL TO THE REDBERRY.

PLSS: T15S, R02W, Sec. 25, SW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3633333 E495806
Latitude/Longitude: 32.83804 / -117.04481
Elevation (feet): 347

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

KLE07F0003 KLEIN, M. - FIELD SURVEY FORM FOR LYCAENA HERMES 2007-05-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 63778
EO Index: 63873
Key Quad: La Mesa (3211771)
Element Code: IILEPK405L
Occurrence Number: 92
Occurrence Last Updated: 2006-01-26

Scientific Name: *Euphydryas editha quino*
Common Name: quino checkerspot butterfly

Listing Status: **Federal:** Endangered
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G5T1T2
State: S1S2

General Habitat:

SUNNY OPENINGS WITHIN CHAPARRAL & COASTAL SAGE SHRUBLANDS IN PARTS OF RIVERSIDE & SAN DIEGO COUNTIES.

Micro Habitat:

HILLS AND MESAS NEAR THE COAST. NEED HIGH DENSITIES OF FOOD PLANTS PLANTAGO ERECTA, P. INSULARIS, AND ORTHOCARPUS PURPURESCENS.

Last Date Observed: 2005-04-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-04-15
Occurrence Rank: Fair
Owner/Manager: MISSION TRAILS RP
Trend: Unknown
Presence: Presumed Extant

Location:

0.85 MILE EAST OF THE INTERSECTION OF CLAIREMONT MESA BOULEVARD AND VIA VALARTA, SAN DIEGO.

Detailed Location:

SITE WAS LOCATED WITHIN THE COUNTY WATER AUTHORITY (CWA) ALIGNMENT AND >100' FROM AN EXISTING MAINTENANCE ROAD. HABITAT WITHIN THE CWA WAS HEAVILY DISTURBED AND LATER REVEGETATED.

Ecological:

HABITAT CONSISTS OF DISTURBED COASTAL SAGE SCRUB; STEEP SLOPE WITH CLAY SOILS. NECTAR PLANTS PRESENT INCLUDE VIGUIERA LACINIATA.

Threats:

General:

1 ADULT OBSERVED NECTARING ON VIGUIERA LACINIATA ON 15 APR 2005.

PLSS: T15S, R02W, Sec. 34 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3632443 E493473
Latitude/Longitude: 32.83000 / -117.06972
Elevation (feet): 765

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

ALF05F0001 ALFARO, M. (TIERRA ENVIRONMENTAL SERVICES) - FIELD SURVEY FORM FOR EUPHYDRYAS EDITHA QUINO 2005-04-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03794	**EO Index:**	22787
Key Quad:	La Jolla (3211772)	**Element Code:**	IILEPP2012
Occurrence Number:	215	**Occurrence Last Updated:**	2015-11-06

Scientific Name: *Danaus plexippus pop. 1*

Common Name: monarch - California overwintering population

Listing Status: **Federal:** Candidate

State: None

Rare Plant Rank:

Other Lists: USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G4T2T3

State: S2S3

General Habitat:

WINTER ROOST SITES EXTEND ALONG THE COAST FROM NORTHERN MENDOCINO TO BAJA CALIFORNIA, MEXICO.

Micro Habitat:

ROOSTS LOCATED IN WIND-PROTECTED TREE GROVES (EUCALYPTUS, MONTEREY PINE, CYPRESS), WITH NECTAR AND WATER SOURCES NEARBY.

Last Date Observed:	2014-11-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2014-11-XX	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

PRESIDIO PARK, ON THE N SIDE OF OLD TOWN SAN DIEGO, SE OF THE JUNCTION OF I-5 AND HWY 8 IN MISSION HILLS, SAN DIEGO.

Detailed Location:

ROOST TREES ARE LOCATED AT THE TOP OF PRESIDIO PARK, TO THE EAST OF AND ADJACENT TO THE SERRA MUSEUM. XERCES SITE #3016.

Ecological:

ROOST TREES HAVE INCLUDED LEMON GUM EUCALYPTUS AND CANARY ISLAND PINES. SITE HAS REPORTEDLY BEEN USED SINCE THE 1920S; REPORTEDLY DOCUMENTED IN SAN DIEGO MUSEUM OF NATURAL HISTORY PUBLICATION IN 1923.

Threats:

General:

COUNT/YEAR: 300/1984-85, 500/1990-91, 25/1992, 15/1994, 250/1997, 100/1998, 17/1999, 32/2000, 25/2001, 5/2002, 13/2003, 50/2004, 20/2005, 25/2006, 20/2007, 60/2008, 5/2009, 10/2011, 40/2012, 15/2013, 30/2014.

PLSS:	T16S, R03W, Sec. 28, E (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3624362 E481922	**Latitude/Longitude:**	32.75698 / -117.19299	**Elevation (feet):**	180

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

MON15U0001	MONROE, M. ET AL. - THE XERCES SOCIETY WESTERN MONARCH THANKSGIVING COUNT 1997-2014. 2015-XX-XX
NAG85R0001	NAGANO, C. & J. LANE - A SURVEY OF THE LOCATION OF MONARCH BUTTERFLY OVERWINTERING ROOSTS IN THE STATE OF CALIFORNIA, USA: FIRST YEAR 1984/1985. 1985-08-30
SAK00F0001	SAKAI, W.H. (SANTA MONICA COLLEGE) - STATEWIDE SET OF FIELD SURVEY FORMS FOR MONARCH WINTERING SITES, SURVEYED UP TO AND INCLUDING WINTER 1999-2000. 2000-XX-XX
SAK89F0001	SAKAI, W.H. - STATEWIDE SET OF FIELD SURVEY FORMS FOR MONARCH WINTERING SITES (5 PARTS), SURVEYED FROM 1984-1988. 1989-02-24
SAK89M0005	SAKAI, W.H. - QUAD MAPS OF ORANGE, SAN DIEGO, KERN & SANTA BARBARA COUNTIES MONARCH WINTERING SITES. 1989-02-24
SAK89R0001	SAKAI, W.H. ET AL. (SANTA MONICA COLLEGE) - "THE WINTERING COLONIES OF THE MONARCH BUTTERFLY (DANAUS PLEXIPPUS) IN THE STATE OF CALIFORNIA." 1989-XX-XX
SAK91F0002	SAKAI, W.H. (SANTA MONICA COLLEGE) - STATEWIDE SET OF FIELD SURVEY FORMS FOR MONARCH WINTERING SITES, SURVEYED IN WINTER 1990-91. 1991-XX-XX
SAK93F0001	SAKAI, W.H. (SANTA MONICA COLLEGE) - STATEWIDE SET OF FIELD SURVEY FORMS FOR MONARCH WINTERING SITES, SURVEYED IN WINTER 1992-93. 1993-XX-XX
SAK95F0001	SAKAI, W. (SANTA MONICA COLLEGE) - STATEWIDE SET OF FIELD SURVEY FORMS FOR MONARCH WINTERING SITES, SURVEYED IN WINTER 1994-95. 1995-XX-XX
XER14D0001	XERCES SOCIETY - DATABASE OF WESTERN MONARCH OVERWINTERING LOCATIONS (DRAFT) 2014-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	00144	**EO Index:**	20971
Key Quad:	Point Loma (3211762)	**Element Code:**	IILEPP2012
Occurrence Number:	216	**Occurrence Last Updated:**	2015-12-11

Scientific Name: *Danaus plexippus pop. 1*

Common Name: monarch - California overwintering population

Listing Status: **Federal:** Candidate

State: None

Rare Plant Rank:

Other Lists: USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G4T2T3

State: S2S3

General Habitat:

WINTER ROOST SITES EXTEND ALONG THE COAST FROM NORTHERN MENDOCINO TO BAJA CALIFORNIA, MEXICO.

Micro Habitat:

ROOSTS LOCATED IN WIND-PROTECTED TREE GROVES (EUCALYPTUS, MONTEREY PINE, CYPRESS), WITH NECTAR AND WATER SOURCES NEARBY.

Last Date Observed:	1985-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1985-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SAN DIEGO ZOO, IN BALBOA PARK, SAN DIEGO.

Detailed Location:

Ecological:

NEEDS FIELD WORK. MAY NO LONGER BE ACTIVE.

Threats:

General:

AN UNKNOWN NUMBER OF MONARCHS OVERWINTERED DURING THE WINTER OF 1984-85.

PLSS:	T16S, R03W, Sec. 36, SW (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3622048 E485770	**Latitude/Longitude:**	32.73616 / -117.15188	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

NAG85R0001	NAGANO, C. & J. LANE - A SURVEY OF THE LOCATION OF MONARCH BUTTERFLY OVERWINTERING ROOSTS IN THE STATE OF CALIFORNIA, USA: FIRST YEAR 1984/1985. 1985-08-30
SAK89F0001	SAKAI, W.H. - STATEWIDE SET OF FIELD SURVEY FORMS FOR MONARCH WINTERING SITES (5 PARTS), SURVEYED FROM 1984-1988. 1989-02-24
SAK89M0005	SAKAI, W.H. - QUAD MAPS OF ORANGE, SAN DIEGO, KERN & SANTA BARBARA COUNTIES MONARCH WINTERING SITES. 1989-02-24
SAK89R0001	SAKAI, W.H. ET AL. (SANTA MONICA COLLEGE) - "THE WINTERING COLONIES OF THE MONARCH BUTTERFLY (DANAUS PLEXIPPUS) IN THE STATE OF CALIFORNIA." 1989-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	33194	**EO Index:**	2807
Key Quad:	National City (3211761)	**Element Code:**	IILEPP2012
Occurrence Number:	305	**Occurrence Last Updated:**	2015-10-20

Scientific Name: *Danaus plexippus pop. 1*

Common Name: monarch - California overwintering population

Listing Status: **Federal:** Candidate

State: None

Rare Plant Rank:

Other Lists: USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G4T2T3

State: S2S3

General Habitat:

WINTER ROOST SITES EXTEND ALONG THE COAST FROM NORTHERN MENDOCINO TO BAJA CALIFORNIA, MEXICO.

Micro Habitat:

ROOSTS LOCATED IN WIND-PROTECTED TREE GROVES (EUCALYPTUS, MONTEREY PINE, CYPRESS), WITH NECTAR AND WATER SOURCES NEARBY.

Last Date Observed:	2012-11-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2014-11-XX	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

GENERAL ROCA PARK, BETWEEN 4TH AVENUE AND 5TH AVENUE, SOUTH OF "C" STREET, CHULA VISTA.

Detailed Location:

ALSO CALLED EUCALYPTUS PARK BY SURVEYOR. XERCES SITE #3019. MAPPED TO PARK BOUNDARY.

Ecological:

HABITAT CONSISTS OF A GROVE OF EUCALYPTUS IN THE PARK.

Threats:

General:

300-500 MONARCHS OBSERVED ROOSTING DURING THE 1990-91 SEASON. 250 OBS, 23 NOV 1997. THANKSGIVING COUNTS/YEAR: 190/1998, 25/1999, 0/2000, 0/2001, 3/2003, 0/2006, 0/2007, 50/2008, 0/2009, 20/2010, 0/2011, 30/2012, 2/2013, 10/2014.

PLSS:	T17S, R02W, Sec. 33, SE (S)	**Accuracy:**	non-specific area	**Area (acres):**	20
UTM:	Zone-11 N3612370 E491587	**Latitude/Longitude:**	32.64892 / -117.08970	**Elevation (feet):**	40

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

MON15U0001	MONROE, M. ET AL. - THE XERCES SOCIETY WESTERN MONARCH THANKSGIVING COUNT 1997-2014. 2015-XX-XX
SAK00F0001	SAKAI, W.H. (SANTA MONICA COLLEGE) - STATEWIDE SET OF FIELD SURVEY FORMS FOR MONARCH WINTERING SITES, SURVEYED UP TO AND INCLUDING WINTER 1999-2000. 2000-XX-XX
SAK91F0002	SAKAI, W.H. (SANTA MONICA COLLEGE) - STATEWIDE SET OF FIELD SURVEY FORMS FOR MONARCH WINTERING SITES, SURVEYED IN WINTER 1990-91. 1991-XX-XX
SAK98F0001	SAKAI, W. (SANTA MONICA COLLEGE) - STATEWIDE SET OF FIELD SURVEY FORMS FOR MONARCH WINTERING SITES, SURVEYED IN WINTER 1997-98. 1998-XX-XX
XER14D0001	XERCES SOCIETY - DATABASE OF WESTERN MONARCH OVERWINTERING LOCATIONS (DRAFT) 2014-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	39000	**EO Index:**	34007
Key Quad:	Point Loma (3211762)	**Element Code:**	IILEPP2012
Occurrence Number:	332	**Occurrence Last Updated:**	2015-11-17

Scientific Name: *Danaus plexippus pop. 1*

Common Name: monarch - California overwintering population

Listing Status: **Federal:** Candidate

State: None

Rare Plant Rank:

Other Lists: USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G4T2T3

State: S2S3

General Habitat:

WINTER ROOST SITES EXTEND ALONG THE COAST FROM NORTHERN MENDOCINO TO BAJA CALIFORNIA, MEXICO.

Micro Habitat:

ROOSTS LOCATED IN WIND-PROTECTED TREE GROVES (EUCALYPTUS, MONTEREY PINE, CYPRESS), WITH NECTAR AND WATER SOURCES NEARBY.

Last Date Observed:	1997-11-23	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2014-11-XX	**Occurrence Rank:**	Fair
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BALBOA PARK, IN THE VICINITY OF 6TH AVENUE & EL PRADO BLVD, SAN DIEGO.

Detailed Location:

"LOCATED IN A CENTER ISLAND OF EUCALYPTUS" ACCORDING TO 1998 FIELD SURVEY FORM, THOUGH NO SUCH ISLAND EXISTS. MAPPED TO LOCATION PROVIDED BY D. MARRIOTT (MONARCH PROGRAM). XERCES SITE #3026.

Ecological:

AUTUMNAL SITE, ROOST TREES ARE OLD (120+ YEARS) EUCALYPTUS.

Threats:

General:

100 OBSERVED CLUSTERING ON 23 NOV 1997. 0 OBS IN 1998. 6 OBS ON 5 DEC 1999. 0 OBS IN 2000, 2001, & 2003. 1 OBS IN 2008, 0 IN 2011, 0 IN 2013, & 1 IN 2014 DURING THANKSGIVING COUNTS.

PLSS:	T16S, R03W, Sec. 35, NE (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3621615 E485121	**Latitude/Longitude:**	32.73224 / -117.15879	**Elevation (feet):**	250

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

MAR15U0002	MARRIOTT, D. - EMAIL REGARDING MONARCH OVERWINTERING SITE IN BALBOA PARK. 2015-10-23
MON15U0001	MONROE, M. ET AL. - THE XERCES SOCIETY WESTERN MONARCH THANKSGIVING COUNT 1997-2014. 2015-XX-XX
SAK00F0001	SAKAI, W.H. (SANTA MONICA COLLEGE) - STATEWIDE SET OF FIELD SURVEY FORMS FOR MONARCH WINTERING SITES, SURVEYED UP TO AND INCLUDING WINTER 1999-2000. 2000-XX-XX
SAK98F0001	SAKAI, W. (SANTA MONICA COLLEGE) - STATEWIDE SET OF FIELD SURVEY FORMS FOR MONARCH WINTERING SITES, SURVEYED IN WINTER 1997-98. 1998-XX-XX
XER14D0001	XERCES SOCIETY - DATABASE OF WESTERN MONARCH OVERWINTERING LOCATIONS (DRAFT) 2014-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	39001	**EO Index:**	34008
Key Quad:	Point Loma (3211762)	**Element Code:**	IILEPP2012
Occurrence Number:	333	**Occurrence Last Updated:**	2015-10-20

Scientific Name: *Danaus plexippus pop. 1*

Common Name: monarch - California overwintering population

Listing Status: **Federal:** Candidate

State: None

Rare Plant Rank:

Other Lists: USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G4T2T3

State: S2S3

General Habitat:

WINTER ROOST SITES EXTEND ALONG THE COAST FROM NORTHERN MENDOCINO TO BAJA CALIFORNIA, MEXICO.

Micro Habitat:

ROOSTS LOCATED IN WIND-PROTECTED TREE GROVES (EUCALYPTUS, MONTEREY PINE, CYPRESS), WITH NECTAR AND WATER SOURCES NEARBY.

Last Date Observed:	2014-11-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2014-11-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NEAR THE WEST END OF IVY ST AND GRAPE ST, EAST SIDE OF BALBOA PARK GOLF COURSE, SAN DIEGO.

Detailed Location:

"GRAPE STREET PARK, BALBOA PARK" SITE. MAPPED USING GOOGLE EARTH, BASED ON DESCRIPTION "LOCATED IN A GULLY, 100 YARDS NORTH OF THE PARKING LOT." XERCES SITE #3027.

Ecological:

Threats:

General:

200 MONARCHS OBSERVED CLUSTERING ON 23 NOV 1997. THANKSGIVING COUNT/YEAR: 30/1998, 0/1999, 0/2000, 0/2001, 0/2003, 90/2008, 0/2009, 30/2010, 30/2011, 10/2012, 15/2013, 30/2014.

PLSS:	T17S, R02W, Sec. 06, NW (S)	**Accuracy:**	1/10 mile	**Area (acres):**	0
UTM:	Zone-11 N3621087 E487415	**Latitude/Longitude:**	32.72750 / -117.13430	**Elevation (feet):**	225

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

MON15U0001	MONROE, M. ET AL. - THE XERCES SOCIETY WESTERN MONARCH THANKSGIVING COUNT 1997-2014. 2015-XX-XX
SAK00F0001	SAKAI, W.H. (SANTA MONICA COLLEGE) - STATEWIDE SET OF FIELD SURVEY FORMS FOR MONARCH WINTERING SITES, SURVEYED UP TO AND INCLUDING WINTER 1999-2000. 2000-XX-XX
SAK98F0001	SAKAI, W. (SANTA MONICA COLLEGE) - STATEWIDE SET OF FIELD SURVEY FORMS FOR MONARCH WINTERING SITES, SURVEYED IN WINTER 1997-98. 1998-XX-XX
XER14D0001	XERCES SOCIETY - DATABASE OF WESTERN MONARCH OVERWINTERING LOCATIONS (DRAFT) 2014-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	40022	**EO Index:**	35024
Key Quad:	La Jolla (3211772)	**Element Code:**	IILEPP2012
Occurrence Number:	336	**Occurrence Last Updated:**	2015-12-16

Scientific Name: *Danaus plexippus pop. 1*

Common Name: monarch - California overwintering population

Listing Status: **Federal:** Candidate

State: None

Rare Plant Rank:

Other Lists: USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G4T2T3

State: S2S3

General Habitat:

WINTER ROOST SITES EXTEND ALONG THE COAST FROM NORTHERN MENDOCINO TO BAJA CALIFORNIA, MEXICO.

Micro Habitat:

ROOSTS LOCATED IN WIND-PROTECTED TREE GROVES (EUCALYPTUS, MONTEREY PINE, CYPRESS), WITH NECTAR AND WATER SOURCES NEARBY.

Last Date Observed:	2014-11-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2014-11-XX	**Occurrence Rank:**	Good
Owner/Manager:	UC-SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

UC SAN DIEGO, FROM GILMAN DRIVE AT LA JOLLA VILLAGE DRIVE SOUTH AND WEST TO AZUL STREET AT REDWOOD DRIVE, SAN DIEGO.

Detailed Location:

THREE NEIGHBORING SITES REPRESENTED, FROM NW: 1) CHE CAFE SITE, XERCES ID #3029; 2) "UCSD WEISS" NEAR THE WEISS THEATER, XERCES #3033; 3) "UCSD COAST"/AZUL ST SITE, XERCES #3031.

Ecological:

ROOST TREES CONSIST OF EUCALYPTUS. OBSERVED/TAGGED ON CAMPUS NEAR GILMAN DR SINCE 1985. MAXIMUM POPULATION COUNTED AT EACH SITE DURING ANNUAL THANKSGIVING COUNTS REPORTED IN GENERAL COMMENTS BELOW AS "#/YR".

Threats:

General:

#/YR: 1) 450/1997, 50/98, 3/99, 0/2000-08, 1/10, 0/11-14. 2) 40/97, 20/98, 1/99, 6/00, 2/01, 0/02-04, 1/08, 0/10-13. 3) 2400/97, 350/98, 10/99, 26/00, 15/01, 0/02-03, 35/04, 10/05, 20/06, 0/07, 30/08, 5/09, 90/10, 2/11, 25/12, 60/13, 30/14.

PLSS:	T15S, R04W, Sec. 13, E (S)	**Accuracy:**	non-specific area	**Area (acres):**	28
UTM:	Zone-11 N3637023 E477345	**Latitude/Longitude:**	32.87110 / -117.24215	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

MON15U0001	MONROE, M. ET AL. - THE XERCES SOCIETY WESTERN MONARCH THANKSGIVING COUNT 1997-2014. 2015-XX-XX
SAK89F0001	SAKAI, W.H. - STATEWIDE SET OF FIELD SURVEY FORMS FOR MONARCH WINTERING SITES (5 PARTS), SURVEYED FROM 1984-1988. 1989-02-24
SAK98F0001	SAKAI, W. (SANTA MONICA COLLEGE) - STATEWIDE SET OF FIELD SURVEY FORMS FOR MONARCH WINTERING SITES, SURVEYED IN WINTER 1997-98. 1998-XX-XX
XER14D0001	XERCES SOCIETY - DATABASE OF WESTERN MONARCH OVERWINTERING LOCATIONS (DRAFT) 2014-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	97885	**EO Index:**	99278
Key Quad:	La Jolla (3211772)	**Element Code:**	IILEPP2012
Occurrence Number:	394	**Occurrence Last Updated:**	2015-10-28

Scientific Name: *Danaus plexippus pop. 1*

Common Name: monarch - California overwintering population

Listing Status: **Federal:** Candidate

State: None

Rare Plant Rank:

Other Lists: USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G4T2T3

State: S2S3

General Habitat:

WINTER ROOST SITES EXTEND ALONG THE COAST FROM NORTHERN MENDOCINO TO BAJA CALIFORNIA, MEXICO.

Micro Habitat:

ROOSTS LOCATED IN WIND-PROTECTED TREE GROVES (EUCALYPTUS, MONTEREY PINE, CYPRESS), WITH NECTAR AND WATER SOURCES NEARBY.

Last Date Observed:	1997-11-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2014-11-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

POTTERY CANYON PARK, BETWEEN TORREY PINES RD AND LA JOLLA SCENIC DR, SW OF VIA POSADA AT LA JOLLA SCENIC DR, LA JOLLA.

Detailed Location:

XERCES SITE #3030.

Ecological:

Threats:

General:

55 OBSERVED ON 24 NOV 1997. 15 OBS 19 NOV 1998. 0 IN 1999, 2000, & 2001. 1 IN 2003, 0 IN 2008, 0 IN 2011, & 20 IN 2014 DURING THANKSGIVING COUNTS.

PLSS:	T15S, R04W, Sec. 24, SE (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3635172 E477308	**Latitude/Longitude:**	32.85440 / -117.24251	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

MON15U0001	MONROE, M. ET AL. - THE XERCES SOCIETY WESTERN MONARCH THANKSGIVING COUNT 1997-2014. 2015-XX-XX
XER14D0001	XERCES SOCIETY - DATABASE OF WESTERN MONARCH OVERWINTERING LOCATIONS (DRAFT) 2014-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	97887	**EO Index:**	99280
Key Quad:	La Jolla (3211772)	**Element Code:**	IILEPP2012
Occurrence Number:	395	**Occurrence Last Updated:**	2015-10-28

Scientific Name: *Danaus plexippus pop. 1*

Common Name: monarch - California overwintering population

Listing Status: **Federal:** Candidate

State: None

Rare Plant Rank:

Other Lists: USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G4T2T3

State: S2S3

General Habitat:

WINTER ROOST SITES EXTEND ALONG THE COAST FROM NORTHERN MENDOCINO TO BAJA CALIFORNIA, MEXICO.

Micro Habitat:

ROOSTS LOCATED IN WIND-PROTECTED TREE GROVES (EUCALYPTUS, MONTEREY PINE, CYPRESS), WITH NECTAR AND WATER SOURCES NEARBY.

Last Date Observed:	1998-11-30	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-11-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SW SIDE OF ROMERO DRIVE & E END OF CARRIZO DRIVE, ABOUT 0.8 MI W OF EASTER CROSS (MT SOLEDAD CROSS), SAN DIEGO.

Detailed Location:

"MOUNT SOLEDAD" SITE, XERCES SITE #3180.

Ecological:

Threats:

General:

500 OBSERVED ON 2 DEC 1997. 70 ON 30 NOV 1998. 0 SEEN DURING THANKSGIVING COUNTS IN 1999, 2001, & 2003.

PLSS:	T15S, R04W, Sec. 26 (S)	**Accuracy:**	1/10 mile	**Area (acres):**	0
UTM:	Zone-11 N3633469 E475742	**Latitude/Longitude:**	32.83900 / -117.25920	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

MON15U0001	MONROE, M. ET AL. - THE XERCES SOCIETY WESTERN MONARCH THANKSGIVING COUNT 1997-2014. 2015-XX-XX
XER14D0001	XERCES SOCIETY - DATABASE OF WESTERN MONARCH OVERWINTERING LOCATIONS (DRAFT) 2014-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	97890	**EO Index:**	99288
Key Quad:	Point Loma (3211762)	**Element Code:**	IILEPP2012
Occurrence Number:	396	**Occurrence Last Updated:**	2015-10-28

Scientific Name: *Danaus plexippus pop. 1*

Common Name: monarch - California overwintering population

Listing Status: **Federal:** Candidate

State: None

Rare Plant Rank:

Other Lists: USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G4T2T3

State: S2S3

General Habitat:

WINTER ROOST SITES EXTEND ALONG THE COAST FROM NORTHERN MENDOCINO TO BAJA CALIFORNIA, MEXICO.

Micro Habitat:

ROOSTS LOCATED IN WIND-PROTECTED TREE GROVES (EUCALYPTUS, MONTEREY PINE, CYPRESS), WITH NECTAR AND WATER SOURCES NEARBY.

Last Date Observed:	1997-11-23	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2014-11-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SW SIDE OF SPACE THEATER WAY JUST WEST OF PARK BOULEVARD IN BALBOA PARK, SAN DIEGO.

Detailed Location:

"SPACE THEATER WAY" SITE. MAPPED USING GOOGLE EARTH, BASED ON SITE DESCRIPTION "SPACE THEATER WAY... BELOW BRIDGE ON THE WEST SIDE." XERCES SITE #3017.

Ecological:

ROOST TREES ARE EUCALYPTUS.

Threats:

General:

100 OBSERVED ON 23 NOV 1997. THANKSGIVING COUNT/YEAR: 0/1998, 0/1999, 0/2000, 2/2001, 0/2003, 10/2008, 10/2011, 10/2013, 10/2014.

PLSS:	T17S, R03W, Sec. 01, NW (S)	**Accuracy:**	1/10 mile	**Area (acres):**	0
UTM:	Zone-11 N3621343 E486094	**Latitude/Longitude:**	32.72980 / -117.14840	**Elevation (feet):**	200

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

MON15U0001	MONROE, M. ET AL. - THE XERCES SOCIETY WESTERN MONARCH THANKSGIVING COUNT 1997-2014. 2015-XX-XX
SAK00F0001	SAKAI, W.H. (SANTA MONICA COLLEGE) - STATEWIDE SET OF FIELD SURVEY FORMS FOR MONARCH WINTERING SITES, SURVEYED UP TO AND INCLUDING WINTER 1999-2000. 2000-XX-XX
XER14D0001	XERCES SOCIETY - DATABASE OF WESTERN MONARCH OVERWINTERING LOCATIONS (DRAFT) 2014-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 97892
Key Quad: Imperial Beach (3211751)
Occurrence Number: 397
EO Index: 99296
Element Code: IILEPP2012
Occurrence Last Updated: 2015-10-20

Scientific Name: *Danaus plexippus pop. 1*
Common Name: monarch - California overwintering population

Listing Status: **Federal:** Candidate
State: None
Rare Plant Rank:
Other Lists: USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G4T2T3
State: S2S3

General Habitat:

WINTER ROOST SITES EXTEND ALONG THE COAST FROM NORTHERN MENDOCINO TO BAJA CALIFORNIA, MEXICO.

Micro Habitat:

ROOSTS LOCATED IN WIND-PROTECTED TREE GROVES (EUCALYPTUS, MONTEREY PINE, CYPRESS), WITH NECTAR AND WATER SOURCES NEARBY.

Last Date Observed: 2014-11-XX
Last Survey Date: 2014-11-XX
Owner/Manager: CITY OF IMPERIAL BEACH
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

VETERANS PARK, ON THE NORTH SIDE OF IMPERIAL BEACH BLVD BETWEEN 8TH ST & 9TH ST, IMPERIAL BEACH.

Detailed Location:

XERCES SITE #3201. EXACT LOCATION UNKNOWN, MAPPED TO PARK BOUNDARY.

Ecological:

A HANDFUL OF MONARCHS ROOST ON CANARY ISLAND PINE TREES EVERY YEAR.

Threats:

General:

THANKSGIVING COUNTS/YEAR: 12/2010, 5/2011, 15/2012, 12/2013, 25/2014.

PLSS: T18S, R02W, Sec. 29, NW (S)
Accuracy: non-specific area
Area (acres): 12
UTM: Zone-11 N3604553 E489155
Latitude/Longitude: 32.57838 / -117.11553
Elevation (feet): 100

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

MON15U0001 MONROE, M. ET AL. - THE XERCES SOCIETY WESTERN MONARCH THANKSGIVING COUNT 1997-2014. 2015-XX-XX

XER14D0001 XERCES SOCIETY - DATABASE OF WESTERN MONARCH OVERWINTERING LOCATIONS (DRAFT) 2014-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03519
EO Index: 63392
Key Quad: La Jolla (3211772)
Element Code: IMGASC2530
Occurrence Number: 2
Occurrence Last Updated: 2005-12-02

Scientific Name: *Helminthoglypta coelata*
Common Name: mesa shoulderband

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: IUCN_VU-Vulnerable

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
KNOWN ONLY FROM A FEW LOCATIONS IN WESTERN SAN DIEGO COUNTY.

Micro Habitat:
FOUND IN ROCK SLIDES, BENEATH BARK AND ROTTEN LOGS, AND AMONG COASTAL VEGETATION.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
LA JOLLA.

Detailed Location:

Ecological:

Threats:
HABITAT MUCH DIMINISHED BY HOUSING EXPANSION.

General:
NO OTHER INFORMATION GIVEN.

PLSS: T15S, R04W, Sec. 27 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3633342 E473790
Latitude/Longitude: 32.83782 / -117.28005
Elevation (feet): 100

County Summary:
San Diego, Pacific Ocean

Quad Summary:
La Jolla (3211772)

Sources:

ROT72A0001 ROTH, B. (CALIFORNIA ACADEMY OF SCIENCES) - RARE AND ENDANGERED LAND MOLLUSKS IN CALIFORNIA. STERKIANA 48: 4 -16. 1972-XX-XX

ROT72R0002 ROTH, B. - RARE AND ENDANGERED LAND MOLLUSCS IN CALIFORNIA (INLAND FISHERIES REPORT NO. 72-10). 1972-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36619
EO Index: 63393
Key Quad: La Jolla (3211772)
Element Code: IMGASC2530
Occurrence Number: 3
Occurrence Last Updated: 2005-12-02

Scientific Name: *Helminthoglypta coelata*
Common Name: mesa shoulderband

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: IUCN_VU-Vulnerable

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
KNOWN ONLY FROM A FEW LOCATIONS IN WESTERN SAN DIEGO COUNTY.

Micro Habitat:
FOUND IN ROCK SLIDES, BENEATH BARK AND ROTTEN LOGS, AND AMONG COASTAL VEGETATION.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
PACIFIC BEACH.

Detailed Location:

Ecological:

Threats:
HABITAT MUCH DIMINSHED BY HOUSING EXPANSION.

General:
NO OTHER INFORMATION GIVEN.

PLSS: T16S, R04W, Sec. 12 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3629673 E477019
Latitude/Longitude: 32.80479 / -117.24546
Elevation (feet): 100

County Summary:
San Diego, Pacific Ocean

Quad Summary:
La Jolla (3211772)

Sources:

ROT72A0001 ROTH, B. (CALIFORNIA ACADEMY OF SCIENCES) - RARE AND ENDANGERED LAND MOLLUSKS IN CALIFORNIA. STERKIANA 48: 4 -16. 1972-XX-XX

ROT72R0002 ROTH, B. - RARE AND ENDANGERED LAND MOLLUSCS IN CALIFORNIA (INLAND FISHERIES REPORT NO. 72-10). 1972-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03570
EO Index: 23082
Key Quad: La Jolla (3211772)
Element Code: IMGASC2530
Occurrence Number: 4
Occurrence Last Updated: 2005-06-01

Scientific Name: *Helminthoglypta coelata*
Common Name: mesa shoulderband

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: IUCN_VU-Vulnerable

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

KNOWN ONLY FROM A FEW LOCATIONS IN WESTERN SAN DIEGO COUNTY.

Micro Habitat:

FOUND IN ROCK SLIDES, BENEATH BARK AND ROTTEN LOGS, AND AMONG COASTAL VEGETATION.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

THE MESA, BACK OF PACIFIC BEACH (LA JOLLA MESA).

Detailed Location:

Ecological:

Threats:

General:

TYPE LOCALITY; USNM #124747. NO COLLECTION DATE GIVEN. ORIGINALLY DESCRIBED AS "EPIPHRAGMOPHORA TRASKII COELATA" BY BARTSCH IN 1916.

PLSS: T15S, R04W, Sec. 35 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3631852 E475295
Latitude/Longitude: 32.82441 / -117.26393
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

PIL39B0001 PILSBRY, H.A. - LAND MOLLUSCA OF NORTH AMERICA (NORTH OF MEXICO). THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA MONOGRAPHS 3, VOL 1, PART 1: 1-573. 1939-XX-XX

USN05S0011 UNITED STATES NATIONAL MUSEUM (SMITHSONIAN INSTITUTION) - PRINTOUT WITH COLLECTION INFORMATION FOR HELMINTHOGLYPTA COELATA (ACCESSION #124747). 2005-06-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	52177	**EO Index:**	23215
Key Quad:	La Jolla (3211772)	**Element Code:**	IMGASJ7040
Occurrence Number:	9	**Occurrence Last Updated:**	2012-09-24

Scientific Name: *Tryonia imitator*

Common Name: mimic tryonia (=California brackishwater snail)

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: IUCN_DD-Data Deficient

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

INHABITS COASTAL LAGOONS, ESTUARIES AND SALT MARSHES, FROM SONOMA COUNTY SOUTH TO SAN DIEGO COUNTY.

Micro Habitat:

FOUND ONLY IN PERMANENTLY SUBMERGED AREAS IN A VARIETY OF SEDIMENT TYPES; ABLE TO WITHSTAND A WIDE RANGE OF SALINITIES.

Last Date Observed:	1996-10-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1996-10-26	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SAN DIEGO RIVER FROM MOUTH TO I-5 BRIDGE. MISSION BAY PARK.

Detailed Location:

1971: AT MOUTH OF SAN DIEGO RIVER. 1975 COLLECTION WAS UNDER THE I-5 WEST BRIDGE IN POOLS WITH SOME CURRENT. FOUND AT SUNSET CLIFFS BLVD BRIDGE IN 1996.

Ecological:

Threats:

General:

USNM #847211 (15 SNAILS) COLLECTED BY LANDYE, 7 JAN 1972. POP CONFIRMED EXTANT IN 1973. USNM #905082 (40 SNAILS) COLLECTED BY LANDYE, 24 JUN 1975. POP CONFIRMED EXTANT IN 1981. USNM #892058 (150 SNAILS) COLLECTED BY KELLOGG, 26 OCT 1996.

PLSS:	T16S, R03W, Sec. 30 (S)	**Accuracy:**	non-specific area	**Area (acres):**	310
UTM:	Zone-11 N3624527 E478664	**Latitude/Longitude:**	32.75840 / -117.22777	**Elevation (feet):**	0

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

KEL80R0001	KELLOGG, M.G. (MOSS LANDING MARINE LAB) - STATUS OF THE CALIFORNIA BRACKISH WATER SNAIL (TRYONIA IMITATOR), IN CENTRAL CALIFORNIA. INLAND FISHERIES BRANCH ENDANGERED SPECIES PROGRAM, SPECIAL PUBLICATIONS NO. 80-3. 1980-07-XX
KEL88U0002	KELLOGG, M. (CALIFORNIA ACADEMY OF SCIENCES) - LETTER AND THESIS TABLE 2 INDICATING LOCATIONS AND STATUS OF TRYONIA IMITATOR. 1988-08-12
USN04S0013	UNITED STATES NATIONAL MUSEUM (SMITHSONIAN INSTITUTION) - PRINTOUT OF TRYONIA IMITATOR SPECIMENS IN THE SMITHSONIAN MUSEUM. 2004-12-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	72495	**EO Index:**	23206
Key Quad:	Imperial Beach (3211751)	**Element Code:**	IMGASJ7040
Occurrence Number:	23	**Occurrence Last Updated:**	2012-09-20

Scientific Name: *Tryonia imitator*

Common Name: mimic tryonia (=California brackishwater snail)

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: IUCN_DD-Data Deficient

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

INHABITS COASTAL LAGOONS, ESTUARIES AND SALT MARSHES, FROM SONOMA COUNTY SOUTH TO SAN DIEGO COUNTY.

Micro Habitat:

FOUND ONLY IN PERMANENTLY SUBMERGED AREAS IN A VARIETY OF SEDIMENT TYPES; ABLE TO WITHSTAND A WIDE RANGE OF SALINITIES.

Last Date Observed:	2006-10-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2006-10-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	USFWS, DPR, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

TIJUANA RIVER ESTUARY.

Detailed Location:

EARLIER RECORDS GIVE LOCATION ONLY AS "TIJUANA RIVER". 2006 RECORDS FROM 3 OF 4 COASTAL BRACKISH & SALINE PONDS IN THE HIGH SALT MARSH IN THE ESTUARY'S NORTH ARM, WEST OF EL CENTRO ST (SECTION 31).

Ecological:

2006: FOUND IN SANDY MUD, FINE SAND & MUD.

Threats:

General:

FIRST COLLECTION IN 1912. ONLY EMPTY SHELLS FOUND IN 1978 AND POPULATION THOUGHT TO BE EXITRPATED. 2006: 82-160 FOUND IN PONDS 1 & 2, 42-80 FOUND IN POND 3, NONE FOUND IN POND 4 (SECTION 31).

PLSS:	T19S, R02W, Sec. 06 (S)	**Accuracy:**	non-specific area	**Area (acres):**	1,702
UTM:	Zone-11 N3601817 E488683	**Latitude/Longitude:**	32.55369 / -117.12053	**Elevation (feet):**	12

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

KEL85R0001	KELLOGG, M.G. (SAN FRANCISCO STATE UNIVERSITY) - CONTRIBUTIONS TO OUR KNOWLEDGE OF TRYONIA IMITATOR. MASTER'S THESIS, SAN FRANCISCO STATE UNIVERSITY. 1985-12-XX
KEL88U0002	KELLOGG, M. (CALIFORNIA ACADEMY OF SCIENCES) - LETTER AND THESIS TABLE 2 INDICATING LOCATIONS AND STATUS OF TRYONIA IMITATOR. 1988-08-12
TAY78R0001	TAYLOR, D.W. (SAN FRANCISCO STATE UNIVERSITY-ROMBERG TIBURON CENTER) - THE CALIFORNIA BRACKISH-WATER SNAIL, TRYONIA IMITATOR. REPORT PREPARED FOR U.S. ARMY CORPS OF ENGINEERS, CONTRACT DACW09-78-M-1169. 1978-03-XX
TRO10A0001	TROSTLE, I. ET AL. (SAN DIEGO STATE UNIVERSITY) - INVESTIGATIONS TOWARDS THE RESTORATION OF WETLANDS IN THE TIJUANA ESTUARY WITH SPECIAL REGARD TO BRACKISH AND SALINE PONDS. 2010-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03968
EO Index: 45416
Key Quad: Point Loma (3211762)
Element Code: NBHEP1C010
Occurrence Number: 1
Occurrence Last Updated: 2001-08-20

Scientific Name: *Geothallus tuberosus*
Common Name: Campbell's liverwort

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
COASTAL SCRUB, VERNAL POOLS.

Micro Habitat:
LIVERWORT KNOWN FROM MESIC SOIL. 60-610 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO-BALBOA PARK
Trend: Unknown
Presence: Presumed Extant

Location:
BALBOA PARK, SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN, MAPPED BY CNDDB IN THE GENERAL VICINITY OF BALBOA PARK.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A DOYLE COLLECTION; COLLECTION DATE IS UNKNOWN. NEEDS FIELDWORK.

PLSS: T17S, R03W, Sec. 01 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3621430 E486333
Latitude/Longitude: 32.73059 / -117.14586
Elevation (feet): 200

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

HOWNDS0017 HOWELL - HOWELL #153 CAS XXXX-XX-XX
WHI99U0002 WHITTEMORE - PAGE 18, LIST OF SPECIMEN RECORDS. 1999-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1402
EO Index: 113308
Key Quad: National City (3211761)
Element Code: NBHEP1C010
Occurrence Number: 5
Occurrence Last Updated: 2018-11-13

Scientific Name: *Geothallus tuberosus*
Common Name: Campbell's liverwort

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
COASTAL SCRUB, VERNAL POOLS.

Micro Habitat:
LIVERWORT KNOWN FROM MESIC SOIL. 60-610 M.

Last Date Observed: 2017-04-04
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2017-04-04
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:
RICE CANYON ON N-FACING CANYON SLOPE SOUTH OF SHOPPING CENTER, SE OF H ST AND I-805, CHULA VISTA.

Detailed Location:
MAPPED ACCORDING TO 2017 PIGNIOLO COORDINATES, IN THE SW 1/4 OF THE NW 1/4 OF SECTION 1.

Ecological:
OPEN COASTAL SAGE SCRUB IN OPENINGS AND AROUND SHRUB MARGINS, SUNLIGHT DIFFUSE, NORTH-FACING SLOPE, SEASONALLY MOIST, SOIL IS ORGANIC AND COMPACT.

Threats:

General:
SITE IS BASED ON A 2017 PIGNIOLO COLLECTION.

PLSS: T18S, R02W, Sec. 1, NW (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3611152 E495414
Latitude/Longitude: 32.63794 / -117.04889
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
PIG17S0004 PIGNIOLO, A. - PIGNIOLO #1950 CAS 2017-04-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1405
EO Index: 113309
Key Quad: National City (3211761)
Element Code: NBHEP1C010
Occurrence Number: 6
Occurrence Last Updated: 2018-11-13

Scientific Name: *Geothallus tuberosus*
Common Name: Campbell's liverwort

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
COASTAL SCRUB, VERNAL POOLS.

Micro Habitat:
LIVERWORT KNOWN FROM MESIC SOIL. 60-610 M.

Last Date Observed: 2017-04-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2017-04-11
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
SOUTHEAST OF HIGHWAY 94, NORTH OF LENOX DRIVE, EAST OF EUCLID AVENUE AND WEST OF KELTON ROAD, ENCANTO.

Detailed Location:
MAPPED ACCORDING TO 2017 PIGNIOLO COORDINATES, IN THE SE 1/4 OF THE SW 1/4 OF SECTION 3.

Ecological:
ON FLAT TERRACE WITH MIMA MOUNDS AND VERNAL POOLS NEARBY, IN COASTAL SAGE SCRUB DOMINATED BY RHUS INTEGRIFOLIA. SUNLIGHT IS DIFFUSE, SEASONALLY MOIST, SOIL IS ORGANIC AND COMPACT. GROWING ALONG SHRUB MARGINS.

Threats:

General:
SITE IS BASED ON A 2017 PIGNIOLO COLLECTION.

PLSS: T17S, R02W, Sec. 3, SW (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3620117 E492550
Latitude/Longitude: 32.71881 / -117.0795
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
PIG17S0008 PIGNIOLO, A. - PIGNIOLO #1959 CAS 2017-04-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1406
Key Quad: La Jolla (3211772)
Occurrence Number: 7
EO Index: 113311
Element Code: NBHEP1C010
Occurrence Last Updated: 2018-11-13

Scientific Name: *Geothallus tuberosus*
Common Name: Campbell's liverwort

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
COASTAL SCRUB, VERNAL POOLS.

Micro Habitat:
LIVERWORT KNOWN FROM MESIC SOIL. 60-610 M.

Last Date Observed: 2017-04-04
Last Survey Date: 2017-04-04
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
KEARNEY MESA, S OF HWY 52 AND N OF CLAREMONT MESA BLVD, HALFWAY BETWEEN THE N ENDS OF INDUSTRIAL PARK DR & MERCURY PT.

Detailed Location:
MAPPED ACCORDING TO 2017 PIGNIOLO COORDINATES, IN THE SE 1/4 OF THE SW 1/4 OF SECTION 25.

Ecological:
OPENINGS IN CHAMISE CHAPARRAL ON MESA. FULL SUN, SEASONALLY MOIST ORGANIC COMPACT SOIL.

Threats:

General:
SITE IS BASED ON A 2017 PIGNIOLO COLLECTION.

PLSS: T15S, R03W, Sec. 25, SW (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3633183 E486276
Latitude/Longitude: 32.83661 / -117.14664
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
PIG17S0003 PIGNIOLO, A. - PIGNIOLO #1949 CAS 2017-04-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1408
Key Quad: La Jolla (3211772)
Occurrence Number: 8

EO Index: 113312
Element Code: NBHEP1C010
Occurrence Last Updated: 2018-11-13

Scientific Name: *Geothallus tuberosus*
Common Name: Campbell's liverwort

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
COASTAL SCRUB, VERNAL POOLS.

Micro Habitat:
LIVERWORT KNOWN FROM MESIC SOIL. 60-610 M.

Last Date Observed: 2017-03-04
Last Survey Date: 2017-03-04
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SOUTH SIDE OF SAN CLEMENTE CANYON IN MARIAN BEAR MEMORIAL PARK, AT THE NORTHERN END OF LIMERICK AVE.

Detailed Location:
ALONG FOOT TRAIL. IN THE SW 1/4 OF THE NE 1/4 OF SECTION 27.

Ecological:
OPENINGS IN MARITIME CHAPARRAL ON MESA, FULL TO DIFFUSE SUN. OPENINGS ALONG TRAIL OUTSIDE OF DISTURBANCE. SEASONALLY MOIST ORGANIC COMPACT SOIL.

Threats:

General:
SITE IS BASED ON A 2017 PIGNIOLO COLLECTION.

PLSS: T15S, R03W, Sec. 27, NE (S)
UTM: Zone-11 N3634059 E483300

Accuracy: 80 meters
Latitude/Longitude: 32.84447 / -117.17846

Area (acres): 5
Elevation (feet): 383

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
PIG17S0001 PIGNIOLO, A. - PIGNIOLO #1946 CAS 2017-03-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1409
Key Quad: La Jolla (3211772)
Occurrence Number: 9

EO Index: 113313
Element Code: NBHEP1C010
Occurrence Last Updated: 2018-11-13

Scientific Name: *Geothallus tuberosus*
Common Name: Campbell's liverwort

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
COASTAL SCRUB, VERNAL POOLS.

Micro Habitat:
LIVERWORT KNOWN FROM MESIC SOIL. 60-610 M.

Last Date Observed: 2017-04-03
Last Survey Date: 2017-04-03
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
ROSE CANYON OPEN SPACE PARK, SOUTH OF NOBEL DRIVE, WEST OF INTERSTATE 505, EAST OF THE NOBEL ATHLETIC AREA AND LIBRARY.

Detailed Location:
MAPPED ACCORDING TO 2017 PIGNIOLO COORDINATES, IN THE SOUTH 1/2 OF SECTION 16.

Ecological:
ON A HIGH MESA ON THE NORTH SIDE OF ROSE CANYON. IN OPEN CHAMISE CHAPARRAL, WITH FULL SUN. SEASONALLY MOIST MESA, WITH COMPACT ORGANIC SOIL.

Threats:

General:
SITE IS BASED ON A 2017 PIGNIOLO COLLECTION.

PLSS: T15S, R03W, Sec. 16, S (S)
UTM: Zone-11 N3636447 E481697

Accuracy: 80 meters
Latitude/Longitude: 32.86599 / -117.19563

Area (acres): 5
Elevation (feet): 382

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
PIG17S0002 PIGNIOLO, A. - PIGNIOLO #1948 CAS 2017-04-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03968
EO Index: 45682
Key Quad: Point Loma (3211762)
Element Code: NBHEP35030
Occurrence Number: 1
Occurrence Last Updated: 2021-05-07

Scientific Name: *Sphaerocarpos drewiae*
Common Name: bottle liverwort

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
LIVERWORT IN OPENINGS; ON SOIL. 60-585 M.

Last Date Observed: 1927-02-27
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1927-02-27
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO-BALBOA PARK
Trend: Unknown
Presence: Presumed Extant

Location:
BALBOA PARK, SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN THE GENERAL VICINITY OF BALBOA PARK.

Ecological:

Threats:

General:
OCCURRENCE IS BASED ON A HOWELL COLLECTION (DATE UNKNOWN) AND SEVERAL HAYNES COLLECTIONS FROM 1927. NEEDS FIELDWORK.

PLSS: T17S, R03W, Sec. 01 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3621430 E486333
Latitude/Longitude: 32.73059 / -117.14586
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

ANO00U0001	ANONYMOUS - REVIEW INFORMATION FOR NON-VASCULAR PLANTS. 2000-04-19
HAY27S0001	HAYNES, C. - HAYNES #2717 YU #220516 1927-02-27
HAY27S0002	HAYNES, C. - HAYNES #2720 YU #220515 1927-01-25
HAY27S0003	HAYNES, C. - HAYNES #2764 YU #220518 1927-01-29
HAY27S0004	HAYNES, C. - HAYNES #2818 NY #265211 & #265212 1927-02-02
HAY27S0005	HAYNES, C. - HAYNES #2867 YU #220512, #220513, #220517 1927-02-23
HAY27S0006	HAYNES, C. - HAYNES #2881 YU #220514 1927-02-27
HOWNDS0023	HOWELL - HOWELL #152 CAS (CITED IN ANO00U0001) XXXX-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B7305
EO Index: 120372
Key Quad: Imperial Beach (3211751)
Element Code: NBHEP35030
Occurrence Number: 4
Occurrence Last Updated: 2021-05-10

Scientific Name: *Sphaerocarpos drewiae*
Common Name: bottle liverwort

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
LIVERWORT IN OPENINGS; ON SOIL. 60-585 M.

Last Date Observed: 1968-04-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1968-04-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
MONUMENT ROAD NEAR BORDER WITH MEXICO, SLOPE OVERLOOKING TIAJUANA RIVER.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB ALONG MONUMENT ROAD WITHIN GIVEN TRS: T19S R2W SECTION 3.

Ecological:
SOIL NEAR CHAPARRAL.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1968 DOYLE COLLECTION. NEEDS FIELDWORK.

PLSS: T19S, R02W, Sec. 3, S (S)
Accuracy: non-specific area
Area (acres): 80
UTM: Zone-11 N3600913 E492965
Latitude/Longitude: 32.54557 / -117.07493
Elevation (feet): 75

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
DOY68S0002 DOYLE, W. - DOYLE #770 UC #1769738 1968-04-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B7306
EO Index: 120373
Key Quad: Imperial Beach (3211751)
Element Code: NBHEP35030
Occurrence Number: 5
Occurrence Last Updated: 2021-05-10

Scientific Name: *Sphaerocarpos drewiae*
Common Name: bottle liverwort

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
LIVERWORT IN OPENINGS; ON SOIL. 60-585 M.

Last Date Observed: 1968-04-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1968-04-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO?
Trend: Unknown
Presence: Presumed Extant

Location:
SOUTH SIDE OF OTAY MESA ROAD, NORTH OF MOODY CANYON, OTAY MESA.

Detailed Location:
MAPPED BY CNDDB TO ENCOMPASS COLLECTION LOCALITIES: "SOUTH SIDE OF OTAY MESA RD ~0.9 MI EAST OF JCT WITH HWY 101" AND "SOUTH SIDE OF OTAY MESA RD, LAST RAVINE BEFRE REACHING TOP OF OTAY MESA, SECTION 31."

Ecological:
STEEP SLOPES OF GULLIES AND RAVINE. SOIL, NEAR CHAPARRAL. WITH GEOTHALLUS TUBEROSUS.

Threats:

General:
OCCURRENCE IS BASED ON DOYLE COLLECTIONS FROM 1966 AND 1968. NEEDS FIELDWORK.

PLSS: T18S, R01W, Sec. 31, N (S)
Accuracy: non-specific area
Area (acres): 58
UTM: Zone-11 N3602772 E497578
Latitude/Longitude: 32.56236 / -117.0258
Elevation (feet): 475

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

DOY66S0002 DOYLE, W. - DOYLE #783 UC #1769737 1966-04-XX

DOY68S0003 DOYLE, W. - DOYLE #781 UC #1769735 1968-04-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1405
Key Quad: National City (3211761)
Occurrence Number: 8
EO Index: 120380
Element Code: NBHEP35030
Occurrence Last Updated: 2021-05-10

Scientific Name: *Sphaerocarpos drewiae*
Common Name: bottle liverwort

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
LIVERWORT IN OPENINGS; ON SOIL. 60-585 M.

Last Date Observed: 2017-04-11
Last Survey Date: 2017-04-11
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SOUTHEAST OF HIGHWAY 94, NORTH OF LENOX DRIVE, EAST OF EUCLID AVENUE AND WEST OF KELTON ROAD, ENCANTO.

Detailed Location:
MAPPED ACCORDING TO 2017 PIGNIOLO COORDINATES, IN THE SE 1/4 OF THE SW 1/4 OF SECTION 3.

Ecological:
ON FLAT TERRACE WITH MIMA MOUNDS AND VERNAL POOLS NEARBY, IN COASTAL SAGE SCRUB DOMINATED BY RHUS INTEGRIFOLIA. SUNLIGHT IS DIFFUSE, SEASONALLY MOIST, SOIL IS ORGANIC AND COMPACT. GROWING ALONG SHRUB MARGINS.

Threats:

General:
SITE IS BASED ON A 2017 PIGNIOLO COLLECTION.

PLSS: T17S, R02W, Sec. 3, SW (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3620117 E492550
Latitude/Longitude: 32.71881 / -117.0795
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
PIG17S0011 PIGNIOLO, A. - PIGNIOLO #1958 CAS 2017-04-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B7314
Key Quad: La Jolla (3211772)
Occurrence Number: 9

EO Index: 120382
Element Code: NBHEP35030
Occurrence Last Updated: 2021-05-10

Scientific Name: *Sphaerocarpos drewiae*
Common Name: bottle liverwort

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
LIVERWORT IN OPENINGS; ON SOIL. 60-585 M.

Last Date Observed: 1968-04-XX
Last Survey Date: 1968-04-XX
Owner/Manager: UNKNOWN
Presence: Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
NEAR NURSERY ABOUT 0.25 MILE EAST OF JUNCTION OF BALBOA AVE AND CHARGER BLVD, CITY OF SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS A BEST GUESS.

Ecological:
SOIL; NEAR VERNAL POOLS AND CHAPARRAL.

Threats:
LIKELY EXTIRPATED DUE TO DEVELOPMENT AND/OR THE CONSTRUCTION OF I-805.

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1968 DOYLE COLLECTION.

PLSS: T15S, R03W, Sec. 35, S (S)
UTM: Zone-11 N3631522 E484733

Accuracy: 1/5 mile
Latitude/Longitude: 32.82161 / -117.1631

Area (acres): 70
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
DOY68S0004 DOYLE, W. - DOYLE #786 UC #1769739 1968-04-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B7320	**EO Index:**	120388
Key Quad:	La Jolla (3211772)	**Element Code:**	NBHEP35030
Occurrence Number:	10	**Occurrence Last Updated:**	2021-05-13

Scientific Name: *Sphaerocarpos drewiae*

Common Name: bottle liverwort

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists:

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

LIVERWORT IN OPENINGS; ON SOIL. 60-585 M.

Last Date Observed:	1975-05-23	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1975-05-23	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

EAST SIDE OF US HIGHWAY 395 ABOUT 4.1 MILES NORTH OF MISSION VALLEY BRIDGE, KEARNEY MESA.

Detailed Location:

EXACT LOCATION UNKNOWN, MAPPED BY CNDDB AS A BEST GUESS. HIGHWAY 395 IS NOW HIGHWAY 163.

Ecological:

SOIL NEAR VERNAL POOLS AND CHAPARRAL. GEOTHALLUS TUBEROSUS ALSO COLLECTED AT THIS LOCATION.

Threats:

THIS AREA HAS BEEN HIGHLY DEVELOPED SINCE COLLECTIONS WERE MADE.

General:

SITE IS BASED ON DOYLE COLLECTIONS FROM 1959, 1967, 1968, AND 1975. POSSIBLY EXTIRPATED, THOUGH THERE APPEARS TO STILL BE SOME SMALL PATCHES OF REMNANT HABITAT IN THIS VICINITY BASED ON AERIAL IMAGERY.

PLSS:	T15S, R03W, Sec. 36 (S)	**Accuracy:**	2/5 mile	**Area (acres):**	280
UTM:	Zone-11 N3631818 E486861	**Latitude/Longitude:**	32.8243 / -117.14038	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

DOY59S0001	DOYLE, W. - DOYLE SN UC #1769742 1959-05-29
DOY67S0001	DOYLE, W. - DOYLE #774 UC #1769731 1967-04-XX
DOY68S0005	DOYLE, W. - DOYLE #776 UC #1769733 1968-04-XX
DOY68S0006	DOYLE, W. - DOYLE #779 MICH #701089 1968-04-XX
DOY75S0004	DOYLE, W. - DOYLE #674 UC #1769732 1975-05-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03519
EO Index: 120389
Key Quad: La Jolla (3211772)
Element Code: NBHEP35030
Occurrence Number: 11
Occurrence Last Updated: 2021-05-13

Scientific Name: *Sphaerocarpos drewiae*
Common Name: bottle liverwort

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
LIVERWORT IN OPENINGS; ON SOIL. 60-585 M.

Last Date Observed: 192X-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 192X-XX-XX
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:
LA JOLLA.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED IN THE GENERAL VICINITY OF LA JOLLA.

Ecological:

Threats:
THERE HAS BEEN EXTENSIVE DEVELOPMENT IN THIS AREA SINCE THE COLLECTION WAS MADE.

General:
TYPE LOCALITY. ONLY SOURCE OF INFORMATION FOR THIS SITE IS A COLLECTION BY DREW FROM THE 1920S. POSSIBLY EXTIRPATED BY DEVELOPMENT.

PLSS: T15S, R04W, Sec. 27 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3633342 E473790
Latitude/Longitude: 32.83782 / -117.28005
Elevation (feet):

County Summary:
San Diego, Pacific Ocean

Quad Summary:
La Jolla (3211772)

Sources:
DRENDS0001 DREW, K. - DREW SN UC #400349, MANCH 192X-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87255
EO Index: 95378
Key Quad: Imperial Beach (3211751)
Element Code: NBMUS7L090
Occurrence Number: 13
Occurrence Last Updated: 2014-10-22

Scientific Name: *Tortula californica*
Common Name: California screw moss

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive

CNDDB Element Ranks: **Global:** G2G3
State: S2?

General Habitat:
CHENOPOD SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
MOSS GROWING ON SANDY SOIL. 45-750 M.

Last Date Observed: 2012-02-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-02-17
Occurrence Rank: Unknown
Owner/Manager: DPR-BORDER FIELD SP
Trend: Unknown
Presence: Presumed Extant

Location:
BORDER FIELD STATE PARK; WEST OF SAN YSIDRO BORDER CROSSING, SOUTH OF MONUMENT ROAD, JUST NORTH OF THE BORDER FENCE.

Detailed Location:
WEST-FACING SLOPE OF BUNKER HILL. MAPPED ACCORDING TO 2012 REBMAN COORDINATES.

Ecological:
COASTAL SAGE SCRUB WITH BAHIOPSIS LACINIATA, ENCELIA CALIFORNICA, ARTEMISIA CALIFORNICA, PERITOMA ARBOREA, ERIOGONUM FASCICULATUM, GLEBIONIS CORONARIA, AND BRASSICA TOURNEFORTII.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2012 REBMAN COLLECTION; "UNCOMMON ON SOIL."

PLSS: T19S, R02W, Sec. 08 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3599896 E489895
Latitude/Longitude: 32.53637 / -117.10761
Elevation (feet): 150

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
REB12S0014 REBMAN, J. ET AL. - REBMAN #22525 SD 2012-02-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 26650
Key Quad: La Jolla (3211772)
Occurrence Number: 1
EO Index: 45367
Element Code: NLT0018660
Occurrence Last Updated: 2001-05-16

Scientific Name: *Mobergia calculiformis*
Common Name: light gray lichen

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 3
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S1

General Habitat:
COASTAL SCRUB?

Micro Habitat:
ABUNDANT ON COBBLES IN RIGHT HABITAT; ONLY KNOWN FROM ONE SITE IN BAJA AND ONE IN SAN DIEGO AREA. 10 M.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SAN DIEGO.

Detailed Location:
MAPPED AS BEST GUESS AT OLD TOWN SAN DIEGO BY CNDDB.

Ecological:

Threats:

General:
NEEDS FIELDWORK. LOCATION FOR COLLECTION GIVEN AS "SOUTHERN CALIFORNIA. HOWEVER, OTHER ORCUTT MATERIAL IS LABELLED SAN DIEGO." THIS LOCATION IS VERY VAGUE; BETTER LOCATION INFORMATION NEEDED.

PLSS: T16S, R03W (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3624318 E481402
Latitude/Longitude: 32.75657 / -117.19854
Elevation (feet): 30

County Summary:
San Diego, Pacific Ocean

Quad Summary:
Point Loma (3211762), La Jolla (3211772)

Sources:

MAY92A0001	MAYRHOFFER, H. ET AL. - MOBERGIA (PHYSCIACEAE, LICHENIZED ASCOMYCETES): A NEW GENUS ENDEMIC TO WESTERN NORTH AMERICA. THE BRYOLOGIST 95(4):436. 1992-XX-XX
ORCNDS0001	ORCUTT - ORCUTT SN FH, US (CITED IN MAY92A0001) XXXX-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 38788
Key Quad: La Jolla (3211772)
Occurrence Number: 4
EO Index: 33795
Element Code: NLTEST7980
Occurrence Last Updated: 2004-08-03

Scientific Name: *Texosporium sancti-jacobi*
Common Name: woven-spored lichen

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 3
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
CHAPARRAL.

Micro Habitat:
OPEN SITES; IN CALIFORNIA WITH ADENOSTOMA FASCICULATUM, ERIOGONUM, SELAGINELLA. FOUND ON SOIL, SMALL MAMMAL PELLETS, DEAD TWIGS, AND ON SELAGINELLA. 60-870 M.

Last Date Observed: 2001-12-16
Last Survey Date: 2001-12-16
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
KEARNY MESA, NEAR SAN DIEGO SPECTRUM MALL OFF CLAIREMONT MESA ROAD.

Detailed Location:
SW1/4 OF NW1/4 SEC 31; NEARLY IN CENTER OF SECTION.

Ecological:
RARE ON SOIL WITH SELAGINELLA CINERASCENS AND BRYOPHYTES AND ON RABBIT DUNG, RABBIT DUNG, CHAPARRAL.

Threats:

General:
COLLECTED HERE IN 1932 BY PARKS, 1966 BY WEBER, AND IN 2001 BY RIEFNER. NEEDS FIELDWORK.

PLSS: T15S, R02W, Sec. 31, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3632107 E488129
Latitude/Longitude: 32.82692 / -117.12682
Elevation (feet): 430

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

MCC92R0002	MCCUNE, B. - STATUS OF A GLOBALLY RANKED (G2) RARE LICHEN SPECIES, TEXOSPORIUM SANCTI-JACOBI. 1992-01-31
PAR32S0003	PARKS, H. & W. PARKS - PARKS #1117 COLO 1932-01-21
RIE01S0002	RIEFNER - RIEFNER #01-778 ASU (CITED IN RIE04A0001) 2001-12-16
RIE04A0001	RIEFNER, R. & R. ROSENTRETER - THE DISTRIBUTION AND ECOLOGY OF TEXOSPORIUM IN SOUTHERN CALIFORNIA. 2004-XX-XX
WEB66S0002	WEBER, W. & R. SANTESSON - WEBER #L-43119 COLO 1966-04-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 56291
EO Index: 56307
Key Quad: La Mesa (3211771)
Element Code: NLTEST7980
Occurrence Number: 9
Occurrence Last Updated: 2004-08-02

Scientific Name: *Texosporium sancti-jacobi*
Common Name: woven-spored lichen

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 3
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
CHAPARRAL.

Micro Habitat:
OPEN SITES; IN CALIFORNIA WITH ADENOSTOMA FASCICULATUM, ERIOGONUM, SELAGINELLA. FOUND ON SOIL, SMALL MAMMAL PELLETS, DEAD TWIGS, AND ON SELAGINELLA. 60-870 M.

Last Date Observed: 2003-02-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-02-22
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SHEPHERD CANYON, MISSION TRAILS REGIONAL PARK.

Detailed Location:

Ecological:
RARE ON RABBIT DUNG OVER SELAGINELLA CINERASCENS, NEAR VERNAL POOL, COASTAL SAGE SCRUB.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS 2003 COLLECTION BY RIEFNER. NEEDS FIELDWORK.

PLSS: T15S, R02W, Sec. 27, SE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3633437 E493208
Latitude/Longitude: 32.83896 / -117.07257
Elevation (feet): 825

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

RIE03S0002	RIEFNER - RIEFNER #03-109 ASU, UCR (CITED IN RIE04A0001) 2003-02-22
RIE04A0001	RIEFNER, R. & R. ROSENTRETER - THE DISTRIBUTION AND ECOLOGY OF TEXOSPORIUM IN SOUTHERN CALIFORNIA. 2004-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 56292
EO Index: 56308
Key Quad: La Mesa (3211771)
Element Code: NLTEST7980
Occurrence Number: 10
Occurrence Last Updated: 2004-08-02

Scientific Name: *Texosporium sancti-jacobi*
Common Name: woven-spored lichen

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 3
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
CHAPARRAL.

Micro Habitat:
OPEN SITES; IN CALIFORNIA WITH ADENOSTOMA FASCICULATUM, ERIOGONUM, SELAGINELLA. FOUND ON SOIL, SMALL MAMMAL PELLETS, DEAD TWIGS, AND ON SELAGINELLA. 60-870 M.

Last Date Observed: 2003-02-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-02-22
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
MISSION GORGE NEAR COWLES MOUNTAIN COUNTY PARK.

Detailed Location:

Ecological:
RARE ON RABBIT DUNG AND TWIGS IN SOIL DUFF, CHAMISE CHAPARRAL.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS 2003 COLLECTION BY RIEFNER. NEEDS FIELDWORK.

PLSS: T16S, R01W, Sec. 06, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3630676 E497494
Latitude/Longitude: 32.81408 / -117.02676
Elevation (feet): 1,091

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

RIE03S0003	RIEFNER - RIEFNER #03-122 WIS (CITED IN RIE04A0001) 2003-02-22
RIE04A0001	RIEFNER, R. & R. ROSENTRETER - THE DISTRIBUTION AND ECOLOGY OF TEXOSPORIUM IN SOUTHERN CALIFORNIA. 2004-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	56293	**EO Index:**	56309
Key Quad:	La Mesa (3211771)	**Element Code:**	NLTEST7980
Occurrence Number:	11	**Occurrence Last Updated:**	2004-08-02

Scientific Name: *Texosporium sancti-jacobi*

Common Name: woven-spored lichen

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 3

Other Lists:

CNDDB Element Ranks: **Global:** G3

State: S2

General Habitat:

CHAPARRAL.

Micro Habitat:

OPEN SITES; IN CALIFORNIA WITH ADENOSTOMA FASCICULATUM, ERIOGONUM, SELAGINELLA. FOUND ON SOIL, SMALL MAMMAL PELLETS, DEAD TWIGS, AND ON SELAGINELLA. 60-870 M.

Last Date Observed:	2003-02-22	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-02-22	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

TIERRASANTA, MISSION TRAILS REGIONAL PARK, EAST END OF CLAIREMONT MESA ROAD.

Detailed Location:

NW1/4 OF NW1/4 SEC 35.

Ecological:

RARE ON RABBIT DUNG OVER SELAGINELLA CINERASCENS, CHAPARRAL.

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS 2003 COLLECTION BY RIEFNER. NEEDS FIELDWORK.

PLSS:	T15S, R02W, Sec. 35, NW (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3632769 E493802	**Latitude/Longitude:**	32.83294 / -117.06621	**Elevation (feet):**	1,091

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

RIE03S0001	RIEFNER - RIEFNER #03-108 ASU, UCR (CITED IN RIE04A0001) 2003-02-22
RIE04A0001	RIEFNER, R. & R. ROSENTRETER - THE DISTRIBUTION AND ECOLOGY OF TEXOSPORIUM IN SOUTHERN CALIFORNIA. 2004-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04188
EO Index: 16649
Key Quad: La Mesa (3211771)
Element Code: PDAPI0Z042
Occurrence Number: 6
Occurrence Last Updated: 2021-03-01

Scientific Name: *Eryngium aristulatum var. parishii*
Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T1
State: S1

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed: 1936-05-03
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1936-05-03
Occurrence Rank: None
Owner/Manager: PVT
Trend: Unknown
Presence: Extirpated

Location:

NEAR 50TH STREET AND ADAMS AVENUE, EAST SAN DIEGO.

Detailed Location:

Ecological:

VERNAL POOL.

Threats:

MUCH DEVELOPMENT HAS OCCURRED IN THIS AREA SINCE 1936; SITE LIKELY EXTIRPATED BY DEVELOPMENT.

General:

MAIN SOURCE OF INFORMATION FOR THIS SITE IS A 1936 GANDER COLLECTION. A 1936 PURER COLLECTION FROM "COLLEGE PARK" IS ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS: T16S, R02W, Sec. 21 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3624985 E491876
Latitude/Longitude: 32.76272 / -117.08673
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

GAN36S0009 GANDER, F. - GANDER #1709 SD #15122 1936-05-03
PUR36S0001 PURER, E. - PURER #6908 SD #38860 1936-04-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86484
EO Index: 14014
Key Quad: La Mesa (3211771)
Element Code: PDAPI0Z042
Occurrence Number: 14
Occurrence Last Updated: 2012-08-30

Scientific Name: *Eryngium aristulatum var. parishii*
Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T1
State: S1

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed: 2005-03-25
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-03-25
Occurrence Rank: Fair
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Decreasing
Presence: Presumed Extant

Location:

NEAR THE JUNCTION OF 1-15 AND HIGHWAY 52, MARINE CORPS AIR STATION MIRAMAR, SAN DIEGO.

Detailed Location:

BEAUCHAMP POOL COMPLEXES: AA3-7. MAPPED BY CNDDB AS 6 POLYGONS TO ENCOMPASS A 1979 BEAUCHAMP MAP AND 2005 BLACK COORDINATES. NW, NE, AND SE OF FREEWAY INTERCHANGE.

Ecological:

VERNAL POOLS ON REDDING SOILS. SURROUNDED BY DISTURBED NATIVE GRASSLAND AND CHAMISE CHAPARRAL. POOLS VERY DIVERSE IN SIZE, SOIL, BOTTOM TEXTURE AND SPECIES COMPOSITION. THE RARE POGOGYNE ABRAMSII AND BRODIAEA ORCUTTII ARE ALSO AT THIS SITE.

Threats:

LOW TO MEDIUM DISTURBANCE FROM ORV DAMAGE AND BRUSHING. SITE BISECTED BY HWY 52. PORTIONS MAY BE DEVELOPED.

General:

OBSERVED IN BEAUCHAMP POOLS AA3-7 IN 1979 (ERYNGIUM MAY NOT HAVE BEEN PRESENT IN ALL POOLS). COMMON IN 10-50% OF AA3 POOLS IN 1986 (N OF HWY 52), NOT SEEN IN AA4-7 POOLS IN 1986. FAR NW POLY: SMALL NUMBERS OF ERYNGIUM IN 9 POOLS IN 2005.

PLSS: T15S, R02W, Sec. 29, W (S)
Accuracy: specific area
Area (acres): 68
UTM: Zone-11 N3633628 E489175
Latitude/Longitude: 32.84066 / -117.11566
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
BLA05F0007	BLACK, C. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 2005-03-25
GUS80S0005	GUSTAFSON, R. - GUSTAFSON #1551 RSA #470848 1980-05-04
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86485
Key Quad: La Mesa (3211771)
Occurrence Number: 15
EO Index: 14013
Element Code: PDAPI0Z042
Occurrence Last Updated: 2012-08-10

Scientific Name: *Eryngium aristulatum var. parishii*
Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered
CNDDB Element Ranks: **Global:** G5T1
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed: 1979-XX-XX
Last Survey Date: 1979-XX-XX
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
KEARNY MESA; APPROX 0.3 AIR MI SW OF JUNCTION OF SAN CLEMENTE CANYON RD AND KEARNY VILLA RD, MARINE CORPS AIR STATION.

Detailed Location:
RECON POOL COMPLEX #RR1. IN THE SE 1/4 OF THE NE 1/4 OF SECTION 19.

Ecological:
VERNAL POOL.

Threats:

General:
E. A. VAR. PARISHII REPORTED FROM A SINGLE POOL IN GROUP RR1 IN 1979 RECON REPORT.

PLSS: T15S, R02W, Sec. 19, NE (S)
Accuracy: specific area
Area (acres): 3
UTM: Zone-11 N3635550 E488653
Latitude/Longitude: 32.85798 / -117.12127
Elevation (feet): 460

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	86486	**EO Index:**	20032
Key Quad:	La Mesa (3211771)	**Element Code:**	PDAPI0Z042
Occurrence Number:	17	**Occurrence Last Updated:**	2012-09-27

Scientific Name: *Eryngium aristulatum var. parishii*

Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G5T1
State: S1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed:	1982-07-20	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1982-07-20	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EAST MIRAMAR AIR STATION; JUST S OF SAN CLEMENTE CANYON ON SE SIDE OF KEARNY VILLA ROAD/VEGAS DRIVE JUNCTION, SAN DIEGO.

Detailed Location:

RECON POOL CODE: AA IV. MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO A 1979 RECON MAP AND A 1982 BEAUCHAMP MAP.

Ecological:

VERNAL POOLS ASSOCIATED WITH POGOGYNE ABRAMSII, PSILOCARPHUS SP., DOWNINGIA CUSPIDATA, BRODIAEA ORCUTTII, AND ELATINE SP.

Threats:

General:

OBSERVED IN 6 POOLS AT THIS SITE BY RECON IN 1979. OBSERVED IN 9 POOLS IN 1982 (SURVEYS CONDUCTED BETWEEN APRIL 22 AND JULY 20, 1982).

PLSS:	T15S, R02W, Sec. 17, SW (S)	**Accuracy:**	specific area	**Area (acres):**	4
UTM:	Zone-11 N3636626 E489225	**Latitude/Longitude:**	32.86769 / -117.11516	**Elevation (feet):**	490

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BEA82M0001	BEAUCHAMP, R. - APPENDIX 1 TO BEA82U0001, MAPS OF VERNAL POOLS ON MIRAMAR NAS 1982-XX-XX
BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03943	**EO Index:**	20031
Key Quad:	La Jolla (3211772)	**Element Code:**	PDAPI0Z042
Occurrence Number:	20	**Occurrence Last Updated:**	2012-08-10

Scientific Name: *Eryngium aristulatum var. parishii*

Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T1
State: S1

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed:	1986-04-07	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-04-07	**Occurrence Rank:**	None
Owner/Manager:	PVT	**Trend:**	Decreasing
Presence:	Possibly Extirpated		

Location:

MISSION VALLEY; APPROXIMATELY 0.4 AIR MILE NNE OF THE JUNCTION OF MISSION CENTER ROAD AND FRIARS ROAD, SAN DIEGO.

Detailed Location:

BEAUCHAMP POOL COMPLEX O1. MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO A 1979 RECON MAP IN THE SW 1/4 OF THE SW 1/4 OF SECTION 13.

Ecological:

VERNAL POOLS ON REDDING SOILS IN SCRUB VEGETATION.

Threats:

HEAVILY DISTURBED POOLS. AREA ADJACENT TO GRAVEL PIT & DEVELOPMENT. SITE MAY BE EXTIRPATED BASED ON 2012 AERIAL IMAGERY.

General:

OBSERVED IN 7 POOLS IN 1979. COMMON IN OVER 50% OF THE POOLS IN 1986. OLD COLLECTIONS FROM "MISSION VALLEY" ARE ALSO ATTRIBUTED TO THIS SITE. INCLUDES FORMER OCCURRENCE #2.

PLSS:	T16S, R03W, Sec. 13, SW (S)	**Accuracy:**	specific area	**Area (acres):**	4
UTM:	Zone-11 N3626835 E485881	**Latitude/Longitude:**	32.77934 / -117.15075	**Elevation (feet):**	250

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
BRA94S0013	BRANDEGEE, K. - BRANDEGEE SN UC #106363 1894-06-06
SPE22S0002	SPENCER, M. - SPENCER #91 UC #472834, SEINET #4463433, F 1922-06-04
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	86488	**EO Index:**	14010
Key Quad:	La Jolla (3211772)	**Element Code:**	PDAPI0Z042
Occurrence Number:	21	**Occurrence Last Updated:**	2021-03-01

Scientific Name: *Eryngium aristulatum var. parishii*

Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered; **State:** Endangered

Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G5T1; **State:** S1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed:	2019-11-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2019-11-15	**Occurrence Rank:**	Good
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MARINE CORPS AIR STATION MIRAMAR; BETWEEN WEST END OF RUNWAYS AND ROSE CANYON, SAN DIEGO.

Detailed Location:

BAUDER POOLS: HH+; RECON POOLS: MM. MAPPED BY CNDDB AS 4 POLYGONS ACCORDING TO A 1979 RECON MAP, A 1982 BEAUCHAMP MAP, A 2020 ANDERSON MAP, AND A MAP SHOWING THE LOCATION OF MIRAMAR POOL SERIES HHI+ (2 NORTHERN POLYGONS).

Ecological:

VERNAL POOL. FLAT, FULL SUN. ASSOCIATED SPECIES: PSILOCARPHUS BREVISSIMUS, DOWNINGIA CONCOLOR, ZELTNERA VENUSTA, BRACHYPODIUM DISTACHYON, MALVA PARVIFLORA, NAVARRETIA FOSSALIS, POGOGYNE ABRAMSII, ORCUTTIA CALIFORNICA, PLANTAGO ELONGATA.

Threats:

EARTH MOVING AND RUNWAY CONSTRUCTION HAVE ALTERED WATER REGIME. INVASIVE PLANT SPECIES.

General:

2 S POLYGONS: SEEN IN RECON MM POOLS IN 1979 AND 1982, COMMON IN >50% OF POOLS IN 1986, ~500 IN 2019. 2 N POLYS BASED ON 1994 NAVARRETIA FOSSALIS COLLECTION WITH ERYNGIUM MENTIONED AS ASSOCIATE. OBSERVED IN 112 BASINS IN AREA IN 2004/2005.

PLSS:	T15S, R03W, Sec. 14 (S)	**Accuracy:**	specific area	**Area (acres):**	27
UTM:	Zone-11 N3636779 E484947	**Latitude/Longitude:**	32.86903 / -117.1609	**Elevation (feet):**	425

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

AND19F0036	ANDERSON, S. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 2019-11-15
AND20R0002	ANDERSON, S. - 2019 SEED COLLECTIONS REPORT 2020-01-31
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA82M0001	BEAUCHAMP, R. - APPENDIX 1 TO BEA82U0001, MAPS OF VERNAL POOLS ON MIRAMAR NAS 1982-XX-XX
BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30
BLA05U0019	BLACK, C. (ECOLOGICAL RESTORATION SERVICE) - VERNAL POOL REGULATORY SURVEYS, MCAS MIRAMAR, SAN DIEGO, 2004 -05 RAINFALL YEAR. 2005-12-12
CPR19U0002	CALIFORNIA PLANT RESCUE - 2019 SEED BANK DATA FOR THE CALIFORNIA PLANT RESCUE PROJECT 2019-XX-XX
GEN06R0001	GENE STOUT AND ASSOCIATES & GEOMORPH INFORMATION SYSTEMS - INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN FOR MARINE CORPS AIR STATION MIRAMAR, CALIFORNIA 2006-2010. BIOLOGICAL RESOURCES. 2006-10-XX
HUL94S0002	HULL, C. - HULL #19V94A SDSU #3207 1994-05-19
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	86516	**EO Index:**	14009
Key Quad:	La Jolla (3211772)	**Element Code:**	PDAPI0Z042
Occurrence Number:	23	**Occurrence Last Updated:**	2015-03-02

Scientific Name: *Eryngium aristulatum var. parishii*

Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered; **State:** Endangered

Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G5T1; **State:** S1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed:	2005-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2005-XX-XX	**Occurrence Rank:**	Good
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

KEARNY MESA; BETWEEN RUNWAYS AND SAN CLEMENTE CANYON, SOUTHERN PART OF MARINE CORPS AIR STATION MIRAMAR, SAN DIEGO.

Detailed Location:

ACCESS TO SOME SITES IS DIFFICULT. BEAUCHAMP POOL CODES: V1-V3, W1. RECON POOL CODES: AAII, EEI & EEII, FFI-FFII, GG, WI-WIII. MAPPED AS MANY POLYGONS MOSTLY ACCORDING TO 1979 RECON, 1979/1982 BEAUCHAMP MAPS, AND 2004 & 2005 BLACK MAPS.

Ecological:

VERNAL POOLS ASSOCIATED WITH POGOGYNE ABRAMSII, BRODIAEA ORCUTTII, AND ISOETES ORCUTTII.

Threats:

EXOTIC ANNUALS, NEAR LANDFILL & GRAVEL MINING OPERATIONS, MOWING, DIRT ROADS, MILITARY ACTIVITIES, ALTERED WATER REGIME.

General:

OBSERVED ACROSS OCCURRENCE IN 1979, 1982, AND 1986. OBSERVED IN SMALL PORTIONS OF SITE IN 2001 AND 2003. OBSERVED IN 277 BASINS ACROSS SITE DURING 2004/2005 SURVEYS. INCLUDES FORMER OCCURRENCE #S 18, 22, 24, 29, 32, & 84.

PLSS:	T15S, R03W, Sec. 13 (S)	**Accuracy:**	specific area	**Area (acres):**	193
UTM:	Zone-11 N3636249 E487285	**Latitude/Longitude:**	32.86428 / -117.13589	**Elevation (feet):**	440

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), La Jolla (3211772), Poway (3211781)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
BEA82M0001	BEAUCHAMP, R. - APPENDIX 1 TO BEA82U0001, MAPS OF VERNAL POOLS ON MIRAMAR NAS 1982-XX-XX
BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30
BLA04R0001	BLACK, C. (ECOLOGICAL RESTORATION SERVICE) - VERNAL POOL DELINEATION, RARE PLANT AND FAIRY SHRIMP SURVEY REPORTS ON MIRAMAR VERNAL POOLS, 2000-2001 THROUGH 2002-03 FIELD SEASONS, COMPREHENSIVE FINDINGS 2004-06-XX
BLA05U0019	BLACK, C. (ECOLOGICAL RESTORATION SERVICE) - VERNAL POOL REGULATORY SURVEYS, MCAS MIRAMAR, SAN DIEGO, 2004 -05 RAINFALL YEAR. 2005-12-12
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03
ZED79R0001	ZEDLER, P. ET AL. - A SURVEY OF VERNAL POOLS OF KEARNY MESA, SAN DIEGO COUNTY 1979-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	86517	**EO Index:**	14005
Key Quad:	La Jolla (3211772)	**Element Code:**	PDAPI0Z042
Occurrence Number:	25	**Occurrence Last Updated:**	2021-03-01

Scientific Name: *Eryngium aristulatum var. parishii*

Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T1
State: S1

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed:	2017-05-13	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-05-13	**Occurrence Rank:**	Good
Owner/Manager:	DOD-MCAS MIRAMAR, PVT	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

KEARNY MESA; BETWEEN CONVOY ST AND RUFFIN RD/KEARNY VILLA RD, ABOUT 0.7 MILE BOTH NORTH AND SOUTH OF HWY 52, SAN DIEGO.

Detailed Location:

ONLY 1 POLYGON S OF CLAIREMONT MESA BLVD. INCLUDES BEAUCHAMP POOLS: BB1, E1-4, F1-6, F9, F13-14, F17, U1-4, & U6-12. ALSO INCLUDES BAUDER POOLS U14 & U18. MAPPED AS MANY POLYGONS ACCORDING TO VARIOUS MAPS & COORDINATES FROM 1979-2017.

Ecological:

SAN DIEGO HARDPAN VERNAL POOLS ON REDDING SOILS IN CHAMISE CHAPARRAL AND GRASSLAND. ASSOCIATED WITH POGOGYNE ABRAMSII, MUILLA CLEVELANDII, BRODIAEA ORCUTTI, NAVARRETIA FOSSALIS, ISOETES ORCUTTII, MYOSURUS MINIMUS, ETC.

Threats:

ORVS, BRUSHING, WATER IMPOUNDMENT, DUMPING, ADJ TO LANDFILL, NON-NATIVES. PORTIONS DESTROYED BY DEVELOPMENT & HIGHWAY.

General:

OBSERVED ACROSS SITE IN 1979 & 1982. PORTIONS OF SITE DESTROYED BY DEVELOPMENT BY 1986; ABUNDANT TO COMMON IN THE REMAINING POOLS IN 1986. 5000+ IN PORTION OF SITE IN 2011. SEEN IN 2017. INCLUDES FORMER OCCS #26-28, 81-82.

PLSS:	T15S, R03W, Sec. 25 (S)	**Accuracy:**	specific area	**Area (acres):**	346
UTM:	Zone-11 N3633993 E486774	**Latitude/Longitude:**	32.84392 / -117.14134	**Elevation (feet):**	420

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), La Jolla (3211772)

Sources:

BAS20U0001	BASDEN, M. - OBSERVATIONS OF ERYNGIUM ARISTULATUM VAR. PARISHII BY MILLIE BASDEN FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-02-18. 2020-04-24
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
BEA80U0001	BEAUCHAMP, R. - POSTCARD FROM BEAUCHAMP TO GENE COOLEY, RE: SAN DIEGO VERNAL POOL STUDY, 1978: POSTCARD STAPLED TO THE CNDDB COPY OF VERNAL POOL STUDY (INSIDE COVER OF BEA79R0002). 1980-10-01
BEA81U0003	BEAUCHAMP, R. - PHONE MEMO, CONVERSATION BETWEEN GENE COOLEY AND M. BEAUCHAMP, CONCERNING SAN DIEGO VERNAL POOL SURVEY, 1978 1981-04-30
BEA82M0001	BEAUCHAMP, R. - APPENDIX 1 TO BEA82U0001, MAPS OF VERNAL POOLS ON MIRAMAR NAS 1982-XX-XX
BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30
BIT92F0009	BITTMAN, R. ET AL. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII & POGOGYNE ABRAMSII & BRODIAEA ORCUTTII 1992-04-21
CPR19U0001	CALIFORNIA PLANT RESCUE - SEED BANK DATA FOR THE CALIFORNIA PLANT RESCUE PROJECT 2019-07-24
FRA11F0008	FRAGA, N. ET AL. (RANCHO SANTA ANA BOTANIC GARDEN) - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 2011-09-15
FRA11S0015	FRAGA, N. ET AL. - FRAGA #3896 RSA #808424 & #0020606 2011-09-15
FRA12R0002	FRAGA, N. & M. WALL (RANCHO SANTA ANA BOTANIC GARDEN) - GERMPLASM COLLECTION REPORT FOR FEDERALLY LISTED SPECIES COLLECTED ON DOD LANDS IN 2011 2012-01-23
INA19U0141	INATURALIST - OBSERVATIONS OF ERYNGIUM ARISTULATUM VAR. PARISHII FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-02-18. 2019-04-29
SCH95F0084	SCHEIDE, V. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 1995-03-01
SCH95F0085	SCHEIDE, V. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 1995-03-01
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
SOL09S0040	SOLOMESHCH, A. ET AL. - SOLOMESHCH SN DAV #150073 2009-04-28
TOL17U0008	TOLLETT, M. - OBSERVATION RECORD FOR ERYNGIUM ARISTULATUM VAR. PARISHII, CALFLORA ID: CBO72270 2017-04-27
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03
WEL92S0005	WELKER, S. - WELKER SN SD #254772 1992-05-11
WES87R0002	WESTEC SERVICES, INC. - ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED LAND SALES AND EXCHANGES SOUTH OF CALIFORNIA STATE ROUTE 52, NAVAL AIR STATION, MIRAMAR, SAN DIEGO COUNTY, CA 1987-04-XX
ZED79R0001	ZEDLER, P. ET AL. - A SURVEY OF VERNAL POOLS OF KEARNY MESA, SAN DIEGO COUNTY 1979-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86519
EO Index: 20024
Key Quad: Del Mar (3211782)
Element Code: PDAPI0Z042
Occurrence Number: 33
Occurrence Last Updated: 2021-03-01

Scientific Name: *Eryngium aristulatum var. parishii*
Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T1
State: S1

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed: 2020-05-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2020-05-15
Occurrence Rank: Good
Owner/Manager: DOD-MCAS MIRAMAR, PVT
Trend: Decreasing
Presence: Presumed Extant

Location:

BOTH SIDES OF MIRAMAR ROAD ABOUT 0.4 TO 1.4 MILES EAST OF I-805, NORTH OF ROSE CANYON, SAN DIEGO.

Detailed Location:

INCLUDES BEAUCHAMP POOL COMPLEXES: I6-7 AND X2-4. MAPPED BY CNDDB AS SEVERAL POLYGONS ACCORDING TO 1979 RECON & BEAUCHAMP MAPS, 2003 CITY OF SAN DIEGO DIGITAL DATA, AND 2017-2020 COORDINATES.

Ecological:

VERNAL POOLS IN SURROUNDING CHAPARRAL, SCRUB AND GRASSLAND VEGETATION. ALSO ASSOCIATED WITH ARTEMISIA CALIFORNIA, AVENA, PSILOCARPHUS BREVISSIMUS, BROMUS DIANDRUS, DEINANDRA FASCICULATA, FESTUCA PERENNIS, ALLIUM, ETC.

Threats:

MEDIUM TO HIGH DISTURBANCE OF POOLS. ORVS, DUMPING, GRADING, BRUSHING, ROADS, IRRIGATION RUNOFF, DEVELOPMENT, INVASIVES.

General:

OBSERVED ACROSS SITE IN 1979. PORTION OF SITE EXTIRPATED BY 1986; ERYNGIUM UNCOMMON TO ABUNDANT IN REMAINING POOLS IN 1986. 10,000S OF PLANTS IN 232 POOLS IN 2005. ~50 IN 2019. SEEN IN 2017, 2018, 2020. INCLUDES FORMER EOS #36 & 83.

PLSS: T15S, R03W, Sec. 10, S (S)
Accuracy: specific area
Area (acres): 48
UTM: Zone-11 N3637720 E482878
Latitude/Longitude: 32.87748 / -117.18303
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

La Jolla (3211772), Del Mar (3211782)

Sources:

AND19F0037	ANDERSON, S. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 2019-11-18
AND20R0002	ANDERSON, S. - 2019 SEED COLLECTIONS REPORT 2020-01-31
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
BLA05F0008	BLACK, C. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 2005-03-25
CPR19U0002	CALIFORNIA PLANT RESCUE - 2019 SEED BANK DATA FOR THE CALIFORNIA PLANT RESCUE PROJECT 2019-XX-XX
REI78S0005	REISENTZ, P. - REISENTZ SN UCSB #44156 1978-05-07
REI78S0006	REISENTZ, P. - REISENTZ SN UCSB #44154, #44159, #44161 1978-05-23
SCH19U0002	SCHEIDT, V. - INATURALIST OBSERVATIONS OF ERYNGIUM ARISTULATUM VAR. PARISHII, FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-07-22. 2019-07-22
SCH20U0012	SCHEIDT, V. - 2020 OBSERVATIONS OF ERYNGIUM ARISTULATUM VAR. PARISHII BY VINCE SCHEIDT FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-02-18. 2020-XX-XX
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	86528	**EO Index:**	20013
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAPI0Z042
Occurrence Number:	56	**Occurrence Last Updated:**	2021-03-01

Scientific Name: *Eryngium aristulatum var. parishii*

Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T1

State: S1

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed:	2019-05-09	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2019-05-09	**Occurrence Rank:**	Poor
Owner/Manager:	PVT, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

VICINITY OF DENNERY CANYON ON OTAY MESA, SAN YSIDRO.

Detailed Location:

INCL BEAUCHAMP POOLS J1 & J2 AND CREATED "RECON CAL TERRACES," "OTAY MESA RD HELIX & RECON," & "ROBINHOOD RIDGE." MAJORITY OF POOLS CREATED IN 1998/1999 & CONTAIN SEEDED ERYNGIUM; ERYNGIUM ONCE NATURALLY OCCURRED IN AREA. INCL EO 57 & 72.

Ecological:

MOSTLY CREATED VERNAL POOLS. STOCKPEN SOILS. ASSOCIATED WITH CALLITRICHE MARGINATA, CRASSULA AQUATICA, DESCHAMPSIA DANTHONIOIDES, ELATINE CALIFORNICA, EPILOBIUM, PSILOCARPHUS, POLYPOGON MONSPELIENSIS, FESTUCA MEGALURA, LASTHENIA, ETC.

Threats:

ORVS, INVASIVE WEEDS. MAJORITY OF NATURAL POOLS EXTRIPATED BY DEVELOPMENT OR ALTERED FOR VERNAL POOL CREATION.

General:

OBS IN 4 NW POLYS IN 1979, 1986, 1993, 1995; EXTIRPATED BY DEVELOPMENT. SW POLY: OBS IN 2003. 6 E POLYS ARE CREATED POOLS BUT NATURAL POOLS ONCE HERE; OBS IN 320 BASINS IN 2003. 100S IN CREATED POOL IN 2009. 1000 IN 2017. SEEN IN 2019.

PLSS:	T18S, R01W, Sec. 29 (S)	**Accuracy:**	specific area	**Area (acres):**	72
UTM:	Zone-11 N3603835 E498978	**Latitude/Longitude:**	32.57195 / -117.01089	**Elevation (feet):**	520

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

AND17F0020	ANDERSON, S. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 2017-09-18
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
BON88U0001	BONTADELLI, P. - MEMO REGARDING ROBINHOOD RIDGE DEIR (SAN DIEGO CO.); HEMIZONIA CONJUGENS, ERYNGIUM ARISTULATUM VAR. PARISHII, FEROCACTUS VIRIDESCENS, VIGUIERA LACINIATA, DUDLEYA VARIEGATA, ET AL. 1988-09-13
BRA85F0002	BRAMLET, D. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII, MYOSURUS MINIMUS SSP. APUS & NAVARRETIA FOSSALIS 1985-04-11
CAL01M0002	CALTRANS - MAPS SHOWING SENSITIVE PLANT SPECIES IMPACT FOOTPRINT FOR ROUTE 905, REVISED 2001 2001-06-XX
CPR19U0001	CALIFORNIA PLANT RESCUE - SEED BANK DATA FOR THE CALIFORNIA PLANT RESCUE PROJECT 2019-07-24
GRI85U0003	GRIGGS, T. - MAPS WITH NOTES ON CONDITION OF VERNAL POOL AREAS 1985-07-15
INA19U0141	INATURALIST - OBSERVATIONS OF ERYNGIUM ARISTULATUM VAR. PARISHII FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-02-18. 2019-04-29
JAM01U0001	JAMES, R. - MAP AND LETTER REGARDING DEINANDRA CONJUGENS ON OTAY MESA 2001-02-27
KED09S0002	KEDZIORA, M. & K. BUSH - KEDZIORA #37 SD #237681 2009-06-12
MIS90U0013	MISTRETTA, O. & FRITSCH - SENSITIVE SPECIES SEED COLLECTION FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII. 1990-09-07
MIS90U0014	MISTRETTA, O. - SUMMARY OF ERYNGIUM ARISTULATUM VAR. PARISHII SEED COLLECTION ACTIVITIES. 1990-XX-XX
OLS11U0001	OLSON, M. (RECON ENVIRONMENTAL, INC.) - 2010 SEED COLLECTION SUMMARY REPORT FOR THE RESTORATION OF VERNAL POOLS ON THE SHINOHARA PARCEL OF THE USFWS SAN DIEGO NATIONAL WILDLIFE REFUGE. 2011-01-06
PAT97U0001	PATTERSON, C. (RECON ENVIRONMENTAL, INC.) - DENNERY CANYON VERNAL POOL, COASTAL SAGE SCRUB, AND MULE FAT SCRUB RESTORATION AND PRESERVATION PLAN. 1997-03-05
SCH19U0002	SCHEIDT, V. - INATURALIST OBSERVATIONS OF ERYNGIUM ARISTULATUM VAR. PARISHII, FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-07-22. 2019-07-22
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
SDG92R0001	CITY OF SAN DIEGO - PORTIONS OF AN ENVIRONMENTAL IMPACT REPORT FOR THE CALIFORNIA TERRACES PRECISE PLAN 1992-XX-XX
TOL17U0010	TOLLETT, M. - OBSERVATION RECORD FOR ERYNGIUM ARISTULATUM VAR. PARISHII, CALFLORA ID: CBO72274 2017-04-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04391	**EO Index:**	17759
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAPI0Z042
Occurrence Number:	58	**Occurrence Last Updated:**	2015-02-27

Scientific Name: *Eryngium aristulatum var. parishii*

Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G5T1
State: S1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed:	2003-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-XX-XX	**Occurrence Rank:**	Poor
Owner/Manager:	PVT, CITY OF SAN DIEGO	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

OTAY MESA, BETWEEN DENNERY CANYON AND AVENIDA DE LAS VISTAS, ABOUT 0.6 MILE WEST OF OTAY VALLEY ROAD, SAN YSIDRO.

Detailed Location:

INCLUDES BEAUCHAMP POOL J5. MAPPED AS 2 POLYGONS BASED ON 1979 BEAUCHAMP MAP, 1990 MISTRETTA MAP, AND 2003 CITY OF SAN DIEGO DIGITAL DATA. 2012 AERIAL IMAGERY OF THIS AREA SHOWS THAT WESTERN POLYGON HAS BEEN EXTIRPATED BY DEVELOPMENT.

Ecological:

VERNAL POOL WITH JUNCUS, CRASSULA AQUATICA, ETC. ASSOCIATED WITH NAVARRETIA FOSSALIS AND MYOSURUS MINIMUS IN 1986.

Threats:

DIRT ROAD CROSSES AREA PROVIDING ACCESS FOR ORV ACTIVITY (1986). PART OF SITE (WEST POLYGON) EXTIRPATED BY DEVELOPMENT.

General:

E POLYGON: OBSERVED IN 1979 (BEAUCHAMP'S J5 POOL), COMMON IN POOL IN 1986, POOLS POSSIBLY CREATED AT SITE IN SUBSEQUENT YEARS (OBS ~2003). <1000 PLANTS ON EDGES OF MAN-MADE VERNAL POOL IN AREA IN 1984 & 1985. W POLY: ~1000 PLANTS IN 1990.

PLSS:	T18S, R01W, Sec. 29, NW (S)	**Accuracy:**	specific area	**Area (acres):**	2
UTM:	Zone-11 N3604858 E499039	**Latitude/Longitude:**	32.58118 / -117.01023	**Elevation (feet):**	430

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
CAS81U0001	CASS, T. - LETTER, COMPUTER PRINTOUT AND 5 MAPS OF VERNAL POOL LOCATIONS WITH RARE PLANTS ON OTAY MESA. 1981-XX-XX
MIS90U0009	MISTRETTA, O. & P. FRITSCH - SENSITIVE SPECIES SEED COLLECTION FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII. 1990-09-22
MIS90U0014	MISTRETTA, O. - SUMMARY OF ERYNGIUM ARISTULATUM VAR. PARISHII SEED COLLECTION ACTIVITIES. 1990-XX-XX
SCH85F0032	SCHEIDT, V. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 1985-03-06
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04376
EO Index: 20012
Key Quad: Imperial Beach (3211751)
Element Code: PDAPI0Z042
Occurrence Number: 59
Occurrence Last Updated: 2021-03-01

Scientific Name: *Eryngium aristulatum var. parishii*
Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T1
State: S1

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed: 2017-07-28
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2017-07-28
Occurrence Rank: Fair
Owner/Manager: PVT, CITY OF SAN DIEGO, OTHERS
Trend: Unknown
Presence: Presumed Extant

Location:

OTAY MESA, NORTH OF WRUCK CANYON EXTENDING NW TO NEAR HEAD OF DILLON CANYON, 0.6 TO 1.9 MI W OF CACTUS RD, SAN YSIDRO.

Detailed Location:

BEAUCHAMP POOL COMPLEXES J12-13, J16-18, AND J31. MAPPED BY CNDDB AS 17 POLYGONS TO ENCOMPASS VARIOUS SOURCES OF INFORMATION FROM 1979 TO 2018. UNCLEAR IF ERYNGIUM ACTUALLY OCCURS IN THE SOUTHERNMOST POOL; 1985 GRIGGS MAP IS UNCLEAR.

Ecological:

VERNAL POOLS, MARITIME SUCCULENT SCRUB AND DISTURBED HABITAT. ASSOCIATED WITH ERODIUM, SIMMONDSIA CHINENSIS, BROMUS HORDEACEUS, DEINANDRA FASCICULATA, ETC. ALSO WITH ORCUTTIA CALIFORNICA, NAVARRETIA FOSSALIS, PHALARIS PARADOXA.

Threats:

INDUSTRIAL DEVELOPMENT, GRAZING, ORV USE, ROADS, BORDER TRAFFIC, COMPETITION FROM INVASIVES, TRAMPLING.

General:

SEEN IN 1979 AND 1986. 600+ IN 5 POOLS IN 1990. ABUNDANT AT E END IN 1995. SEEN IN 14 POOLS IN 2003. E PART OF SITE: 450 IN '08, 850 IN '09, 1816 IN '14, 1248 IN '15, 1352 IN '16, 5175 IN '17. INCL FORMER OCC #60, 70, 71, 89.

PLSS: T19S, R01W, Sec. 5, N (S)
Accuracy: specific area
Area (acres): 50
UTM: Zone-11 N3601638 E498947
Latitude/Longitude: 32.55213 / -117.01121
Elevation (feet): 450

County Summary:

San Diego

Quad Summary:

Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

AND17F0019	ANDERSON, S. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 2017-07-28
BAL09F0030	BALO, K. & J. GAUDETTE (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 2009-05-15
BAL09F0031	BALO, K. & J. GAUDETTE - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 2009-05-15
BAU85U0002	BAUDER, E. - ELEMENT OCCURRENCE EVALUATION FORMS, OTAY MESA AREA 1985-XX-XX
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
CAS79S0027	CASS, T. - CASS #4C SD #105650 1979-04-18
CAS81U0001	CASS, T. - LETTER, COMPUTER PRINTOUT AND 5 MAPS OF VERNAL POOL LOCATIONS WITH RARE PLANTS ON OTAY MESA. 1981-XX-XX
CPR19U0001	CALIFORNIA PLANT RESCUE - SEED BANK DATA FOR THE CALIFORNIA PLANT RESCUE PROJECT 2019-07-24
GRI85U0002	GRIGGS, T. - MEMO REGARDING OTAY MESA 1985-05-01
GRI85U0004	GRIGGS, T. - PERSONAL COMMUNICATION TO MARGARET ORMES 1985-XX-XX
MIL11F0017	MILLER, B. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA & LEPUS CALIFORNICUS BENNETTII & ERYNGIUM ARISTULATUM VAR. PARISHII & NAVARRETIA FOSSALIS 2011-05-31
MIS90U0008	MISTRETTA, O. & P. FRITSCH - SENSITIVE SPECIES SEED COLLECTION FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII. 1990-09-22
MIS90U0010	MISTRETTA, O. & P. FRITSCH - SENSITIVE SPECIES SEED COLLECTION FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII. 1990-09-07
MIS90U0011	MISTRETTA, O. & P. FRITSCH - SENSITIVE SPECIES SEED COLLECTION FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII. 1990-09-22
MIS90U0014	MISTRETTA, O. - SUMMARY OF ERYNGIUM ARISTULATUM VAR. PARISHII SEED COLLECTION ACTIVITIES. 1990-XX-XX
RIG95F0002	RIGGAN, R.B. (R.B. RIGGAN AND ASSOCIATES) - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 1995-05-17
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
VAN86F0001	VANDERWIER, J. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 1986-02-14
VAN86U0001	VANDERWIER, J. - LETTER AND MAP FOR ERYNGIUM ARISTULATUM VAR. PARISHII. 1986-03-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04435
Key Quad: Otay Mesa (3211658)
Occurrence Number: 61
EO Index: 7788
Element Code: PDAPI0Z042
Occurrence Last Updated: 2021-03-01

Scientific Name: *Eryngium aristulatum var. parishii*
Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered
CNDDB Element Ranks: **Global:** G5T1
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed: 2006-06-XX
Last Survey Date: 2006-06-XX
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:

OTAY MESA NEAR BORDER, SOUTH OF WRUCK CANYON, WEST OF THE WEST END OF CALLE DE LINEA, SAN YSIDRO.

Detailed Location:

INCLUDES BEAUCHAMP POOL J-15. THIS SITE INCLUDES NATURAL POOLS (WESTERN PORTION OF SITE) AND CREATED/RESTORED POOLS (EASTERN PORTION OF SITE). MAPPED BY CNDDB ACCORDING TO A 1986 VANDERWIER MAP AND A 2006 ERS MAP (SHOWING CREATED POOLS).

Ecological:

VERNAL POOLS ASSOCIATED WITH SISYRINCHIUM BELLUM, LASTHENIA CALIFORNICA, LAMARKIA AUREA, ZIGADENUS FREMONTII, LINANTHUS DIANTHIFLORUS AND PLAGIOBOTHRYS ACANTHOCARPA. ON STOCKPEN SOIL.

Threats:

IN 1986, MOTORCYCLE, HEAVY BORDER TRAFFIC, TRAMPLING WERE THREATS. EVIDENCE OF FIRE & TRASH IN 1990. ORVS IN 2003.

General:

WEST END OF SITE: OBSERVED IN 1979, UNCOMMON IN 1986, 200 PLANTS IN 3 POOLS IN 1990. UNKNOWN NUMBER OF PLANTS OBSERVED IN 2000. REMAINDER OF SITE CONTAINS CREATED POOLS: OBSERVED IN 16 BASINS IN 2003 AND THROUGHOUT SITE IN 2004-2006.

PLSS: T19S, R01W, Sec. 05, SE (S)
Accuracy: specific area
Area (acres): 27
UTM: Zone-11 N3600995 E499954
Latitude/Longitude: 32.54633 / -117.00048
Elevation (feet): 480

County Summary:	Quad Summary:
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
CPR19U0001	CALIFORNIA PLANT RESCUE - SEED BANK DATA FOR THE CALIFORNIA PLANT RESCUE PROJECT 2019-07-24
ERS06R0001	ECOLOGICAL RESTORATION SERVICE - MAINTENANCE AND MONITORING OF VERNAL POOLS AND UPLAND VEGETATION AT ARNIE'S POINT, SAN DIEGO, CA: AREA A (YEAR 4) AND AREA B (YEAR 3), 2005-2006 HYDROLOGICAL YEAR 2006-XX-XX
FWS09D0001	U.S. FISH AND WILDLIFE SERVICE-CARLSBAD - USFWS CARLSBAD SPECIAL STATUS SPECIES DATABASE, SEPTEMBER 2009 VERSION 2009-09-01
MIS90U0012	MISTRETTA, O. & P. FRITSCH - SENSITIVE SPECIES SEED COLLECTION FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII. 1990-09-07
MIS90U0014	MISTRETTA, O. - SUMMARY OF ERYNGIUM ARISTULATUM VAR. PARISHII SEED COLLECTION ACTIVITIES. 1990-XX-XX
REC00R0004	RADTKEY, J. - POST-SURVEY NOTIFICATION - FOCUSED WET SEASON SURVEY RESULTS FOR LISTED ENDANGERED FAIRY SHRIMP SPECIES ALONG INS BORDER FENCE, SAN DIEGO COUNTY (RECON NUMBER 3312B). 2000-08-09
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
VAN86F0001	VANDERWIER, J. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 1986-02-14
VAN86U0001	VANDERWIER, J. - LETTER AND MAP FOR ERYNGIUM ARISTULATUM VAR. PARISHII. 1986-03-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04247
EO Index: 20002
Key Quad: National City (3211761)
Element Code: PDAPI0Z042
Occurrence Number: 68
Occurrence Last Updated: 2012-08-21

Scientific Name: *Eryngium aristulatum var. parishii*
Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T1
State: S1

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed: 1985-02-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1985-02-12
Occurrence Rank: Fair
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

CHOLLAS PARK; SOUTH OF CHOLLAS RESERVOIR SPILLWAY AND NORTH OF RYAN ROAD, SAN DIEGO.

Detailed Location:

Ecological:

VERNAL POOLS IN DIEGAN COASTAL SCRUB.

Threats:

EUCALYPTUS GROVE AND SUBURBS NEARBY; AREA IS A CITY PARK. HEAVY RABBIT GRAZING MAY BE A THREAT.

General:

OBSERVED IN VERNAL POOLS IN 1985.

PLSS: T16S, R02W, Sec. 35, SW (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3622029 E493816
Latitude/Longitude: 32.73606 / -117.06599
Elevation (feet): 450

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

HOL85F0001 HOLLAND, R. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 1985-02-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	23090	**EO Index:**	7790
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAPI0Z042
Occurrence Number:	69	**Occurrence Last Updated:**	2012-08-21

Scientific Name: *Eryngium aristulatum var. parishii*

Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T1
State: S1

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed:	1985-04-29	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1990-XX-XX	**Occurrence Rank:**	Poor
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH RIM OF OTAY MESA, 0.5 MILE NE OF BORDER CROSSING, SAN YSIDRO.

Detailed Location:

Ecological:

SLUMP PONDS. ORCUTTIA CALIFORNICA ALSO AT THIS SITE.

Threats:

ILLEGAL ALIENS, BORDER PATROL, BURNING REGIME, EXTENSIVE GRAZING.

General:

SITE REPRESENTS 2 POOLS FROM A SERIES OF POOLS THAT BAUDER AND GRIGGS (1985) MENTIONED AS HAVING ERYNGIUM; UNCLEAR IF ERYNGIUM OCCURRED IN ALL POOLS OR JUST A SUBSET OF THOSE POOLS. SITE SEARCHED FOR BUT NOT FOUND IN 1990.

PLSS:	T19S, R01W, Sec. 06, S (S)	**Accuracy:**	specific area	**Area (acres):**	5
UTM:	Zone-11 N3600993 E497846	**Latitude/Longitude:**	32.54631 / -117.02293	**Elevation (feet):**	350

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BAU85U0002	BAUDER, E. - ELEMENT OCCURRENCE EVALUATION FORMS, OTAY MESA AREA 1985-XX-XX
GRI85U0002	GRIGGS, T. - MEMO REGARDING OTAY MESA 1985-05-01
MIS90U0014	MISTRETTA, O. - SUMMARY OF ERYNGIUM ARISTULATUM VAR. PARISHII SEED COLLECTION ACTIVITIES. 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03733
EO Index: 19999
Key Quad: La Jolla (3211772)
Element Code: PDAPI0Z042
Occurrence Number: 73
Occurrence Last Updated: 2012-08-06

Scientific Name: *Eryngium aristulatum var. parishii*
Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T1
State: S1

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed: 1987-05-20
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1987-07-06
Occurrence Rank: None
Owner/Manager: PVT
Trend: Unknown
Presence: Extirpated

Location:

AREA SOUTH OF LA JOLLA VILLAGE DRIVE, NORTH OF NOBEL DRIVE, EAST OF GENESSE BLVD, AND WEST OF REGENT RD, SAN DIEGO.

Detailed Location:

INCLUDES BAUDER POOL COMPLEX: X6.

Ecological:

VERNAL POOLS WITH WHITE CLAYEY SOIL.

Threats:

SITE COMPLETELY OBLITERATED BY GRADING AND SUBSEQUENT DEVELOPMENT.

General:

COMMON IN 10-50% OF THE X6 POOLS IN 1986. 25+ PLANTS OBSERVED IN MAY 1987. EXTIRPATED BY DEVELOPMENT IN JULY 1987. MITIGATION WAS TO INCLUDE PURCHASE OF VERNAL POOL HABITAT OFF-SITE.

PLSS: T15S, R03W, Sec. 17, W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3636930 E479701
Latitude/Longitude: 32.87031 / -117.21698
Elevation (feet): 360

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
DUG86U0001	DUGAN, D. - LETTER TO NANCY KAUFMAN REGARDING COSTA VERDE PROJECT, VERNAL POOL MITIGATION 1986-01-21
SCH87F0032	SCHEIDT, V. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 1987-07-06
SCH87F0033	SCHEIDT, V. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 1987-05-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04333	**EO Index:**	12673
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAPI0Z042
Occurrence Number:	80	**Occurrence Last Updated:**	1993-06-02

Scientific Name: *Eryngium aristulatum var. parishii*

Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T1
State: S1

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed:	1981-05-04	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1990-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	SDG COUNTY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

WEST EDGE OF OTAY MESA, 0.7 MILE EAST OF SAN YSIDRO ACADEMY, SAN YSIDRO.

Detailed Location:

MAPPED ALONG JEEP TRAIL JUST SOUTH OF MOODY CANYON BASED ON A HAND-DRAWN 1981 SCHEIDT MAP.

Ecological:

AT EDGE OF VERNAL POOL ON TOP OF OLD LANDSLIDE OF CLAY SOIL.

Threats:

General:

50-100 PLANTS SEEN IN 1981. UNABLE TO RELOCATE SITE IN 1990.

PLSS:	T18S, R02W, Sec. 36, SE (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3602251 E496902	**Latitude/Longitude:**	32.55766 / -117.03299	**Elevation (feet):**	380

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

MIS90U0014	MISTRETTA, O. - SUMMARY OF ERYNGIUM ARISTULATUM VAR. PARISHII SEED COLLECTION ACTIVITIES. 1990-XX-XX
SCH81F0020	SCHEIDT, V. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 1981-05-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	86537	**EO Index:**	8562
Key Quad:	National City (3211761)	**Element Code:**	PDAPI0Z042
Occurrence Number:	87	**Occurrence Last Updated:**	2012-09-25

Scientific Name: *Eryngium aristulatum var. parishii*

Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G5T1

State: S1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

CHOLLAS HEIGHTS NAVAL RADIO STATION, SAN DIEGO.

Detailed Location:

NORTH SIDE OF ZERO ROAD. NEAR THE CENTER OF THE NW 1/4 OF SECTION 35.

Ecological:

PLANTS IN SEVERAL VERNAL POOLS. OCCURRING VERY NEAR MUILLA CLEVELANDII. GNATCATCHERS, SUCCULENT SCRUB, AND FEROCACTUS VIRIDESCENS OCCUR NEARBY.

Threats:

POOLS DISTURBED DUE TO MAINTENANCE OPERATIONS AROUND THE RADIO TRANSMITTERS. EVIDENCE OF DISKING N OF ZERO ROAD.

General:

UNKNOWN HOW MANY PLANTS SEEN IN 1991 BY DAVID ZIPPIN AND CAMERON PATTERSON AS PART OF MILITARY FAMILY HOUSING PROJECT SURVEY. OBSERVED IN THIS AREA IN 2001.

PLSS:	T16S, R02W, Sec. 35, NW (S)	**Accuracy:**	specific area	**Area (acres):**	3
UTM:	Zone-11 N3622609 E494233	**Latitude/Longitude:**	32.74129 / -117.06155	**Elevation (feet):**	470

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

DUN91R0001	DUNHAM, K. - BIOLOGICAL TECHNICAL REPORT FOR MILITARY HOUSING PROJECT CHOLLAS HEIGHTS TRANSMITTER STATION. SEVERAL RARE PLANTS, ANIMALS, AND NC'S. 1991-04-01
LOE02R0001	LOEFFLER, W. (RECON ENVIRONMENTAL, INC.) - ANNUAL REPORT FOR COASTAL CALIFORNIA GNATCATCHER POPULATION SURVEYS ON THREE NAVY FAMILY HOUSING AREAS, SAN DIEGO COUNTY, CALIFORNIA 2002-07-15
ROB91U0003	ROBISON, M. - EPP REPORT OF CONTACT WITH KAREN DUNHAM REGARDING BRODIAEA FILIFOLIA, ACANTHOMINTHA ILICIFOLIA, POGOGYNE NUDIUSCULA, AND ERYNGIUM ARISTULATUM VAR. PARISHII. 1991-07-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86542
EO Index: 87491
Key Quad: La Jolla (3211772)
Element Code: PDAPI0Z042
Occurrence Number: 100
Occurrence Last Updated: 2019-07-24

Scientific Name: *Eryngium aristulatum var. parishii*
Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T1
State: S1

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed: 2019-05-30
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2019-05-30
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

GENERAL DYNAMICS; W OF RUFFIN RD, IN VACANT LOT IN BETWEEN SPECTRUM CENTER BLVD AND BALBOA AVE (HIGHWAY 274), SAN DIEGO.

Detailed Location:

EAST END OF PROPERTY. MAPPED BY CNDDB ACCORDING TO 2003 CITY OF SAN DIEGO DIGITAL DATA IN THE EAST 1/2 OF THE SW 1/4 OF SECTION 31.

Ecological:

VERNAL POOLS AND DISTURBED COASTAL SAGE SCRUB ASSOCIATED WITH POGOGYNE ABRAMSII, BRODIAEA ORCUTTII, ARTEMISIA CALIFORNICA, PSILOCARPHUS BREVISSIMUS, ERODIUM SP., BACCHARIS SARATHROIDES, VULPIA SP., DESCHAMPSIA DANTHONIOIDES, ETC.

Threats:

SITE IS COMPLETELY SURROUNDED BY DEVELOPMENT, BUT IT IS FENCED FOR PROTECTION OF THE RARE PLANTS.

General:

OBSERVED IN 2 VERNAL POOLS IN 2003 AND 2004. 2500 PLANTS OBSERVED IN 2008. 950 PLANTS OBSERVED IN 2009. UNKNOWN NUMBER OF PLANTS SEEN IN 2019.

PLSS: T15S, R02W, Sec. 31, SW (S)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3631795 E488020
Latitude/Longitude: 32.82411 / -117.12798
Elevation (feet): 430

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

MIL09F0078	MILLER, B. & K. BALO (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 2009-04-22
SCH19U0002	SCHEIDT, V. - INATURALIST OBSERVATIONS OF ERYNGIUM ARISTULATUM VAR. PARISHII, FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-07-22. 2019-07-22
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86543
Key Quad: La Jolla (3211772)
Occurrence Number: 101
EO Index: 87492
Element Code: PDAPI0Z042
Occurrence Last Updated: 2012-08-16

Scientific Name: *Eryngium aristulatum var. parishii*
Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered
CNDDB Element Ranks: **Global:** G5T1
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed: 2003-03-05
Last Survey Date: 2003-03-05
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

MARINE CORPS AIR STATION MIRAMAR, SW OF RUNWAYS, W OF VEGAS DRIVE, BETWEEN ROSE CANYON & SAN CLEMENTE CANYON, SAN DIEGO.

Detailed Location:

POOL ID: HH2+ 88. MAPPED BY CNDDB IN THE NW 1/4 OF THE NW 1/4 OF SECTION 23 ACCORDING TO A 2004 MAP BY BLACK.

Ecological:

VERNAL POOL IN DISTURBED ANNUAL GRASSLAND WITH SMALL PATCHES OF NATIVE MIXED CHAMISE CHAPARRAL AND NASSELLA PULCHRA BUNCHGRASS GRASSLAND IN AREA. ASSOCIATED WITH CALLITRICHE MARGINATA, CRASSULA AQUATICA, ELEOCHARIS MACROSTACHYA, ETC.

Threats:

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN 2003.

PLSS: T15S, R03W, Sec. 23, NW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3635988 E484427
Latitude/Longitude: 32.86189 / -117.16644
Elevation (feet): 430

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

BLA04R0001 BLACK, C. (ECOLOGICAL RESTORATION SERVICE) - VERNAL POOL DELINEATION, RARE PLANT AND FAIRY SHRIMP SURVEY REPORTS ON MIRAMAR VERNAL POOLS, 2000-2001 THROUGH 2002-03 FIELD SEASONS, COMPREHENSIVE FINDINGS 2004-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86571
EO Index: 87580
Key Quad: La Jolla (3211772)
Element Code: PDAPI0Z042
Occurrence Number: 109
Occurrence Last Updated: 2012-08-21

Scientific Name: *Eryngium aristulatum var. parishii*
Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G5T1
State: S1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed: 1979-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1979-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SE PORTION OF MONTGOMERY FIELD AIRPORT, SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO A 1979 ZEDLER REPORT INDICATING THE LOCATION OF THE "MONTGOMERY FIELD EAST" POOLS.

Ecological:
VERNAL POOL.

Threats:

General:
OBSERVED IN A SINGLE POOL IN THIS AREA IN 1979. NEED MAP DETAIL.

PLSS: T16S, R02W, Sec. 06, W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3630488 E487972
Latitude/Longitude: 32.81232 / -117.12848
Elevation (feet): 425

County Summary:
San Diego

Quad Summary:
La Mesa (3211771), La Jolla (3211772)

Sources:
ZED79R0001 ZEDLER, P. ET AL. - A SURVEY OF VERNAL POOLS OF KEARNY MESA, SAN DIEGO COUNTY 1979-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	86792	**EO Index:**	87763
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAPI0Z042
Occurrence Number:	110	**Occurrence Last Updated:**	2021-03-01

Scientific Name: *Eryngium aristulatum var. parishii*

Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T1
State: S1

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed:	2016-06-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-06-10	**Occurrence Rank:**	Excellent
Owner/Manager:	CALTRANS, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY MESA, NORTH OF MOODY CANYON, 0.2 TO 0.4 AIR MILE ESE OF INTERSECTION OF HAWKEN DRIVE AND OTAY MESA RD, SAN YSIDRO.

Detailed Location:

MAPPED ACCORDING TO DIGITAL DATA SUBMITTED BY CITY OF SAN DIEGO (2003); DATA ORIGINALLY FROM HELIX, SITE NAME IS OTAY MESA A + B (ALSO KNOWN AS J-32). ALSO MAPPED TO INCLUDE 2016 JAMES COORDINATES FOR THE "APPROXIMATE CENTER" OF SITE.

Ecological:

NATURAL AND CREATED VERNAL POOLS IN THIS AREA. POOLS MAINLY DOMINATED BY PSILOCARPHUS BREVISSIMUS WITH POGOGYNE NUDIUSCULA, EUPHORBIA SERPENS, CRASSULA AQUATICA, LYTHRUM HYSSOPIFOLIUM, MYOSURUS MINIMUS, AND OTHER POOL INDICATOR SPECIES.

Threats:

INVASIVE PLANTS, POTENTIAL TRESPASS, AND TRASH (2016).

General:

SITE IS A MIXTURE OF UNNATURAL RUTS FROM HISTORIC GRADING, RECENTLY CREATED BASINS, AND A FEW NATURAL DEPRESSIONS. ERYNGIUM OCCURRED IN 3 NATURAL & 3 CREATED POOLS IN 2003. RESTORATION BEGAN IN 2013. SEEDED IN 2015. 207 IN 19 POOLS IN 2016.

PLSS:	T18S, R01W, Sec. 31, W (S)	**Accuracy:**	specific area	**Area (acres):**	3
UTM:	Zone-11 N3602671 E497383	**Latitude/Longitude:**	32.56145 / -117.02788	**Elevation (feet):**	450

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

JAM16F0004	JAMES, R. (CALIFORNIA DEPARTMENT OF TRANSPORTATION) - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII 2016-06-10
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	95306	**EO Index:**	96438
Key Quad:	Otay Mesa (3211658)	**Element Code:**	PDAPI0Z042
Occurrence Number:	113	**Occurrence Last Updated:**	2015-02-27

Scientific Name: *Eryngium aristulatum var. parishii*

Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G5T1

State: S1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed:	2003-04-16	**Occurrence Type:**	Introduced Back into Native Hab./Range
Last Survey Date:	2003-04-16	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY MESA OPEN SPACE; JUST WSW OF THE JUNCTION OF OTAY MESA ROAD AND HERITAGE ROAD, OTAY MESA.

Detailed Location:

RECON SOUTH (J 14) VERNAL POOLS. MAPPED BY CNDDB ACCORDING TO A 2001 CALTRANS MAP AND 2003 CITY OF SAN DIEGO DIGITAL DATA, IN THE NE 1/4 OF THE NE 1/4 OF SECTION 32.

Ecological:

CREATED VERNAL POOLS. ASSOC WITH CALLITRICHE MARGINATA, CRASSULA AQUATICA, DESCHAMPSIA DANTHONIOIDES, LILAEA SCILLOIDES, MARSILEA VESTITA, NAVARRETIA FOSSALIS, ORCUTTIA CALIFORNICA, PLAGIOBOTHRYS ACANTHOCARPUS, POGOGYNE NUDIUSCULA, ETC.

Threats:

ORV ACTIVITY WAS AN ISSUE PRIOR TO VERNAL POOL RESTORATION/CREATION.

General:

LIKELY OBSERVED SOMETIME AROUND 1995, UNKNOWN IF POOLS WERE NATURAL OR CREATED. OBSERVED IN 48 CREATED BASINS IN 2003.

PLSS:	T18S, R01W, Sec. 32, NE (S)	**Accuracy:**	specific area	**Area (acres):**	14
UTM:	Zone-11 N3603258 E500016	**Latitude/Longitude:**	32.56674 / -116.99982	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

CAL01M0002	CALTRANS - MAPS SHOWING SENSITIVE PLANT SPECIES IMPACT FOOTPRINT FOR ROUTE 905, REVISED 2001 2001-06-XX
JAM01U0001	JAMES, R. - MAP AND LETTER REGARDING DEINANDRA CONJUGENS ON OTAY MESA 2001-02-27
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 95307
Key Quad: La Mesa (3211771)
Occurrence Number: 114
EO Index: 96439
Element Code: PDAPI0Z042
Occurrence Last Updated: 2021-02-25

Scientific Name: *Eryngium aristulatum var. parishii*
Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered
CNDDB Element Ranks: **Global:** G5T1
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed: 2020-04-24
Last Survey Date: 2020-04-24
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

TIERRASANTA; ALONG SW PORTION OF CANYON TRAIL THAT TRANSECTS CALLE DE VIDA, 0.1 MI S OF ITS JUNCTION WITH RUEDA DR.

Detailed Location:

"MP 7.5 OF THE RECONDUCTOR SYCAMORE CANYON TO ELLIOT 69 KV LINE" OF THE SUNRISE POWERLINK PROJECT. MAPPED ACCORDING TO 2016 MULLIGAN COORDINATES AND BASDEN COORDINATES FROM INATURALIST.

Ecological:

DRY VERNAL POOL. CLAY OPENING IN COASTAL SAGE SCRUB WITH DEINANDRA FASCICULATA, LYTHRUM HYSSOPIFOLIA, AND BACCHARIS SAROTHROIDES. FEROCACTUS VIRIDESCENS NEARBY.

Threats:

General:

1 PLANT OBSERVED IN 2007. ABOUT 300 PLANTS OBSERVED IN 2016. UNKNOWN NUMBER OF PLANTS OBSERVED IN 2018, 2019, AND 2020.

PLSS: T15S, R02W, Sec. 34, SW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3631567 E492540
Latitude/Longitude: 32.82209 / -117.0797
Elevation (feet): 572

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

ASP08R0002	ASPEN ENVIRONMENTAL GROUP - FINAL ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT AND PROPOSED LAND USE AMENDMENT, SAN DIEGO GAS & ELECTRIC CO APPLICATION FOR THE SUNRISE POWERLINK PROJECT, SEC D.2 2008-10-XX
BAS20U0001	BASDEN, M. - OBSERVATIONS OF ERYNGIUM ARISTULATUM VAR. PARISHII BY MILLIE BASDEN FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-02-18. 2020-04-24
MUL16S0037	MULLIGAN, M. - MULLIGAN #3361 SD #268894 & #00017439 2016-05-05
SDN17U0001	SAN DIEGO NATURAL HISTORY MUSEUM - COLLECTION INFORMATION FROM THE SAN DIEGO NATURAL HISTORY MUSEUM 2017-01-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	95329	**EO Index:**	96460
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAPI0Z042
Occurrence Number:	117	**Occurrence Last Updated:**	2015-02-27

Scientific Name: *Eryngium aristulatum var. parishii*

Common Name: San Diego button-celery

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G5T1
State: S1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

VERNAL POOLS, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SAN DIEGO MESA HARDPAN & CLAYPAN VERNAL POOLS & SOUTHERN INTERIOR BASALT FLOW VERNAL POOLS; USUALLY SURROUNDED BY SCRUB. 15-880 M.

Last Date Observed:	2003-02-21	**Occurrence Type:**	Transplant Outside of Native Hab./Range
Last Survey Date:	2003-02-21	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY MESA; SOUTH OF OTAY MESA ROAD BETWEEN MOODY CANYON AND DILLON CANYON.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO DIGITAL DATA SUBMITTED BY THE CITY OF SAN DIEGO (2003); DATA ORIGINALLY FROM HELIX, SITE NAME IS SWEETWATER HS (ALSO KNOWN AS J-33).

Ecological:

CREATED VERNAL POOLS. OTHER RARE PLANTS HERE INCLUDE POGOGYNE NUDIUSCULA, MYOSURUS MINIMUS AND NAVARRETIA FOSSALIS. ALSO ASSOCIATED WITH CALLITRICHE MARGINATA, CRASSULA AQUATICA, DESCHAMPSIA DANTHONIOIDES, ELATINE CALIFORNICA, LILAEA, ETC.

Threats:

General:

OBSERVED IN 2 CREATED VERNAL POOLS IN 2003.

PLSS:	T18S, R01W, Sec. 31, NE (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3602888 E497956	**Latitude/Longitude:**	32.56341 / -117.02177	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17505
Key Quad: Imperial Beach (3211751)
Occurrence Number: 1
EO Index: 11763
Element Code: PDAST0C080
Occurrence Last Updated: 2018-10-11

Scientific Name: *Ambrosia chenopodiifolia*
Common Name: San Diego bur-sage

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S1
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, MOSTLY ASSOCIATED WITH MARITIME SUCCULENT SCRUB.

Micro Habitat:

SLOPES OF CANYONS IN OPEN SUCCULENT SCRUB USUALLY WITH LITTLE HERBACEOUS COVER. 20-250 M.

Last Date Observed: 2013-11-06
Last Survey Date: 2013-11-06
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

JUST NORTH OF SPRING CANYON, OTAY MESA, NORTH OF TIJUANA AND EAST OF SAN YSIDRO BORDER CROSSING.

Detailed Location:

MAPPED BY CNDDB BASED ON A 1986 VANDERWEIR MAP, 2008 SALVATO COORDINATES, AND 2013 VEGETATION SURVEY COORDINATES.

Ecological:

SLOPES AND CANYONS IN OLIVENHAIN SERIES SOIL. HIGHLY DISTURBED COASTAL SAGE SCRUB. ASSOCIATED WITH VIGUIERA LACINATA, FEROCACTUS VIRIDESCENS, MIRABILIS CALIFORNICA, SIMMONDSIA CHINENSIS, CYLINDROPUNTIA PROLIFERA, WEEDY GRASSES, ETC.

Threats:

BORDER ACTIVITIES THREATEN (PATROL VEHICLES AND FOOT TRAFFIC).

General:

<1000 PLANTS SEEN IN 1986. "SIZEABLE POPS" SEEN IN 1988. "COMMON" IN 2008. W POLY: 20% COVER OF A. CHENOPODIIFOLIA IN 2013. HISTORIC COLLECTIONS FROM "TIA JUANA" AND 1977 COLLECTION FROM "700 E SAN YSIDRO BLVD" ALSO ATTRIBUTED TO THIS SITE.

PLSS: T19S, R01W, Sec. 6 (S)
Accuracy: specific area
Area (acres): 80
UTM: Zone-11 N3601096 E498371
Latitude/Longitude: 32.54724 / -117.01735
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

ABR03S0046	ABRAMS, L. - ABRAMS #3476 POM #156451 1903-05-14
EVE02S0001	EVERETT, G. - EVERETT #1637 POM #4812 1902-04-20
GRA02S0005	GRANT, G. - GRANT #1637 UC #55270 1902-04-XX
JEN31S0003	JENSEN, H. - JENSEN #110 UC #1118433 1931-01-28
JOH77S0006	JOHNSON, J. - JOHNSON SN CDA #9951 1977-02-24
REI89R0002	REISER, C. - THE RARE PLANTS OF SAN DIEGO COUNTY 1989-XX-XX
SAL08S0007	SALVATO, T. & E. KLEIN - SALVATO #3467 SD #234796, UCR #192799 2008-05-07
VAN86F0006	VANDERWIER, J. - FIELD SURVEY FORM FOR AMBROSIA CHENOPODIIFOLIA 1986-07-06
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX
WOL41S0082	WOLF, C. - WOLF #10916 CAS #378836, DS #339147, CAS-BOT-BC #35135 & #35136 1941-06-28
WOL41S0083	WOLF, C. - WOLF #4208 RSA #25631 1941-06-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	96989	**EO Index:**	11765
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAST0C080
Occurrence Number:	2	**Occurrence Last Updated:**	2015-07-31

Scientific Name: *Ambrosia chenopodiifolia*

Common Name: San Diego bur-sage

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2G3

State: S1

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, MOSTLY ASSOCIATED WITH MARITIME SUCCULENT SCRUB.

Micro Habitat:

SLOPES OF CANYONS IN OPEN SUCCULENT SCRUB USUALLY WITH LITTLE HERBACEOUS COVER. 20-250 M.

Last Date Observed:	2009-05-22	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-05-22	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EAST SIDE OF DENNERY CANYON, SOUTH OF OTAY RIVER VALLEY, OTAY MESA.

Detailed Location:

MAPPED ACCORDING TO 2009 VEGETATION SURVEY COORDINATES. 1984 SCHEIDT OBSERVATION ALSO ATTRIBUTED HERE BUT LOCATION INFORMATION IS VAGUE ("BLUFFS EAST OF DENNERY CYN, SECTION 29") AND MAY HAVE BEEN FROM NORTH OF HERE BASED ON HAND DRAWN MAP.

Ecological:

A LOW OPEN SCRUB STAND DOMINATED BY AMBROSIA CHENOPODIIFOLIA WITH SCATTERED CYLINDROPUNTIA AND YUCCA. HERB COVER BETWEEN SHRUBS IS OPEN AND LOW WITH PRIMARILY NON-NATIVE GRASSES AND FORBS. ASSOC WITH BROMUS RUBENS, VIGUIERA LACINIATA, ETC.

Threats:

PROPOSED FOR DEVELOPMENT (1984). SITE IS NOW WITHIN RESERVE/OPEN SPACE AND DEVELOPMENT IS UNLIKELY TO HAPPEN.

General:

ABOUT 5 SHRUBS SEEN IN 1984. 17% COVER OF AMBROSIA CHENOPODIIFOLIA OBSERVED DURING 2009 VEGETATION SURVEYS.

PLSS:	T18S, R01W, Sec. 29, NW (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3604469 E499264	**Latitude/Longitude:**	32.57767 / -117.00784	**Elevation (feet):**	475

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

SCH84F0037	SCHEIDT, V. - FIELD SURVEY FORM FOR AMBROSIA CHENOPODIFOLIA 1984-10-01
VEG09F0047	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR AMBROSIA CHENOPODIIFOLIA 2009-05-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17517
Key Quad: Imperial Beach (3211751)
Occurrence Number: 3
EO Index: 11764
Element Code: PDAST0C080
Occurrence Last Updated: 2018-10-08

Scientific Name: *Ambrosia chenopodiifolia*
Common Name: San Diego bur-sage

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S1
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, MOSTLY ASSOCIATED WITH MARITIME SUCCULENT SCRUB.

Micro Habitat:

SLOPES OF CANYONS IN OPEN SUCCULENT SCRUB USUALLY WITH LITTLE HERBACEOUS COVER. 20-250 M.

Last Date Observed: 2017-05-30
Last Survey Date: 2017-05-30
Owner/Manager: SDG CO, PVT, CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

VICINITY OF MOODY CANYON; FROM JUST SOUTH OF CA-905 EXTENDING SOUTH FOR ABOUT A MILE, EAST OF SAN YSIDRO.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS. SOUTHERN POLYGON BASED ON A 1995 EDWARDS MAP OF PROPERTY LOCATION. NORTHERN POLYGON BASED ON 2009 & 2013 VEGCAMP COORDINATES, 2011 ALBRIGHT MAP, AND 2017 RECON DIGITAL DATA.

Ecological:

COASTAL SAGE SCRUB WITH CYLINDROPUNTIA PROLIFERA, SIMMONDSIA CHINENSIS, EUPHORBIA MISERA, LYCIUM CALIFORNICUM, BROMUS MADRITENSIS, CRYPTANTHA, LYCIUM BREVIPES, MAMMILLARIA DIOICA, MUHLENBERGIA MICROSPERMA, AND OLIGOMERIS LINIFOLIA.

Threats:

PROPOSED FOR DEVELOPMENT (1981).

General:

SOUTHERN POLYGON: OBSERVED IN 1994. NORTHERN POLYGON: OVER 1000 SHRUBS SEEN IN 1981, UNKNOWN NUMBER IN 1998, 2000, & 2009, WIDESPREAD IN 2011, 20-50% COVER IN VEG SURVEY IN 2013, ~16,500+ PLANTS IN 2017. INCLUDES FORMER EO #7.

PLSS: T18S, R02W, Sec. 36, E (S)
Accuracy: specific area
Area (acres): 173
UTM: Zone-11 N3602296 E496716
Latitude/Longitude: 32.55806 / -117.03498
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

ALB12R0001	ALBRIGHT, B. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - RESOURCE MANAGEMENT PLAN FOR FURBY-NORTH PROPERTY: SAN DIEGO COUNTY 2012-06-29
BEA67S0057	BEAUCHAMP, R. - BEAUCHAMP #224 SDSU #6872 1967-02-24
BEA67S0058	BEAUCHAMP, R. - BEAUCHAMP #231 SDSU #7090 1967-02-24
BOH17D0007	BOHAC, S. (RECON ENVIRONMENTAL, INC.) - SHAPEFILES FOR SPECIES DETECTIONS ASSOCIATED WITH THE BEYER PARK BIOLOGICAL REPORT, 2017 2017-XX-XX
CNPNDM0052	CALIFORNIA NATIVE PLANT SOCIETY - MAP OF BERGEROCACTUS EMORYI & AMBROSIA CHENOPODIIFOLIA XXXX-XX-XX
EDW95U0001	EDWARDS, C. & A. KOLTZ (PACIFIC SOUTHWEST BIOLOGICAL SERVICES) - CALIFORNIA GNATCATCHER SURVEY RESULTS 1995-01-17
GAN35S0075	GANDER, F. - GANDER #3141 SD #12939 1935-12-31
GOE70S0004	GOEDEN, R. & D. RICKER - GOEDEN SN CAS #993332, SEINET #239002, UTC #230972, UCR #109679, CAS-BOT-BC #35134 1970-06-09
GOE71S0001	GOEDEN, R. & D. RICKER - GOEDEN SN RSA #643288 1971-03-13
GOE71S0002	GOEDEN, R. & D. RICKER - GOEDEN SN SD #143590, UCR #109680 1971-03-16
GOE71S0003	GOEDEN, R. & D. RICKER - GOEDEN SN UCR #109678 1971-04-26
REB00S0018	REBMAN, J. ET AL. - REBMAN #6723 RSA #689502, SD #154629, SEINET #2044454, DES #53217, UC #1787374, UCR #147169 2000-05-26
REC98R0002	RECON - BIOLOGICAL TECHNICAL REPORT FOR THE BEYER HILLS PROJECT 1998-08-24
REI89R0002	REISER, C. - THE RARE PLANTS OF SAN DIEGO COUNTY 1989-XX-XX
SCH81F0021	SCHEIDT, V. - FIELD SURVEY FORM FOR AMBROSIA CHENOPODIFOLIA 1981-04-05
VEG09F0043	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR AMBROSIA CHENOPODIIFOLIA 2009-06-25
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	91464	**EO Index:**	11771
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAST0C080
Occurrence Number:	4	**Occurrence Last Updated:**	2014-02-06

Scientific Name: *Ambrosia chenopodiifolia*

Common Name: San Diego bur-sage

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.1

CNDDB Element Ranks: **Global:** G2G3

State: S1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, MOSTLY ASSOCIATED WITH MARITIME SUCCULENT SCRUB.

Micro Habitat:

SLOPES OF CANYONS IN OPEN SUCCULENT SCRUB USUALLY WITH LITTLE HERBACEOUS COVER. 20-250 M.

Last Date Observed:	1984-12-07	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1984-12-07	**Occurrence Rank:**	None
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Extirpated		

Location:

HILLS IMMEDIATELY SOUTH OF OTAY RIVER VALLEY; 3/4 MILE E OF I-805, 1/2 MILE S OF OTAY VALLEY RD.

Detailed Location:

Ecological:

ON HILLS IN FAIRLY OPEN MARITIME SUCCULENT SCRUB WITH VERY LITTLE HERBACEOUS COVER IN UNDERSTORY. IN LINNE CLAY LOAM WITH EUPHORBIA MISERA AND ARTEMISIA CALIFORNICA.

Threats:

AREA BEING CONSIDERED FOR POSSIBLE DEVELOPMENT. UPLANDS RECEIVE HEAVY ORV USE, PAST DISTURBANCE FROM SAND/GRAVEL MINING.

General:

FEWER THAN 300 PLANTS SEEN IN 1984. AREA LOOKS TO HAVE BEEN DEVELOPED BASED ON 2010 AERIAL IMAGERY; PRESUMED EXTIRPATED.

PLSS:	T18S, R01W, Sec. 19, SW (S)	**Accuracy:**	specific area	**Area (acres):**	3
UTM:	Zone-11 N3605674 E497685	**Latitude/Longitude:**	32.58854 / -117.02466	**Elevation (feet):**	185

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

WIE84F0004 WIER, E. - FIELD SURVEY FORM FOR AMBROSIA CHENOPODIIFOLIA 1984-12-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17502
EO Index: 11767
Key Quad: Imperial Beach (3211751)
Element Code: PDAST0C080
Occurrence Number: 5
Occurrence Last Updated: 2015-07-27

Scientific Name: *Ambrosia chenopodiifolia*
Common Name: San Diego bur-sage

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2G3
State: S1

General Habitat:
COASTAL SCRUB, MOSTLY ASSOCIATED WITH MARITIME SUCCULENT SCRUB.

Micro Habitat:
SLOPES OF CANYONS IN OPEN SUCCULENT SCRUB USUALLY WITH LITTLE HERBACEOUS COVER. 20-250 M.

Last Date Observed: 1971-02-03
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1971-02-03
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
NORTH OF OTAY VALLEY RD, EAST OF RENDERING PLANT, OTAY VALLEY.

Detailed Location:
EXACT LOCATION UNKNOWN. CANNOT LOCATE "RENDERING PLANT." MAPPED LOCATION IS A BEST GUESS.

Ecological:
SLOPE.

Threats:

General:
SITE BASED ON A CNPS MAP AND A 1971 BEAUCHAMP COLLECTION. NEEDS FIELDWORK.

PLSS: T18S, R01W, Sec. 20 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3606479 E499167
Latitude/Longitude: 32.59580 / -117.00887
Elevation (feet): 66

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

BEA71S0009 BEAUCHAMP, R. - BEAUCHAMP #1528 SD #83602 1971-02-03
CNPNDM0052 CALIFORNIA NATIVE PLANT SOCIETY - MAP OF BERGEROCACTUS EMORYI & AMBROSIA CHENOPODIIFOLIA XXXX-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04327
EO Index: 29771
Key Quad: Imperial Beach (3211751)
Element Code: PDAST0C080
Occurrence Number: 8
Occurrence Last Updated: 2015-07-31

Scientific Name: *Ambrosia chenopodiifolia*
Common Name: San Diego bur-sage

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2G3
State: S1

General Habitat:

COASTAL SCRUB, MOSTLY ASSOCIATED WITH MARITIME SUCCULENT SCRUB.

Micro Habitat:

SLOPES OF CANYONS IN OPEN SUCCULENT SCRUB USUALLY WITH LITTLE HERBACEOUS COVER. 20-250 M.

Last Date Observed: 1984-03-29
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1984-03-29
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:

NEAR GREG ROGERS PARK.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS AROUND GREG ROGERS PARK.

Ecological:

Threats:

RECENTLY EXTIRPATED BY A HOUSING DEVELOPMENT ACCORDING TO REISER (1989).

General:

SITE BASED ON A NOTE FROM REISER (1989) BUT EXACT LOCATION IS UNKNOWN. A 1984 WIER COLLECTION FROM "1/3 MILE W OF INTERSECTION OF BRANDYWINE AND DORA AVENUES" IS ALSO ATTRIBUTED TO THIS SITE; CNDDB CANNOT LOCATE DORA AVE. INCLUDES EO #12.

PLSS: T18S, R02W, Sec. 12 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3609132 E496808
Latitude/Longitude: 32.61973 / -117.03401
Elevation (feet):

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751), National City (3211761)

Sources:

REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
REI89R0002	REISER, C. - THE RARE PLANTS OF SAN DIEGO COUNTY 1989-XX-XX
WIE84S0003	WIER, E. - WIER SN SD #123461 1984-03-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17573
Key Quad: National City (3211761)
Occurrence Number: 9
EO Index: 20738
Element Code: PDAST0C080
Occurrence Last Updated: 1991-10-07

Scientific Name: *Ambrosia chenopodiifolia*
Common Name: San Diego bur-sage

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S1
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, MOSTLY ASSOCIATED WITH MARITIME SUCCULENT SCRUB.

Micro Habitat:
SLOPES OF CANYONS IN OPEN SUCCULENT SCRUB USUALLY WITH LITTLE HERBACEOUS COVER. 20-250 M.

Last Date Observed: 1988-XX-XX
Last Survey Date: 1988-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
RICE CANYON.

Detailed Location:
NO SPECIFIC INFORMATION BEYOND THAT REISER SAW THE PLANTS IN RICE CANYON.

Ecological:

Threats:
DEVELOPMENT THREATENS.

General:
2 SHRUBS; WILL LIKELY BE EXTIRPATED BY MAJOR DEVELOPMENT ACCORDING TO REISER (1989).

PLSS: T18S, R02W (S)
Accuracy: non-specific area
Area (acres): 317
UTM: Zone-11 N3611539 E496891
Latitude/Longitude: 32.64145 / -117.03314
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
REI89R0002 REISER, C. - THE RARE PLANTS OF SAN DIEGO COUNTY 1989-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	96991	**EO Index:**	41529
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAST0C080
Occurrence Number:	10	**Occurrence Last Updated:**	2018-08-24

Scientific Name: *Ambrosia chenopodiifolia*

Common Name: San Diego bur-sage

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2G3

State: S1

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, MOSTLY ASSOCIATED WITH MARITIME SUCCULENT SCRUB.

Micro Habitat:

SLOPES OF CANYONS IN OPEN SUCCULENT SCRUB USUALLY WITH LITTLE HERBACEOUS COVER. 20-250 M.

Last Date Observed:	2009-06-09	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-06-09	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

JUST NORTHEAST OF JUNCTION OF I-805 AND I-905, ABOUT 1 MILE NORTHEAST OF SAN YSIDRO, EAST OF IMPERIAL BEACH.

Detailed Location:

MAPPED BY CNDDB AS 7 POLYGONS ACCORDING TO 2009 VEGCAMP COORDINATES, AND MAPS FROM 1992, 2000, 2001 AND 2003.

Ecological:

MARITIME SUCCULENT SCRUB ON HILLS WITH NON-NATIVE GRASSLAND AT BASE OF HILLS. SOME DISTURBED COASTAL SAGE SCRUB. ASSOCIATED WITH SIMMONDSIA CHINENSIS, CYLINDROPUNTIA PROLIFERA, ERIOGONUM FASCICULATUM, RHUS INTEGRIFOLIA, BROMUS RUBENS, ETC.

Threats:

OFF-ROAD VEHICLE USE BY TRESPASSERS, DUMPING. PORTIONS EXTIRPATED BY DEVELOPMENT.

General:

POPULATION NUMBERS ARE FOR PORTIONS OF SITE: UNKNOWN NUMBER OF PLANTS SEEN IN 1998, 45 PLANTS OBSERVED IN 2003, <1% COVER OBSERVED DURING VEGETATION SURVEYS IN 2009.

PLSS:	T18S, R01W, Sec. 30, W (S)	**Accuracy:**	specific area	**Area (acres):**	72
UTM:	Zone-11 N3604033 E496988	**Latitude/Longitude:**	32.57373 / -117.03209	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BOE98F0001	BOESSOCO, H. - FIELD SURVEY FORM FOR AMBROSIA CHENOPODIIFOLIA & FEROCACTUS VIRIDESCENS & EUPHORBIA MISERA & ADOLPHIA CALIFORNICA 1998-04-24
DAV08U0001	DAVERIN, C. - RESULTS OF CALIFORNIA GNATCATCHER SURVEYS ON THE SAN YSIDRO ELEMENTARY SCHOOL 8 SITE. 2008-06-20
MOE01R0001	MOE, D. (REC CONSULTING, INC.) - SUMMARY REPORT OF CALIFORNIA GNATCATCHER SURVEYS FOR RIVIERA DEL SOL (USFWS TE009390-2). 2001-08-06
MOE03U0001	MOE, D. (REC CONSULTING, INC.) - CALIFORNIA GNATCATCHER SURVEY REPORT FOR SEVILLA PROPERTY 2003-01-29
REC00R0005	REC CONSULTANTS, INC. - OTAY TARPLANT (HEMIZONIA CONJUGENS) BIOLOGICAL MITIGATION PLAN FOR THE RIVIERA DEL SOL PROJECT, LDR NO. 98-0762, SAN DIEGO, CALIFORNIA 2000-02-XX
SDG92R0001	CITY OF SAN DIEGO - PORTIONS OF AN ENVIRONMENTAL IMPACT REPORT FOR THE CALIFORNIA TERRACES PRECISE PLAN 1992-XX-XX
VEG09F0045	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR AMBROSIA CHENOPODIIFOLIA 2009-06-09
VEG09F0046	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR AMBROSIA CHENOPODIIFOLIA 2009-06-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 41530
EO Index: 41530
Key Quad: Imperial Beach (3211751)
Element Code: PDAST0C080
Occurrence Number: 11
Occurrence Last Updated: 2018-08-24

Scientific Name: *Ambrosia chenopodiifolia*
Common Name: San Diego bur-sage

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S1

Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, MOSTLY ASSOCIATED WITH MARITIME SUCCULENT SCRUB.

Micro Habitat:

SLOPES OF CANYONS IN OPEN SUCCULENT SCRUB USUALLY WITH LITTLE HERBACEOUS COVER. 20-250 M.

Last Date Observed: 2013-10-29
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2013-10-29
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

NORTH AND SOUTH OF DENNERY CANYON, APPROXIMATELY 1.6 AIR MILES NE OF INTERSTATE 805 AND OTAY MESA ROAD, OTAY MESA.

Detailed Location:

MAPPED ACCORDING TO 2009 & 2013 VEGCAMP COORDINATES, IN THE EAST 1/2 OF THE NE 1/4 OF SECTION 30.

Ecological:

DENSE NON-NATIVE GRASSES, WEEDY ANNUALS, AND OCCASIONAL NATIVE SHRUBS. WITH ERIOGONUM FASCICULATUM, ARTEMISIA CALIFORNICA, ENCELIA FARINOSA, ISOMERIS ARBOREA, DUDLEYA EDULIS, SIMMONDSIA CHINENSIS, BROMUS RUBENS, AVENA BARBATA, ETC.

Threats:

OFF-ROAD VEHICLE USE, DUMPING, TARGET SHOOTING, BORDER TRAFFIC, INVASIVE NON-NATIVE PLANTS.

General:

UNKNOWN NUMBER OF PLANTS SEEN IN THIS AREA BY BRUYEA IN 1998. SOUTHERN POLYGON: 1% COVER OF AMBROSIA CHENOPODIIFOLIA SEEN DURING 2009 VEGETATION SURVEYS. NORTHERN POLYGON: <1% COVER OF A. CHENOPODIIFOLIA SEEN DURING 2013 VEGETATION SURVEYS.

PLSS: T18S, R01W, Sec. 30, NE (S)
Accuracy: specific area
Area (acres): 10
UTM: Zone-11 N3604743 E498475
Latitude/Longitude: 32.58014 / -117.01625
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

BRU98R0001	BRUYEA, G.P. (BRUYEA BIOLOGICAL CONSULTING) - QUINO CHECKERSPOT HABITAT ASSESSMENT AND FOCUSED SURVEY REPORT. HIDDEN TRAIL PRECISE PLAN. (SELAGINELLA CINERASCENS, FEROCACTUS VIRIDESCENS, SDG FAIRY SHRIMP, OTHERS) 1998-05-14
VEG09F0048	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR AMBROSIA CHENOPODIIFOLIA 2009-06-09
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 97002
EO Index: 98237
Key Quad: Otay Mesa (3211658)
Element Code: PDAST0C080
Occurrence Number: 18
Occurrence Last Updated: 2015-07-28

Scientific Name: *Ambrosia chenopodiifolia*
Common Name: San Diego bur-sage

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2G3
State: S1

General Habitat:

COASTAL SCRUB, MOSTLY ASSOCIATED WITH MARITIME SUCCULENT SCRUB.

Micro Habitat:

SLOPES OF CANYONS IN OPEN SUCCULENT SCRUB USUALLY WITH LITTLE HERBACEOUS COVER. 20-250 M.

Last Date Observed: 2012-05-10
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-05-10
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO, UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

UPPER EASTERN FORK OF SPRING CANYON; ABOUT 0.25 TO 0.7 AIR MILE SSW OF THE JUNCTION OF OTAY MESA RD AND HERITAGE RD.

Detailed Location:

MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO 1999 AND 2001 MAPS, AND 2012 REBMAN COORDINATES. PORTIONS OF SITE WITHIN OTAY MESA OPEN SPACE AND OTAY MITIGATION SITE.

Ecological:

COASTAL SAGE SCRUB WITH ARTEMISIA CALIFORNICA, SIMMONDSIA CHINENSIS, EUPHORBIA MISERA, RHUS INTEGRIFOLIA, MALACOTHAMNUS FASCICULATUS, AND BAHIOPSIS LACINIATA.

Threats:

General:

30 PLANTS IN MIDDLE POLYGON AND 165 PLANTS IN NORTHERN POLYGON, CIRCA 1995. "COMMON" IN SOUTH-MOST POLYGON IN 2012.

PLSS: T18S, R01W, Sec. 32, E (S)
Accuracy: specific area
Area (acres): 22
UTM: Zone-11 N3602666 E499959
Latitude/Longitude: 32.56140 / -117.00043
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

CAL01M0002	CALTRANS - MAPS SHOWING SENSITIVE PLANT SPECIES IMPACT FOOTPRINT FOR ROUTE 905, REVISED 2001 2001-06-XX
JAM01U0001	JAMES, R. - MAP AND LETTER REGARDING DEINANDRA CONJUGENS ON OTAY MESA 2001-02-27
REB12S0024	REBMAN, J. ET AL. - REBMAN #23806 SD #225978 2012-05-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 97008
EO Index: 98246
Key Quad: Imperial Beach (3211751)
Element Code: PDAST0C080
Occurrence Number: 19
Occurrence Last Updated: 2018-10-11

Scientific Name: *Ambrosia chenopodiifolia*
Common Name: San Diego bur-sage

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2G3
State: S1

General Habitat:

COASTAL SCRUB, MOSTLY ASSOCIATED WITH MARITIME SUCCULENT SCRUB.

Micro Habitat:

SLOPES OF CANYONS IN OPEN SUCCULENT SCRUB USUALLY WITH LITTLE HERBACEOUS COVER. 20-250 M.

Last Date Observed: 1999-05-04
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1999-05-04
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

TRIBUTARIES OF UPPER SPRING CANYON; ABOUT 0.7 TO 0.9 AIR MILE SW OF THE JUNCTION OF OTAY MESA RD AND HERITAGE RD.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO 1998, 1999 AND 2001 MAPS.

Ecological:

DIEGAN COASTAL SAGE SCRUB. NEARBY RARE ASSOCIATES INCLUDE EUPHORBIA MISERA, ISOCOMA MENZIESII VAR. DECUMBENS, FEROCACTUS VIRIDESCENS, VIGURERA LACINIATA, SELAGINELLA CINERASCENS, ATRIPLEX PACIFICA, AND CHORIZANTHE PROCUMBENS.

Threats:

PROPOSED FOR RESIDENTIAL DEVELOPMENT (1998).

General:

11 PLANTS OBSERVED IN WESTERN POLYGON, CIRCA 1995. 19+ PLANTS OBSERVED IN BOTH POLYGONS, PRESUMABLY IN 1998 OR 1999.

PLSS: T18S, R01W, Sec. 32, NW (S)
Accuracy: specific area
Area (acres): 17
UTM: Zone-11 N3602719 E499162
Latitude/Longitude: 32.56189 / -117.00893
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

CAL01M0002	CALTRANS - MAPS SHOWING SENSITIVE PLANT SPECIES IMPACT FOOTPRINT FOR ROUTE 905, REVISED 2001 2001-06-XX
HEL99R0001	HELIX ENVIRONMENTAL PLANNING, INC. - 1999 ANNUAL REPORT FOR PROTOCOL LEVEL WET SEASON SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP 1999-07-28
JAM01U0001	JAMES, R. - MAP AND LETTER REGARDING DEINANDRA CONJUGENS ON OTAY MESA 2001-02-27
MER98U0001	EMLET, D. (MERKEL AND ASSOCIATES, INC.) - CALIFORNIA GNATCATCHER SURVEY REPORT FOR THE CANDLELIGHT PROPERTY PROJECT 1998-09-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 97012
EO Index: 98248
Key Quad: Imperial Beach (3211751)
Element Code: PDAST0C080
Occurrence Number: 20
Occurrence Last Updated: 2018-10-11

Scientific Name: *Ambrosia chenopodiifolia*
Common Name: San Diego bur-sage

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1

CNDDB Element Ranks: **Global:** G2G3
State: S1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, MOSTLY ASSOCIATED WITH MARITIME SUCCULENT SCRUB.

Micro Habitat:

SLOPES OF CANYONS IN OPEN SUCCULENT SCRUB USUALLY WITH LITTLE HERBACEOUS COVER. 20-250 M.

Last Date Observed: 2013-11-06
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2013-11-06
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

HEAD OF MOODY CANYON ALONG THE OLD OTAY MESA ROAD, WEST END OF OTAY MESA.

Detailed Location:

MAPPED AS 7 POLYGONS BASED ON 1980 LOCATION DESCRIPTION, 1992 AND 1998 MAPS, AND 2004, 2008, 2009, AND 2013 COORDINATES.

Ecological:

COASTAL SAGE SCRUB AND MARITIME SUCCULENT SCRUB WITH SIMMONDSIA CHINENSIS, EUPHORBIA MISERA, CYLINDROPUNTIA PROLIFERA, ERIOGONUM FASCICULATUM, VIGUIERA LACINIATA, MUHLENBERGIA MICROSPERMA, CRYPTANTHA, MIRABILIS LAEVIS, RHUS, ETC.

Threats:

DISTURBED BY FORMER AGRICULTURAL ACTIVITY, OFF-HIGHWAY VEHICLES, ILLEGAL DUMPING, ROAD CONSTRUCTION.

General:

N POLYGON BASED ON A 2008 GUILLIAMS COLLECTION; SITE LIKELY EXTIRPATED BY ROAD CONSTRUCTION BASED ON 2014 AERIAL IMAGERY. PORTIONS OF SITE: A. CHENOPODIIFOLIA COVER RANGED FROM 6% TO 22% IN 2009 AND 15% TO 45% IN 2013 DURING VEG SURVEYS.

PLSS: T18S, R01W, Sec. 31 (S)
Accuracy: specific area
Area (acres): 62
UTM: Zone-11 N3602856 E497905
Latitude/Longitude: 32.56312 / -117.02232
Elevation (feet): 450

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

BRA80S0006	BRAMLET, D. - BRAMLET #BC-8 UCR #31832 1980-05-29
EDW04S0004	EDWARDS, C. - EDWARDS #19 SD #172936 2004-03-19
GUI08S0021	GUILLIAMS, C. & J. GUILLIAMS - GUILLIAMS #498 SDSU #18409 2008-03-08
MER98U0001	EMLET, D. (MERKEL AND ASSOCIATES, INC.) - CALIFORNIA GNATCATCHER SURVEY REPORT FOR THE CANDLELIGHT PROPERTY PROJECT 1998-09-29
MOR87S0004	MORGAN, S. & D. KUCERA - MORGAN SN SBBG #84180, OBI #45218 1987-03-25
SDG92R0001	CITY OF SAN DIEGO - PORTIONS OF AN ENVIRONMENTAL IMPACT REPORT FOR THE CALIFORNIA TERRACES PRECISE PLAN 1992-XX-XX
VEG09F0042	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR AMBROSIA CHENOPODIIFOLIA 2009-06-25
VEG09F0044	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR AMBROSIA CHENOPODIIFOLIA 2009-06-25
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 97013
EO Index: 98249
Key Quad: Imperial Beach (3211751)
Element Code: PDAST0C080
Occurrence Number: 21
Occurrence Last Updated: 2018-08-24

Scientific Name: *Ambrosia chenopodiifolia*
Common Name: San Diego bur-sage

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
CNDDB Element Ranks: **Global:** G2G3
State: S1

General Habitat:

COASTAL SCRUB, MOSTLY ASSOCIATED WITH MARITIME SUCCULENT SCRUB.

Micro Habitat:

SLOPES OF CANYONS IN OPEN SUCCULENT SCRUB USUALLY WITH LITTLE HERBACEOUS COVER. 20-250 M.

Last Date Observed: 2009-06-25
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-06-25
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

WEST SIDE OF THE HEAD OF DENNERY CANYON, NW END OF OTAY MESA.

Detailed Location:

MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO A 1992 MAP (EAST POLYGON), A 2001 MAP (SOUTHERN POLYGON), AND 2009 KEDZIORA COORDINATES (NORTHERN POLYGON).

Ecological:

MARITIME SUCCULENT SCRUB.

Threats:

BASED ON 2014 AERIAL IMAGERY, PORTIONS OF SITE MAY HAVE BEEN EXTIRPATED BY DEVELOPMENT AND/OR ROAD CONSTRUCTION.

General:

3 PLANTS OBSERVED IN THE SOUTHERN POLYGON, CIRCA 1995. UNKNOWN NUMBER OBSERVED IN EASTERN POLYGON IN THE 1980S OR EARLY 1990S. SEEN IN THIS VICINITY IN 2001. 100S OF PLANTS OBSERVED IN NORTHERN POLYGON IN 2009.

PLSS: T18S, R01W, Sec. 29, SW (S)
Accuracy: specific area
Area (acres): 15
UTM: Zone-11 N3603968 E498670
Latitude/Longitude: 32.57315 / -117.01416
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

CAL01M0002	CALTRANS - MAPS SHOWING SENSITIVE PLANT SPECIES IMPACT FOOTPRINT FOR ROUTE 905, REVISED 2001 2001-06-XX
JAM01U0001	JAMES, R. - MAP AND LETTER REGARDING DEINANDRA CONJUGENS ON OTAY MESA 2001-02-27
KED09S0003	KEDZIORA, M. - KEDZIORA #39 SD #235802, UCR #255272 2009-06-25
MIL02R0003	MILLER, K. ET AL. (CALIFORNIA DEPARTMENT OF TRANSPORTATION) - 45-DAY REPORT FOR THE CALIFORNIA GNATCATCHER (POLIOPTILA CALIFORNICA CALIFORNICA) FOR THE WALL-HUDSON PROPERTY SOUTH OF STATE ROUTE 905 (SR 905) IN SOUTHERN SAN DIEGO COUNTY, CA 2002-09-05
SDG92R0001	CITY OF SAN DIEGO - PORTIONS OF AN ENVIRONMENTAL IMPACT REPORT FOR THE CALIFORNIA TERRACES PRECISE PLAN 1992-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 97014
EO Index: 98250
Key Quad: Imperial Beach (3211751)
Element Code: PDAST0C080
Occurrence Number: 22
Occurrence Last Updated: 2015-07-28

Scientific Name: *Ambrosia chenopodiifolia*
Common Name: San Diego bur-sage

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2G3
State: S1

General Habitat:

COASTAL SCRUB, MOSTLY ASSOCIATED WITH MARITIME SUCCULENT SCRUB.

Micro Habitat:

SLOPES OF CANYONS IN OPEN SUCCULENT SCRUB USUALLY WITH LITTLE HERBACEOUS COVER. 20-250 M.

Last Date Observed: 2000-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2000-XX-XX
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

BETWEEN POGGI CANYON AND OTAY VALLEY, ABOUT 1 AIR MILE NE OF THE JUNCTION OF MAIN STREET AND I-805, CHULA VISTA.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO A 2000 MERKEL & ASSOCIATES, INC MAP, IN THE SW 1/4 OF THE SE 1/4 OF SECTION 18.

Ecological:

MARITIME SUCCULENT SCRUB.

Threats:

POTENTIALLY IMPACTED BY FUTURE DEVELOPMENT (2000).

General:

2+ PLANTS OBSERVED SOMETIME AROUND 1996, 1998, AND/OR 2000.

PLSS: T18S, R01W, Sec. 18, SE (S)
Accuracy: specific area
Area (acres): 7
UTM: Zone-11 N3607005 E498004
Latitude/Longitude: 32.60055 / -117.02126
Elevation (feet): 350

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

MER00U0006 MERKEL, K. (MERKEL AND ASSOCIATES, INC.) - LETTER AND MAP REGARDING THE CHULA VISTA SPORTS PARK PROPOSED MINOR AMENDMENT AREA 2000-12-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 97015
EO Index: 98251
Key Quad: National City (3211761)
Element Code: PDAST0C080
Occurrence Number: 23
Occurrence Last Updated: 2015-07-28

Scientific Name: *Ambrosia chenopodiifolia*
Common Name: San Diego bur-sage

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2G3
State: S1

General Habitat:

COASTAL SCRUB, MOSTLY ASSOCIATED WITH MARITIME SUCCULENT SCRUB.

Micro Habitat:

SLOPES OF CANYONS IN OPEN SUCCULENT SCRUB USUALLY WITH LITTLE HERBACEOUS COVER. 20-250 M.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:

CITY OF CHULA VISTA OPEN SPACE BETWEEN BONITA AND LYNWOOD HILLS.

Detailed Location:

SE OF GLEN ABBEY CEMETERY. MAPPED AS 2 POLYGONS ACCORDING TO 2004 RECON DIGITAL DATA, IN THE NE 1/4 OF THE SE 1/4 OF SECTION 36.

Ecological:

DIEGAN COASTAL SAGE SCRUB AND MARITIME SUCCULENT SCRUB. OTAY TARPLANT OCCURS NEARBY.

Threats:

General:

A FEW INDIVIDUALS OBSERVED IN 2002 AND/OR 2003.

PLSS: T17S, R02W, Sec. 36, SE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3612329 E496592
Latitude/Longitude: 32.64857 / -117.03632
Elevation (feet): 250

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	28423	**EO Index:**	16992
Key Quad:	National City (3211761)	**Element Code:**	PDAST0C0M0
Occurrence Number:	2	**Occurrence Last Updated:**	2012-04-19

Scientific Name: *Ambrosia pumila*

Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed:	1938-05-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2006-06-25	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Extirpated		

Location:

SPRING VALLEY, ABOUT 1.5 MILES NW OF SWEETWATER DAM.

Detailed Location:

MAPPED BY CNDDB AS A BEST GUESS BASED ON HISTORIC COLLECTIONS FROM "1 1/2 MI NW OF SWEETWATER DAM" AND "SPRING VALLEY."

Ecological:

Threats:

THIS AREA HAS BEEN FULLY DEVELOPED.

General:

PLANTS NOT SEEN SINCE 1938. AT LEAST ONE SURVEY WAS CONDUCTED IN 2006 AND NO PLANTS WERE FOUND, ALTHOUGH THE AREA WAS TOO LARGE TO DO A COMPLETE SURVEY. OCCURRENCE IS PRESUMED EXTIRPATED. INCLUDES FORMER OCCURRENCE #10.

PLSS:	T17S, R01W (S)	**Accuracy:**	4/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3620040 E498615	**Latitude/Longitude:**	32.71814 / -117.01478	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

BJE12U0001	BJERKE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - EXCEL SUMMARY OF INFORMATION ON AMBROSIA PUMILA 2012-03-29
GAN36S0017	GANDER, F. - GANDER #2549 SD #15990 1936-05-31
GAN37S0005	GANDER, F. - GANDER #3943 SD #17724 1937-06-02
HOW38S0006	HOWE, D. - HOWE #658 SD #113189 1938-05-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 28428
EO Index: 1799
Key Quad: National City (3211761)
Element Code: PDAST0C0M0
Occurrence Number: 11
Occurrence Last Updated: 2021-01-20

Scientific Name: *Ambrosia pumila*
Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed: 2019-05-09
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2019-05-09
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Decreasing
Presence: Presumed Extant

Location:

DOWNTOWN NATIONAL CITY; BETWEEN 0.4 AND 1 AIR MILE ESE OF THE INTERSECTION OF PLAZA BLVD AND I-805.

Detailed Location:

MAPPED BY CNDDB AS 3 POLYGONS. MIDDLE POLY MAPPED E OF HIGHLAND AVE ALONG 12TH ST; GROWING BETWEEN SIDEWALK AND STREET. WEST POLY IS FROM PARKING LOT AT 13TH ST AND D ST. EAST POLY IS ON EAST SIDE OF L ST JUST NORTH OF 16TH ST.

Ecological:

MIDDLE POLY: GROWING IN SIDEWALK CRACKS AND IN AREAS ADJACENT TO SIDEWALK. WEST POLY: GROWING IN SOIL OF PARKING LOT.

Threats:

PLANTS IN A HIGHLY URBANIZED AREA AND ARE SUBJECT TO INTENSIVE TRAMPLING.

General:

UNKNOWN NUMBER OF PLANTS IN WEST POLYGON IN 1976. MIDDLE POLYGON: 15-20 STEMS SEEN IN 1988, NONE FOUND AUGUST 1996, ONLY ONE FOUND SEPTEMBER 1996, NONE FOUND IN 2006, 250 STEMS IN 15'X6' AREA IN 2017. EAST POLYGON: SEEN IN 2017 & 2019.

PLSS: T17S, R02W, Sec. 21, S (S)
Accuracy: specific area
Area (acres): 8
UTM: Zone-11 N3615241 E490982
Latitude/Longitude: 32.67481 / -117.09618
Elevation (feet): 60

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

BJE12U0001	BJERKE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - EXCEL SUMMARY OF INFORMATION ON AMBROSIA PUMILA 2012-03-29
BUR97U0001	BURRASCANO, C. - A PETITION TO THE STATE OF CALIFORNIA FISH AND GAME COMMISSION FOR THE LISTING OF AMBROSIA PUMILA (FINAL VERSION) 1997-05-28
INA19U0140	INATURALIST - OBSERVATIONS OF AMBROSIA PUMILA FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-01-19. 2019-12-27
REI94U0002	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX
THO76S0014	THORNE, R. - THORNE SN RSA #311437 & #0008343 1976-04-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	20001	**EO Index:**	11611
Key Quad:	La Mesa (3211771)	**Element Code:**	PDAST0C0M0
Occurrence Number:	12	**Occurrence Last Updated:**	2021-01-21

Scientific Name: *Ambrosia pumila*

Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed:	2019-04-25	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2019-04-25	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF SAN DIEGO, PVT	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

MISSION TRAILS REG PARK; NEAR OLD MISSION DAM IN MISSION GORGE E TO WHERE HWY 52 & MISSION GORGE RD INTERSECT, SANTEE.

Detailed Location:

MAPPED BY CNDDB AS 12 POLYGONS. EASTERNMOST POLYGON REPORTEDLY EXTIRPATED BY HWY 52 AND A PORTION TRANSPLANTED TO OCCURRENCE #23. POPULATION AT SW END OF LAKE ALSO TRANSPLANTED TO OCCURRENCE #23. INCLUDES FORMER OCC #35, 37 & 51.

Ecological:

IN ALLUVIAL DEPOSITS ON FLAT, OPEN GROUND IN MIDDLE OF FIELD AND ADJACENT TO SEWER LINE WHERE WATER SOURCE IS PRESENT. ADJACENT TO RIPARIAN ZONE. WITH ERODIUM CICUTARIUM, CENTAUREA MELITENSIS, BROMUS MADRITENSIS RUBENS, B. DIANDRUS, ETC.

Threats:

DEVELOPMENT, CONSTRUCTION EXTIRPATED PARTS OF OCC; TRAILS, TRAMPLING, WEEDS, GOPHERS, MOWING, HERBICIDES.

General:

MOST PLANTS IN LARGE CENTRAL POLYGON; EST ~209K STEMS IN 1998, 122K IN 2000, 179K IN 2001, 206K IN 2003, 150K IN 2006, 45K IN 2008, 7K IN 2009, 100K IN 2014, 28K IN 2015, 65K IN 2016, 134K IN 2017, 32K IN 2018, 82K IN 2019.

PLSS:	T15S, R01W, Sec. 30, S (S)	**Accuracy:**	specific area	**Area (acres):**	35
UTM:	Zone-11 N3633434 E497105	**Latitude/Longitude:**	32.83895 / -117.03094	**Elevation (feet):**	330

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BUR96M0001	BURRASCANO, C. - MAPS SHOWING LOCATIONS OF AMBROSIA PUMILA 1996-XX-XX
BUR97U0001	BURRASCANO, C. - A PETITION TO THE STATE OF CALIFORNIA FISH AND GAME COMMISSION FOR THE LISTING OF AMBROSIA PUMILA (FINAL VERSION) 1997-05-28
DEL96S0001	DELLAVALLE, M. - DELLAVALE #1VII96B SDSU #12199 1996-07-01
DUD00R0001	DUDEK & ASSOCIATES, INC. - SECOND ANNUAL BIOLOGICAL MONITORING REPORT FOR THE KUMEYAAY CAMPGROUNDS SAN DIEGO AMBROSIA TRANSPLANTATION PROJECT. 2000-10-30
DUD99R0001	DUDEK & ASSOCIATES, INC. - CITY OF SAN DIEGO MISSION TRAILS REGIONAL PARK SAN DIEGO AMBROSIA MANAGEMENT PLAN 1999-02-02
FAU94F0001	FAUGHT, R. - FIELD SURVEY FORM FOR AMBROSIA PUMILA 1994-05-09
GAN33S0001	GANDER, F. - GANDER SN SD #5647 1933-05-28
GOE70S0003	GOEDEN, R. & D. RICKER - GOEDEN SN UCR #109691 1970-07-21
INA19U0140	INATURALIST - OBSERVATIONS OF AMBROSIA PUMILA FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-01-19. 2019-12-27
MIL09F0013	MILLER, B. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR AMBROSIA PUMILA 2009-05-04
REC13R0001	RECON ENVIRONMENTAL, INC. - NATURAL RESOURCE MANAGEMENT PLAN FOR MISSION TRAILS REGIONAL PARK, SAN DIEGO, CALIFORNIA 2013-10-31
RIE88S0001	RIEGER, J. - RIEGER SN SD #126582 1988-07-16
ROC06F0004	ROCKS, M. & L. MARKOVCHICK-NICHOLS (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR AMBROSIA PUMILA 2006-06-08
SDC05R0001	CITY OF SAN DIEGO, PLANNING DEPT., MSCP DIVISION - MSCP RARE PLANT MONITORING: FIELD MONITORING METHODS 2005-09-XX
SDG00R0002	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR AMBROSIA PUMILA 2000-07-XX
SDG01R0002	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR AMBROSIA PUMILA 2001-07-XX
SDG03R0003	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR AMBROSIA PUMILA 2003-08-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
SDM19D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2019; 2019 RESULTS 2019-XX-XX
SWE98U0001	SWEESY, M. - MEMORANDUM AND MAPS FOR SEVERAL OCCURRENCES OF AMBROSIA PUMILA 1998-04-24
SWE98U0002	SWEESY, M. - MEMO AND MAP TO R. BITTMAN CLARIFYING LOCATIONS FOR AMBROSIA PUMILA 1998-05-18
YOU34S0005	YOUNGBERG, F. - YOUNGBERG SN POM #224516, RSA #0008344 1934-07-12
ZIP90F0003	ZIPPIN, D. - FIELD SURVEY FORM FOR AMBROSIA PUMILA 1990-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04054
EO Index: 29716
Key Quad: La Mesa (3211771)
Element Code: PDAST0C0M0
Occurrence Number: 13
Occurrence Last Updated: 2012-04-04

Scientific Name: *Ambrosia pumila*
Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed: 1936-06-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-06-XX
Occurrence Rank: None
Owner/Manager: PVT
Trend: Unknown
Presence: Extirpated

Location:
MISSION VALLEY, CIRCA ONE MILE WEST OF THE MISSION, SAN DIEGO.

Detailed Location:

Ecological:

Threats:
THERE HAS BEEN EXTENSIVE DEVELOPMENT IN THIS AREA. PRESUMED EXTIRPATED BY 1996.

General:
OCCURRENCE BASED ON A 1936 COLLECTION BY GANDER. EVEN EARLIER COLLECTIONS FROM "MISSION VALLEY" ALSO ATTRIBUTED HERE. APPARENLY NOT SEEN SINCE 1936. NO SUITABLE HABITAT COULD BE LOCATED IN 2006. OCCURRENCE IS PRESUMED EXTIRPATED.

PLSS: T16S, R02W, Sec. 18 (S)
Accuracy: 4/5 mile
Area (acres): 0
UTM: Zone-11 N3627370 E488473
Latitude/Longitude: 32.78420 / -117.12309
Elevation (feet): 60

County Summary:
San Diego

Quad Summary:
La Mesa (3211771), La Jolla (3211772)

Sources:

ANO98U0001	ANONYMOUS (VARIETY OF CONTRIBUTORS) - AMBROSIA PUMILA RECOVERY WORKSHOP HELD IN SAN DIEGO 1998-03-17
BJE12U0001	BJERKE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - EXCEL SUMMARY OF INFORMATION ON AMBROSIA PUMILA 2012-03-29
BRA97S0005	BRANDEGEE, K. - BRANDEGEE SN UC #88420 1897-05-XX
BUR97U0001	BURRASCANO, C. - A PETITION TO THE STATE OF CALIFORNIA FISH AND GAME COMMISSION FOR THE LISTING OF AMBROSIA PUMILA (FINAL VERSION) 1997-05-28
GAN36S0019	GANDER, F. - GANDER #2620 SD #16048 1936-06-22
HOF29S0029	HOFFMANN, R. - HOFFMANN SN CAS #133323, CAS-BOT-BC #30758 1929-09-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04374	**EO Index:**	29769
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAST0C0M0
Occurrence Number:	17	**Occurrence Last Updated:**	2012-04-05

Scientific Name: *Ambrosia pumila*

Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed:	1987-11-27	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2006-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SW SIDE OF DENNERY ROAD, BETWEEN TOPSIDE LANE AND THE EASTERN END OF DENNERY ROAD, SAN YSIDRO.

Detailed Location:

IN THE NW 1/4 OF THE SE 1/4 OF SECTION 19.

Ecological:

IN HIGHLY DISTURBED COASTAL SCRUB ON OLIVENHAIN CLAY. ASSOCIATED WITH RHUS INTEGRIFOLIA, BROMUS MADRITENSIS SSP. RUBENS, AND BRASSICA GENICULATA. FEROCACTUS VIRIDESCENS, VIGUIERA LACINIATA, DUDLEYA VARIEGATA, SELAGINELLA CINERASCENS NEARBY.

Threats:

DEVELOPMENT NEARBY, BUT THIS SITE IS WITHIN OTAY VALLEY REGIONAL PARK. PREVIOUSLY SUBJECT TO ORV USE.

General:

FEWER THAN 1000 STEMS OBSERVED IN 1984. COLLECTED IN THIS VICINITY IN 1987. ONLY A. CONFERTIFOLIA COULD BE FOUND IN 2006, OCCURRENCE MAY BE BASED ON A MISIDENTIFICATION.

PLSS:	T18S, R01W, Sec. 19, SE (S)	**Accuracy:**	specific area	**Area (acres):**	2
UTM:	Zone-11 N3605643 E498170	**Latitude/Longitude:**	32.58826 / -117.01949	**Elevation (feet):**	150

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BJE12U0001	BJERKE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - EXCEL SUMMARY OF INFORMATION ON AMBROSIA PUMILA 2012-03-29
BUR97U0001	BURRASCANO, C. - A PETITION TO THE STATE OF CALIFORNIA FISH AND GAME COMMISSION FOR THE LISTING OF AMBROSIA PUMILA (FINAL VERSION) 1997-05-28
SCH87S0007	SCHEIDT, V. - SCHEIDT SN UCR #58686 1987-11-27
WIE84F0008	WIER, E. - FIELD SURVEY FORM FOR AMBROSIA PUMILA 1984-06-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04279	**EO Index:**	29321
Key Quad:	National City (3211761)	**Element Code:**	PDAST0C0M0
Occurrence Number:	18	**Occurrence Last Updated:**	2012-04-05

Scientific Name: *Ambrosia pumila*

Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed:	19XX-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2006-07-XX	**Occurrence Rank:**	None
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Extirpated		

Location:

JUST EAST OF THE JUNCTION OF EAST H STREET AND INTERSTATE 805, RICE CANYON, CHULA VISTA.

Detailed Location:

IN THE NW 1/4 OF THE NW 1/4 OF SECTION 1.

Ecological:

Threats:

EXTIRPATED BY DEVELOPMENT.

General:

OCCURRENCE KNOWN FROM A 1981 MAP BY OBERBAUER. THIS OCCURRENCE WAS DESTROYED BY THE CONSTRUCTION OF TERRA NOVA PLAZA SHOPPING CENTER.

PLSS:	T18S, R02W, Sec. 01, NW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3611281 E495374	**Latitude/Longitude:**	32.63911 / -117.04931	**Elevation (feet):**	150

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

BJE12U0001	BJERKE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - EXCEL SUMMARY OF INFORMATION ON AMBROSIA PUMILA 2012-03-29
BUR97U0001	BURRASCANO, C. - A PETITION TO THE STATE OF CALIFORNIA FISH AND GAME COMMISSION FOR THE LISTING OF AMBROSIA PUMILA (FINAL VERSION) 1997-05-28
OBE81M0001	OBERBAUER, T. - MAP OF THE RICE CANYON AREA 1981-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04338	**EO Index:**	29432
Key Quad:	National City (3211761)	**Element Code:**	PDAST0C0M0
Occurrence Number:	19	**Occurrence Last Updated:**	2012-04-20

Scientific Name: *Ambrosia pumila*

Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed:	19XX-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2006-07-XX	**Occurrence Rank:**	None
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

0.1 AIR MILE NNE OF THE INTERSECTION OF AYAMONTE WAY AND VERIN LANE, IN RICE CANYON, CHULA VISTA.

Detailed Location:

MAPPED BY CNDDB BASED ON A 1981 MAP BY OBERBAUER, OBSERVATION DATE IS UNKNOWN. IN THE SW 1/4 OF THE SW 1/4 OF SECTION 31.

Ecological:

Threats:

DEVELOPMENT SURROUNDS THIS SITE, ALTHOUGH IT IS WITHIN CITY OF CHULA VISTA OPEN SPACE. AREA DOMINATED BY WEEDS.

General:

BURRASCANO FOUND NO PLANTS IN 1996 OR 1997, BUT MAY HAVE BEEN SURVEYING TOO FAR TO THE EAST, AWAY FROM THE SITE VISITED BY OBERBAUER. ONLY A. CONFERTIFOLIA WAS FOUND IN 2006, NO A. PUMILA OBSERVED. OCCURRENCE IS POSSIBLY EXTIRPATED.

PLSS:	T17S, R01W, Sec. 31, SW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3611716 E497234	**Latitude/Longitude:**	32.64304 / -117.02948	**Elevation (feet):**	250

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

BJE12U0001	BJERKE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - EXCEL SUMMARY OF INFORMATION ON AMBROSIA PUMILA 2012-03-29
BUR97U0001	BURRASCANO, C. - A PETITION TO THE STATE OF CALIFORNIA FISH AND GAME COMMISSION FOR THE LISTING OF AMBROSIA PUMILA (FINAL VERSION) 1997-05-28
OBE81M0001	OBERBAUER, T. - MAP OF THE RICE CANYON AREA 1981-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	85813	**EO Index:**	86852
Key Quad:	La Mesa (3211771)	**Element Code:**	PDAST0C0M0
Occurrence Number:	23	**Occurrence Last Updated:**	2021-01-21

Scientific Name: *Ambrosia pumila*

Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed:	2018-06-01	**Occurrence Type:**	Transplant Outside of Native Hab./Range
Last Survey Date:	2018-06-01	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

APPROXIMATELY 0.3 AIR MILE NW OF KUMEYAAY LAKE, MISSION TRAILS REGIONAL PARK, SANTEE.

Detailed Location:

MAPPED BY CNDDB AS TWO POLYGONS. PLANTS WERE TRANSPLANTED HERE FROM PORTIONS OF OCCURRENCE #12.

Ecological:

DISTURBED NON-NATIVE GRASSLAND ON DIABLO CLAY SOIL WITH CENTAUREA MELITENSIS, BROMUS MADRITENSIS, BROMUS DIANDRUS, AVENA BARBATA, ISOCOMA MENZIESII, AMBROSIA PSILOSTACHYA, AND BACCHARIS SALICIFOLIA.

Threats:

NON-NATIVE PLANTS, VEGETATION CLEARING, BRUSH MANAGEMENT, TRAILS.

General:

NE POLYGON: TRANSPLANTED IN 1988, 500 STEMS SEEN IN 1994, 443 IN 1996, 3500 STEMS TRANPLANTED TO N PORTION IN 1997, 954 SEEN IN 1998, 71 LEFT IN 2000, <50 STEMS IN 2006, SEEN IN 2009 & 2017. SW POLYGON: UNK WHEN TRANSPLANTED, 2270 IN 2018.

PLSS:	T15S, R02W, Sec. 25, NE (S)	**Accuracy:**	specific area	**Area (acres):**	4
UTM:	Zone-11 N3633953 E496418	**Latitude/Longitude:**	32.84364 / -117.03827	**Elevation (feet):**	310

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BJE12U0001	BJERKE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - EXCEL SUMMARY OF INFORMATION ON AMBROSIA PUMILA 2012-03-29
BUR97U0001	BURRASCANO, C. - A PETITION TO THE STATE OF CALIFORNIA FISH AND GAME COMMISSION FOR THE LISTING OF AMBROSIA PUMILA (FINAL VERSION) 1997-05-28
DUD00R0001	DUDEK & ASSOCIATES, INC. - SECOND ANNUAL BIOLOGICAL MONITORING REPORT FOR THE KUMEYAAY CAMPGROUNDS SAN DIEGO AMBROSIA TRANSPLANTATION PROJECT. 2000-10-30
DUD99R0001	DUDEK & ASSOCIATES, INC. - CITY OF SAN DIEGO MISSION TRAILS REGIONAL PARK SAN DIEGO AMBROSIA MANAGEMENT PLAN 1999-02-02
FAU94F0001	FAUGHT, R. - FIELD SURVEY FORM FOR AMBROSIA PUMILA 1994-05-09
INA19U0140	INATURALIST - OBSERVATIONS OF AMBROSIA PUMILA FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-01-19. 2019-12-27
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
SDM19D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2019; 2019 RESULTS 2019-XX-XX
SWE98U0001	SWEESY, M. - MEMORANDUM AND MAPS FOR SEVERAL OCCURRENCES OF AMBROSIA PUMILA 1998-04-24
SWE98U0002	SWEESY, M. - MEMO AND MAP TO R. BITTMAN CLARIFYING LOCATIONS FOR AMBROSIA PUMILA 1998-05-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	28427	**EO Index:**	29555
Key Quad:	National City (3211761)	**Element Code:**	PDAST0C0M0
Occurrence Number:	24	**Occurrence Last Updated:**	2012-04-06

Scientific Name: *Ambrosia pumila*

Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed:	1992-06-01	**Occurrence Type:**	Transplant Outside of Native Hab./Range
Last Survey Date:	2010-06-23	**Occurrence Rank:**	None
Owner/Manager:	CALTRANS	**Trend:**	Unknown
Presence:	Extirpated		

Location:

ALONG INTERSTATE 5 ON AN ON-RAMP IN NATIONAL CITY. JUST NORTH OF 24TH STREET, SW OF KIMBALL SCHOOL.

Detailed Location:

Ecological:

ON WEST-FACING FILL SLOPE.

Threats:

PLANTS FOUND UNDER AND BETWEEN ICE PLANT (CARPOBROTUS EDULIS). SITE IS AT EDGE OF FREEWAY AND SURROUNDED BY DEVELOPMENT.

General:

A SMALL POPULATION WAS OBSERVED IN 1992. APPARENTLY THE PLANTS WERE ACCIDENTALLY TRANSPLANTED HERE ALONG WITH FILL DIRT DURING HIGHWAY CONSTRUCTION. NO PLANTS COULD BE FOUND IN 2006 OR 2010. OCCURRENCE IS PRESUMED EXTIRPATED.

PLSS:	T17S, R02W, Sec. 29, SE (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3613727 E489902	**Latitude/Longitude:**	32.66114 / -117.10768	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

ANO98U0001	ANONYMOUS (VARIETY OF CONTRIBUTORS) - AMBROSIA PUMILA RECOVERY WORKSHOP HELD IN SAN DIEGO 1998-03-17
BJE12U0001	BJERKE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - EXCEL SUMMARY OF INFORMATION ON AMBROSIA PUMILA 2012-03-29
BUR97U0001	BURRASCANO, C. - A PETITION TO THE STATE OF CALIFORNIA FISH AND GAME COMMISSION FOR THE LISTING OF AMBROSIA PUMILA (FINAL VERSION) 1997-05-28
HAN92S0003	HANNON, D. - HANNON #164 SD #136258 1992-06-01
OSB10M0007	OSBORNE, M. - MAP OF AREA SEARCHED FOR AMBROSIA PUMILA 2010-06-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	28425	**EO Index:**	21642
Key Quad:	National City (3211761)	**Element Code:**	PDAST0C0M0
Occurrence Number:	25	**Occurrence Last Updated:**	2012-04-17

Scientific Name: *Ambrosia pumila*

Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed:	1983-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1996-XX-XX	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Extirpated		

Location:

NEAR THE INTERSECTION OF SWEETWATER ROAD AND JAMACHA ROAD, IN A VACANT LOT BY A FOTOMAT BOOTH, SPRING VALLEY.

Detailed Location:

MAP OF LOCATION BY BURRASCANO SHOWS THIS LOCATION NEAR THE INTERSECTION WHICH IS NOW ELKELTON BLVD AND PARADISE VALLEY ROAD. ROAD NAMES CHANGED DURING THE DEVELOPMENT OF THIS AREA.

Ecological:

Threats:

AREA HAS BEEN HIGHLY DISTURBED BY DEVELOPMENT AND FREEWAY CONSTRUCTION.

General:

A SMALL POPULATION WAS REPORTED HERE BY OBERBAUER IN 1976 AND 1983. BURRASCANO REPORTS THAT THIS OCCURRENCE HAD BEEN EXTIRPATED BY 1996. INCLUDES FORMER OCCURRENCE #52.

PLSS:	T17S, R01W (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3618181 E498732	**Latitude/Longitude:**	32.70137 / -117.01353	**Elevation (feet):**	320

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

BUR97U0001	BURRASCANO, C. - A PETITION TO THE STATE OF CALIFORNIA FISH AND GAME COMMISSION FOR THE LISTING OF AMBROSIA PUMILA (FINAL VERSION) 1997-05-28
OBE78S0003	OBERBAUER, T. - OBERBAUER #147 SD #127765 1978-09-XX
OBE83U0001	OBERBAUER, T. - SUMMARY OF KNOWN OCCURRENCES OF AMBROSIA PUMILA 1983-08-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 28429
EO Index: 16984
Key Quad: National City (3211761)
Element Code: PDAST0C0M0
Occurrence Number: 26
Occurrence Last Updated: 2012-04-06

Scientific Name: *Ambrosia pumila*
Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed: 19XX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-03-13
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:

ALONG QUARRY ROAD SW OF SWEETWATER DAM, SWEETWATER.

Detailed Location:

Ecological:

Threats:

AREA HAS BEEN DISTURBED BY HIGHWAY CONSTRUCTION AND DEVELOPMENT. NUMEROUS WEEDS NOTED IN 1996.

General:

ORIGINAL REPORT WAS MADE BY TOM OBERBAUER (YEAR UNKNOWN). NO PLANTS FOUND DURING SURVEYS IN 1996, 2005, AND 2012, AS WELL AS DURING OTHER SURVEYS PERFORMED BY CALTRANS (CALTRANS SURVEY DATES UNKNOWN). OCCURRENCE IS PRESUMED EXTIRPATED.

PLSS: T17S, R01W (S)
Accuracy: non-specific area
Area (acres): 46
UTM: Zone-11 N3617023 E498611
Latitude/Longitude: 32.69092 / -117.01481
Elevation (feet): 250

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

BJE12U0001	BJERKE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - EXCEL SUMMARY OF INFORMATION ON AMBROSIA PUMILA 2012-03-29
BUR97U0001	BURRASCANO, C. - A PETITION TO THE STATE OF CALIFORNIA FISH AND GAME COMMISSION FOR THE LISTING OF AMBROSIA PUMILA (FINAL VERSION) 1997-05-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 28424
EO Index: 21099
Key Quad: National City (3211761)
Element Code: PDAST0C0M0
Occurrence Number: 27
Occurrence Last Updated: 2012-04-06

Scientific Name: *Ambrosia pumila*
Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed: 1996-07-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1996-07-XX
Occurrence Rank: None
Owner/Manager: CALTRANS
Trend: Decreasing
Presence: Possibly Extirpated

Location:

BETWEEN JAMACHA BLVD AND JAMACHA ROAD, SWEETWATER.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO MAP PROVIDED BY BURRASCANO, WHO SAYS ROAD NAMES HAVE BEEN CHANGED. OCCURRENCE REPORTED AS DISTURBED DURING CONSTRUCTION OF HIGHWAYS 125 & 54 BUT MAP POINT IS 0.3 MILE FROM HIGHWAYS. POSSIBLY MIS-MAPPED.

Ecological:

Threats:

POPULATION ELIMINATED IN 1996 BY HIGHWAY 125. EXTENSIVE DEVELOPMENT IN THIS AREA.

General:

MITIGATION FOR HWY 125/54 CALLED FOR TRANSLOCATED STEMS/ROOTS FROM THIS SITE TO BE GROWN IN A GREENHOUSE & THEN TRANSPLANTED TO DISTURBED AREAS ALONG HWY RIGHT-OF-WAYS. SOME PLANTS REMOVED (7/96)- THE REST WERE DESTROYED. A FEW MAY REMAIN.

PLSS: T17S, R01W (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3617661 E498120
Latitude/Longitude: 32.69668 / -117.02005
Elevation (feet): 440

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

ANO98U0001 ANONYMOUS (VARIETY OF CONTRIBUTORS) - AMBROSIA PUMILA RECOVERY WORKSHOP HELD IN SAN DIEGO 1998-03-17

BUR97U0001 BURRASCANO, C. - A PETITION TO THE STATE OF CALIFORNIA FISH AND GAME COMMISSION FOR THE LISTING OF AMBROSIA PUMILA (FINAL VERSION) 1997-05-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 28426
EO Index: 16694
Key Quad: National City (3211761)
Element Code: PDAST0C0M0
Occurrence Number: 28
Occurrence Last Updated: 2012-04-06

Scientific Name: *Ambrosia pumila*
Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed: 19XX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-07-26
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:
LINCOLN ACRES SCHOOL, NATIONAL CITY.

Detailed Location:

Ecological:
ON EMBANKMENT.

Threats:
BY 2006 THIS OCCURRENCE HAD BEEN EXTIRPATED BY LANDSCAPING, ICE PLANT, AND DEVELOPMENT.

General:
A ROBUST COLONY WAS CAREFULLY MANAGED BY SCHOOL GROUNDSKEEPERS PRIOR TO 1994 ACCORDING TO REISER. NO PLANTS FOUND IN 1997. SITE ENTIRELY LANDSCAPED BY 2006; OCCURRENCE IS EXTIRPATED.

PLSS: T17S, R02W (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3614750 E492799
Latitude/Longitude: 32.67039 / -117.07680
Elevation (feet): 100

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

ANO98U0001	ANONYMOUS (VARIETY OF CONTRIBUTORS) - AMBROSIA PUMILA RECOVERY WORKSHOP HELD IN SAN DIEGO 1998-03-17
BJE12U0001	BJERKE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - EXCEL SUMMARY OF INFORMATION ON AMBROSIA PUMILA 2012-03-29
BUR97U0001	BURRASCANO, C. - A PETITION TO THE STATE OF CALIFORNIA FISH AND GAME COMMISSION FOR THE LISTING OF AMBROSIA PUMILA (FINAL VERSION) 1997-05-28
REI94U0002	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 28486
EO Index: 29715
Key Quad: La Mesa (3211771)
Element Code: PDAST0C0M0
Occurrence Number: 36
Occurrence Last Updated: 2012-04-12

Scientific Name: *Ambrosia pumila*
Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed: 198X-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2010-06-25
Occurrence Rank: None
Owner/Manager: CITY OF SANTEE
Trend: Unknown
Presence: Extirpated

Location:

BIG ROCK PARK, WESTERN SANTEE. ABOUT 0.6 MILE SOUTH OF MISSION GORGE ROAD, BETWEEN BIG ROCK ROAD AND MESA ROAD.

Detailed Location:

Ecological:

Threats:

BENCH AREAS ADJACENT TO LANDSCAPED DEVELOPED PARK & HOUSES REGULARLY MOWED BY THE CITY. ICEPLANT SPREADING FROM YARDS.

General:

ORIGINALLY REPORTED FROM BIG ROCK PARK BY M. LOY (1980'S?). NO PLANTS COULD BE FOUND DURING SURVEYS DONE IN 1996, 1997, 1998, 2006, OR 2010. OCCURRENCE IS PRESUMABLY EXTIRPATED.

PLSS: T15S, R01W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3632144 E498214
Latitude/Longitude: 32.82732 / -117.01908
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

BJE12U0001	BJERKE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - EXCEL SUMMARY OF INFORMATION ON AMBROSIA PUMILA 2012-03-29
BUR97U0001	BURRASCANO, C. - A PETITION TO THE STATE OF CALIFORNIA FISH AND GAME COMMISSION FOR THE LISTING OF AMBROSIA PUMILA (FINAL VERSION) 1997-05-28
DUD99R0001	DUDEK & ASSOCIATES, INC. - CITY OF SAN DIEGO MISSION TRAILS REGIONAL PARK SAN DIEGO AMBROSIA MANAGEMENT PLAN 1999-02-02
HIC98U0002	HICKSON, D. - NOTES ON 1998 AMBROSIA PUMILA FIELD SURVEYS 1998-07-XX
OSB10M0010	OSBORNE, M. - MAP OF AREA SEARCHED FOR AMBROSIA PUMILA 2010-06-25
SHO06U0008	SHOWERS, M. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - NOTES REGARDING SURVEY FOR AMBROSIA PUMILA AT BIG ROCK PARK 2006-07-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	17514	**EO Index:**	29770
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAST0C0M0
Occurrence Number:	38	**Occurrence Last Updated:**	2012-04-12

Scientific Name: *Ambrosia pumila*

Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed:	1985-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2006-06-XX	**Occurrence Rank:**	None
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Extirpated		

Location:

GREG ROGERS PARK, CHULA VISTA.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB NON-SPECIFICALLY ACROSS THE PARK.

Ecological:

AMBROSIA CHENOPODIIFOLIA ALSO MAPPED AT THIS SITE (BUT HAS REPORTEDLY BEEN EXTIRPATED BY HOUSING DEVELOPMENT).

Threats:

SITE IS DEVELOPED LANDSCAPED PARK. GRADED UP TO EDGE OF THE PARK IN THE PREVIOUSLY UNDEVELOPED AREAS. TRASH DUMPING.

General:

PLANTS WERE REPORTEDLY OBSERVED HERE IN 1985. NO PLANTS COULD BE FOUND DURING SURVEYS IN 1996, 1998, AND 2006. OCCURRENCE PRESUMABLY EXTIRPATED. THIS SITE MAY HAVE BEEN BASED ON A MIS-ID; 1996 SURVEY FOUND A. CONFERTIFOLIA BUT NO A. PUMILA.

PLSS:	T18S, R02W (S)	**Accuracy:**	non-specific area	**Area (acres):**	25
UTM:	Zone-11 N3609002 E496827	**Latitude/Longitude:**	32.61856 / -117.03381	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BUR97U0001	BURRASCANO, C. - A PETITION TO THE STATE OF CALIFORNIA FISH AND GAME COMMISSION FOR THE LISTING OF AMBROSIA PUMILA (FINAL VERSION) 1997-05-28
BUR98F0006	BURRASCANO, C. - FIELD SURVEY FORM FOR AMBROSIA PUMILA 1998-07-02
SHO06U0001	SHOWERS, M. - UPDATE AND REVISIT OF AMBROSIA PUMILA OCCURRENCE #38 2006-06-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	70801	**EO Index:**	71712
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAST0C0M0
Occurrence Number:	53	**Occurrence Last Updated:**	2012-04-17

Scientific Name: *Ambrosia pumila*

Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed:	1987-05-14	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

WEST END OF OTAY MESA, EAST OF SAN YSIDRO, HEAD OF DILLON CANYON.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS AT THE HEAD OF DILLON CANYON AROUND 500 FEET ELEVATION IN SECTION 31.

Ecological:

CANYON BOTTOM. ARID COASTAL SAGE SCRUB WITH ARTEMISIA CALIFORNICA, SIMMONDSIA CHINENSIS, AMBROSIA CHENOPODIIFOLIA, FEROCACTUS VIRIDESCENS, VIGUIERA LACINIATA, ETC.

Threats:

General:

OCCURRENCE BASED ON A 1987 SANDERS COLLECTION. OTHER POPULATIONS ON OTAY MESA HAVE BEEN IDENTIFIED AS A. CONFERTIFLORA (BURRASCANO 1997). ONLY A. CONFERTIFOLIA COULD BE FOUND IN 2009 SURVEYS. SPECIMEN ID NEEDS CONFIRMATION.

PLSS:	T18S, R01W, Sec. 31, E (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3602651 E498315	**Latitude/Longitude:**	32.56127 / -117.01794	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BJE12U0001	BJERKE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - EXCEL SUMMARY OF INFORMATION ON AMBROSIA PUMILA 2012-03-29
BUR97U0001	BURRASCANO, C. - A PETITION TO THE STATE OF CALIFORNIA FISH AND GAME COMMISSION FOR THE LISTING OF AMBROSIA PUMILA (FINAL VERSION) 1997-05-28
SAN87S0002	SANDERS, A. ET AL. - SANDERS #7064 SBBG #84185, UCR #48061, DES #31603, SEINET #2043635, DAV #128698 & #104104 1987-05-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	73089	**EO Index:**	74020
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAST0C0M0
Occurrence Number:	56	**Occurrence Last Updated:**	2012-04-18

Scientific Name: *Ambrosia pumila*

Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed:	1967-02-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH OF OTAY MESA ROAD HALF A MILE NORTHEAST OF SAN YSIDRO.

Detailed Location:

IN CREEKBED IN RAVINE.

Ecological:

Threats:

General:

OCCURRENCE KNOWN ONLY FROM A 1967 COLLECTION BY BEAUCHAMP. NO PLANTS COULD BE LOCATED IN 2009.

PLSS:	T18S, R02W, Sec. 36, NE (S)	**Accuracy:**	non-specific area	**Area (acres):**	29
UTM:	Zone-11 N3603003 E496634	**Latitude/Longitude:**	32.56444 / -117.03584	**Elevation (feet):**	280

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BEA67S0019	BEAUCHAMP, R.M. - BEAUCHAMP #228 SDSU #7098 1967-02-24
BJE12U0001	BJERKE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - EXCEL SUMMARY OF INFORMATION ON AMBROSIA PUMILA 2012-03-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	85765	**EO Index:**	86796
Key Quad:	La Mesa (3211771)	**Element Code:**	PDAST0C0M0
Occurrence Number:	60	**Occurrence Last Updated:**	2021-01-21

Scientific Name: *Ambrosia pumila*

Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed:	2017-07-10	**Occurrence Type:**	Transplant Outside of Native Hab./Range
Last Survey Date:	2017-07-10	**Occurrence Rank:**	Unknown
Owner/Manager:	CALTRANS	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH SIDE OF MISSION GORGE ROAD AT JUNCTION AND 0.15 MI W OF JUNCTION WITH FANITA DRIVE, ALONG FORESTER CREEK, SANTEE.

Detailed Location:

2 POLYGONS MAPPED IN THE NORTH 1/2 OF THE SE 1/4 OF SECTION 29. THIS TRANSPLANTED OCCURRENCE IS WITHIN 1/4 MILE OF NATURAL OCCURRENCE #4.

Ecological:

Threats:

SITE IS SURROUNDED BY DEVELOPMENT.

General:

APPROXIMATELY 10,000 STEMS OBSERVED IN 2010. PLANTS WERE "DOING VERY WELL" IN 2012. UNKNOWN NUMBER OF PLANTS SEEN IN 2017. PLANTS WERE TRANSPLANTED HERE IN 2006 AS PART OF A CALTRANS MITIGATION PROJECT.

PLSS:	T15S, R01W, Sec. 29, SE (S)	**Accuracy:**	specific area	**Area (acres):**	3
UTM:	Zone-11 N3633442 E499895	**Latitude/Longitude:**	32.83903 / -117.00112	**Elevation (feet):**	330

County Summary:	**Quad Summary:**
San Diego	El Cajon (3211678), La Mesa (3211771)

Sources:

BJE12U0001	BJERKE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - EXCEL SUMMARY OF INFORMATION ON AMBROSIA PUMILA 2012-03-29
INA19U0140	INATURALIST - OBSERVATIONS OF AMBROSIA PUMILA FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-01-19. 2019-12-27
OSB10M0002	OSBORNE, M. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - MAP OF AMBROSIA PUMILA OCCURRENCE #4 INCLUDING ADJACENT MITIGATION SITE AND TRANSPLANTATION SITE 2010-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92988	**EO Index:**	94142
Key Quad:	La Mesa (3211771)	**Element Code:**	PDAST0C0M0
Occurrence Number:	68	**Occurrence Last Updated:**	2021-01-22

Scientific Name: *Ambrosia pumila*

Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed:	2016-07-05	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-07-05	**Occurrence Rank:**	None
Owner/Manager:	CITY OF SANTEE	**Trend:**	Unknown
Presence:	Extirpated		

Location:

JUST SW OF THE JUNCTION OF MISSION GORGE ROAD AND STATE ROUTE 52, SANTEE.

Detailed Location:

RENZUILLI PARK. IN THE SOUTH 1/2 OF THE SW 1/4 OF SECTION 29.

Ecological:

FORMER GRASSLAND HABITAT ON STABILIZED UPPER RIVER TERRACE, NOW HEAVILY DISTURBED BY DUMPING, GRADING, VEHICLES, ETC.

Threats:

DUMPING, VEHICLES, GRADING (2014). BASED ON 2020 AERIAL IMAGERY, SITE HAS BEEN EXTIRPATED BY DEVELOPMENT.

General:

1000+ PLANTS OBSERVED IN 2014. UNKNOWN NUMBER OF PLANTS OBSERVED IN 2015 AND 2016. THIS OCCURRENCE HAS BEEN EXTIRPATED BY RESIDENTIAL DEVELOPMENT.

PLSS:	T15S, R01W, Sec. 29, SW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3632970 E499197	**Latitude/Longitude:**	32.83477 / -117.00858	**Elevation (feet):**	333

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

INA19U0140	INATURALIST - OBSERVATIONS OF AMBROSIA PUMILA FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-01-19. 2019-12-27
SCH14F0008	SCHEIDT, V. - FIELD SURVEY FORM FOR AMBROSIA PUMILA 2014-06-17
SCH14I0001	SCHEIDT, V. - PHOTOS OF AMBROSIA PUMILA, CALPHOTOS ID #0000 0000 0614 1614-1615 2014-06-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B6904	**EO Index:**	119972
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAST0C0M0
Occurrence Number:	72	**Occurrence Last Updated:**	2021-01-27

Scientific Name: *Ambrosia pumila*

Common Name: San Diego ambrosia

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

SANDY LOAM OR CLAY SOIL; SOMETIMES ALKALINE. IN VALLEYS; PERSISTS WHERE DISTURBANCE HAS BEEN SUPERFICIAL. SOMETIMES ON MARGINS OR NEAR VERNAL POOLS. 3-580 M.

Last Date Observed:	2019-05-09	**Occurrence Type:**	Transplant Outside of Native Hab./Range
Last Survey Date:	2019-05-09	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY MESA, NORTH OF OTAY MESA ROAD AND WEST OF CORPORATE CENTER DRIVE, HEAD OF DENNERY CANYON.

Detailed Location:

MAPPED ACCORDING TO 2019 SCHEIDT COORDINATES FROM INATURALIST, IN THE SE 1/4 OF THE SW 1/4 OF SECTION 29.

Ecological:

VERNAL POOL RESTORATION AREA.

Threats:

General:

OBSERVED IN 2014 & 2019. ORIGIN OF THIS POPULATION IS UNKNOWN; ASSUMED BY CNDDB TO BE A TRANSPLANTED POPULATION SINCE THIS IS A RESTORATION AREA AND DUE TO AN ABSENCE OF OLDER AMBROSIA REPORTS FROM THIS SITE.

PLSS:	T18S, R01W, Sec. 29, SW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3603483 E499362	**Latitude/Longitude:**	32.56877 / -117.0068	**Elevation (feet):**	512

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

INA19U0140	INATURALIST - OBSERVATIONS OF AMBROSIA PUMILA FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-01-19. 2019-12-27
SCH14I0004	SCHEIDT, V. - PHOTO OF AMBROSIA PUMILA, CALPHOTOS ID: 0000 0000 0614 1620 2014-04-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	17515	**EO Index:**	11768
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAST0S160
Occurrence Number:	7	**Occurrence Last Updated:**	1991-10-03

Scientific Name: *Artemisia palmeri*

Common Name: San Diego sagewort

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 4.2

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?

State: S3?

General Habitat:

COASTAL SCRUB, CHAPARRAL, RIPARIAN FOREST, RIPARIAN WOODLAND, RIPARIAN SCRUB.

Micro Habitat:

IN DRAINAGES AND RIPARIAN AREAS IN SANDY SOIL WITHIN CHAPARRAL AND OTHER HABITATS. 15-915 M.

Last Date Observed:	1985-11-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1985-11-15	**Occurrence Rank:**	Good
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY RIVER VALLEY; SOUTH SIDE OF VALLEY AT BASE OF VALLEY WALL DUE WEST OF BEYER WAY; SOUTH OF MAIN STREET.

Detailed Location:

Ecological:

IN MIXED CHAPARRAL AT BASE OF RIVER VALLEY WALL WHERE SLOPE FLATTENS OUT.

Threats:

AT EDGE OF GRADED LOT. POSSIBLE MINING, ROAD CONSTRUCTION/MAINTENANCE, DUMPING.

General:

FEWER THAN 1000 REPORTED IN A SINGLE DENSE POPULATION IN 1985.

PLSS:	T18S, R02W, Sec. 23, SW (S)	**Accuracy:**	specific area	**Area (acres):**	4
UTM:	Zone-11 N3605668 E494128	**Latitude/Longitude:**	32.58847 / -117.06256	**Elevation (feet):**	55

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

SCH85F0033 SCHEIDT, V. - FIELD SURVEY FORM FOR ARTEMISIA PALMERI 1985-11-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 41410
EO Index: 41410
Key Quad: La Jolla (3211772)
Element Code: PDAST0S160
Occurrence Number: 32
Occurrence Last Updated: 1999-07-30

Scientific Name: *Artemisia palmeri*
Common Name: San Diego sagewort

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 4.2
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?
State: S3?

General Habitat:

COASTAL SCRUB, CHAPARRAL, RIPARIAN FOREST, RIPARIAN WOODLAND, RIPARIAN SCRUB.

Micro Habitat:

IN DRAINAGES AND RIPARIAN AREAS IN SANDY SOIL WITHIN CHAPARRAL AND OTHER HABITATS. 15-915 M.

Last Date Observed: 1992-10-26
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1992-10-26
Occurrence Rank: Good
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

NORTH OF UNIVERSITY CITY, ABOUT 0.4 MILE SOUTHWEST OF LA JOLLA VILLAGE ROAD AT I-805, NORTH OF SAN DIEGO.

Detailed Location:

ALONG EPHEMERAL DRAINAGE TRIBUTARY TO ROSE CANYON.MAPPED IN NW1/4 OF NW1/4 SEC 16.

Ecological:

ALONG MARGIN OF DISTURBED COASTAL SAGE SCRUB AND WILLOW RIPARIAN WOODLAND. ASSOCIATED WITH SALIX GOODINGII VAR. VARIABILIS, S. HINDSIANA, S. LASIOLEPIS.

Threats:

COASTAL SAGE SCRUB BRUSHED OR GRADED IN THE PAST. AREA PROPOSED FOR CONSTRUCTION STAGING,INSTALLATION OF WATER PIPELINE.

General:

UNKNOWN NUMBER OF INDIVIDUALS OBSERVED BY AFFINIS IN 1992. DRAINAGE IS REMNANT OF A LARGER CANYON SYSTEM THAT HAS BEEN FILLED AND DEVELOPED.

PLSS: T15S, R03W, Sec. 16, NW (S)
Accuracy: specific area
Area (acres): 0
UTM: Zone-11 N3637033 E480858
Latitude/Longitude: 32.87126 / -117.20461
Elevation (feet): 255

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

AFF92F0005 AFFINIS - FIELD SURVEY FORM FOR ARTEMISIA PALMERI 1992-10-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	41409	**EO Index:**	41409
Key Quad:	La Jolla (3211772)	**Element Code:**	PDAST0S160
Occurrence Number:	33	**Occurrence Last Updated:**	1999-07-30

Scientific Name: *Artemisia palmeri*

Common Name: San Diego sagewort

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 4.2

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?

State: S3?

General Habitat:

COASTAL SCRUB, CHAPARRAL, RIPARIAN FOREST, RIPARIAN WOODLAND, RIPARIAN SCRUB.

Micro Habitat:

IN DRAINAGES AND RIPARIAN AREAS IN SANDY SOIL WITHIN CHAPARRAL AND OTHER HABITATS. 15-915 M.

Last Date Observed:	1996-01-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1996-01-15	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ELVIRA, JUST SOUTHEAST OF INTERSECTION OF I-5 AND HIGHWAY 52, IN SAN CLEMENTE CANYON; NORTH CLAIREMONT.

Detailed Location:

IN CITY OWNED OPEN-SPACE PARK, ON EAST SIDE OF SAN CLEMENTE CREEK, AFTER CREEK BENDS SOUTH. HEALTHY POPULATION ALONG TRAIL.

Ecological:

RIPARIAN SCRUB ADJACENT TO CREEK. ASSOCIATED WITH BACCHARIS SALICIFOLIA, SALIX LASIOLEPIS, QUERCUS AGRIFOLIA, FOENICULUM VULGARE. ASPECT IS NORTHWEST.

Threats:

POTENTIALLY THREATENED BY INVASION OF EXOTIC SPECIES SUCH AS FOENICULUM VULGARE, TAMARISK SP.

General:

UNKNOWN NUMBER OF PLANTS OBSERVED BY PATTERSON IN 1989. 100+ PLANTS OBSERVED BY AFFINIS IN 1996.

PLSS:	T15S, R03W, Sec. 30, S (S)	**Accuracy:**	non-specific area	**Area (acres):**	19
UTM:	Zone-11 N3633045 E478401	**Latitude/Longitude:**	32.83524 / -117.23078	**Elevation (feet):**	100

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

AFF96F0002	AFFINIS - FIELD SURVEY FORM FOR ARTEMISIA PALMERI 1996-01-15
PAT89R0001	PATTERSON, C. - BIOLOGICAL SURVEY OF THE SAN DIEGO COMMUTER RAIL ROUTE. INFORMATION ON ARTEMISIA PALMERI, ERYNGIUM ARISTULATUM PARISHII, NAVARRETIA FOSSALIS 1989-08-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 76277
EO Index: 47517
Key Quad: Imperial Beach (3211751)
Element Code: PDAST20095
Occurrence Number: 1
Occurrence Last Updated: 2010-06-07

Scientific Name: *Chaenactis glabriuscula var. orcuttiana*
Common Name: Orcutt's pincushion

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G5T1T2
State: S1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL BLUFF SCRUB, COASTAL DUNES.

Micro Habitat:
SANDY SITES. 3-80 M.

Last Date Observed: 1941-06-27
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1941-06-27
Occurrence Rank: Unknown
Owner/Manager: DPR-BORDER FIELD SP
Trend: Unknown
Presence: Presumed Extant

Location:
U.S. BOUNDARY MONUMENT 258, EXTREME SW CORNER OF SAN DIEGO COUNTY.

Detailed Location:
~500 FT NORTH OF INITIAL BOUNDARY MONUMENT.

Ecological:
ON DRY SAND AND SOME HUMUS IN SAND DUNES; WITH ERIOGONUM FASCICULATUM AND ABRONIA.

Threats:

General:
SITE BASED ON 1936 AND 1941 COLLECTIONS; "ABUNDANT" IN 1941. NEEDS FIELDWORK.

PLSS: T19S, R02W, Sec. 07, SW (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3599783 E488453
Latitude/Longitude: 32.53533 / -117.12295
Elevation (feet): 10

County Summary:
San Diego, Mexico

Quad Summary:
Imperial Beach (3211751)

Sources:

GAN36S0041 GANDER, F. - GANDER #1660 SD #15070 1936-04-28
WOL41S0024 WOLF, C. - WOLF #4205 RSA #25601, DS #339150 1941-06-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 20546
Key Quad: Imperial Beach (3211751)
Occurrence Number: 2
EO Index: 47518
Element Code: PDAST20095
Occurrence Last Updated: 2010-06-07

Scientific Name: *Chaenactis glabriuscula var. orcuttiana*
Common Name: Orcutt's pincushion

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T1T2
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL BLUFF SCRUB, COASTAL DUNES.

Micro Habitat:
SANDY SITES. 3-80 M.

Last Date Observed: 1935-06-02
Last Survey Date: 1935-06-02
Owner/Manager: USFWS-TIJUANA SLOUGH NWR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
OCEAN (AT) MOUTH OF TIJUANA VALLEY.

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS ALONG THE COASTLINE NEAR THE MOUTH OF THE TIJUANA RIVER.

Ecological:

Threats:

General:
SITE BASED ON A 1935 HOWE COLLECTION AND A NOTE BY REISER. NEEDS FIELDWORK.

PLSS: T18S, R02W, Sec. 31, W (S)
Accuracy: non-specific area
Area (acres): 135
UTM: Zone-11 N3602247 E487841
Latitude/Longitude: 32.55756 / -117.12952
Elevation (feet): 10

County Summary:
San Diego, Pacific Ocean

Quad Summary:
Imperial Beach (3211751)

Sources:

HOW35S0002 HOWE, D. - HOWE #254 SD #113078 1935-06-02

REI01B0001 REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47519
EO Index: 47519
Key Quad: Imperial Beach (3211751)
Element Code: PDAST20095
Occurrence Number: 3
Occurrence Last Updated: 2010-06-08

Scientific Name: *Chaenactis glabriuscula var. orcuttiana*
Common Name: Orcutt's pincushion

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G5T1T2
State: S1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL BLUFF SCRUB, COASTAL DUNES.

Micro Habitat:
SANDY SITES. 3-80 M.

Last Date Observed: 1938-05-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1938-05-07
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SOUTH END OF SAN DIEGO BAY.

Detailed Location:
MAPPED AS BEST GUESS TO INCLUDE VICINITY SOUTH OF SAN DIEGO BAY BY CNDDB. LOCATION INFORMATION IS VERY VAGUE.

Ecological:

Threats:
DEVELOPMENT A DEFINITE THREAT IN THIS AREA.

General:
SITE BASED ON A 1938 GANDER COLLECTION. NEEDS FIELDWORK.

PLSS: T18S, R02W, Sec. 18 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3606859 E487934
Latitude/Longitude: 32.59917 / -117.12858
Elevation (feet):

County Summary:
San Diego, Pacific Ocean

Quad Summary:
Imperial Beach (3211751)

Sources:
GAN38S0028 GANDER, F. - GANDER #5513 SD #21090 1938-05-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47520
EO Index: 47520
Key Quad: Point Loma (3211762)
Element Code: PDAST20095
Occurrence Number: 4
Occurrence Last Updated: 2010-06-07

Scientific Name: *Chaenactis glabriuscula var. orcuttiana*
Common Name: Orcutt's pincushion

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G5T1T2
State: S1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL BLUFF SCRUB, COASTAL DUNES.

Micro Habitat:
SANDY SITES. 3-80 M.

Last Date Observed: 1993-06-10
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1993-06-10
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
ESE OF CABRILLO NATIONAL MONUMENT VISITOR CENTER, POINT LOMA.

Detailed Location:
BELOW BAYSIDE TRAIL. MAPPED BY CNDDB AROUND THE PORTION OF BAYSIDE TRAIL TO THE ESE OF THE VISITOR CENTER.

Ecological:
SLOPE, OPEN SPACES BETWEEN SHRUBS.

Threats:

General:
SITE BASED ON A 1993 MCEACHERN COLLECTION. A 1931 WOLF COLLECTION FROM "200 FT FROM OLD SPANISH LIGHTHOUSE, 200 FT IN ELEVATION" IS ALSO ATTRIBUTED HERE.

PLSS: T17S, R03W, Sec. 30, NE (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3615148 E477689
Latitude/Longitude: 32.67378 / -117.23796
Elevation (feet): 60

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

MCE93S0001 MCEACHERN, K. - MCEACHERN #179 SBBG #106429 1993-06-10

WOL31S0015 WOLF, C. - WOLF #2066 UC #527498 1931-05-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03758
Key Quad: Point Loma (3211762)
Occurrence Number: 5
EO Index: 47521
Element Code: PDAST20095
Occurrence Last Updated: 2010-06-08

Scientific Name: *Chaenactis glabriuscula var. orcuttiana*
Common Name: Orcutt's pincushion

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T1T2
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL BLUFF SCRUB, COASTAL DUNES.

Micro Habitat:
SANDY SITES. 3-80 M.

Last Date Observed: 1919-04-29
Last Survey Date: 1919-04-29
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NORTH ISLAND, CORONADO.

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS AROUND NORTH ISLAND.

Ecological:

Threats:

General:
SITE BASED ON 2 HISTORICAL COLLECTIONS FROM "CORONADO" AND "CORONADO, NORTH ISLAND". NEEDS FIELDWORK.

PLSS: T17S, R03W, Sec. 17 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3618040 E480464
Latitude/Longitude: 32.69992 / -117.20842
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

CHA04S0007	CHANDLER, H. - CHANDLER #5168 UC #64824 (CITED IN HAL07A0001) 1904-05-07
COO19S0004	COOPER, W. - COOPER #261 JEPS #9955 1919-04-29
HAL07A0001	HALL, H. - COMPOSITAE OF SOUTHERN CALIFORNIA. UNIVERSITY OF CALIFORNIA PUBLICATIONS IN BOTANY 3(1): 1-302. 1907-12-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 28002
Key Quad: Point Loma (3211762)
Occurrence Number: 6
EO Index: 47531
Element Code: PDAST20095
Occurrence Last Updated: 2016-06-14

Scientific Name: *Chaenactis glabriuscula var. orcuttiana*
Common Name: Orcutt's pincushion

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T1T2
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL BLUFF SCRUB, COASTAL DUNES.

Micro Habitat:
SANDY SITES. 3-80 M.

Last Date Observed: 1935-06-15
Last Survey Date: 1935-06-15
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
OCEAN BEACH.

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS ALONG THE SHORELINE NEAR OCEAN BEACH.

Ecological:
ON THE SEASHORE. MUSSEL BEDS.

Threats:
THIS AREA HAS HAD MUCH DEVELOPMENT AND RECREATIONAL USE SINCE THE EARLY 1900S; SITE POSSIBLY EXTIRPATED.

General:
SITE BASED ON HISTORIC COLLECTIONS FROM "OCEAN BEACH." NEEDS FIELDWORK.

PLSS: T16S, R04W (S)
Accuracy: non-specific area
Area (acres): 93
UTM: Zone-11 N3623177 E476249
Latitude/Longitude: 32.74618 / -117.25352
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Point Loma (3211762), La Jolla (3211772)

Sources:

BRA02S0014	BRANDEGEE, T. - BRANDEGEE #1648 POM #6007 & #6056, UC #75397, CAS #4904, GH #414784 1902-05-23
BRA06S0006	BRANDEGEE, K. - BRANDEGEE SN UC #185582 & #90183, GH #414781 1906-06-01
CLE95S0005	CLEVELAND, D. - CLEVELAND SN DS #187637 1895-06-11
GAN35S0023	GANDER, F. - GANDER #2214 SD #11592 1935-06-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 79009
Key Quad: La Jolla (3211772)
Occurrence Number: 8
EO Index: 47533
Element Code: PDAST20095
Occurrence Last Updated: 2010-06-08

Scientific Name: *Chaenactis glabriuscula var. orcuttiana*
Common Name: Orcutt's pincushion

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T1T2
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL BLUFF SCRUB, COASTAL DUNES.

Micro Habitat:
SANDY SITES. 3-80 M.

Last Date Observed: 1932-07-15
Last Survey Date: 1932-07-15
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
PACIFIC BEACH AND MISSION BEACH.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS BETWEEN PACIFIC BEACH AND MISSION BEACH.

Ecological:

Threats:
THIS AREA HAS HAD MUCH DEVELOPMENT AND RECREATIONAL USE SINCE THE EARLY 1900S; SITE POSSIBLY EXTIRPATED.

General:
SITE BASED ON A 1932 JONES COLLECTION FROM "PACIFIC BEACH" AND A 1932 YOUNG BERG COLLECTION FROM "MISSION BEACH". NEEDS FIELDWORK.

PLSS: T16S, R04W, Sec. 12 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3628301 E476278
Latitude/Longitude: 32.79240 / -117.25334
Elevation (feet):

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

JON32S0002	JONES, M. - JONES SN POM #202570 1932-06-02
YOU32S0001	YOUNG BERG, F. - YOUNG BERG #1602 SDSU #6469 1932-07-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A0547
EO Index: 102107
Key Quad: Imperial Beach (3211751)
Element Code: PDAST20095
Occurrence Number: 26
Occurrence Last Updated: 2016-06-15

Scientific Name: *Chaenactis glabriuscula var. orcuttiana*
Common Name: Orcutt's pincushion

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G5T1T2
State: S1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL BLUFF SCRUB, COASTAL DUNES.

Micro Habitat:
SANDY SITES. 3-80 M.

Last Date Observed: 2007-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2007-XX-XX
Occurrence Rank: Unknown
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:
EAST SIDE OF SMUGGLER GULCH JUST NORTH OF THE STATE LINE, TIJUANA RIVER VALLEY REGIONAL PARK.

Detailed Location:
MAPPED ACCORDING TO A 2007 MAP FROM SAN DIEGO COUNTY.

Ecological:
ON BLUFFS WITH EUPHORBIA MISERA, CNEORIDIUM DUMOSUM, ARTEMISIA CALIFORNICA, AND VIGUIERA LACINIATA.

Threats:

General:
APPROXIMATELY 50 PLANTS OBSERVED IN 2007.

PLSS: T19S, R02W, Sec. 9, NE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3600202 E492064
Latitude/Longitude: 32.53915 / -117.08451
Elevation (feet): 250

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
SDG07R0001 SAN DIEGO COUNTY - TIJUANA RIVER VALLEY REGIONAL PARK, AREA SPECIFIC MANAGEMENT DIRECTIVES 2007-06-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A0548
EO Index: 102108
Key Quad: Point Loma (3211762)
Element Code: PDAST20095
Occurrence Number: 27
Occurrence Last Updated: 2016-06-15

Scientific Name: *Chaenactis glabriuscula var. orcuttiana*
Common Name: Orcutt's pincushion

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G5T1T2
State: S1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL BLUFF SCRUB, COASTAL DUNES.

Micro Habitat:
SANDY SITES. 3-80 M.

Last Date Observed: 2015-03-27
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2015-03-27
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVY
Trend: Unknown
Presence: Presumed Extant

Location:
WEST OF CABRILLO ROAD ABOUT 0.2 AIR MILE WEST OF THE OLD POINT LOMA LIGHTHOUSE, POINT LOMA.

Detailed Location:
MAPPED ACCORDING TO 2015 MORSE DIGITAL DATA. SITE APPEARS TO BE JUST OUTSIDE OF CABRILLO NATIONAL MONUMENT.

Ecological:

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 2015.

PLSS: T17S, R04W, Sec. 25 (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3614881 E477089
Latitude/Longitude: 32.67136 / -117.24436
Elevation (feet): 100

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
MOR15D0003 MORSE, K. - KMZ FILE WITH 2015 RARE PLANT OBSERVATIONS (JANUARY-JULY 2015 OBSERVATIONS) 2015-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 96498
Key Quad: Imperial Beach (3211751)
Occurrence Number: 1
EO Index: 31608
Element Code: PDAST2L0L0
Occurrence Last Updated: 2017-09-08

Scientific Name: *Leptosyne maritima*
Common Name: sea dahlia

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S1S2
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB.

Micro Habitat:
OCCURS ON A VARIETY OF SOIL TYPES, INCLUDING SANDSTONE. 5-185 M.

Last Date Observed: 2015-XX-XX
Last Survey Date: 2015-XX-XX
Owner/Manager: SDG COUNTY, DPR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
VICINITY OF SPOONERS MESA AND GOAT CANYON, BETWEEN MONUMENT ROAD AND THE MEXICAN BORDER.

Detailed Location:
WITHIN BORDER FIELD STATE PARK AND TIJUANA RIVER VALLEY REGIONAL PARK. MAPPED BY CNDDB AS MANY POLYGONS BASED ON 1990 LEVIN LOCATION DESCRIPTION, A MAP IN A 2007 SAN DIEGO COUNTY REPORT, AND 2008, 2009, 2012, & 2015 COORDINATES.

Ecological:
N-FACING SLOPES. COASTAL SAGE SCRUB, MARITIME SUCCULENT SCRUB, MARITIME CHAPARRAL, GRASSLANDS WITH NASSELLA PULCHRA, ARTEMISIA CALIFORNICA, CNEORIDIUM DUMOSUM, RHUS INTEGRIFOLIA, MALOSMA LAURINA, ERIOGONUM FASCICULATUM, STIPA LEPIDA, ETC.

Threats:

General:
~2500 PLANTS SEEN ALONG N EDGE & E OF SPOONERS MESA IN 2007. W-MOST POLYGON SEEN IN 2008 AND 2012. UNK # SEEN IN 2015. 1990 LEVIN COLLECTION FROM "SMALL CYN OFF GOAT CYN, W END OF SPOONERS MESA, NW 1/4 NW 1/4 NW 1/4 SEC 9" ATTRIB HERE.

PLSS: T19S, R02W, Sec. 4, S (S)
Accuracy: specific area
Area (acres): 35
UTM: Zone-11 N3600402 E490677
Latitude/Longitude: 32.54094 / -117.09929
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

BEA71S0063	BEAUCHAMP, R. - BEAUCHAMP #1645 SD #83550 1971-02-21
LEV90S0003	LEVIN, G. & M. HOWE - LEVIN #2054 SD #128783, UCR #67710 1990-04-09
MOR15D0003	MORSE, K. - KMZ FILE WITH 2015 RARE PLANT OBSERVATIONS (JANUARY-JULY 2015 OBSERVATIONS) 2015-XX-XX
REB12S0023	REBMAN, J. ET AL. - REBMAN #22508 SD #219345 2012-02-17
ROU08S0003	ROULLARD, P. - ROULLARD #190 SD #201325 2008-03-14
SDG07R0001	SAN DIEGO COUNTY - TIJUANA RIVER VALLEY REGIONAL PARK, AREA SPECIFIC MANAGEMENT DIRECTIVES 2007-06-22
VEG09F0301	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR LEPTOSYNE MARITIMA 2009-06-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36612
Key Quad: Point Loma (3211762)
Occurrence Number: 2
EO Index: 31609
Element Code: PDAST2L0L0
Occurrence Last Updated: 2017-09-08

Scientific Name: *Leptosyne maritima*
Common Name: sea dahlia

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S1S2
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB.

Micro Habitat:
OCCURS ON A VARIETY OF SOIL TYPES, INCLUDING SANDSTONE. 5-185 M.

Last Date Observed: 2015-03-11
Last Survey Date: 2015-03-11
Owner/Manager: DOD-NAVY, NPS
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SOUTH END OF POINT LOMA, VICINITY OF CABRILLO NATIONAL MONUMENT AND U.S. COAST GUARD RESERVATION.

Detailed Location:
MAPPED BY CNDDB AS SEVERAL POLYGONS ACCORDING TO 1981, 1993, AND 2006 MAPS, AND 2015 COORDINATES.

Ecological:
MARITIME SUCCULENT SCRUB. NEARBY RARE ASSOCIATES INCLUDE EUPHORBIA MISERA, AGAVE SHAWII, FEROCACTUS VIRIDESCENS, DICHONDRA OCCIDENTALIS, CORETHROGYNE FILAGINIFOLIA VAR. INCANA, AND OPUNTIA PARRYI SERPENTINA.

Threats:

General:
SITE OBSERVED IN 1981, 1992, 1993, AND 1999. PLANTS NOTED AS "RARE" TO "COMMON" WITHIN DIFFERENT PARTS OF OCCURRENCE ACCORDING TO 2015 REBMAN COLLECTIONS.

PLSS: T17S, R03W, Sec. 30 (S)
Accuracy: specific area
Area (acres): 33
UTM: Zone-11 N3614807 E477342
Latitude/Longitude: 32.67069 / -117.24166
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

ASI93R0001	ADVANCED SCIENCES, INC. - TERRESTRIAL BIOLOGICAL SURVEY AND INVENTORY OF NAVY PROPERTY ON POINT LOMA, SAN DIEGO, CALIFORNIA 1993-05-XX
DIL85U0001	DILLANE, J. - LETTER FROM J. DILLAND TO R. YORK REGARDING SEVERAL SPECIES. 1985-10-30
MCE93S0008	MCEACHERN, K. - MCEACHERN #84 SBBG #106420 1993-03-30
MOR15D0003	MORSE, K. - KMZ FILE WITH 2015 RARE PLANT OBSERVATIONS (JANUARY-JULY 2015 OBSERVATIONS) 2015-XX-XX
REB15S0013	REBMAN, J. - REBMAN #29332 SD #244954, RSA #835256 2015-02-23
REB15S0014	REBMAN, J. & A. TAYLOR - REBMAN #29629 SD #244955 2015-03-11
TIE06R0001	TIERRA DATA INC. & FIREWISE 2000, INC. - NAVAL BASE POINT LOMA AND CABRILLO NATIONAL MONUMENT JOINT WILDLAND FIRE MANAGEMENT PLAN 2006-06-XX
WOO81M0001	WOODWARD & CLYDE - 7 1/2 MINUTE TOPO QUAD W/ OCCURRENCES OF FEROCACTUS VIRIDESCENS 1981-XX-XX
WOO81R0001	WOODWARD & CLYDE - TERRESTRIAL BIOSURVEY AND INVENTORY OF NAVAL PROPERTY ON POINT LOMA 1981-11-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36613
Key Quad: Point Loma (3211762)
Occurrence Number: 3
EO Index: 31610
Element Code: PDAST2L0L0
Occurrence Last Updated: 2015-06-26

Scientific Name: *Leptosyne maritima*
Common Name: sea dahlia

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S1S2
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB.

Micro Habitat:
OCCURS ON A VARIETY OF SOIL TYPES, INCLUDING SANDSTONE. 5-185 M.

Last Date Observed: 2003-03-14
Last Survey Date: 2003-03-14
Owner/Manager: DOD-NAVY, CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NORTH END OF POINT LOMA, NORTH OF FORT ROSECRANS NATIONAL CEMETERY AND BENNINGTON MONUMENT.

Detailed Location:
MAPPED BY CNDDB AS SEVERAL POLYGONS. NORTH-MOST POLYGON IS NON-SPECIFIC BASED ON A PLANT LIST FOR SUNSET CLIFFS NATURAL PARK; REMAINING POLYGONS ARE SPECIFIC SITES MAPPED ACCORDING TO 1981, 1993, AND 2006 MAPS.

Ecological:
MARITIME SUCCULENT SCRUB AND COASTAL SAGE SCRUB. SANDY SOIL. OTHER RARE ASSOCIATES INCLUDE EUPHORBIA MISERA, CORETHROGYNE FILAGINIFOLIA VAR. INCANA, CEANOTHUS VERRUCOSUS, FEROCACTUS VIRIDESCENS, OPUNTIA PARRYI SERPENTINA, ETC.

Threats:

General:
MAIN SOURCES OF INFORMATION FOR THIS OCCURRENCE ARE MAP DETAIL PROVIDED BY WOODWARD-CLYDE ASSOCIATES (1981), ADVANCED SCIENCES, INC (1993) AND TIERRA DATA INC (2006). SITE OBSERVED IN 1981, 1993, 1999, AND 2003. INCLUDES FORMER OCC #4-6.

PLSS: T17S, R04W, Sec. 13 (S)
Accuracy: non-specific area
Area (acres): 106
UTM: Zone-11 N3618162 E476492
Latitude/Longitude: 32.70094 / -117.25080
Elevation (feet): 300

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

ANO12U0002	ANONYMOUS - NATIVE PLANTS AT SUNSET CLIFF NATURAL PARK 2012-06-22
ASI93R0001	ADVANCED SCIENCES, INC. - TERRESTRIAL BIOLOGICAL SURVEY AND INVENTORY OF NAVY PROPERTY ON POINT LOMA, SAN DIEGO, CALIFORNIA 1993-05-XX
EST03S0012	ESTRELLA, D. & R. LAURI - ESTRELLA #38 SBBG #117735, SD #158545, SDSU #15640 2003-03-14
REI94U0002	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX
TIE06R0001	TIERRA DATA INC. & FIREWISE 2000, INC. - NAVAL BASE POINT LOMA AND CABRILLO NATIONAL MONUMENT JOINT WILDLAND FIRE MANAGEMENT PLAN 2006-06-XX
WOO81M0001	WOODWARD & CLYDE - 7 1/2 MINUTE TOPO QUAD W/ OCCURRENCES OF FEROCACTUS VIRIDESCENS 1981-XX-XX
WOO81R0001	WOODWARD & CLYDE - TERRESTRIAL BIOSURVEY AND INVENTORY OF NAVAL PROPERTY ON POINT LOMA 1981-11-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03858
Key Quad: Point Loma (3211762)
Occurrence Number: 7

EO Index: 31614
Element Code: PDAST2L0L0
Occurrence Last Updated: 2015-06-26

Scientific Name: *Leptosyne maritima*
Common Name: sea dahlia

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2
State: S1S2

Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB.

Micro Habitat:
OCCURS ON A VARIETY OF SOIL TYPES, INCLUDING SANDSTONE. 5-185 M.

Last Date Observed: 1935-03-30
Last Survey Date: 1935-03-30
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
CORONADO.

Detailed Location:
EXACT LOCATION UNKNOWN.

Ecological:

Threats:

General:
SITE BASED ON 3 HISTORIC COLLECTIONS FROM "CORONADO," "CORONADO ISLAND," AND "SILVER STRAND." NEEDS FIELDWORK.

PLSS: T17S, R03W, Sec. 15 (S)
UTM: Zone-11 N3617001 E483723

Accuracy: 1 mile
Latitude/Longitude: 32.69060 / -117.17364

Area (acres): 0
Elevation (feet): 20

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

ANTNDS0001 ANTHONY, A. - ANTHONY SN UC #89289 XXXX-XX-XX
CAM21S0001 CAMPBELL, M. - CAMPBELL #102 CAS #9417, CAS-BOT-BC #101088 1921-03-XX
GAN35S0072 GANDER, F. - GANDER #15658 SD #10991 1935-03-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36618
Key Quad: La Jolla (3211772)
Occurrence Number: 8

EO Index: 31615
Element Code: PDAST2L0L0
Occurrence Last Updated: 2015-06-26

Scientific Name: *Leptosyne maritima*
Common Name: sea dahlia

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2
State: S1S2

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB.

Micro Habitat:
OCCURS ON A VARIETY OF SOIL TYPES, INCLUDING SANDSTONE. 5-185 M.

Last Date Observed: 1997-05-16
Last Survey Date: 1997-05-16
Owner/Manager: PVT
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:
WEST SIDE OF LA JOLLA SCENIC DRIVE ABOUT 0.5 MILE FROM ARDATH ROAD, NORTHEAST OF LA JOLLA.

Detailed Location:

Ecological:
NORTHWEST-FACING SLOPE. DISTURBED VEGETATION WITH CARPOBROTUS EDULE, CRASSULA ARGENTA, ET AL.

Threats:
IN BRUSH MANAGEMENT ZONE SUBJECT TO CLEARING.

General:
FEWER THAN 12 PLANTS OBSERVED IN 1997. SMALL PATCH (8 X 12 FT) GROWING IN DISTURBED VEGETATION.

PLSS: T15S, R03W, Sec. 19, SW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3634952 E477562
Latitude/Longitude: 32.85243 / -117.23979
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
SCH97F0010 SCHEIDT, V.N. - FIELD SURVEY FORM FOR COREOPSIS MARITIMA 1997-05-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36619
Key Quad: La Jolla (3211772)
Occurrence Number: 9
EO Index: 31616
Element Code: PDAST2L0L0
Occurrence Last Updated: 2015-06-26

Scientific Name: *Leptosyne maritima*
Common Name: sea dahlia

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S1S2
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB.

Micro Habitat:
OCCURS ON A VARIETY OF SOIL TYPES, INCLUDING SANDSTONE. 5-185 M.

Last Date Observed: 1935-02-02
Last Survey Date: 1935-02-02
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
PACIFIC BEACH.

Detailed Location:
EXACT LOCATION UNKNOWN.

Ecological:

Threats:
MUCH DEVELOPMENT IN THIS AREA SINCE COLLECTIONS WERE MADE; POSSIBLY EXTIRPATED.

General:
SITE BASED ON AN 1898 BRANDEGEE COLLECTION AND A 1935 GANDER COLLECTION.

PLSS: T16S, R04W, Sec. 12 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3629673 E477019
Latitude/Longitude: 32.80479 / -117.24546
Elevation (feet): 100

County Summary:
San Diego, Pacific Ocean

Quad Summary:
La Jolla (3211772)

Sources:
BRA98S0003 BRANDEGEE, T. - BRANDEGEE SN UC #89287 1898-06-XX
GAN35S0073 GANDER, F. - GANDER #11820 SD #10255 1935-02-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03519
Key Quad: La Jolla (3211772)
Occurrence Number: 10
EO Index: 31617
Element Code: PDAST2L0L0
Occurrence Last Updated: 2015-06-30

Scientific Name: *Leptosyne maritima*
Common Name: sea dahlia

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S1S2
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB.

Micro Habitat:
OCCURS ON A VARIETY OF SOIL TYPES, INCLUDING SANDSTONE. 5-185 M.

Last Date Observed: 1928-02-10
Last Survey Date: 1928-02-10
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
LA JOLLA.

Detailed Location:
EXACT LOCATION UNKNOWN.

Ecological:

Threats:
MUCH DEVELOPMENT IN THIS AREA SINCE COLLECTIONS WERE MADE; POSSIBLY EXTIRPATED.

General:
SITE BASED ON HISTORIC "LA JOLLA" COLLECTIONS FROM 1875, 1878, 1895, 1904, 1914, 1917, AND 1928.

PLSS: T15S, R04W, Sec. 27 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3633342 E473790
Latitude/Longitude: 32.83782 / -117.28005
Elevation (feet):

County Summary:
San Diego, Pacific Ocean

Quad Summary:
La Jolla (3211772)

Sources:

ANO75S0002	ANONYMOUS - ANONYMOUS SN SD #9027 1875-04-01
CHA04S0004	CHANDLER, H. - CHANDLER #5123 UC #64833 1904-04-16
CLE14S0011	CLEMENTS, F. & E. CLEMENTS - CLEMENTS #226 GH #414381, UCSB #9526 1914-03-14
CLE78S0007	CLEVELAND, D. - CLEVELAND SN RSA #14562 1878-XX-XX
FER17S0009	FERGUSON, M. - FERGUSON #1340 RSA #92429 1917-XX-XX
FRE28S0001	FREDERICK, A. - FREDERICK SN DAV 1928-02-10
SNY95S0004	SNYDER, M. - SNYDER SN SD #5590 1895-02-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 96505
Key Quad: Imperial Beach (3211751)
Occurrence Number: 28
EO Index: 97674
Element Code: PDAST2L0L0
Occurrence Last Updated: 2015-06-29

Scientific Name: *Leptosyne maritima*
Common Name: sea dahlia

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S1S2
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB.

Micro Habitat:
OCCURS ON A VARIETY OF SOIL TYPES, INCLUDING SANDSTONE. 5-185 M.

Last Date Observed: 2007-XX-XX
Last Survey Date: 2007-XX-XX
Owner/Manager: SDG COUNTY
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
EAST OF SMUGGLER GULCH BETWEEN MONUMENT ROAD AND THE CA/MEXICO BORDER, TIJUANA RIVER VALLEY REGIONAL PARK.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO A MAP IN A 2007 COUNTY OF SAN DIEGO REPORT FOR THE TIJUANA RIVER VALLEY REGIONAL PARK.

Ecological:
DIEGAN COASTAL SAGE SCRUB. NORTH-FACING SLOPES. OTHER NEARBY RARE ASSOCIATES INCLUDE ARTEMISIA PALMERI, CEANOTHUS VERRUCOSUS, AND VIGUIERA LACINIATA.

Threats:

General:
2500 PLANTS OBSERVED IN 2007 BETWEEN THIS OCCURRENCE AND A PORTION OF OCCURRENCE #1 TO THE WEST.

PLSS: T19S, R02W, Sec. 03, SW (S)
Accuracy: specific area
Area (acres): 9
UTM: Zone-11 N3600326 E492507
Latitude/Longitude: 32.54027 / -117.07979
Elevation (feet): 300

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:
SDG07R0001 SAN DIEGO COUNTY - TIJUANA RIVER VALLEY REGIONAL PARK, AREA SPECIFIC MANAGEMENT DIRECTIVES 2007-06-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	96507	**EO Index:**	97675
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAST2L0L0
Occurrence Number:	29	**Occurrence Last Updated:**	2015-07-01

Scientific Name: *Leptosyne maritima*

Common Name: sea dahlia

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

CNDDB Element Ranks: **Global:** G2

State: S1S2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB.

Micro Habitat:

OCCURS ON A VARIETY OF SOIL TYPES, INCLUDING SANDSTONE. 5-185 M.

Last Date Observed:	2013-03-13	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2013-03-13	**Occurrence Rank:**	Unknown
Owner/Manager:	DPR-BORDER FIELD SP, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

VICINITY OF LICHTY MESA AND U.S. BOUNDARY MONUMENT 258, JUST NORTH OF THE CALIFORNIA / MEXICO BORDER.

Detailed Location:

MAPPED BY CNDDB AS A NON-SPECIFIC POLYGON TO INCLUDE NON-SPECIFIC MAP INFORMATION FROM A 2007 SCHEIDT REPORT AND A 2012 BECK REPORT.

Ecological:

COASTAL AND SUCCULENT SAGE SCRUB WITH RHUS INTEGRIFOLIA, LYCIUM CALIFORNICUM, ENCELIA CALIFORNICA, ARTEMISIA CALIFORNICA, CORETHROGYNE FILAGINIFOLIA, HETEROTHECA SESSILIFLORA, SOLANUM XANTI, MIRABILIS LAEVIS CRASSIFOLIA, CROTON, ETC.

Threats:

SERIOUSLY THREATENED BY CONSTRUCTION OF TRIPLE BORDER FENCE (2006).

General:

HUNDREDS OF SPECIMENS OBSERVED IN 2006. UNKNOWN NUMBER OBSERVED IN AREA AROUND 2011/2012. UNKNOWN NUMBER AT LICHTY MESA IN 2013. A 1936 GANDER COLLECTION FROM "U.S. BOUNDARY MONUMENT 258" ATTRIBUTED HERE.

PLSS:	T19S, R02W, Sec. 07, S (S)	**Accuracy:**	non-specific area	**Area (acres):**	42
UTM:	Zone-11 N3599809 E488791	**Latitude/Longitude:**	32.53558 / -117.11936	**Elevation (feet):**	

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BEC12R0001	BECK, C. - ENVIRONMENTAL MONITORING REPORT FOR THE REPLACEMENT AND MAINTENANCE OF TACTICAL INFRASTRUCTURE, SURF FENCE, U.S. BORDER PATROL SAN DIEGO SECTOR, IMPERIAL BEACH STATION, CALIFORNIA 2012-09-XX
GAN36S0125	GANDER, F. - GANDER #1661 SD #15071 1936-04-28
GRO13S0006	GROSS, L. ET AL. - GROSS #5929 RSA #799782 2013-03-13
HEL99S0006	HELMKAMP, G. & E. HELMKAMP - HELMKAMP #4630 SEINET #807439, ARIZ #351576, UCR #130669 1999-02-26
SCH06I0015	SCHEIDT, V. - PHOTOS OF LEPTOSYNE MARITIMA, CALPHOTOS ID: 0000 0000 0606 0397-0398 2006-05-16
SCH07R0001	SCHEIDT, V. - THE LICHTY MESA, A BIOLOGICAL RESOURCES SURVEY REPORT AND EVALUATION OF RESOURCE VALUE, APN 663-020-02, SAN DIEGO, CA 2007-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	96508	**EO Index:**	97677
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAST2L0L0
Occurrence Number:	30	**Occurrence Last Updated:**	2017-09-08

Scientific Name: *Leptosyne maritima*

Common Name: sea dahlia

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2

State: S1S2

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB.

Micro Habitat:

OCCURS ON A VARIETY OF SOIL TYPES, INCLUDING SANDSTONE. 5-185 M.

Last Date Observed:	2004-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2004-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

JUST NORTH OF IMPERIAL BEACH, ABOUT 0.3 AIR MILE NORTHWEST OF THE JUNCTION OF CARNATION AVE AND SILVER STRAND BLVD.

Detailed Location:

Ecological:

ESTABLISHED COASTAL DUNES.

Threats:

General:

UNKNOWN NUMBER OF PLANTS SEEN IN 2004. INCLUDES A 1932 PURER COLLECTION FROM "S END OF SILVER STRAND," A 1938 GANDER COLLECTION FROM "SOUTH END OF SAN DIEGO BAY," AND A 1950 ROSE COLLECTION FROM "IMPERIAL BEACH, COASTAL DUNES."

PLSS:	T18S, R02W, Sec. 19, SW (S)	**Accuracy:**	specific area	**Area (acres):**	7
UTM:	Zone-11 N3605806 E487629	**Latitude/Longitude:**	32.58966 / -117.13182	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

DFW17D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 5 - COASTAL PLANT DATA FOR REGION 5 OF THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 2017-02-07
GAN38S0065	GANDER, F. - GANDER #5518 SD #21095 1938-05-07
PUR32S0023	PURER, E. - PURER #2740 SD #38603 1932-03-15
ROS50S0009	ROSE, L. - ROSE #50023 RSA #74527 1950-02-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 96509
Key Quad: La Jolla (3211772)
Occurrence Number: 31
EO Index: 97678
Element Code: PDAST2L0L0
Occurrence Last Updated: 2015-06-29

Scientific Name: *Leptosyne maritima*
Common Name: sea dahlia

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S1S2
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB.

Micro Habitat:
OCCURS ON A VARIETY OF SOIL TYPES, INCLUDING SANDSTONE. 5-185 M.

Last Date Observed: 2009-07-16
Last Survey Date: 2009-07-16
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
TECOLATE CANYON NATURAL OPEN SPACE; SOUTH OF SOUTHCREST AVENUE, BAY PARK.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO 2009 COORDINATES FROM VEGCAMP SURVEYS.

Ecological:
FINGER CANYON SURROUNDED BY RESIDENTIAL DEVELOPMENT. STEEP SE-FACING SLOPE. LOTS OF SUCCULENTS. ASSOCIATED WITH LYCIUM CALIFORNICUM, VIGUIERA LACINIATA, SALVIA MELLIFERA, ARTEMISIA CALIFORNICA, BROMUS MADRITENSIS, ERIOGONUM, ETC.

Threats:

General:
OBSERVED DURING 2009 VEGETATION SURVEYS; <1% COVER OF LEPTOSYNE MARITIMA AT THIS SITE.

PLSS: T16S, R03W, Sec. 16, SE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3626839 E481956
Latitude/Longitude: 32.77932 / -117.19267
Elevation (feet): 150

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

VEG09F0298 VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR LEPTOSYNE MARITIMA 2009-07-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	96510	**EO Index:**	97680
Key Quad:	Del Mar (3211782)	**Element Code:**	PDAST2L0L0
Occurrence Number:	32	**Occurrence Last Updated:**	2017-09-08

Scientific Name: *Leptosyne maritima*

Common Name: sea dahlia

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S1S2

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB.

Micro Habitat:

OCCURS ON A VARIETY OF SOIL TYPES, INCLUDING SANDSTONE. 5-185 M.

Last Date Observed:	2015-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UCNR-SCRIPPS COASTAL RESERVE	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SCRIPPS KNOLL COASTAL RESERVE; 0.3-0.4 AIR MILE WEST OF JUNCTION OF N TORREY PINES RD AND LA JOLLA SHORES DR, LA JOLLA.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO 2006 AND 2009 COORDINATES, IN THE NW 1/4 OF SECTION 13 AND THE SW 1/4 OF SECTION 12.

Ecological:

MARITIME COASTAL SAGE SCRUB WITH ENCELIA CALIFORNICA, ARTEMISIA CALIFORNICA, GNAPHALIUM CALIFORNICUM, RHUS INTEGRIFOLIA, ISOMERIS ARBOREA, BRASSICA NIGRA, HETEROMELES ARBUTIFOLIA, CARPOBROTUS EDULIS, ERIOGONUM FASCICULATUM, SUAEDA, ETC.

Threats:

General:

UNKNOWN NUMBER OF PLANTS SEEN IN 2006, 2009, & 2015. 1960S COLLECTIONS FROM "SUMNER CYN AT BRIDGE ACROSS THE STREAM," "BLACK'S BEACH ACCESS RD 0.25 MI FROM LA JOLLA FARMS RD," AND "100 YARDS NW OF 2604 ELLENTOWN RD" ALSO ATTRIBUTED HERE.

PLSS:	T15S, R04W, Sec. 13, NW (S)	**Accuracy:**	specific area	**Area (acres):**	19
UTM:	Zone-11 N3637554 E476635	**Latitude/Longitude:**	32.87587 / -117.24976	**Elevation (feet):**	350

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772), Del Mar (3211782)

Sources:

CRE06S0005	CRES NATIVE SEED GENE BANK, ET AL. - CRES #187 SD #185489 2006-04-19
ING67S0001	INGRAM, K. - INGRAM SN UCR #16884 1967-05-15
INM69S0001	INMAN, J. - INMAN #103 SDSU #52 1969-04-10
MIL64S0005	MILLER, F. - MILLER #6449 UCR #3251 1964-05-17
MOR15D0004	MORSE, K. - KMZ FILE AND SHAPEFILE WITH 2015 RARE PLANT OBSERVATIONS (JULY-NOVEMBER 2015 OBSERVATIONS) 2015-XX-XX
VEG09F0300	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR LEPTOSYNE MARITIMA 2009-06-11
VEG09F0305	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR LEPTOSYNE MARITIMA 2009-06-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	96524	**EO Index:**	97695
Key Quad:	Point Loma (3211762)	**Element Code:**	PDAST2L0L0
Occurrence Number:	41	**Occurrence Last Updated:**	2015-06-29

Scientific Name: *Leptosyne maritima*

Common Name: sea dahlia

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

CNDDB Element Ranks: **Global:** G2

State: S1S2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB.

Micro Habitat:

OCCURS ON A VARIETY OF SOIL TYPES, INCLUDING SANDSTONE. 5-185 M.

Last Date Observed:	1992-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1992-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SW END OF FORT ROSECRANS NATIONAL CEMETERY, JUST NORTH OF SEWAGE DISPOSAL AREA, POINT LOMA.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO A 1993 ASI MAP.

Ecological:

OTHER RARE PLANTS NEARBY INCLUDE FEROCACTUS VIRIDESCENS AND OPUNTIA PARRYI VAR. SERPENTINA.

Threats:

General:

OBSERVED IN 1992.

PLSS:	T17S, R04W, Sec. 24 (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3616085 E476943	**Latitude/Longitude:**	32.68221 / -117.24593	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

ASI93R0001	ADVANCED SCIENCES, INC. - TERRESTRIAL BIOLOGICAL SURVEY AND INVENTORY OF NAVY PROPERTY ON POINT LOMA, SAN DIEGO, CALIFORNIA 1993-05-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A6310
EO Index: 108065
Key Quad: National City (3211761)
Element Code: PDAST2L0L0
Occurrence Number: 45
Occurrence Last Updated: 2017-09-11

Scientific Name: *Leptosyne maritima*
Common Name: sea dahlia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2
State: S1S2

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB.

Micro Habitat:
OCCURS ON A VARIETY OF SOIL TYPES, INCLUDING SANDSTONE. 5-185 M.

Last Date Observed: 2001-05-08
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-05-08
Occurrence Rank: Unknown
Owner/Manager: USFWS-SAN DIEGO BAY NWR
Trend: Unknown
Presence: Presumed Extant

Location:
SWEETWATER MARSH NATIONAL WILDLIFE REFUGE, NORTH OF VISITOR CENTER.

Detailed Location:
MAPPED ACCORDING TO 2001 ELVIN COORDINATES.

Ecological:
NEAR BERM AT EDGE OF MARSH/UPLAND INTERFACE.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2001 ELVIN COLLECTION; PLANTS NOTED AS "SCARCE & LOCALIZED" IN 2001.

PLSS: T18S, R02W, Sec. 5, NW (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3611597 E489602
Latitude/Longitude: 32.64192 / -117.11086
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
ELV01S0011 ELVIN, M. ET AL. - ELVIN #1642 UCR #264564 2001-05-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A3868
EO Index: 315
Key Quad: Point Loma (3211762)
Element Code: PDAST2M025
Occurrence Number: 2
Occurrence Last Updated: 2017-03-03

Scientific Name: *Corethrogyne filaginifolia var. incana*
Common Name: San Diego sand aster

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G4T1Q
State: S1

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB, CHAPARRAL.

Micro Habitat:

MOST SITES ARE DISTURBED, SO HARD TO TELL. POSSIBLY IN DISTURBED SITES AND ECOTONES. 35-275 M.

Last Date Observed: 2011-06-24
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2011-06-24
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVY, NPS-CABRILLO NM
Trend: Unknown
Presence: Presumed Extant

Location:

POINT LOMA; SCATTERED FROM NORTHERN BOUNDARY OF NAVAL BASE SOUTH TO BALLAST POINT.

Detailed Location:

SEVERAL POLYGONS MAPPED BY CNDDB ACCORDING TO MAPS FROM 1981, 1993, AND 2006, AND 2011 ROBERTS COORDINATES.

Ecological:

OPENINGS IN SOUTHERN MARITIME CHAPARRAL. SANDY SOILS. ASSOCIATED WITH ERIOPHYLLUM CONFERTIFLORUM, PINUS TORREYANA, ADENOSTOMA FASCICULATUM, CEANOTHUS VERRUCOSUS, AND CARPOBROTUS EDULIS.

Threats:

MUCH OF THE OCCURRENCE IS THREATENED BY EXPANSION OF NAVAL FACILITIES.

General:

UNKNOWN NUMBER OF PLANTS SEEN THROUGHOUT OCCURRENCE IN 1981 AND 1992. ABOUT 500 PLANTS OBSERVED IN SMALL PORTION OF OCCURRENCE IN 2000. INCLUDES SEVERAL COLLECTIONS FROM 1926 THROUGH 2011.

PLSS: T17S, R04W, Sec. 13 (S)
Accuracy: specific area
Area (acres): 113
UTM: Zone-11 N3618086 E476666
Latitude/Longitude: 32.70026 / -117.24895
Elevation (feet): 300

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

ASI93R0001	ADVANCED SCIENCES, INC. - TERRESTRIAL BIOLOGICAL SURVEY AND INVENTORY OF NAVY PROPERTY ON POINT LOMA, SAN DIEGO, CALIFORNIA 1993-05-XX
CAS81S0003	CASS, T. & F. SPROUL - CASS SN SD #132810 1981-06-05
CAS81S0004	CASS, T. & F. SPROUL - CASS SN SD #132808 1981-06-17
CAS81S0005	CASS, T. & F. SPROUL - CASS SN SD #132809 1981-06-24
CLA40S0005	CLAUSEN, R. - CLAUSEN #4695 GH #387192 1940-06-20
KIR02S0003	KIRKER, J. & R. LAURI - KIRKER #94 SD #158525 2002-06-04
KIR02S0004	KIRKER, J. & R. LAURI - KIRKER #102 SD #158526 2002-06-27
REI00S0013	REISER, C. - REISER SN SD #152639 2000-04-29
REI91R0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1991-04-10
ROB11S0003	ROBERTS, F. - ROBERTS #7452 SD #242433 2011-06-24
SPR81S0002	SPROUL, F. - SPROUL SN SD #132807 1981-07-17
TIE06R0001	TIERRA DATA INC. & FIREWISE 2000, INC. - NAVAL BASE POINT LOMA AND CABRILLO NATIONAL MONUMENT JOINT WILDLAND FIRE MANAGEMENT PLAN 2006-06-XX
WOO26S0003	WOODCOCK, F. - WOODCOCK SN SD #5327 1926-05-05
WOO81M0001	WOODWARD & CLYDE - 7 1/2 MINUTE TOPO QUAD W/ OCCURRENCES OF FEROCACTUS VIRIDESCENS 1981-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04168
EO Index: 62165
Key Quad: Imperial Beach (3211751)
Element Code: PDAST2M025
Occurrence Number: 7
Occurrence Last Updated: 2017-03-22

Scientific Name: *Corethrogyne filaginifolia var. incana*
Common Name: San Diego sand aster

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G4T1Q
State: S1

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, CHAPARRAL.

Micro Habitat:
MOST SITES ARE DISTURBED, SO HARD TO TELL. POSSIBLY IN DISTURBED SITES AND ECOTONES. 35-275 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SPOONERS MESA NEAR THE TIJUANA RIVER VALLEY.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN THE GENERAL VICINITY OF SPOONERS MESA.

Ecological:

Threats:

General:
MAIN SOURCE OF INFORMATION FOR THIS OCCURRENCE IS SITE NAME IN REISER'S 2001 RARE PLANTS OF SAN DIEGO COUNTY. A 1979 COMMENT FROM OBERBAUER ALSO REPORTS PLANTS FROM BORDER FIELD STATE PARK. NEEDS FIELDWORK. INCLUDES FORMER EO #3.

PLSS: T19S, R02W, Sec. 4 (S)
Accuracy: 3/5 mile
Area (acres): 776
UTM: Zone-11 N3600532 E491035
Latitude/Longitude: 32.54212 / -117.09548
Elevation (feet):

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

OBE89U0001	OBERBAUER, T. - RECORD OF PHONE CONVERSATION WITH R. YORK REGARDING CORETHROGYNE FILAGINIFOLIA VAR. INCANA & CORETHROGYNE FILAGINIFOLIA VAR. LINIFOLIA 1989-08-14
REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36619
EO Index: 62166
Key Quad: La Jolla (3211772)
Element Code: PDAST2M025
Occurrence Number: 8
Occurrence Last Updated: 2017-03-03

Scientific Name: *Corethrogyne filaginifolia var. incana*
Common Name: San Diego sand aster

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G4T1Q
State: S1

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, CHAPARRAL.

Micro Habitat:
MOST SITES ARE DISTURBED, SO HARD TO TELL. POSSIBLY IN DISTURBED SITES AND ECOTONES. 35-275 M.

Last Date Observed: 1897-05-19
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1897-05-19
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:
PACIFIC BEACH.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN THE GENERAL VICINITY OF PACIFIC BEACH.

Ecological:

Threats:
AREA HAS BEEN DEVELOPED.

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS AN 1897 SNYDER COLLECTION. POSSIBLY EXTIRPATED ACCORDING TO A 2001 REISER REPORT.

PLSS: T16S, R04W, Sec. 12 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3629673 E477019
Latitude/Longitude: 32.80479 / -117.24546
Elevation (feet):

County Summary:
San Diego, Pacific Ocean

Quad Summary:
La Jolla (3211772)

Sources:

REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
SNY97S0003	SNYDER, M. - SNYDER SN SD #5341 1897-05-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47531
EO Index: 62167
Key Quad: Point Loma (3211762)
Element Code: PDAST2M025
Occurrence Number: 9
Occurrence Last Updated: 2017-10-05

Scientific Name: *Corethrogyne filaginifolia var. incana*
Common Name: San Diego sand aster

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G4T1Q
State: S1

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, CHAPARRAL.

Micro Habitat:
MOST SITES ARE DISTURBED, SO HARD TO TELL. POSSIBLY IN DISTURBED SITES AND ECOTONES. 35-275 M.

Last Date Observed: 1935-06-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1935-06-15
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:
OCEAN BEACH.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN THE GENERAL VICINITY OF OCEAN BEACH.

Ecological:

Threats:
AREA HAS BEEN DEVELOPED.

General:
SITE IS BASED ON A 1921 ORCUTT COLLECTION, 1927 WOODCOCK COLLECTION, AND 1935 GANDER COLLECTION. POSSIBLY EXTIRPATED ACCORDING TO A 2001 REISER REPORT.

PLSS: T16S, R04W, Sec. 36 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3623129 E476802
Latitude/Longitude: 32.74576 / -117.24761
Elevation (feet):

County Summary:
San Diego, Pacific Ocean

Quad Summary:
Point Loma (3211762), La Jolla (3211772)

Sources:

GAN35S0079	GANDER, F. - GANDER #22130 SD #11596 1935-06-15
ORC21S0001	ORCUTT - ORCUTT #316 SD #5339 1921-04-01
REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
WOO27S0003	WOODCOCK, F. - WOODCOCK SN SD #5329 1927-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A4027
Key Quad: Imperial Beach (3211751)
Occurrence Number: 11

EO Index: 105694
Element Code: PDAST2M025
Occurrence Last Updated: 2017-03-22

Scientific Name: *Corethrogyne filaginifolia var. incana*
Common Name: San Diego sand aster

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G4T1Q
State: S1

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, CHAPARRAL.

Micro Habitat:
MOST SITES ARE DISTURBED, SO HARD TO TELL. POSSIBLY IN DISTURBED SITES AND ECOTONES. 35-275 M.

Last Date Observed: 2003-XX-XX
Last Survey Date: 2003-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SOUTH SIDE OF POGGI CANYON, ABOUT 0.5 MILE EAST OF THE I-805/ORANGE AVE INTERCHANGE.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB TO ENCOMPASS SURVEY AREA WHERE CORETHROGYNE WAS REPORTED TO BE PRESENT.

Ecological:
DIEGAN COASTAL SAGE SCRUB.

Threats:

General:
SMALL, SCATTERED POPULATIONS OBSERVED IN 2003.

PLSS: T18S, R01W, Sec. 18, N (S)
UTM: Zone-11 N3607754 E497766

Accuracy: non-specific area
Latitude/Longitude: 32.6073 / -117.02381

Area (acres): 46
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

REC04R0001 RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A4028
Key Quad: Imperial Beach (3211751)
Occurrence Number: 12

EO Index: 105695
Element Code: PDAST2M025
Occurrence Last Updated: 2017-03-22

Scientific Name: *Corethrogyne filaginifolia var. incana*
Common Name: San Diego sand aster

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G4T1Q
State: S1

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, CHAPARRAL.

Micro Habitat:
MOST SITES ARE DISTURBED, SO HARD TO TELL. POSSIBLY IN DISTURBED SITES AND ECOTONES. 35-275 M.

Last Date Observed: 2003-XX-XX
Last Survey Date: 2003-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SOUTH SIDE OF POGGI CANYON, ABOUT 1.2 MILES EAST OF THE I-805/ORANGE AVE INTERCHANGE.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB TO ENCOMPASS SURVEY AREA WHERE CORETHROGYNE WAS REPORTED TO BE PRESENT.

Ecological:
DIEGAN COASTAL SAGE SCRUB.

Threats:

General:
SMALL, SCATTERED POPULATIONS OBSERVED IN 2003.

PLSS: T18S, R01W, Sec. 17, NW (S)
UTM: Zone-11 N3608043 E498637

Accuracy: non-specific area
Latitude/Longitude: 32.60991 / -117.01453

Area (acres): 16
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

REC04R0001 RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A4030
EO Index: 105699
Key Quad: National City (3211761)
Element Code: PDAST2M025
Occurrence Number: 13
Occurrence Last Updated: 2017-03-22

Scientific Name: *Corethrogyne filaginifolia var. incana*
Common Name: San Diego sand aster

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G4T1Q
State: S1

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, CHAPARRAL.

Micro Habitat:
MOST SITES ARE DISTURBED, SO HARD TO TELL. POSSIBLY IN DISTURBED SITES AND ECOTONES. 35-275 M.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA, UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
OPEN AREAS EAST OF I-805, NORTH OF TELEGRAPH CANYON ROAD, SOUTH OF BONITA ROAD, AND MOSTLY WEST OF CA-125.

Detailed Location:
EXACT LOCATIONS UNKNOWN. MAPPED BY CNDDB TO ENCOMPASS SEVERAL SURVEY AREAS WHERE CORETHROGYNE WAS REPORTED TO BE PRESENT.

Ecological:
DIEGAN COASTAL SAGE SCRUB.

Threats:

General:
SMALL, SCATTERED POPULATIONS OBSERVED IN 2003.

PLSS: T17S, R01W, Sec. 31 (S)
Accuracy: non-specific area
Area (acres): 895
UTM: Zone-11 N3612564 E498565
Latitude/Longitude: 32.65069 / -117.0153
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
Jamul Mountains (3211668), National City (3211761)

Sources:
REC04R0001 RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A4031
EO Index: 105701
Key Quad: Point Loma (3211762)
Element Code: PDAST2M025
Occurrence Number: 14
Occurrence Last Updated: 2017-03-22

Scientific Name: *Corethrogyne filaginifolia var. incana*
Common Name: San Diego sand aster

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G4T1Q
State: S1

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, CHAPARRAL.

Micro Habitat:
MOST SITES ARE DISTURBED, SO HARD TO TELL. POSSIBLY IN DISTURBED SITES AND ECOTONES. 35-275 M.

Last Date Observed: 1999-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1999-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVY
Trend: Unknown
Presence: Presumed Extant

Location:
POINT LOMA, JUST NORTHWEST OF CABRILLO NATIONAL MONUMENT LIBRARY, ABOUT 0.75 MILE NORTH OF POINT LOMA LIGHTHOUSE.

Detailed Location:
2 POLYGONS MAPPED ACCORDING TO MAPS FROM 1993 AND 2006.

Ecological:

Threats:

General:
UNKNOWN NUMBER OF PLANTS SEEN IN 1992, AND POSSIBLY ALSO SEEN IN 1999.

PLSS: T17S, R03W, Sec. 19 (S)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3615433 E477219
Latitude/Longitude: 32.67634 / -117.24298
Elevation (feet): 350

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

ASI93R0001	ADVANCED SCIENCES, INC. - TERRESTRIAL BIOLOGICAL SURVEY AND INVENTORY OF NAVY PROPERTY ON POINT LOMA, SAN DIEGO, CALIFORNIA 1993-05-XX
TIE06R0001	TIERRA DATA INC. & FIREWISE 2000, INC. - NAVAL BASE POINT LOMA AND CABRILLO NATIONAL MONUMENT JOINT WILDLAND FIRE MANAGEMENT PLAN 2006-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A4034	**EO Index:**	105703
Key Quad:	Point Loma (3211762)	**Element Code:**	PDAST2M025
Occurrence Number:	15	**Occurrence Last Updated:**	2017-03-22

Scientific Name: *Corethrogyne filaginifolia var. incana*

Common Name: San Diego sand aster

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists:

CNDDB Element Ranks: **Global:** G4T1Q

State: S1

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB, CHAPARRAL.

Micro Habitat:

MOST SITES ARE DISTURBED, SO HARD TO TELL. POSSIBLY IN DISTURBED SITES AND ECOTONES. 35-275 M.

Last Date Observed:	2006-06-22	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2006-06-22	**Occurrence Rank:**	Unknown
Owner/Manager:	NPS-CABRILLO NM	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

CABRILLO NATIONAL MONUMENT, SOUTHERN TIP OF POINT LOMA.

Detailed Location:

7 POLYGONS MAPPED ACCORDING TO MAPS FROM 1993 & 2006, AND 2006 CAIN COORDINATES.

Ecological:

GAVIOTA FINE LOAMY SAND. ON BLUFFS.

Threats:

General:

UNKNOWN NUMBER OF PLANTS SEEN IN 1981, 1992, 1999, AND 2006. A 1931 WOLF COLLECTION AND A 1934 YOUNGBERG COLLECTION FROM THE VICINITY OF THE OLD SPANISH LIGHTHOUSE ARE ALSO ATTRIBUTED TO THIS SITE.

PLSS:	T17S, R03W, Sec. 30 (S)	**Accuracy:**	specific area	**Area (acres):**	15
UTM:	Zone-11 N3614743 E477503	**Latitude/Longitude:**	32.67012 / -117.23994	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

ASI93R0001	ADVANCED SCIENCES, INC. - TERRESTRIAL BIOLOGICAL SURVEY AND INVENTORY OF NAVY PROPERTY ON POINT LOMA, SAN DIEGO, CALIFORNIA 1993-05-XX
CAI06S0005	CAIN, I. & E. CLAYTON - CAIN #615 SD #184994 2006-06-22
TIE06R0001	TIERRA DATA INC. & FIREWISE 2000, INC. - NAVAL BASE POINT LOMA AND CABRILLO NATIONAL MONUMENT JOINT WILDLAND FIRE MANAGEMENT PLAN 2006-06-XX
WOL31S0053	WOLF, C. - WOLF #2080 POM #212302 1931-05-26
YOU34S0003	YOUNGBERG, F. - YOUNGBERG SN CAS #250498 & #288350, DS #251958 & #352912, GH #387111, POM #225099 & #225213, UC #1007143 & #582848, CAS-BOT-BC #101360, #101361, #101369, #101370 1934-07-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03758
EO Index: 105705
Key Quad: Point Loma (3211762)
Element Code: PDAST2M025
Occurrence Number: 16
Occurrence Last Updated: 2017-03-22

Scientific Name: *Corethrogyne filaginifolia var. incana*
Common Name: San Diego sand aster

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G4T1Q
State: S1

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, CHAPARRAL.

Micro Habitat:
MOST SITES ARE DISTURBED, SO HARD TO TELL. POSSIBLY IN DISTURBED SITES AND ECOTONES. 35-275 M.

Last Date Observed: 1924-06-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1924-06-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
NORTH ISLAND.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN THE GENERAL VICINITY OF NORTH ISLAND.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1924 WOODCOCK COLLECTION. NEEDS FIELDWORK.

PLSS: T17S, R03W, Sec. 17 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3618040 E480464
Latitude/Longitude: 32.69992 / -117.20842
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
WOO24S0003 WOODCOCK, F. - WOODCOCK SN SD #5343 1924-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 97957
EO Index: 62353
Key Quad: Imperial Beach (3211751)
Element Code: PDAST3L0C1
Occurrence Number: 9
Occurrence Last Updated: 2015-10-22

Scientific Name: *Ericameria palmeri var. palmeri*
Common Name: Palmer's goldenbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G4T2?
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
ON GRANITIC SOILS, ON STEEP HILLSIDES. MESIC SITES. 5-625 M.

Last Date Observed: 1990-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1990-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
OTAY RIVER DRAINAGE, EAST OF BEYER WAY ON THE SOUTH SIDE OF THE RIVER, NORTH OF LINDBERGH STREET.

Detailed Location:
MAPPED AS BEST GUESS BY CNDDB BASED ON TWO LOCALITIES: "EAST OF BEYER WAY ON THE SOUTH SIDE OF THE [OTAY] RIVER" AND "OTAY RIVER FLOODPLAIN NORTH OF LINDBERGH STREET." BOTH LOCATIONS ARE POSSIBLY REFERENCING THE SAME OBSERVATION.

Ecological:

Threats:

General:
UNKNOWN NUMBER OF PLANTS SEEN IN 1990. ALSO BASED ON NOTE IN REISER'S 2001 RARE PLANTS OF SAN DIEGO COUNTY. NEEDS FIELDWORK.

PLSS: T18S, R02W, Sec. 23 (S)
Accuracy: 2/5 mile
Area (acres): 280
UTM: Zone-11 N3605711 E494824
Latitude/Longitude: 32.58886 / -117.05515
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
ROB92R0002	ROBERTS, ET AL. - OTAY RIVER VALLEY RESOURCE ENHANCEMENT PLAN PREPARED FOR THE COASTAL CONSERVANCY AND THE CITY OF CHULA VISTA 1992-09-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	62317	**EO Index:**	62354
Key Quad:	National City (3211761)	**Element Code:**	PDAST3L0C1
Occurrence Number:	10	**Occurrence Last Updated:**	2005-08-16

Scientific Name: *Ericameria palmeri var. palmeri*

Common Name: Palmer's goldenbush

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G4T2?

State: S2

General Habitat:

COASTAL SCRUB, CHAPARRAL.

Micro Habitat:

ON GRANITIC SOILS, ON STEEP HILLSIDES. MESIC SITES. 5-625 M.

Last Date Observed:	1995-11-01	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1995-11-01	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH OF ASH STREET ABOVE CHOLLAS CREEK DRAINAGE, NORTH SIDE OF HWY 94, WEST OF I-805 AND EAST OF HWY 15; SAN DIEGO.

Detailed Location:

2 CNDDB POLYGONS: (1) ONE PLANT FOUND JUST WEST OF AMBULANCE STORAGE BUILDING PARKING LOT, SOUTH OF ASH ST AND WEST OF 38TH ST; AND (2) TWO PLANTS AT BASE OF STEEP BANK SOUTH OF APARTMENT COMPLEX, WEST OF HWY 94 OVERPASS OVER CREEK.

Ecological:

WEEDY COASTAL SAGE SCRUB AT BASE OF S-FACING SLOPE ABOVE CREEK. EASTERN COLONY (1) FOUND IN DENSE STAND OF BACCHARIS SALICIFOLIA. WESTERN COLONY (2) FOUND WITH MALOSMA LAURINA, HETEROMELES ARBUTIFOLIA, BACCHARIS SARATHROIDES, ETC.

Threats:

POTENTIAL SEWER LINE REPAIR.

General:

SITE IS ON UTILITIES EASEMENT BETWEEN RESIDENCES AND HIGHWAY. 3 INDIVIDUALS TOTAL OBSERVED IN 1995.

PLSS:	T17S, R02W, Sec. 05, SW (S)	**Accuracy:**	specific area	**Area (acres):**	4
UTM:	Zone-11 N3620096 E489181	**Latitude/Longitude:**	32.71859 / -117.11544	**Elevation (feet):**	100

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

AFF95F0011 AFFINIS - FIELD SURVEY FORM FOR ERICAMERIA PALMERI VAR. PALMERI 1995-11-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 62318
EO Index: 62355
Key Quad: National City (3211761)
Element Code: PDAST3L0C1
Occurrence Number: 11
Occurrence Last Updated: 2005-08-16

Scientific Name: *Ericameria palmeri var. palmeri*
Common Name: Palmer's goldenbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G4T2?
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
ON GRANITIC SOILS, ON STEEP HILLSIDES. MESIC SITES. 5-625 M.

Last Date Observed: 2000-10-31
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2000-10-31
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
CEDAR RIDGE PARK CANYONS; WEST OF I-805 & EAST OF BALBOA PARK, SAN DIEGO.

Detailed Location:
MAPPED SOUTH OF JUNIPER STREET, BASED ON COORDINATES PROVIDED.

Ecological:

Threats:

General:
ONLY ONE SHRUB SEEN IN 2000. NEEDS FIELDWORK.

PLSS: T17S, R02W, Sec. 05, NW (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3621182 E488982
Latitude/Longitude: 32.72838 / -117.11757
Elevation (feet): 148

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
REB00S0002 REBMAN, J. - REBMAN #7103 UC #1787516, RSA #689399, SD #159093, SDSU #16337, UCR #153072 2000-10-31

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	62321	**EO Index:**	62358
Key Quad:	La Mesa (3211771)	**Element Code:**	PDAST3L0C1
Occurrence Number:	12	**Occurrence Last Updated:**	2015-10-23

Scientific Name: *Ericameria palmeri var. palmeri*

Common Name: Palmer's goldenbush

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G4T2?

State: S2

General Habitat:

COASTAL SCRUB, CHAPARRAL.

Micro Habitat:

ON GRANITIC SOILS, ON STEEP HILLSIDES. MESIC SITES. 5-625 M.

Last Date Observed:	1935-12-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1935-12-11	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MAHOGANY CANYON; BRANCHING FROM THE SOUTH END OF MISSION VALLEY.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED ACCORDING TO COMMENT FROM DILLANE: "MAHOGANY CANYON BRANCHES SOUTH FROM THE EAST END OF MISSION VALLEY. THE BOTTOM IS OCCUPIED BY FAIRMONT AVE BUT MUCH OF THE VEGETATION ON THE SIDES IS STILL INTACT."

Ecological:

Threats:

General:

MAIN SOURCE OF INFORMATION FOR THIS SITE IS 1935 GANDER COLLECTION. THREE CLEVELAND COLLECTIONS FROM 1883 AND 1884 FROM MISSION VALLEY ARE ALSO ATTRIBUTED TO THIS OCCURRENCE. NEEDS FIELDWORK.

PLSS:	T16S, R02W, Sec. 21 (S)	**Accuracy:**	3/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3625713 E490955	**Latitude/Longitude:**	32.76927 / -117.09656	**Elevation (feet):**	

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

CLE83S0012	CLEVELAND, D. - CLEVELAND SN SD #8954 1883-11-XX
CLE83S0013	CLEVELAND, D. - CLEVELAND SN SD #8955 1883-12-01
CLE84S0017	CLEVELAND, D. - CLEVELAND SN SD #8957 1884-11-04
DIL88U0002	DILLANE, J. - LETTER TO K. BERG REGARDING INVENTORY NOTES. 1988-03-28
GAN35S0026	GANDER, F. - GANDER #318-1 SD #12946 (ALSO CITED IN DIL88U0002) 1935-12-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 97942
EO Index: 99337
Key Quad: Imperial Beach (3211751)
Element Code: PDAST3L0C1
Occurrence Number: 17
Occurrence Last Updated: 2015-10-21

Scientific Name: *Ericameria palmeri var. palmeri*
Common Name: Palmer's goldenbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G4T2?
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
ON GRANITIC SOILS, ON STEEP HILLSIDES. MESIC SITES. 5-625 M.

Last Date Observed: 2002-12-01
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2002-12-01
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SOUTH FLANKS OF OTAY VALLEY, ABOUT 0.5 MILE EAST OF I-805, NEAR EAST-WEST UTILITY ROAD.

Detailed Location:
EXACT LOCATION UNKNOWN, MAPPED BY CNDDB AS A BEST GUESS.

Ecological:
IN CHAPARRAL/SAGE ECOTONE.

Threats:

General:
SITE IS BASED ON A 2002 REISER COLLECTION; COLLECTION LABEL NOTES "SEVERAL SHRUBS IN CLUSTER." MAP DETAIL IS NEEDED FOR THIS SITE.

PLSS: T18S, R01W, Sec. 19, SW (S)
Accuracy: 2/5 mile
Area (acres): 280
UTM: Zone-11 N3605528 E497436
Latitude/Longitude: 32.58722 / -117.02732
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
REI02S0002 REISER, C. - REISER SN SD #155509 2002-12-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87258
Key Quad: National City (3211761)
Occurrence Number: 23
EO Index: 99356
Element Code: PDAST3L0C1
Occurrence Last Updated: 2015-10-22

Scientific Name: *Ericameria palmeri var. palmeri*
Common Name: Palmer's goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4T2?
State: S2
Rare Plant Rank: 1B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
ON GRANITIC SOILS, ON STEEP HILLSIDES. MESIC SITES. 5-625 M.

Last Date Observed: 2004-12-09
Last Survey Date: 2004-12-09
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:
NEAR CHOLLAS CREEK, NORTHWEST OF THE INTERSECTION OF 47TH STREET AND FAIRMOUNT AVENUE, CITY OF SAN DIEGO.

Detailed Location:
MAPPED IN THE SE 1/4 OF THE NW 1/4 OF SECTION 4 ACCORDING TO A 2004 MAP FROM SCHEIDT. ASSOCIATED WITH THE HISTORICAL FLOODPLAIN FRINGE OF CHOLLAS CREEK IN AN UPLAND SITUATION.

Ecological:
OPEN COASTAL SAGE SCRUB INDICATED BY ARTEMISIA CALIFORNICA, ENCELIA CALIFORNICA, ERIOGONUM FASCICULATUM, CORETHROGYNE FILAGINIFOLIA VAR. VIRGATA, AND LOTUS SCOPARIUS. GENERALLY SURROUNDED BY WEEDY VEGETATION. CLAY SOIL ON UPPER AREAS.

Threats:
SITE PROPOSED FOR RESIDENTIAL DEVELOPMENT.

General:
1 PLANT OBSERVED IN 2004.

PLSS: T17S, R02W, Sec. 04, NW (S)
UTM: Zone-11 N3620876 E491278
Accuracy: 80 meters
Latitude/Longitude: 32.72564 / -117.09307
Area (acres): 0
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
SCH04F0021 SCHEIDT, V. - FIELD SURVEY FORM FOR ERICAMERIA PALMERI VAR. PALMERI 2004-12-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 97962
EO Index: 99358
Key Quad: National City (3211761)
Element Code: PDAST3L0C1
Occurrence Number: 24
Occurrence Last Updated: 2015-10-30

Scientific Name: *Ericameria palmeri var. palmeri*
Common Name: Palmer's goldenbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G4T2?
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
ON GRANITIC SOILS, ON STEEP HILLSIDES. MESIC SITES. 5-625 M.

Last Date Observed: 2009-11-19
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-11-19
Occurrence Rank: Poor
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
PARADISE CREEK; NEAR HONEYSUCKLE LANE BETWEEN CHERRY BLOSSOM STREET AND PLAZA BLVD, NATIONAL CITY.

Detailed Location:
MAPPED ON THE BORDER BETWEEN THE NW 1/4 OF THE SW 1/4 OF SECTION 14 AND THE NE 1/4 OF THE SE 1/4 OF SECTION 15.

Ecological:
GROWING NEXT TO A DRAINAGE SUPPORTING DISTURBED FRESHWATER WETLAND.

Threats:
PRESENCE OF INVASIVE SPECIES SUCH AS ARUNDO DONAX WITHIN THE ADJOINING DRAINAGE. SITE SURROUNDED BY DEVELOPMENT.

General:
1 PLANT OBSERVED IN 2009.

PLSS: T17S, R02W, Sec. 14, SW (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3616921 E493730
Latitude/Longitude: 32.68998 / -117.06689
Elevation (feet): 165

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
SCH09F0035 SCHEIDT, V. - FIELD SURVEY FORM FOR ERICAMERIA PALMERI VAR. PALMERI 2009-11-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	97964	**EO Index:**	99359
Key Quad:	National City (3211761)	**Element Code:**	PDAST3L0C1
Occurrence Number:	25	**Occurrence Last Updated:**	2015-10-22

Scientific Name: *Ericameria palmeri var. palmeri*

Common Name: Palmer's goldenbush

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G4T2?

State: S2

General Habitat:

COASTAL SCRUB, CHAPARRAL.

Micro Habitat:

ON GRANITIC SOILS, ON STEEP HILLSIDES. MESIC SITES. 5-625 M.

Last Date Observed:	1985-01-28	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1985-01-28	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH SIDE OF RICE CANYON, 1/4 MILE WEST OF MAIN POWERLINE CROSSING, CHULA VISTA.

Detailed Location:

MAPPED AS BEST GUESS BY CNDDB ON THE SOUTH SIDE OF THE MAIN BRANCH OF RICE CANYON JUST WEST OF POWERLINE, AROUND GIVEN ELEVATION OF 330 FT.

Ecological:

CLAY SOIL.

Threats:

DEVELOPMENT IN AREA.

General:

SITE IS BASED ON A 1985 THORNE COLLECTION. NOTE IN 2001 REISER REPORT SAYS "A SMALL COLONY IN A DRAINAGE AT THE E END OF RICE CYN MAY NO LONGER BE EXTANT FOLLOWING DEVELOPMENT OF THE AREA," LIKELY REFERRING TO SAME SITE.

PLSS:	T17S, R01W, Sec. 32, SW (S)	**Accuracy:**	1/5 mile	**Area (acres):**	70
UTM:	Zone-11 N3611766 E498737	**Latitude/Longitude:**	32.6435 / -117.01347	**Elevation (feet):**	330

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
THO85S0007	THORNE, R. - THORNE #58456 RSA #339077 1985-01-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	97967	**EO Index:**	99363
Key Quad:	Point Loma (3211762)	**Element Code:**	PDAST3L0C1
Occurrence Number:	26	**Occurrence Last Updated:**	2015-10-23

Scientific Name: *Ericameria palmeri var. palmeri*

Common Name: Palmer's goldenbush

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G4T2?

State: S2

General Habitat:

COASTAL SCRUB, CHAPARRAL.

Micro Habitat:

ON GRANITIC SOILS, ON STEEP HILLSIDES. MESIC SITES. 5-625 M.

Last Date Observed:	1925-08-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1925-08-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO, DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BALBOA PARK; NEAR SPRECKELS ORGAN AND IN THE AREA SINCE DEVELOPED FOR THE NAVAL HOSPITAL.

Detailed Location:

MAPPED AS BEST GUESS BY CNDDB TO ENCOMPASS THE SPRECKELS ORGAN PAVILION AND THE US NAVAL HOSPITAL AREA.

Ecological:

Threats:

PORTION OF SITE POSSIBY EXTIRPATED BY CONSTRUCTION OF NAVAL HOSPITAL.

General:

MAIN SOURCES OF INFORMATION FOR THIS OCCURRENCE ARE A 1922 WOODCOCK COLLECTION AND COMMENT IN 1989 REPORT. 1919 & 1925 WOODCOCK COLLECTIONS FROM "11TH ST CANYON" AND BALBOA PARK ARE ALSO ATTRIBUTED HERE.

PLSS:	T17S, R03W, Sec. 1 (S)	**Accuracy:**	2/5 mile	**Area (acres):**	280
UTM:	Zone-11 N3620892 E486134	**Latitude/Longitude:**	32.72573 / -117.14797	**Elevation (feet):**	

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

EST89R0002	ESTRADA LAND PLANNING, INC., ETC. - BALBOA PARK MASTER PLAN 1989-07-25
WOO19S0001	WOODCOCK, F. - WOODCOCK #124 CAS #5818, A #417377 1919-09-XX
WOO22S0003	WOODCOCK, F. - WOODCOCK SN SD #5218 1922-XX-XX
WOO25S0001	WOODCOCK, F. - WOODCOCK SN SD #5307 1925-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92210
EO Index: 99373
Key Quad: La Mesa (3211771)
Element Code: PDAST3L0C1
Occurrence Number: 31
Occurrence Last Updated: 2015-10-30

Scientific Name: *Ericameria palmeri var. palmeri*
Common Name: Palmer's goldenbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G4T2?
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
ON GRANITIC SOILS, ON STEEP HILLSIDES. MESIC SITES. 5-625 M.

Last Date Observed: 1965-10-09
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1965-10-09
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:
LA MESA.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN THE GENERAL VICINITY OF LA MESA.

Ecological:
WITH BACCHARIS SERGILOIDES.

Threats:
AREA HAS BEEN HIGHLY DEVELOPED SINCE ORIGINAL COLLECTION DATE; POSSIBLY EXTIRPATED.

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1965 ROOS COLLECTION. NEEDS FIELDWORK.

PLSS: T16S, R01W, Sec. 19 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3625556 E497822
Latitude/Longitude: 32.76789 / -117.02325
Elevation (feet):

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
ROO65S0026 ROOS, J. - ROOS SN UCR #23859, CLARK-A #1528-1898, RSA #444686, UCSB #45941 1965-10-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 73582
EO Index: 95155
Key Quad: Imperial Beach (3211751)
Element Code: PDAST470D4
Occurrence Number: 45
Occurrence Last Updated: 2014-10-03

Scientific Name: *Grindelia hallii*
Common Name: San Diego gumplant

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, CHAPARRAL, LOWER MONTANE CONIFEROUS FOREST.

Micro Habitat:

FREQUENTLY OCCURS IN LOW MOIST AREAS IN MEADOWS. ASSOCIATED SPECIES COMMONLY INCLUDE WYETHIA, RANUNCULUS, SIDALCEA. 180-1810 M.

Last Date Observed: 1935-06-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1935-06-12
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

OTAY MESA, 2 MILES EAST OF SAN YSIDRO.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS AROUND THE WESTERN PORTION OF OTAY MESA ABOUT 2 AIR MILES NE OF SAN YSIDRO.

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1935 GANDER COLLECTION. NEEDS FIELDWORK.

PLSS: T18S, R01W, Sec. 32 (S)
Accuracy: 4/5 mile
Area (acres): 0
UTM: Zone-11 N3603263 E498817
Latitude/Longitude: 32.56679 / -117.01260
Elevation (feet):

County Summary:

San Diego

Quad Summary:

Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

GAN35S0070 GANDER, F. - GANDER #219 SD #11507 1935-06-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04388
Key Quad: La Mesa (3211771)
Occurrence Number: 46
EO Index: 95156
Element Code: PDAST470D4
Occurrence Last Updated: 2014-10-03

Scientific Name: *Grindelia hallii*
Common Name: San Diego gumplant

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, CHAPARRAL, LOWER MONTANE CONIFEROUS FOREST.

Micro Habitat:

FREQUENTLY OCCURS IN LOW MOIST AREAS IN MEADOWS. ASSOCIATED SPECIES COMMONLY INCLUDE WYETHIA, RANUNCULUS, SIDALCEA. 180-1810 M.

Last Date Observed: 1949-06-05
Last Survey Date: 1949-06-05
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SPRING VALLEY.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS AROUND THE TOWN OF SPRING VALLEY BUT MAY HAVE BEEN COLLECTED IN THE VALLEY CLOSER TO SWEETWATER RESERVOIR.

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1949 HARBISON COLLECTION. NEEDS FIELDWORK.

PLSS: T16S, R01W, Sec. 29 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3624100 E499268
Latitude/Longitude: 32.75476 / -117.00781
Elevation (feet):

County Summary:

San Diego

Quad Summary:

Jamul Mountains (3211668), El Cajon (3211678), National City (3211761), La Mesa (3211771)

Sources:

HAR49S0002 HARBISON, C. - HARBISON SN RSA #43764 1949-06-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	26208	**EO Index:**	16502
Key Quad:	National City (3211761)	**Element Code:**	PDAST4R070
Occurrence Number:	1	**Occurrence Last Updated:**	2020-09-11

Scientific Name: *Deinandra conjugens*

Common Name: Otay tarplant

Listing Status: **Federal:** Threatened; **State:** Endangered

Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G1; **State:** S1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed:	2017-04-17	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-04-17	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF CHULA VISTA, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

LONG CANYON; BOTH SIDES OF ACACIA AVENUE APPROXIMATELY 1 ROAD MILE SE OF ITS JUNCTION WITH BONITA ROAD, BONITA.

Detailed Location:

MAPPED BY CNDDB AS 3 POLYGONS IN S 1/2 SW 1/4 SEC 29 & NW 1/4 NW 1/4 SEC 32. MIDDLE POLYGON BASED ON REISER COLLECTION FROM "200 YARDS S OF TERMINUS OF TIM ST." N POLYGON BASED ON 2004 RECON DATA. S POLYGON BASED ON 2004 RECOVERY PLAN MAP.

Ecological:

SEMI-DISTURBED BUSH SAGE. SOILS OBVIOUSLY CRACKED CLAYS. GRADUAL SLOPES. ASSOCIATED WITH APIASTRUM ANGUSTIFOLIUM, ACANTHOMINTHA ILICIFOLIA, CENTAUREA MELITENSIS, HARPAGONELLA PALMERI, AND CALIFORNIA MACROPHYLLUM.

Threats:

AREA IS HIGHLY DEVELOPED. PORTIONS OF SITE PRESERVED IN OPEN SPACE.

General:

2000 PLANTS ESTIMATED BY REISER IN MIDDLE POLYGON IN 1993. 21,950 PLANTS IN VICINITY IN 2002. N POLYGON: 10,000 PLANTS OBSERVED IN 2003, "OCCASIONAL" IN 2017. ONLY SOURCE OF INFO FOR SOUTH POLYGON IS MAP FROM 2004 USFWS RECOVERY PLAN.

PLSS:	T17S, R01W, Sec. 29, SW (S)	**Accuracy:**	specific area	**Area (acres):**	11
UTM:	Zone-11 N3613328 E498925	**Latitude/Longitude:**	32.65759 / -117.01146	**Elevation (feet):**	250

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

BOE93S0001	BOERNER, L. - BOERNER SN SD #142806 1993-06-08
FWS04R0001	U.S. FISH & WILDLIFE SERVICE - RECOVERY PLAN FOR DEINANDRA CONJUGENS 2004-12-07
LOY04U0001	LOY, M. - FINDINGS OF CONFORMANCE, MULTIPLE SPECIES CONSERVATION PROGRAM, WHEELER RIDGE 2004-05-24
MUL18D0001	MULLIGAN, M. - 2017 COLLECTIONS FROM MARGIE MULLIGAN. 2018-02-06
REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05
REI93S0017	REISER, C. - REISER SN SD #135125, RSA #598136 & #0008452 1993-06-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04438	**EO Index:**	15152
Key Quad:	Jamul Mountains (3211668)	**Element Code:**	PDAST4R070
Occurrence Number:	3	**Occurrence Last Updated:**	2013-02-07

Scientific Name: *Deinandra conjugens*

Common Name: Otay tarplant

Listing Status: **Federal:** Threatened

State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed:	2003-06-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-06-10	**Occurrence Rank:**	Unknown
Owner/Manager:	SWEETWATER AUTHORITY, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH SHORE OF SWEETWATER RESERVOIR FROM JUST NORTH OF NEAL COVE SW TO LAKEVIEW AVENUE, JUST SOUTH OF LA PRESA.

Detailed Location:

MAPPED BY CNDDB AS 9 POLYGONS ACCORDING TO A 1987 BEAUCHAMP MAP (2 W POLYS TO THE N) AND DIGITAL DATA FROM SWEETWATER AUTHORITY (REMAINING POLYGONS). A 2004 FWS RECOVERY PLAN MENTIONS SOME PLANTS IN THIS AREA MAY ACTUALLY BE D. FASCICULATA.

Ecological:

VERTISOL SOIL.

Threats:

PIPELINE CORRIDORS, RUNOFF, ROAD CONSTRUCTION/MAINTENANCE, TRAIL ACTIVITY, & NON-NATIVES ARE POSSIBLE THREATS.

General:

APPROXIMATELY 50 PLANTS OBSERVED IN 1994. SW-MOST POLYGON: OBSERVED IN 2001, 300+ IN 2003. 6 EASTERN POLYGONS: 100+ IN PART IN 2001, SEVERAL HUNDRED IN 2003. A VAGUE 1903 ABRAMS COLLECTION FROM "LA PRESA" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS:	T17S, R01W, Sec. 09, S (S)	**Accuracy:**	specific area	**Area (acres):**	41
UTM:	Zone-11 N3618159 E500711	**Latitude/Longitude:**	32.70116 / -116.99240	**Elevation (feet):**	260

County Summary:	**Quad Summary:**
San Diego	Jamul Mountains (3211668), National City (3211761)

Sources:

ABR03S0042	ABRAMS, L. - ABRAMS #3902 DS #3509, POM #155971, CAS-BOT-BC #130970, RSA #0001283 1903-06-06
BEA87M0003	BEAUCHAMP, R. - MAP OF HEMIZONIA CONJUGENS 1987-XX-XX
FWS04R0001	U.S. FISH & WILDLIFE SERVICE - RECOVERY PLAN FOR DEINANDRA CONJUGENS 2004-12-07
MOR93U0001	MOREY, S. - RECOVERY WORKSHOP SUMMARY FOR DEINANDRA CONJUGENS 1993-09-14
MOR94U0002	MOREY, S. - RESULTS OF SEPTEMBER 23RD RECOVERY WORKSHOP. 1994-XX-XX
PAT78U0001	PATTERSON, C. - CNPS HERBARIUM LABEL WITH COMMENT ON BACK 1978-11-XX
SWE13D0001	SWEETWATER AUTHORITY - GIS DATA FOR DEINANDRA CONJUGENS ON SWEETWATER AUTHORITY LAND 2013-01-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04419
EO Index: 16976
Key Quad: Imperial Beach (3211751)
Element Code: PDAST4R070
Occurrence Number: 6
Occurrence Last Updated: 2020-09-30

Scientific Name: *Deinandra conjugens*
Common Name: Otay tarplant

Listing Status: **Federal:** Threatened
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed: 2019-08-27
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2019-08-27
Occurrence Rank: Good
Owner/Manager: PVT, CITY OF SAN DIEGO, OTHERS
Trend: Unknown
Presence: Presumed Extant

Location:

DENNERY RANCH; VICINITY OF DENNERY CANYON BETWEEN CHESTER GRADE AND INTERSTATE 805, OTAY MESA.

Detailed Location:

MAPPED BY CNDDB AS MANY POLYGONS TO ENCOMPASS MULTIPLE SOURCES OF INFORMATION. SOME SUB-POPULATIONS MAY HAVE BEEN TRANSPLANTED TO NEARBY AREAS (AFFINIS 1998). ADDITIONAL POPULATION INFO AVAILABLE AT CNDDB.

Ecological:

NON-NATIVE GRASSLAND AND MARITIME SUCCULENT SCRUB. ASSOCIATED WITH BROMUS MADRITENSIS SSP. RUBENS, VULPIA MYUROS, CENTAUREA MELITENSIS, LESSINGIA FILAGINIFOLIA, CHRYSANTHEMUM CORONARIUM, AVENA SP., BROMUS HORDEACEUS, BRASSICA NIGRA, ETC.

Threats:

PORTIONS EXTIRPATED BY DEVELOPMENT. OHV USE, WEEDS, TRASH, FOOT TRAILS, BRUSH MGMT, SNAILS, DUMPING, RD MAINT, ETC.

General:

POP #S FOR PARTS OF SITE: SEEN IN 1988, 1992, 1994, 5000 IN 1995, 1000S IN 1998, 1 PLANT IN 2008, ~2000 IN 2009, 2 IN 2014, ~35,000 IN 2015, ~116,000 IN 2016, ~36,210 IN 2017, 392 IN 2018, ~3.8 MIL IN 2019. INCL FORMER EOS #17, 27-29, 39.

PLSS: T18S, R01W, Sec. 30, N (S)
Accuracy: specific area
Area (acres): 126
UTM: Zone-11 N3604862 E498211
Latitude/Longitude: 32.58122 / -117.01906
Elevation (feet): 350

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

AFF98U0007	AFFINIS - SERIES OF DOCUMENTS RELATING TO THE CONCEPTUAL REVEGETATION PLAN, HIDDEN TRAILS PROPERTY, OTAY MESA 1998-10-XX
AND19F0019	ANDERSON, S. - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 2019-08-27
AND20R0002	ANDERSON, S. - 2019 SEED COLLECTIONS REPORT 2020-01-31
BEA87M0001	BEAUCHAMP, R. - MAP OF DEINANDRA CONJUGENS 1987-XX-XX
BON88U0001	BONTADELLI, P. - MEMO REGARDING ROBINHOOD RIDGE DEIR (SAN DIEGO CO.); HEMIZONIA CONJUGENS, ERYNGIUM ARISTULATUM VAR. PARISHII, FEROCACTUS VIRIDESCENS, VIGUIERA LACINIATA, DUDLEYA VARIEGATA, ET AL. 1988-09-13
CAL01M0002	CALTRANS - MAPS SHOWING SENSITIVE PLANT SPECIES IMPACT FOOTPRINT FOR ROUTE 905, REVISED 2001 2001-06-XX
CLE87U0001	CLEMONS, D. - HEMIZONIA CONJUGENS SURVEYS 1987-05-26
COC88M0001	COCHRANE, S. & E. BAUDER - MAP OF DEINANDRA CONJUGENS 1988-08-26
CPR19U0002	CALIFORNIA PLANT RESCUE - 2019 SEED BANK DATA FOR THE CALIFORNIA PLANT RESCUE PROJECT 2019-XX-XX
DIC94F0001	DICE, J. & D. HICKSON - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 1994-06-23

FWS04R0001	U.S. FISH & WILDLIFE SERVICE - RECOVERY PLAN FOR DEINANDRA CONJUGENS 2004-12-07
GAN35S0060	GANDER, F. - GANDER #21938 SD #11531 1935-06-12
GRE94F0001	GREER, K. - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 1994-06-16
GUI04S0001	GUILLAMS, M. - GUILLAMS SN SD #157872 2004-07-15
JAM01U0001	JAMES, R. - MAP AND LETTER REGARDING DEINANDRA CONJUGENS ON OTAY MESA 2001-02-27
KED09S0004	KEDZIORA, M. & K. BUSH - KEDZIORA #36 SD #242436, UCR #255274 2009-06-12
MCM95F0002	MCMILLAN, B. - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 1995-06-08
MIL02R0003	MILLER, K. ET AL. (CALIFORNIA DEPARTMENT OF TRANSPORTATION) - 45-DAY REPORT FOR THE CALIFORNIA GNATCATCHER (POLIOPTILA CALIFORNICA CALIFORNICA) FOR THE WALL-HUDSON PROPERTY SOUTH OF STATE ROUTE 905 (SR 905) IN SOUTHERN SAN DIEGO COUNTY, CA 2002-09-05
MIL09F0022	MILLER, B. & J. GAUDETTE (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 2009-05-11
MIL09F0023	MILLER, B. & T. CASS (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 2009-06-04
MUL16S0018	MULLIGAN, M. & M. MULLIGAN - MULLIGAN #3367 SD #00017462 & #268917 2016-05-11
MUL16S0034	MULLIGAN, M. - MULLIGAN #3413 SD #00016080 & #267704 2016-06-10
REI97S0011	REISER, C. - REISER #4 SD #140591 1997-05-07
REI97U0001	REISER, C. - MAP AND NOTES FROM CRAIG REISER REGARDING THREE HEMIZONIA CONJUGENS POPULATIONS 1997-06-02
SCH20U0008	SCHEIDT, V. - OBSERVATIONS OF DEINANDRA CONJUGENS BY VINCE SCHEIDT FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2020-09-11. 2020-09-02
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDG92R0001	CITY OF SAN DIEGO - PORTIONS OF AN ENVIRONMENTAL IMPACT REPORT FOR THE CALIFORNIA TERRACES PRECISE PLAN 1992-XX-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
SDM19D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2019; 2019 RESULTS 2019-XX-XX
SDN17U0001	SAN DIEGO NATURAL HISTORY MUSEUM - COLLECTION INFORMATION FROM THE SAN DIEGO NATURAL HISTORY MUSEUM 2017-01-18
STO17F0022	STOLPE, R. ET AL. (RINCON CONSULTANTS, INC.) - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 2017-06-16
STO17F0023	STOLPE, R. & J. KENDRICK (RINCON CONSULTANTS, INC.) - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 2017-06-09
STO17F0024	STOLPE, R. & J. KENDRICK (RINCON CONSULTANTS, INC.) - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 2017-06-09
STO17F0025	STOLPE, R. & J. KENDRICK (RINCON CONSULTANTS, INC.) - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 2017-06-09
STO17F0026	STOLPE, R. & J. KENDRICK (RINCON CONSULTANTS, INC.) - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 2017-06-09
STO17F0027	STOLPE, R. & L. VILLELA (RINCON CONSULTANTS, INC.) - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 2017-06-23
SWA94U0002	SWARD, L. - MAP OF DEINANDRA CONJUGENS LOCATION AND LETTER FROM LARRY SWARD (SWEETWATER ENVIRONMENTAL). 1994-XX-XX
VEG09F0184	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 2009-06-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04353
EO Index: 16975
Key Quad: Imperial Beach (3211751)
Element Code: PDAST4R070
Occurrence Number: 7
Occurrence Last Updated: 2020-09-21

Scientific Name: *Deinandra conjugens*
Common Name: Otay tarplant

Listing Status: **Federal:** Threatened
State: Endangered
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G1
State: S1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed: 2019-05-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2019-05-22
Occurrence Rank: Fair
Owner/Manager: PVT, CITY OF CHULA VISTA
Trend: Fluctuating
Presence: Presumed Extant

Location:

POGGI CANYON AND TELEGRAPH CANYON, WEST OF WOLF CANYON, CHULA VISTA.

Detailed Location:

EAST OF I-805 AND MOSTLY WEST OF HERITAGE ROAD. MAPPED BY CNDDB AS MANY POLYGONS TO ENCOMPASS VARIOUS SOURCES OF INFORMATION. A 2004 SCHEIDT PHOTO FROM "SLOPES SOUTH OF OLYMPIC PARKWAY & BRANDWINE STREET" ATTRIBUTED HERE.

Ecological:

COASTAL SAGE SCRUB DOMINATED BY ARTEMISIA CALIFORNICA AND ERIOGONUM FASCICULATUM. PLANTS OCCUR WITH OR VERY NEAR POPULATIONS OF VIGUIERA LACINIATA.

Threats:

POPS BETWEEN OLYMPIC PKWY & TELEGRAPH CYN EXTIRPATED BY DEVELOPMENT. NON-NATIVES, ROADS, TRAILS, EROSION, DUMPING.

General:

ACC TO REISER (1991), >10,000 IN POGGI CYN. POP #S FOR PORTIONS: 400-500 IN 1997 & 1999; 104 IN 2000; UNK # IN 1990, 1993, 1996, 1998; ~52,500 IN 2003; ~275,000 IN '04; 685 IN '16, 6920 IN '17; 28 IN '18; 3948 IN '19. INCL OCC #2, 8, 26.

PLSS: T18S, R01W, Sec. 18 (S)
Accuracy: specific area
Area (acres): 261
UTM: Zone-11 N3607976 E498475
Latitude/Longitude: 32.60931 / -117.01625
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

Otay Mesa (3211658), Imperial Beach (3211751), National City (3211761)

Sources:

BEA87M0005	BEAUCHAMP, R.M. - MAP OF DEINANDRA CONJUGENS 1987-XX-XX
CLE87U0001	CLEMONS, D. - HEMIZONIA CONJUGENS SURVEYS 1987-05-26
DIC93F0003	DICE, J. - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 1993-06-XX
DUD02U0004	DUDEK & ASSOCIATES, INC. - CALIFORNIA GNATCATCHER SURVEY FOR THE OTAY RANCH VILLAGE 2 PROJECT, CITY OF CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA 2002-05-30
FWS04R0001	U.S. FISH & WILDLIFE SERVICE - RECOVERY PLAN FOR DEINANDRA CONJUGENS 2004-12-07
GAN36S0084	GANDER, F. - GANDER #2614 SD #16042 1936-06-18
MER00U0006	MERKEL, K. (MERKEL AND ASSOCIATES, INC.) - LETTER AND MAP REGARDING THE CHULA VISTA SPORTS PARK PROPOSED MINOR AMENDMENT AREA 2000-12-28
MUL16S0028	MULLIGAN, M. - MULLIGAN #3394A SD #00016075 & #267699 2016-05-31
MUL16S0029	MULLIGAN, M. - MULLIGAN #3394B SD #00016077 & #267701 2016-05-31
MUL16S0035	MULLIGAN, M. & J. VINJE - MULLIGAN #3421 SD #00017469 & #268924 2016-06-15
REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05
REC99R0003	RECON - OTAY TARPLANT RESTORATION PLAN FOR OTAY RANCH- SPECIFIC PLAN AREA ONE, VILLAGE 1 WEST, NORTH 1999-12-30
REI91R0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1991-04-10
REI97S0010	REISER, C. - REISER SN SD #140471 1997-04-10
SCH04I0009	SCHEIDT, V. - PHOTO OF DEINANDRA CONJUGENS, CALPHOTOS ID #0000 0000 0404 0449 2004-04-12
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
SDM19D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2019; 2019 RESULTS 2019-XX-XX
SDN17U0001	SAN DIEGO NATURAL HISTORY MUSEUM - COLLECTION INFORMATION FROM THE SAN DIEGO NATURAL HISTORY MUSEUM 2017-01-18
WOL36S0001	WOLF, C. - WOLF #7969 DS #390037, RSA #17245 & #0001282, UC #718313, GH #414605, CAS-BOT-BC #130967 1936-06-18
WOO93R0001	WOODWARD-CLYDE & ASSOCIATES - ENVIRONMENTAL IMPACT ASSESSMENT FOR RESERVOIR 458-3 1993-08-26
ZIP90M0001	ZIPPIN, D. - MAPS OF SEVERAL RARE PLANTS IN THE OTAY RANCH AREA, ACCOMPANIES THE BOTANICAL RESOURCES REPORT FOR THE OTAY RANCH PROPERTY 1990-XX-XX
ZIP90R0001	ZIPPIN, D. - BOTANICAL RESOURCES REPORT FOR THE OTAY RANCH PROPERTY 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04366
Key Quad: National City (3211761)
Occurrence Number: 9
EO Index: 19597
Element Code: PDAST4R070
Occurrence Last Updated: 2020-09-11

Scientific Name: *Deinandra conjugens*
Common Name: Otay tarplant

Listing Status: **Federal:** Threatened
State: Endangered

CNDDB Element Ranks: **Global:** G1
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed: 2019-06-04
Last Survey Date: 2019-06-04
Owner/Manager: CITY OF CHULA VISTA, PVT
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Decreasing

Location:
IN RICE CANYON AND CANYON JUST SOUTH OF LONG CANYON, BETWEEN OTAY LAKES ROAD AND EAST H STREET, SE OF BONITA.

Detailed Location:
MAPPED BY CNDDB AS MANY POLYGONS; MOSTLY ACCORDING TO RECON DIGITAL DATA AND SDMMP DIGITAL DATA. A 2004 RECOVERY PLAN NOTES THAT THIS POPULATION IS LARGE AND DENSE BUT THAT IT CONTINUES TO DECLINE DUE TO EDGE EFFECTS FROM DEVELOPMENT.

Ecological:
IN HEAVY CLAY SOIL IN OPEN SPACES ABOVE RIPARIAN HABITAT AND IN OPEN GRASSLAND ON EDGE OF COASTAL SAGE SCRUB. MANY PLANTS IN DISTURBED AREAS. DOMINANT WEED IS CENTAUREA MELITENSIS; EXOTIC GRASSES.

Threats:
NONNATIVES & OHVS, FOOT TRAFFIC (PLANTS ALONG TRAILS), BIKES, DUMPING, EROSION, ROADS. PORTIONS IMPACTED BY DEVELOPMENT.

General:
100+ IN 1987. FENCE ERECTED IN 1988 TO PROTECT PART OF SITE. 50,000 IN 1994. 130,050 IN '03; 33,823 IN '11; 125,620 IN '12; 134,384 IN '13; 975 IN '14; 69,110 IN '16; 157,000 IN '17; 795 IN '18; 95,455 IN '19.

PLSS: T17S, R01W, Sec. 31 (S)
Accuracy: specific area
Area (acres): 98
UTM: Zone-11 N3611795 E498370
Latitude/Longitude: 32.64376 / -117.01738
Elevation (feet): 350

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

BEA87M0004	BEAUCHAMP, R.M. - MAP OF DEINANDRA CONJUGENS 1987-XX-XX
BEN13F0003	BENNETT, A. & M. DODERO (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 2013-05-24
CLE87F0002	CLEMONS, D. - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 1987-05-24
CLE87S0005	CLEMONS, D. & E. JONSSON - CLEMONS #1718 SD #121693 1987-05-25
FWS04R0001	U.S. FISH & WILDLIFE SERVICE - RECOVERY PLAN FOR DEINANDRA CONJUGENS 2004-12-07
HIC94F0005	HICKSON, D. & J. DICE - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 1994-06-24
LOZ89F0001	LOZIER, L. - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 1989-04-12
MOR93U0001	MOREY, S. - RECOVERY WORKSHOP SUMMARY FOR DEINANDRA CONJUGENS 1993-09-14
MUL16S0030	MULLIGAN, M. - MULLIGAN #3396 SD #00017456 & #268911 2016-06-01
REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05
REC14R0001	RECON ENVIRONMENTAL, INC. - YEAR 3 FINAL ANNUAL REPORT FOR THE CENTRAL CITY PRESERVE OTAY TARPLANT AND SAN DIEGO THORNMINT RESTORATION AND ENHANCEMENT PROGRAM 2014-09-30
REI88U0001	REISER, C. - INFORMATION REGARDING DEINANDRA CONJUGENS 1988-10-28
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
SDM19D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2019; 2019 RESULTS 2019-XX-XX
SDN17U0001	SAN DIEGO NATURAL HISTORY MUSEUM - COLLECTION INFORMATION FROM THE SAN DIEGO NATURAL HISTORY MUSEUM 2017-01-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17902
Key Quad: Otay Mesa (3211658)
Occurrence Number: 12
EO Index: 15639
Element Code: PDAST4R070
Occurrence Last Updated: 2020-09-11

Scientific Name: *Deinandra conjugens*
Common Name: Otay tarplant

Listing Status: **Federal:** Threatened
State: Endangered
CNDDB Element Ranks: **Global:** G1
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed: 2018-05-31
Last Survey Date: 2018-05-31
Owner/Manager: PVT, CITY OF CHULA VISTA, ETC
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:
BETWEEN CHESTER GRADE AND JOHNSON CANYON, JUST SOUTH OF THE OTAY RIVER AND NORTH OF BROWN FIELD, OTAY VALLEY.

Detailed Location:
MAPPED BY CNDDB AS MANY POLYGONS BASED ON MULTIPLE SOURCES OF INFORMATION FROM 1979 THROUGH 2018.

Ecological:
HEMIZONIA CONJUGENS OCCURS WITH SEVERAL OTHER RARE PLANTS, INCLUDING VIGUIERA LACINIATA, FEROCACTUS VIRIDESCENS, AND DUDLEYA VARIEGATA.

Threats:
DEVELOPMENT IS A THREAT TO THIS AREA. NON-NATIVE WEEDS, ACCESS TRAIL OHV ARE ALSO THREATS.

General:
UNKNOWN NUMBER OF PLANTS SEEN ACROSS SITE IN 1990. OBSERVED IN 6 SOUTHERNMOST POLYGONS (SOUTH OF POGO RD) IN 1991. POP #S FOR PORTIONS OF SITE: SEEN IN 1998, 2006, 2009; 3639 IN EAST HALF OF SITE IN 2015; SEEN IN 2016; 5 IN 2018.

PLSS: T18S, R01W, Sec. 21, S (S)
Accuracy: specific area
Area (acres): 220
UTM: Zone-11 N3605191 E501676
Latitude/Longitude: 32.58418 / -116.98214
Elevation (feet): 350

County Summary:
San Diego

Quad Summary:
Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

ACE00R0001	U.S. ARMY CORPS OF ENGINEERS - FINAL REVISED ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED BORDER PARTROL SAN DIEGO SECTOR SUPPORT FACILITIES AT BROWN FIELD, SAN DIEGO, CALIFORNIA 2000-11-XX
CAS79F0001	CASS, T. - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 1979-10-10
CAS79S0030	CASS, T. - CASS #357 SD #132907 1979-10-10
ELV01S0003	ELVIN, M. - ELVIN #1693X UCR #264096 2001-06-14
FWS04R0001	U.S. FISH & WILDLIFE SERVICE - RECOVERY PLAN FOR DEINANDRA CONJUGENS 2004-12-07
HEL98R0006	HELIX ENVIRONMENTAL PLANNING, INC. - 1998 ANNUAL REPORT, US FISH AND WILDLIFE SERVICE PROTOCOL LEVEL PRESENCE/ABSENCE SURVEYS FOR THE QUINO CHECKERSPOT BUTTERFLY (EUPHYDRYAS EDITHA QUINO), PREPARED FOR SANDACC 1998-09-09
MAR20U0001	MARTIN, J. - OBSERVATIONS OF DEINANDRA CONJUGENS BY JOHN MARTIN FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2020-09-11. 2020-06-26
REC15D0003	RECON ENVIRONMENTAL, INC. - CNDDB AND SANBIOS DATA SUBMITTAL FOR OTAY RANCH 2015-XX-XX
SCH20U0008	SCHEIDT, V. - OBSERVATIONS OF DEINANDRA CONJUGENS BY VINCE SCHEIDT FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2020-09-11. 2020-09-02
SMI18D0002	SMISEK, A. ET AL. (RECON ENVIRONMENTAL, INC.) - SHAPEFILES OF PLANT DETECTIONS FOR THE 2018 OTAY PRESERVE ANNUAL REPORT, 2018 2018-XX-XX
ZIP90M0001	ZIPPIN, D. - MAPS OF SEVERAL RARE PLANTS IN THE OTAY RANCH AREA, ACCOMPANIES THE BOTANICAL RESOURCES REPORT FOR THE OTAY RANCH PROPERTY 1990-XX-XX
ZIP90R0001	ZIPPIN, D. - BOTANICAL RESOURCES REPORT FOR THE OTAY RANCH PROPERTY 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17905
EO Index: 10050
Key Quad: Imperial Beach (3211751)
Element Code: PDAST4R070
Occurrence Number: 16
Occurrence Last Updated: 2013-02-12

Scientific Name: *Deinandra conjugens*
Common Name: Otay tarplant

Listing Status: **Federal:** Threatened
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed: 1990-06-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1990-06-XX
Occurrence Rank: Unknown
Owner/Manager: PVT-BALDWIN VISTA ASSOC
Trend: Unknown
Presence: Presumed Extant

Location:
JUST NE OF THE INTERSECTION OF MAIN STREET AND HERITAGE ROAD, CHULA VISTA.

Detailed Location:

Ecological:
ALONG DRAINAGE.

Threats:
DEVELOPMENT THREATENS. WEED INVASION MAY ALSO BE A THREAT (USFWS 2004).

General:
OCCURRENCE BASED ON A MAP FROM 1990. MORE RECENT INFORMATION IS NEEDED REGARDING THIS OCCURRENCE.

PLSS: T18S, R01W, Sec. 20, NE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3606258 E499680
Latitude/Longitude: 32.59381 / -117.00340
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

FWS04R0001	U.S. FISH & WILDLIFE SERVICE - RECOVERY PLAN FOR DEINANDRA CONJUGENS 2004-12-07
ZIP90M0001	ZIPPIN, D. - MAPS OF SEVERAL RARE PLANTS IN THE OTAY RANCH AREA, ACCOMPANIES THE BOTANICAL RESOURCES REPORT FOR THE OTAY RANCH PROPERTY 1990-XX-XX
ZIP90R0001	ZIPPIN, D. - BOTANICAL RESOURCES REPORT FOR THE OTAY RANCH PROPERTY 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 24867
EO Index: 6781
Key Quad: National City (3211761)
Element Code: PDAST4R070
Occurrence Number: 24
Occurrence Last Updated: 2020-09-16

Scientific Name: *Deinandra conjugens*
Common Name: Otay tarplant

Listing Status: **Federal:** Threatened
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed: 2017-07-13
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2017-07-13
Occurrence Rank: Poor
Owner/Manager: CALTRANS, PVT, SDG COUNTY
Trend: Decreasing
Presence: Presumed Extant

Location:

BOTH SIDES OF STATE ROUTE 54 FROM JUST WEST OF BRIARWOOD EAST TO SWEETWATER RESERVOIR, VICINITY OF SWEETWATER VALLEY.

Detailed Location:

MAPPED BY CNDDB AS 7 POLYGONS TO ENCOMPASS MULTIPLE SOURCES OF INFORMATION. AN 1895 STOKES COLLECTION FROM "NEAR SWEETWATER DAM" IS ALSO ATTRIBUTED TO THIS SITE.

Ecological:

OPEN, HIGHLY DISTURBED FIELD IN CLAY SOIL. ASSOCIATED WITH HEMIZONIA FASCICULATA, AVENA SP., AND CENTAUREA SP.

Threats:

LARGE PORTIONS OF THIS POPULATION EXTIRPATED DUE TO HIGHWAY CONSTRUCTION AND DEVELOPMENT.

General:

IN 1992, ~4000 PLANTS IN W-MOST POLYGON AND 500 PLANTS IN SECOND W-MOST POLYGON. MAP DETAIL IS THE ONLY SOURCE OF INFO FOR MANY POLYGONS; NEED ADDITIONAL INFORMATION. OBSERVED IN NE POLYGON IN 2017. INCLUDES FORMER OCCURRENCE #25.

PLSS: T17S, R01W, Sec. 18, S (S)
Accuracy: specific area
Area (acres): 59
UTM: Zone-11 N3616646 E498108
Latitude/Longitude: 32.68751 / -117.02018
Elevation (feet): 250

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

CPR19U0001	CALIFORNIA PLANT RESCUE - SEED BANK DATA FOR THE CALIFORNIA PLANT RESCUE PROJECT 2019-07-24
DIC92S0001	DICE, J. & K. MARSDEN - DICE #5-8-92A SD #136250 1992-08-05
DIC92S0002	DICE, J. & K. MARSDEN - DICE #5-8-92B SD #136251 1992-08-05
DIC92S0003	DICE, J. & K. MARSDEN - DICE #5-8-92E SD #136249 1992-08-05
DIC92S0004	DICE, J. & K. MARSDEN - DICE #5-8-92F SD #136246 1992-08-11
DIC92U0001	DICE, J. - RECORD OF CONVERSATION WITH D. STEECK INCLUDING FAXED MAP OF STATE ROUTE 54 INTERCHANGE SITE 1992-08-25
FWS04R0001	U.S. FISH & WILDLIFE SERVICE - RECOVERY PLAN FOR DEINANDRA CONJUGENS 2004-12-07
MAR92S0002	MARSDEN, K. - MARSDEN SN SD #134170, RSA #597763 & #0008451 1992-07-07
MAR92S0003	MARSDEN, K. - MARSDEN SN SD #134171 1992-07-07
NOL03S0003	NOLL, R. - NOLL SN UCR #134717 2003-06-30
NOL03S0004	NOLL, R. - NOLL #1 UC #1790103, SD #158335 & #158336 2003-07-16
REC95R0002	RECON - ADDENDUM, BIOLOGICAL RESOURCES TECHNICAL REPORT FOR STATE ROUTE 125 SOUTH, CITIZENS ADVISORY COMMITTEE VARIATION ALTERNATIVE 1995-06-21
SCH20U0008	SCHEIDT, V. - OBSERVATIONS OF DEINANDRA CONJUGENS BY VINCE SCHEIDT FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2020-09-11. 2020-09-02
STO95S0016	STOKES, S. - STOKES SN DS #3608, CAS-BOT-BC #130968 1895-06-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	88153	**EO Index:**	88821
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAST4R070
Occurrence Number:	43	**Occurrence Last Updated:**	2021-01-12

Scientific Name: *Deinandra conjugens*

Common Name: Otay tarplant

Listing Status: **Federal:** Threatened

State: Endangered

Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G1

State: S1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed:	2020-06-08	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2020-06-08	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

JUST EAST OF BEYER SCHOOL AND SOUTH OF MOODY CANYON, WEST OF OTAY MESA, SAN YSIDRO.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS WITHIN BEYER PARK ACCORDING TO RECON DIGITAL DATA FOR THE BEYER PARK PROJECT AND A MAP IN A 2004 USFWS RECOVERY PLAN. IN THE SE 1/4 OF THE SE 1/4 OF SECTION 36.

Ecological:

POP SCATTERED ALONG NORTH-FACING HILLSIDE IN NON-NATIVE GRASSLAND AND CSS HABITATS AMONG NATIVE AND NON-NATIVE FORBS AND GRASSES. APPEARS TO FOLLOW SURFACE SOIL PATTERNS AS IT DOES NOT OCCUR IN ADJACENT AREAS WITH DIFFERING SOIL TYPES.

Threats:

PROPOSED DEVELOPMENT, NON-NATIVE FORBS AND GRASSES.

General:

NORTHERN POLYGON: DEINANDRA CONJUGENS DETECTED DURING 1996 SURVEYS, 5 MAIN POPULATIONS OF FEWER THAN 40 INDIVIDUALS EACH OBSERVED IN 1998, 1 IN 2016, 2721 IN 2017, 1000S IN 2020. SOUTH POLYGON: ONLY SOURCE OF INFO IS MAP DETAIL.

PLSS:	T18S, R02W, Sec. 36, SE (S)	**Accuracy:**	specific area	**Area (acres):**	12
UTM:	Zone-11 N3602231 E496737	**Latitude/Longitude:**	32.55748 / -117.03475	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BOH17D0007	BOHAC, S. (RECON ENVIRONMENTAL, INC.) - SHAPEFILES FOR SPECIES DETECTIONS ASSOCIATED WITH THE BEYER PARK BIOLOGICAL REPORT, 2017 2017-XX-XX
FWS04R0001	U.S. FISH & WILDLIFE SERVICE - RECOVERY PLAN FOR DEINANDRA CONJUGENS 2004-12-07
REC98R0002	RECON - BIOLOGICAL TECHNICAL REPORT FOR THE BEYER HILLS PROJECT 1998-08-24
SMI20F0020	SMISEK, A. & J. SUNDBERG (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 2020-06-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	88154	**EO Index:**	88822
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAST4R070
Occurrence Number:	44	**Occurrence Last Updated:**	2020-10-01

Scientific Name: *Deinandra conjugens*

Common Name: Otay tarplant

Listing Status: **Federal:** Threatened

State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed:	2019-06-04	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2019-06-04	**Occurrence Rank:**	Unknown
Owner/Manager:	SDG COUNTY, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BOTH SIDES OF OTAY MESA ROAD, APPROXIMATELY 0.6 AIR MILE SE OF THE JUNCTION OF I-805 AND CA-905, SAN YSIDRO.

Detailed Location:

MAPPED AS 2 POLYGONS ACCORDING TO A 2004 USFWS MAP AND SDMMP DIGITAL DATA (FURBY-NORTH AND CAL TERRACES PROPERTY). ADDITIONAL SMALL POPULATIONS MAY OCCUR TO THE WEST AND EAST OF WESTERN POLYGON ACCORDING TO SDMMP.

Ecological:

COASTAL SAGE SCRUB WITH SIMMONDSIA CHILENSIS, AMBROSIA CHENOPODIFOLIA, BROMUS RUBENS, STIPA CERNUA, AND CENTAURIA MELITENSIS. CLAY CRACKED SOILS. PLANTS ON THE EDGE OF SITE APPEAR TO BE HYBRIDIZING WITH DEINANDRA FASCICULATA.

Threats:

SITE SURROUNDED BY DEVELOPMENT & ROADS. ILLEGAL HIKING & BIKING, NON-NATIVES, DUMPING, EROSION, ALTERED HYDRO, TRAILS.

General:

E POLYGON: MAIN SOURCE OF INFO IS 2004 USFWS RECOVERY PLAN FOR D. CONJUGENS; REPORT NOTES 1.3 MIL PLANTS "ON SW EDGE OF OTAY MESA (W OF MOODY CYN)" IN 2003, 350 IN 2016, 330 IN 2019. W POLY: 64 IN 2016, 700 IN 2017, 5 IN 2018, 2000 IN 2019.

PLSS:	T18S, R01W, Sec. 31, NW (S)	**Accuracy:**	specific area	**Area (acres):**	33
UTM:	Zone-11 N3603238 E497445	**Latitude/Longitude:**	32.56656 / -117.02722	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

FWS04R0001	U.S. FISH & WILDLIFE SERVICE - RECOVERY PLAN FOR DEINANDRA CONJUGENS 2004-12-07
MUL16S0017	MULLIGAN, M. & M. MULLIGAN - MULLIGAN #3365 SD #00017459 & #268914 2016-05-11
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
SDM19D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2019; 2019 RESULTS 2019-XX-XX
SDN17U0001	SAN DIEGO NATURAL HISTORY MUSEUM - COLLECTION INFORMATION FROM THE SAN DIEGO NATURAL HISTORY MUSEUM 2017-01-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 88156
Key Quad: Imperial Beach (3211751)
Occurrence Number: 45
EO Index: 88823
Element Code: PDAST4R070
Occurrence Last Updated: 2017-08-22

Scientific Name: *Deinandra conjugens*
Common Name: Otay tarplant

Listing Status: **Federal:** Threatened
State: Endangered
CNDDB Element Ranks: **Global:** G1
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed: 2017-06-19
Last Survey Date: 2017-06-19
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:
APPROXIMATELY 0.4 AND 0.7 AIR MILE ENE OF THE INTERSTATE 805/INTERSTATE 905 JUNCTION, WEST END OF OTAY MESA, SAN YSIDRO.

Detailed Location:
RIVIERA DEL SOL DEVELOPMENT. MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO A 2000 REC CONSULTANTS MAP, 2009 VEGCAMP COORDINATES, & 2017 STOLPE COORDINATES. IN THE SE 1/4 OF SE 1/4 OF SEC 25 AND WEST HALF OF SW 1/4 OF SEC 30.

Ecological:
NON-NATIVE GRASSLAND. WESTERN POPULATION IS ALONG BASE OF A PROMINENT KNOLL. ASSOCIATES INCLUDE RHUS INTEGRIFOLIA, SIMMONDSIA CHINENSIS, BROMUS RUBENS, ENCELIA CALIFORNICA, ARTEMISIA CALIFORNICA, CENTAUREA MELITENSIS, ETC.

Threats:
GRADING OF DEL SOL BOULEVARD. EASTERN POLYGON NEAR A HIKING/FOOT TRAIL.

General:
WESTERN POLYGON HAD APPROXIMATELY 256 PLANTS IN 1998; PLANTS TO BE MOVED TO JUST EAST AND NORTH OF SITE SO THEY ARE WITHIN OTAY VALLEY REGIONAL PARK. EASTERN POLYGON: OBSERVED DURING VEGETATION SURVEYS IN 2009, HUNDREDS IN 2017.

PLSS: T18S, R01W, Sec. 30, SW (S)
Accuracy: specific area
Area (acres): 11
UTM: Zone-11 N3603890 E497148
Latitude/Longitude: 32.57245 / -117.03038
Elevation (feet): 400

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

REC00R0005	REC CONSULTANTS, INC. - OTAY TARPLANT (HEMIZONIA CONJUGENS) BIOLOGICAL MITIGATION PLAN FOR THE RIVIERA DEL SOL PROJECT, LDR NO. 98-0762, SAN DIEGO, CALIFORNIA 2000-02-XX
STO17F0020	STOLPE, R. ET AL. (RINCON CONSULTANTS, INC.) - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 2017-06-19
VEG09F0185	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS 2009-06-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 88159
Key Quad: Jamul Mountains (3211668)
Occurrence Number: 48
EO Index: 88826
Element Code: PDAST4R070
Occurrence Last Updated: 2013-02-08

Scientific Name: *Deinandra conjugens*
Common Name: Otay tarplant

Listing Status: **Federal:** Threatened
State: Endangered
CNDDB Element Ranks: **Global:** G1
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed: 2003-XX-XX
Last Survey Date: 2003-XX-XX
Owner/Manager: CITY OF CHULA VISTA
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
UPPER PORTIONS OF LONG CANYON BETWEEN THE EAST END OF ACACIA AVE AND CORRAL CANYON ROAD, WITHIN THE CITY OF BONITA.

Detailed Location:
MAPPED BY CNDDB AS 6 POLYGONS ACCORDING TO 2004 RECON DIGITAL DATA.

Ecological:

Threats:

General:
OBSERVED IN 2003; NO POPULATION ESTIMATE GIVEN.

PLSS: T17S, R01W, Sec. 32, NE (S)
Accuracy: specific area
Area (acres): 9
UTM: Zone-11 N3612869 E500047
Latitude/Longitude: 32.65344 / -116.99948
Elevation (feet): 350

County Summary:
San Diego

Quad Summary:
Jamul Mountains (3211668), National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	88160	**EO Index:**	88827
Key Quad:	National City (3211761)	**Element Code:**	PDAST4R070
Occurrence Number:	49	**Occurrence Last Updated:**	2020-09-15

Scientific Name: *Deinandra conjugens*

Common Name: Otay tarplant

Listing Status: **Federal:** Threatened

State: Endangered

Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G1

State: S1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed:	2019-05-14	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2019-05-14	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH OF LONG CYN; NORTH OF THE WEST END OF COUNTRY VISTAS LANE AND SOUTH OF HORSE RIDGE WAY, WITHIN THE CITY OF BONITA.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO 2004 RECON DIGITAL DATA AND SDMMP DIGITAL DATA.

Ecological:

LARGE OPENING IN COASTAL SAGE SCRUB DOMINATED BY CENTAUREA MELETENSIS, APIASTRUM ANGUSTIFOLIUM, HARPAGONELLA PALMERI AND CONVOLVULUS SIMULANS. CRACKED SILTY CLAY LOAM.

Threats:

NON-NATIVES, DUMPING, EROSION, TRAIL USE, VEG CLEARING. BMX BIKE TRACK PRESENT.

General:

30,000 PLANTS OBSERVED IN 2003. SW POLYGON: 35,000 IN 2016; 60,750 IN 2017; 0 IN 2018; 978,910 IN 2019.

PLSS:	T17S, R01W, Sec. 29, W (S)	**Accuracy:**	specific area	**Area (acres):**	11
UTM:	Zone-11 N3613974 E498955	**Latitude/Longitude:**	32.66342 / -117.01115	**Elevation (feet):**	350

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

MUL16S0031	MULLIGAN, M. - MULLIGAN #3397 RSA #0172992 & #882349 2016-06-01
REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
SDM19D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2019; 2019 RESULTS 2019-XX-XX
SDN17U0001	SAN DIEGO NATURAL HISTORY MUSEUM - COLLECTION INFORMATION FROM THE SAN DIEGO NATURAL HISTORY MUSEUM 2017-01-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 88161
EO Index: 88828
Key Quad: National City (3211761)
Element Code: PDAST4R070
Occurrence Number: 50
Occurrence Last Updated: 2017-08-22

Scientific Name: *Deinandra conjugens*
Common Name: Otay tarplant

Listing Status: **Federal:** Threatened
State: Endangered

CNDDB Element Ranks: **Global:** G1
State: S1

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed: 2014-05-XX
Occurrence Type: Natural/Native occurrence

Last Survey Date: 2014-05-XX
Occurrence Rank: Unknown

Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown

Presence: Presumed Extant

Location:

JUST NORTH OF THE JUNCTION OF RANCHO DEL REY PARKWAY AND TERRA NOVA DRIVE, CHULA VISTA.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO 2004 RECON DIGITAL DATA AND A 2014 RECON MAP. MOSTLY IN THE NE 1/4 OF THE SE 1/4 OF SECTION 36. OTAY TARPLANT SEED WAS COLLECTED AND IMMEDIATELY DISPERSED INTO OPEN AREAS IN AUGUST 2013 (EO #9 AND #50).

Ecological:

Threats:

POSSIBLY THREATENED BY WEEDS; AREA IS RECEIVING WEED TREATMENT.

General:

60,000+ PLANTS OBSERVED IN 2003. 7,107 PLANTS OBSERVED IN 2011. 11,930 PLANTS OBSERVED IN 2012. 19,817 PLANTS OBSERVED IN 2013. 782 PLANTS OBSERVED IN 2014.

PLSS: T17S, R02W, Sec. 36, SE (S)
Accuracy: specific area
Area (acres): 10

UTM: Zone-11 N3612219 E496894
Latitude/Longitude: 32.64758 / -117.03312
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05
REC14R0001	RECON ENVIRONMENTAL, INC. - YEAR 3 FINAL ANNUAL REPORT FOR THE CENTRAL CITY PRESERVE OTAY TARPLANT AND SAN DIEGO THORNMINT RESTORATION AND ENHANCEMENT PROGRAM 2014-09-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 88163
EO Index: 88829
Key Quad: National City (3211761)
Element Code: PDAST4R070
Occurrence Number: 51
Occurrence Last Updated: 2013-02-08

Scientific Name: *Deinandra conjugens*
Common Name: Otay tarplant

Listing Status: **Federal:** Threatened
State: Endangered

CNDDB Element Ranks: **Global:** G1
State: S1

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed: 19XX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 19XX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:

JUST WEST OF SWEETWATER RESERVOIR, APPROXIMATELY 0.4 AIR MILE NNE OF JUNCTION OF CONDUIT ROAD AND SAN MIGUEL RD, BONITA.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO A MAP IN A 1995 RECON REPORT.

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A MAP IN A 1995 RECON REPORT; SITE OBSERVED PRIOR TO 1995.

PLSS: T17S, R01W, Sec. 20, N (S)
Accuracy: specific area
Area (acres): 10
UTM: Zone-11 N3615943 E499494
Latitude/Longitude: 32.68117 / -117.00538
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

REC95R0002 RECON - ADDENDUM, BIOLOGICAL RESOURCES TECHNICAL REPORT FOR STATE ROUTE 125 SOUTH, CITIZENS ADVISORY COMMITTEE VARIATION ALTERNATIVE 1995-06-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	88164	**EO Index:**	88831
Key Quad:	National City (3211761)	**Element Code:**	PDAST4R070
Occurrence Number:	52	**Occurrence Last Updated:**	2020-09-15

Scientific Name: *Deinandra conjugens*

Common Name: Otay tarplant

Listing Status: **Federal:** Threatened

State: Endangered

Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G1

State: S1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed:	2019-06-04	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2019-06-04	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

PARADISE HILLS COMMUNITY PARK, BETWEEN PARADISE VALLEY ROAD AND BOUGAINVILLE ROAD, EAST OF NATIONAL CITY.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO 2008 CITY OF SAN DIEGO MSCP DATA AND SDMMP DIGITAL DATA. SOME PLANTS AT THIS LOCATION APPEAR INTERMEDIATE WITH DEINANDRA FASCICULATA.

Ecological:

OPENING IN COASTAL SAGE SCRUB WITH SISYRINCHIUM BELLUM AND ERIOGONUM FASCICULATUM. NORTH-FACING SLOPE.

Threats:

PROTECTED AS OPEN SPACE BUT SURROUNDED BY DEVELOPMENT; MAY BE INDIRECTLY IMPACTED BY DEVELOPMENT. NON-NATIVES.

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN NE POLYGON IN 2001. SW POLYGON: ABOUT 200 PLANTS OBSERVED IN 2016, 24 PLANTS IN 2018, 1900 PLANTS IN 2019.

PLSS:	T17S, R02W, Sec. 14, SE (S)	**Accuracy:**	specific area	**Area (acres):**	2
UTM:	Zone-11 N3616650 E494937	**Latitude/Longitude:**	32.68754 / -117.05401	**Elevation (feet):**	280

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

FWS04R0001	U.S. FISH & WILDLIFE SERVICE - RECOVERY PLAN FOR DEINANDRA CONJUGENS 2004-12-07
MUL16S0032	MULLIGAN, M. & W. SCHMIDTMANN - MULLIGAN #3398 SD #00017467 & #268922 2016-06-03
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
SDM19D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2019; 2019 RESULTS 2019-XX-XX
SDN17U0001	SAN DIEGO NATURAL HISTORY MUSEUM - COLLECTION INFORMATION FROM THE SAN DIEGO NATURAL HISTORY MUSEUM 2017-01-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 88165
Key Quad: National City (3211761)
Occurrence Number: 53
EO Index: 88832
Element Code: PDAST4R070
Occurrence Last Updated: 2013-02-08

Scientific Name: *Deinandra conjugens*
Common Name: Otay tarplant

Listing Status: **Federal:** Threatened
State: Endangered
CNDDB Element Ranks: **Global:** G1
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed: 2001-XX-XX
Last Survey Date: 2001-XX-XX
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
VALENCIA CANYON OPEN SPACE, APPROXIMATELY 0.2 AIR MILE SSE OF JUNCTION OF IMPERIAL AVE AND VALENCIA PARKWAY, SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO 2008 CITY OF SAN DIEGO MSCP DATA.

Ecological:
NATIVE AND NON-NATIVE ANNUAL GRASSLAND SURROUNDED BY COASTAL SAGE SCRUB.

Threats:
POPULATION PROTECTED AS OPEN SPACE BUT COMPLETELY SURROUNDED BY DEVELOPMENT; MAY BE INDIRECTLY IMPACTED BY DEVELOPMENT.

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 2001.

PLSS: T17S, R02W, Sec. 10, SE (S)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3618692 E493315
Latitude/Longitude: 32.70595 / -117.07131
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

FWS04R0001	U.S. FISH & WILDLIFE SERVICE - RECOVERY PLAN FOR DEINANDRA CONJUGENS 2004-12-07
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B6178
Key Quad: Imperial Beach (3211751)
Occurrence Number: 59

EO Index: 119224
Element Code: PDAST4R070
Occurrence Last Updated: 2020-09-16

Scientific Name: *Deinandra conjugens*
Common Name: Otay tarplant

Listing Status: **Federal:** Threatened
State: Endangered

CNDDB Element Ranks: **Global:** G1
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed: 2020-09-02
Last Survey Date: 2020-09-02
Owner/Manager: PVT
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
EAST SIDE OF BRANDYWINE AVE, APPROXIMATELY 0.3 AIR MILE NNE OF INTERSECTION WITH OTAY VALLEY RD, CHULA VISTA.

Detailed Location:
MAPPED AS 3 POLYGONS ACCORDING TO SCHEIDT COORDINATES ON INATURALIST, IN THE SOUTH 1/2 OF THE SW 1/4 OF SECTION 18.

Ecological:

Threats:

General:
OBSERVED AT THIS SITE IN 2005, 2013, 2016, AND 2020.

PLSS: T18S, R01W, Sec. 18, SW (S)
UTM: Zone-11 N3606847 E497363

Accuracy: specific area
Latitude/Longitude: 32.59912 / -117.0281

Area (acres): 3
Elevation (feet): 220

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

SCH20U0008 SCHEIDT, V. - OBSERVATIONS OF DEINANDRA CONJUGENS BY VINCE SCHEIDT FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2020-09-11. 2020-09-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B6179	**EO Index:**	119225
Key Quad:	National City (3211761)	**Element Code:**	PDAST4R070
Occurrence Number:	60	**Occurrence Last Updated:**	2020-09-16

Scientific Name: *Deinandra conjugens*

Common Name: Otay tarplant

Listing Status: **Federal:** Threatened
State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

COASTAL PLAINS, MESAS, AND RIVER BOTTOMS; OFTEN IN OPEN, DISTURBED AREAS; CLAY SOILS. 60-275 M.

Last Date Observed:	2019-05-14	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2019-05-14	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

PARADISE GARDENS; JUST WEST OF S WOODMAN ST BETWEEN PLAZA BLVD AND BULLOCK DR, PARADISE CANYON PARK.

Detailed Location:

MAPPED ACCORDING SDMMP DIGITAL DATA, IN THE SOUTH 1/2 OF THE NE 1/4 OF SECTION 14.

Ecological:

RHUS INTEGRIFOLIA ALLIANCE/RHUS INTEGRIFOLIA ASSOCIATION. HERBACEOUS LAYER IS BROMUS (DIANDRUS/HORDEACEUS)-BRACHYPODIUM DISTACHYON SEMI-NATURAL STANDS/BRACHYPODIUM DISTACHYON SEMI-NATURAL STAND TYPE.

Threats:

NON-NATIVES.

General:

76 PLANTS OBSERVED IN 2018. 12,444 PLANTS OBSERVED IN 2019.

PLSS:	T17S, R02W, Sec. 14, NE (S)	**Accuracy:**	specific area	**Area (acres):**	9
UTM:	Zone-11 N3617479 E495017	**Latitude/Longitude:**	32.69502 / -117.05316	**Elevation (feet):**	270

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
SDM19D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2019; 2019 RESULTS 2019-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17693
Key Quad: Imperial Beach (3211751)
Occurrence Number: 1
EO Index: 70738
Element Code: PDAST4V0K2
Occurrence Last Updated: 2019-03-29

Scientific Name: *Heterotheca sessiliflora ssp. sessiliflora*
Common Name: beach goldenaster

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4T2T3
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL DUNES, COASTAL SCRUB, CHAPARRAL (COASTAL).

Micro Habitat:
SANDY SITES. 0-5 M.

Last Date Observed: 1923-03-27
Last Survey Date: 1923-03-27
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
IMPERIAL BEACH AND SOUTH SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS A BEST GUESS.

Ecological:
AMONG BACK SIDE OF LOW SAND DUNES.

Threats:
AREA HIGHLY DEVELOPED SINCE COLLECTIONS WERE MADE; POSSIBLY EXTIRPATED.

General:
SITE BASED ON A 1903 CHANDLER COLLECTION FROM "S SAN DIEGO" AND 1923 PEIRSON COLLECTION FROM "IMPERIAL BEACH." POSSIBLY REFERENCING KNOWN OCCURRENCES FURTHER NORTH ON SILVER STRAND.

PLSS: T18S, R02W, Sec. 29 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3604660 E489427
Latitude/Longitude: 32.57934 / -117.11264
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

CHA03S0002 CHANDLER, H. - CHANDLER #4117 DS #118697, CAS-BOT-BC #311154 (ALSO CITED IN SEM96B0001) 1903-10-03

PEI23S0048 PEIRSON, F. - PEIRSON #3368 RSA #0075945 (ALSO CITED IN SEM96B0001) 1923-03-27

SEM96B0001 SEMPLE, J. - A REVISION OF HETEROTHECA SECTION PHYLLOTHECA (NUTT.) HARMS. THE PRAIRIE AND MONTANE GOLDENASTERS OF NORTH AMERICA. UNIVERSITY OF WATERLOO BIOLOGY SERIES, 37. 1996-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 69915
EO Index: 70740
Key Quad: Imperial Beach (3211751)
Element Code: PDAST4V0K2
Occurrence Number: 2
Occurrence Last Updated: 2019-03-27

Scientific Name: *Heterotheca sessiliflora ssp. sessiliflora*
Common Name: beach goldenaster

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G4T2T3
State: S1

General Habitat:
COASTAL DUNES, COASTAL SCRUB, CHAPARRAL (COASTAL).

Micro Habitat:
SANDY SITES. 0-5 M.

Last Date Observed: 2014-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2014-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
LICHTY MESA, EAST OF BOUNDARY MONUMENT 258, JUST NORTH OF THE MEXICAN BORDER.

Detailed Location:
MAPPED BY CNDDB ACC TO 2014 RECON DATA AND COORDINATES FROM 2005 & 2008 COLLECTIONS. BURRASCANO MENTIONS PLANT OCCURS "ON THE FIRST TWO MESAS ALONG THE BORDER IN FROM THE OCEAN." SCHEIDT MENTIONS IT OCCURS ON MANY AREAS OF LICHTY MESA.

Ecological:
SLOPES AND MESA TOP. MARITIME SUCCULENT SCRUB.

Threats:
TRIPLE BORDER FENCE INFRASTRUCTURE, BORDER PATROL VEHICLES.

General:
HUNDREDS IN 2006, SEEN IN 2014. COLLECTIONS FROM "NORTH OF MONUMENT," "NATIONAL MONUMENT," PHOTOS FROM "BORDERFIELD STATE PARK" AND A REFERENCE TO "THE BOUNDARY MONUMENT AT THE MEXICAN BORDER" ALSO ATTRIBUTED TO THIS SITE.

PLSS: T19S, R02W, Sec. 8 (S)
Accuracy: specific area
Area (acres): 7
UTM: Zone-11 N3599795 E488906
Latitude/Longitude: 32.53545 / -117.11814
Elevation (feet): 75

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

BUR04A0001	BURRASCANO, C. - "CNPS SUPPORTS BORDER FENCE CHALLENGE" IN CNPS BULLETIN 34(2) 2004-06-XX
BUR07U0001	BURRASCANO, C. - CNPS RARE PLANT STATUS REVIEW FORUM POSTING FOR HETEROTHECA SESSILIFLORA SSP. SESSILIFLORA 2007-04-26
DFW17D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 5 - COASTAL PLANT DATA FOR REGION 5 OF THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 2017-02-07
HOW35S0015	HOWE, D. - HOWE #296 SD #113211 1935-08-04
JOH28S0005	JOHNSON, E. - JOHNSON #989 RSA #0075937 (ALSO CITED IN SEM96B0001) 1928-06-11
MOR12I0014	MORSE, K. - PHOTOS OF HETEROTHECA SESSILIFLORA SSP. SESSILIFLORA, CALPHOTOS ID: 0000 0000 0215 3548-3565 2012-01-11
REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
ROU05S0002	ROULLARD, P. - ROULLARD #91 SD #180446 2005-10-27
ROU08S0006	ROULLARD, P. - ROULLARD #171 SD #201364 2008-02-29
SCH06I0001	SCHEIDT, V. - PHOTOS OF HETEROTHECA SESSILIFLORA SSP. SESSILIFLORA, CALPHOTOS ID #0000 0000 0406 1510 & #0000 0000 0606 0396 2006-04-14
SCH07R0001	SCHEIDT, V. - THE LICHTY MESA, A BIOLOGICAL RESOURCES SURVEY REPORT AND EVALUATION OF RESOURCE VALUE, APN 663-020-02, SAN DIEGO, CA 2007-08-XX
SEM96B0001	SEMPLE, J. - A REVISION OF HETEROTHECA SECTION PHYLLOTHECA (NUTT.) HARMS. THE PRAIRIE AND MONTANE GOLDENASTERS OF NORTH AMERICA. UNIVERSITY OF WATERLOO BIOLOGY SERIES, 37. 1996-XX-XX
WOL41S0089	WOLF, C. - WOLF #10914 RSA #0075946 (ALSO CITED IN SEM96B0001) 1941-06-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 69916
EO Index: 70741
Key Quad: Imperial Beach (3211751)
Element Code: PDAST4V0K2
Occurrence Number: 3
Occurrence Last Updated: 2007-09-14

Scientific Name: *Heterotheca sessiliflora ssp. sessiliflora*
Common Name: beach goldenaster

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G4T2T3
State: S1

General Habitat:
COASTAL DUNES, COASTAL SCRUB, CHAPARRAL (COASTAL).

Micro Habitat:
SANDY SITES. 0-5 M.

Last Date Observed: 2005-09-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-09-15
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
WEST OF TIJUANA INTERNATIONAL BORDER CROSSING AND EAST OF PLAZA LAS AMERICAS SHOPPING MALL.

Detailed Location:

Ecological:
ABUNDANT IN OPEN, SANDY SOIL IN SYMPATRY WITH HETEROTHECA GRANDIFLORA. HABITAT APPEARS TO BE ISOLATED FRAGMENT OF FORMER TIJUANA RIVER FLOODPLAIN FRINGE.

Threats:

General:
MAIN SOURCE OF INFORMATION IS 2005 SCHEIDT RECORD IN CALPHOTOS. HERRE COLLECTION FROM "TIJUANA RIVER" MENTIONED IN SEMPLE (1996) ALSO ATTIBUTED TO THIS SITE.

PLSS: T19S, R02W, Sec. 01 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3600695 E496632
Latitude/Longitude: 32.54362 / -117.03586
Elevation (feet):

County Summary:
San Diego, Mexico

Quad Summary:
Imperial Beach (3211751)

Sources:

HERNDS0001	HERRE - HERRE SN DS (AS CITED IN SEM96B0001) XXXX-XX-XX
SCH05I0001	SCHEIDT, V. - PHOTOS OF HETEROTHECA SESSILIFLORA SSP. SESSILIFLORA, CALPHOTOS ID #0000 0000 0905 0477 & 0479-0480 2005-09-15
SEM96B0001	SEMPLE, J. - A REVISION OF HETEROTHECA SECTION PHYLLOTHECA (NUTT.) HARMS. THE PRAIRIE AND MONTANE GOLDENASTERS OF NORTH AMERICA. UNIVERSITY OF WATERLOO BIOLOGY SERIES, 37. 1996-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 69918
EO Index: 70742
Key Quad: National City (3211761)
Element Code: PDAST4V0K2
Occurrence Number: 4
Occurrence Last Updated: 2007-09-14

Scientific Name: *Heterotheca sessiliflora ssp. sessiliflora*
Common Name: beach goldenaster

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4T2T3
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL DUNES, COASTAL SCRUB, CHAPARRAL (COASTAL).

Micro Habitat:
SANDY SITES. 0-5 M.

Last Date Observed: 2005-06-04
Last Survey Date: 2005-06-04
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
THE "D" STREET FILL: SWEETWATER MARSH NATIONAL WILDLIFE REFUGE AT SOUTHEAST SAN DIEGO BAY.

Detailed Location:
BETWEEN THE CHULA VISTA NATURE CENTER (CHULA VISTA) AND PORT OF SAN DIEGO MARINE TERMINAL (NATIONAL CITY).

Ecological:
DISTURBED LAND AT EDGE OF SALT MARSH. SAND. ASSOCIATED SPECIES INCLUDE BATIS MARITIMA, LIMONIUM CALIFORNICUM, FRANKENIA PALMERI, FRANKENIA SALINA, TAMARIX SP., BACCHARIS SAROTHROIDES, AND ACACIA CYCLOPS.

Threats:

General:
50 PLANTS SEEN IN 2000. THIS OCCURRENCE IS BASED MAINLY ON A 2004 GREGORY COLLECTION AND A 2000 REISER COLLECTION. COLLECTIONS FROM "CHULA VISTA WILDLIFE REFUGE IN SOUTHEAST SAN DIEGO BAY" AND "CHULA VISTA" ALSO ATTRIBUTED TO THIS SITE.

PLSS: T18S, R02W, Sec. 05 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3611727 E489397
Latitude/Longitude: 32.64309 / -117.11304
Elevation (feet): 3

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

BAR05S0001	BARTH, J. - BARTH #546 SD #169910 2005-06-04
COONDS0001	COOPER - COOPER SN MIN (CITED IN SEM96B0001) XXXX-XX-XX
GRE04S0002	GREGORY, J. - GREGORY #1153 SD #160387 2004-08-21
REI00S0002	REISER, C. - REISER SN SD #173204 2000-08-22
SEM96B0001	SEMPLE, J. - A REVISION OF HETEROTHECA SECTION PHYLLOTHECA (NUTT.) HARMS. THE PRAIRIE AND MONTANE GOLDENASTERS OF NORTH AMERICA. UNIVERSITY OF WATERLOO BIOLOGY SERIES, 37. 1996-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 69922
Key Quad: Point Loma (3211762)
Occurrence Number: 5
EO Index: 70745
Element Code: PDAST4V0K2
Occurrence Last Updated: 2019-03-29

Scientific Name: *Heterotheca sessiliflora ssp. sessiliflora*
Common Name: beach goldenaster

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4T2T3
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL DUNES, COASTAL SCRUB, CHAPARRAL (COASTAL).

Micro Habitat:
SANDY SITES. 0-5 M.

Last Date Observed: 2012-03-10
Last Survey Date: 2012-03-10
Owner/Manager: DPR-SILVER STRAND SB
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:
SILVER STRAND STATE BEACH; EAST SIDE OF CA-75 BETWEEN ATTU AVENUE AND CROWN COVE.

Detailed Location:
MAPPED AS 2 POLYGONS ACCORDING TO 2005 CLARK COORDINATES AND 2012 CNPS DIGITAL DATA. SOUTHERN PORTION OF SITE MAY NOT BE AS EXTENSIVE AS MAPPED; NEED MORE SPECIFIC MAP DETAIL FOR THIS AREA.

Ecological:
BACKDUNES WITH A SWALE OF DRY SAND. VEGETATION MOSTLY OPEN MIX OF LOW SHRUBS AND HERBS. ASSOCIATED WITH ACMISPON PROSTRATUS, NEMACAULIS DENUDATA, CAMISSONIOPSIS CHEIRANTHIFOLIA, AIRA CARYOPHYLLEA, DISTICHLIS SPICATA, ETC.

Threats:
WEEDS.

General:
NORTHERN POLYGON OBSERVED IN 2005. SOUTHERN POLYGON: UNKNOWN NUMBER SEEN IN 2010, 1572 PLANTS OBSERVED IN 2012.

PLSS: T18S, R03W, Sec. 1 (S)
Accuracy: specific area
Area (acres): 11
UTM: Zone-11 N3611213 E486649
Latitude/Longitude: 32.63843 / -117.14234
Elevation (feet): 8

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

BUR07U0001	BURRASCANO, C. - CNPS RARE PLANT STATUS REVIEW FORUM POSTING FOR HETEROTHECA SESSILIFLORA SSP. SESSILIFLORA 2007-04-26
CLA05S0004	CLARK, K. ET AL. - CLARK #12 SD #258052 2005-03-04
CNP12D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
CNP12U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
ROU10S0001	ROULLARD, P. - ROULLARD #274 SD #249425 2010-05-20
SEM06U0001	SEMPLE, J. - E-MAIL TO K. LAZAR REGARDING HETEROTHECA SESSILIFLORA 2006-09-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03758
EO Index: 70748
Key Quad: Point Loma (3211762)
Element Code: PDAST4V0K2
Occurrence Number: 6
Occurrence Last Updated: 2019-04-16

Scientific Name: *Heterotheca sessiliflora ssp. sessiliflora*
Common Name: beach goldenaster

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G4T2T3
State: S1

General Habitat:
COASTAL DUNES, COASTAL SCRUB, CHAPARRAL (COASTAL).

Micro Habitat:
SANDY SITES. 0-5 M.

Last Date Observed: 1924-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1924-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
WEST OF ROCKWELL FIELD AVIATION STATION, NORTH ISLAND.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS.

Ecological:

Threats:

General:
MAIN SOURCE OF INFORMATION IS A 1924 WOODCOCK COLLECTION. A 1919 COLLECTION BY COOPER FROM "CORONADO" IS ALSO ATTRIBUTED TO THIS SITE. NEEDS FIELDWORK.

PLSS: T17S, R03W, Sec. 17 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3618040 E480464
Latitude/Longitude: 32.69992 / -117.20842
Elevation (feet):

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

COO19S0010	COOPER, W. - COOPER #303 JEPS #2486 1919-05-21
SEM96B0001	SEMPLE, J. - A REVISION OF HETEROTHECA SECTION PHYLLOTHECA (NUTT.) HARMS. THE PRAIRIE AND MONTANE GOLDENASTERS OF NORTH AMERICA. UNIVERSITY OF WATERLOO BIOLOGY SERIES, 37. 1996-XX-XX
WOO24S0004	WOODCOCK, F. - WOODCOCK SN SD #5303 (ALSO CITED IN SEM96B0001) 1924-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47531
EO Index: 70750
Key Quad: Point Loma (3211762)
Element Code: PDAST4V0K2
Occurrence Number: 7
Occurrence Last Updated: 2019-03-27

Scientific Name: *Heterotheca sessiliflora ssp. sessiliflora*
Common Name: beach goldenaster

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G4T2T3
State: S1

General Habitat:
COASTAL DUNES, COASTAL SCRUB, CHAPARRAL (COASTAL).

Micro Habitat:
SANDY SITES. 0-5 M.

Last Date Observed: 1906-10-01
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1906-10-01
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:
OCEAN BEACH.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS IN VICINITY OF OCEAN BEACH.

Ecological:

Threats:
AREA IS HIGHLY DEVELOPED AND POPULATION MAY BE EXTIRPATED.

General:
ONLY SOURCE OF INFORMATION IS A 1906 BRANDEGEE COLLECTION. NEEDS FIELDWORK.

PLSS: T16S, R04W, Sec. 36 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3623129 E476802
Latitude/Longitude: 32.74576 / -117.24761
Elevation (feet):

County Summary:
San Diego, Pacific Ocean

Quad Summary:
Point Loma (3211762), La Jolla (3211772)

Sources:
BRA06S0014 BRANDEGEE, K. - BRANDEGEE SN UC #126844 RSA, WIS 1906-10-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03519
EO Index: 70751
Key Quad: La Jolla (3211772)
Element Code: PDAST4V0K2
Occurrence Number: 8
Occurrence Last Updated: 2007-09-14

Scientific Name: *Heterotheca sessiliflora ssp. sessiliflora*
Common Name: beach goldenaster

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G4T2T3
State: S1

General Habitat:
COASTAL DUNES, COASTAL SCRUB, CHAPARRAL (COASTAL).

Micro Habitat:
SANDY SITES. 0-5 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
LA JOLLA.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS IN VICINITY OF LA JOLLA.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION IS A SPENCER COLLECTION MENTIONED IN SEMPLE (1996). NEEDS FIELDWORK.

PLSS: T15S, R04W, Sec. 27 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3633342 E473790
Latitude/Longitude: 32.83782 / -117.28005
Elevation (feet):

County Summary:
San Diego, Pacific Ocean

Quad Summary:
La Jolla (3211772)

Sources:

SEM96B0001	SEMPLE, J. - A REVISION OF HETEROTHECA SECTION PHYLLOTHECA (NUTT.) HARMS. THE PRAIRIE AND MONTANE GOLDENASTERS OF NORTH AMERICA. UNIVERSITY OF WATERLOO BIOLOGY SERIES, 37. 1996-XX-XX
SPENDS0002	SPENCER - SPENCER #10161 NY (AS CITED IN SEM96B0001) XXXX-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 31949
Key Quad: La Jolla (3211772)
Occurrence Number: 9
EO Index: 70752
Element Code: PDAST4V0K2
Occurrence Last Updated: 2019-04-17

Scientific Name: *Heterotheca sessiliflora ssp. sessiliflora*
Common Name: beach goldenaster

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4T2T3
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL DUNES, COASTAL SCRUB, CHAPARRAL (COASTAL).

Micro Habitat:
SANDY SITES. 0-5 M.

Last Date Observed: 1935-09-27
Last Survey Date: 1935-09-27
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
CROWN POINT NEAR PACIFIC BEACH.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS IN VICINITY OF CROWN POINT.

Ecological:
SANDY AREA.

Threats:

General:
SITE BASED ON 1933 BERG COLLECTIONS. VAGUE COLLECTIONS FROM MISSION BAY AND PACIFIC BEACH ARE ALSO ATTRIBUTED TO THIS SITE.

PLSS: T16S, R03W (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3627519 E477859
Latitude/Longitude: 32.78538 / -117.23644
Elevation (feet):

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

BER33S0005	BERG, F. - BERG #2844 SDSU #4601 1933-08-24
BER33S0006	BERG, F. - BERG #1546 SDSU #4607 1933-08-24
GAN35S0082	GANDER, F. - GANDER #251 A1 SD #12209 1935-09-27
PUR35S0021	PURER, E. - PURER #6201 SD #40444 1935-04-01
SEM96B0001	SEMPLE, J. - A REVISION OF HETEROTHECA SECTION PHYLLOTHECA (NUTT.) HARMS. THE PRAIRIE AND MONTANE GOLDENASTERS OF NORTH AMERICA. UNIVERSITY OF WATERLOO BIOLOGY SERIES, 37. 1996-XX-XX
SNY99S0001	SNYDER, M. - SNYDER SN SD #5300 1899-07-18
WOO32S0002	WOODCOCK, F. - WOODCOCK SN SD #5298 (ALSO CITED IN SEM96B0001) 1932-07-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03852
Key Quad: La Jolla (3211772)
Occurrence Number: 10
EO Index: 70753
Element Code: PDAST4V0K2
Occurrence Last Updated: 2019-03-29

Scientific Name: *Heterotheca sessiliflora ssp. sessiliflora*
Common Name: beach goldenaster

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4T2T3
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL DUNES, COASTAL SCRUB, CHAPARRAL (COASTAL).

Micro Habitat:
SANDY SITES. 0-5 M.

Last Date Observed: 1933-10-02
Last Survey Date: 1933-10-02
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
MISSION VALLEY.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS IN VICINITY OF MISSION VALLEY.

Ecological:

Threats:

General:
SITE BASED ON A 1902 BRANDEGEE COLLECTION AND 1933 PURER COLLECTION. NEEDS FIELDWORK.

PLSS: T16S, R03W, Sec. 22 (S)
UTM: Zone-11 N3625202 E483745
Accuracy: 1 mile
Latitude/Longitude: 32.76458 / -117.17354
Area (acres): 0
Elevation (feet): 25

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

BRA02S0025 BRANDEGEE, K. - BRANDEGEE SN UC #485466 1902-06-01

PUR33S0005 PURER, E. - PURER #5580 SD #30674 1933-10-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B2762
Key Quad: Imperial Beach (3211751)
Occurrence Number: 14

EO Index: 114695
Element Code: PDAST4V0K2
Occurrence Last Updated: 2019-03-27

Scientific Name: *Heterotheca sessiliflora ssp. sessiliflora*
Common Name: beach goldenaster

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G4T2T3
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL DUNES, COASTAL SCRUB, CHAPARRAL (COASTAL).

Micro Habitat:
SANDY SITES. 0-5 M.

Last Date Observed: 2017-05-30
Last Survey Date: 2017-05-30
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:
BEYER COMMUNITY PARK, SAN YSIDRO.

Detailed Location:
MAPPED ACCORDING TO 2017 RECON DIGITAL DATA, IN THE SOUTH 1/2 OF THE SE 1/4 OF SECTION 36.

Ecological:

Threats:
POSSIBLY THREATENED BY THE BEYER PARK DEVELOPMENT PROJECT.

General:
20-25 PLANTS OBSERVED IN 2017.

PLSS: T18S, R02W, Sec. 36, SE (S)
UTM: Zone-11 N3602161 E496554

Accuracy: specific area
Latitude/Longitude: 32.55684 / -117.03671

Area (acres): 1
Elevation (feet): 230

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

BOH17D0007 BOHAC, S. (RECON ENVIRONMENTAL, INC.) - SHAPEFILES FOR SPECIES DETECTIONS ASSOCIATED WITH THE BEYER PARK BIOLOGICAL REPORT, 2017 2017-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B2763
Key Quad: Point Loma (3211762)
Occurrence Number: 15
EO Index: 114696
Element Code: PDAST4V0K2
Occurrence Last Updated: 2019-03-27

Scientific Name: *Heterotheca sessiliflora ssp. sessiliflora*
Common Name: beach goldenaster

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4T2T3
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL DUNES, COASTAL SCRUB, CHAPARRAL (COASTAL).

Micro Habitat:
SANDY SITES. 0-5 M.

Last Date Observed: 2005-08-04
Last Survey Date: 2005-08-04
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
POINT LOMA NAZARENE UNIVERSITY CAMPUS (SOUTH END), NEAR SOUTH END OF CLAUSEN (KLASSEN) HALL, POINT LOMA.

Detailed Location:
MAPPED ACCORDING TO 2005 LIGHTNER COORDINATES.

Ecological:
SANDY SLOPE OR DUNE. NATIVE COASTAL CHAPARRAL AND INTRODUCED ACACIA CYCLOPS.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2005 LIGHTNER COLLECTION.

PLSS: T17S, R04W, Sec. 12, NW (S)
UTM: Zone-11 N3619544 E476364
Accuracy: specific area
Latitude/Longitude: 32.71341 / -117.2522
Area (acres): 1
Elevation (feet): 280

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
LIG05S0005 LIGHTNER, J. - LIGHTNER #1051 SD #175907 2005-08-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B2776
EO Index: 114710
Key Quad: Imperial Beach (3211751)
Element Code: PDAST4V0K2
Occurrence Number: 19
Occurrence Last Updated: 2019-03-28

Scientific Name: *Heterotheca sessiliflora ssp. sessiliflora*
Common Name: beach goldenaster

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
CNDDB Element Ranks: **Global:** G4T2T3
State: S1

General Habitat:
COASTAL DUNES, COASTAL SCRUB, CHAPARRAL (COASTAL).

Micro Habitat:
SANDY SITES. 0-5 M.

Last Date Observed: 1987-10-01
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1987-10-01
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:
JUST NORTH OF, AND 0.5 MILE SOUTH OF, ENTRANCE TO SILVER STRAND STATE BEACH.

Detailed Location:
MAPPED AS BEST GUESS ACCORDING TO LOCATION DESCRIPTIONS ON COLLECTION LABELS.

Ecological:
ON SAND FLAT AMONG SAND DUNES.

Threats:
MUCH DEVELOPMENT EAST OF HWY 75 SINCE COLLECTIONS WERE MADE; POSSIBLY EXTIRPATED.

General:
SITE BASED ON A 1961 FULLER COLLECTION FROM "EAST OF HWY 75, 0.5 MI S OF ENTRANCE TO SILVER STRAND STATE PARK" AND 1987 SEMPLE COLLECTION FROM "CA-75, IMPERIAL BEACH AND SILVER STRAND SB, JUST N OF S ENTRANCE TO CA-75."

PLSS: T18S, R03W, Sec. 12 (S)
Accuracy: 2/5 mile
Area (acres): 280
UTM: Zone-11 N3609396 E487175
Latitude/Longitude: 32.62204 / -117.13671
Elevation (feet): 15

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751), Point Loma (3211762)

Sources:

FUL61S0004	FULLER, T. - FULLER #7144 CDA #7947 1961-10-17
SEM87S0004	SEMPLE, J. & J. CHIMIELEWSKI - SEMPLE #8991 UC #1999892 1987-10-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	69197	**EO Index:**	69975
Key Quad:	National City (3211761)	**Element Code:**	PDAST50010
Occurrence Number:	1	**Occurrence Last Updated:**	2016-08-18

Scientific Name: *Ambrosia monogyra*

Common Name: singlewhorl burrobrush

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

Other Lists:

CNDDB Element Ranks: **Global:** G5

State: S2

General Habitat:

CHAPARRAL, SONORAN DESERT SCRUB.

Micro Habitat:

SANDY SOILS. 5-475 M.

Last Date Observed:	1999-12-17	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1999-12-17	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SAN DIEGO URBAN CANYONS, NORTH PARK/GOLDEN HILL, NEAR CEDAR RIDGE PARK AT END OF PENTUCKETT.

Detailed Location:

IN SURROUNDING CANYONS AND STREAMBED WITH WATER ALONG I-15.

Ecological:

WITH YUCCA SCHIDIGERA, ARTEMISIA CALIFORNICA, SALVIA MELLIFERA, ERIOGONUM FASCICULATUM, ADOLPHIA CALIFORNICA.

Threats:

General:

COLLECTED HERE BY REBMAN IN 1999; MENTIONED AS "COMMON." AN 1895 STOKES COLLECTION AND A 1935 GANDER COLLECTION FROM CHOLLAS VALLEY ARE ALSO ATTRIBUTED TO THIS SITE. INCLUDES FORMER OCCURRENCE #2.

PLSS:	T17S, R02W, Sec. 06 (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3620437 E488857	**Latitude/Longitude:**	32.72166 / -117.11890	**Elevation (feet):**	492

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

GAN35S0027	GANDER, F. - GANDER #2521 SD #12201 1935-10-03
REB99S0005	REBMAN, J. - REBMAN #6120 SD #148438, UCR #138084 1999-12-17
STO95S0011	STOKES, S. - STOKES SN DS #4644 1895-08-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	69198	**EO Index:**	69977
Key Quad:	National City (3211761)	**Element Code:**	PDAST50010
Occurrence Number:	3	**Occurrence Last Updated:**	2007-05-08

Scientific Name: *Ambrosia monogyra* **Common Name:** singlewhorl burrobrush

Listing Status: **Federal:** None **Rare Plant Rank:** 2B.2

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G5

State: S2

General Habitat:

CHAPARRAL, SONORAN DESERT SCRUB.

Micro Habitat:

SANDY SOILS. 5-475 M.

Last Date Observed:	1999-11-13	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1999-11-13	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

LOWER SWEETWATER RIVER, DEPT. OF PUBLIC WORKS MITIGATION SITE, ADJACENT TO BONITA ROAD, WEST OF WILLOW STREET.

Detailed Location:

60 ACRE AREA WEST OF WILLOW STREET. EXACT LOCATION UNKNOWN, MAPPED IN THE LOWER SWEETWATER VALLEY WEST OF WILLOW STREET.

Ecological:

WITH EXOTIC TREES SUCH AS SCHINUS MOLLE, PHOENIX CANARIENSIS, MYOPORUM LAETUM, WASHINGTONIA ROBUSTA, FICUS CARIA, TAMARIX SP., ARUNDO DONAX, ETC.

Threats:

General:

COLLECTED HERE BY SILVERMAN IN 1999. FLOWERS WHITE, INCONSPICUOUS. LOCALIZED CONCENTRATED STAND (CA. 30 PLANTS) ON OPEN SANDY TERRACE. GROWING WITH WEEDY AND SEMI-RIPARIAN PLANTS.

PLSS:	T17S, R02W, Sec. 36 (S)	**Accuracy:**	non-specific area	**Area (acres):**	148
UTM:	Zone-11 N3613017 E495446	**Latitude/Longitude:**	32.65477 / -117.04855	**Elevation (feet):**	40

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

SIL99S0001	SILVERMAN, D. - SILVERMAN #424 UCR #112150, RSA #643602, SD #152679, CAS #1200458, SEINET #2047723, DES #55115 1999-11-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 69215
EO Index: 69991
Key Quad: Imperial Beach (3211751)
Element Code: PDAST50010
Occurrence Number: 9
Occurrence Last Updated: 2016-08-17

Scientific Name: *Ambrosia monogyra*
Common Name: singlewhorl burrobrush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists:

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:
CHAPARRAL, SONORAN DESERT SCRUB.

Micro Habitat:
SANDY SOILS. 5-475 M.

Last Date Observed: 1936-09-30
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1936-09-30
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
BED OF OTAY RIVER NEAR PALM CITY.

Detailed Location:

Ecological:
BED OF RIVER.

Threats:

General:
COLLECTED HERE BY GANDER IN 1936. A 1935 GANDER COLLECTION FROM "OTAY RIVER NEAR OTAY" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS: T18S, R02W, Sec. 22 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3605988 E492452
Latitude/Longitude: 32.59135 / -117.08042
Elevation (feet): 475

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

GAN35S0076 GANDER, F. - GANDER #3121 SD #12934 1935-12-05
GAN36S0044 GANDER, F. - GANDER #2928 SD #16432 1936-09-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 69388
EO Index: 70166
Key Quad: Imperial Beach (3211751)
Element Code: PDAST50010
Occurrence Number: 10
Occurrence Last Updated: 2016-08-18

Scientific Name: *Ambrosia monogyra*
Common Name: singlewhorl burrobrush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists:

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:
CHAPARRAL, SONORAN DESERT SCRUB.

Micro Habitat:
SANDY SOILS. 5-475 M.

Last Date Observed: 1976-10-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1976-10-15
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SAN YSIDRO AVENUE JUST NORTH OF BORDER OFF HIGHWAY 5.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB JUST NORTH OF THE US BORDER NEAR SAN YSIDRO AVENUE.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1976 VASEK COLLECTION. NEEDS FIELDWORK.

PLSS: T19S, R01W, Sec. 6 (S)
Accuracy: 2/5 mile
Area (acres): 280
UTM: Zone-11 N3601059 E497198
Latitude/Longitude: 32.5469 / -117.02984
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
VAS76S0002 VASEK, F. - VASEK SN UCR #15308 1976-10-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 69392
EO Index: 70168
Key Quad: Imperial Beach (3211751)
Element Code: PDAST50010
Occurrence Number: 11
Occurrence Last Updated: 2016-08-17

Scientific Name: *Ambrosia monogyra*
Common Name: singlewhorl burrobrush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists:

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:
CHAPARRAL, SONORAN DESERT SCRUB.

Micro Habitat:
SANDY SOILS. 5-475 M.

Last Date Observed: 1936-01-10
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1936-01-10
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
1 MILE WEST OF MONUMENT SCHOOL, SAN DIEGO COUNTY.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB ALONG MONUMENT ROAD 1 MILE WEST OF LOCATION OF MONUMENT SCHOOL.

Ecological:

Threats:

General:
COLLECTED HERE BY GANDER IN 1936. NEEDS FIELDWORK.

PLSS: T19S, R02W, Sec. 05, SE (S)
Accuracy: non-specific area
Area (acres): 22
UTM: Zone-11 N3600729 E490357
Latitude/Longitude: 32.54389 / -117.10269
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
GAN36S0043 GANDER, F. - GANDER #401 SD #13032 1936-01-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	69393	**EO Index:**	70169
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAST50010
Occurrence Number:	12	**Occurrence Last Updated:**	2016-08-23

Scientific Name: *Ambrosia monogyra* **Common Name:** singlewhorl burrobrush

Listing Status: **Federal:** None **Rare Plant Rank:** 2B.2

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G5

State: S2

General Habitat:

CHAPARRAL, SONORAN DESERT SCRUB.

Micro Habitat:

SANDY SOILS. 5-475 M.

Last Date Observed:	2012-10-30	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-10-30	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO, SDG COUNTY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SMUGGLER GULCH ON BOTH SIDES OF MONUMENT ROAD, TIJUANA RIVER VALLEY REGIONAL PARK.

Detailed Location:

MAPPED AS 2 POLYGONS ACCORDING TO 2012 MACGREGOR COORDINATES.

Ecological:

AMONG RUDERAL SPECIES SUCH AS RICINUS COMMUNIS AND NICOTIANA GLAUCA, WITH BACCHARIS SALICIFOLIA AND PHACELIA SP.

Threats:

ROAD/TRAIL MAINTENANCE, WEED MANAGEMENT.

General:

ACCORDING TO SILVERMAN (2000), THE HIGHEST POPULATION OF THIS PLANT IN THE U.S. IS ALONG THE U.S. BORDER IN THE TIJUANA RIVER VALLEY; NO POPULATION SIZE PROVIDED TO CNDDB. 5 PLANTS OBSERVED IN EACH POLYGON IN 2012.

PLSS:	T19S, R02W, Sec. 4, SE (S)	**Accuracy:**	specific area	**Area (acres):**	2
UTM:	Zone-11 N3600562 E491735	**Latitude/Longitude:**	32.54239 / -117.08803	**Elevation (feet):**	50

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

MAC12F0001	MACGREGOR, C. - FIELD SURVEY FORM FOR AMBROSIA MONOGYRA 2012-10-23
MAC12F0002	MACGREGOR, C. - FIELD SURVEY FORM FOR AMBROSIA MONOGYRA 2012-10-30
SAN79S0001	SANDERS, A. - SANDERS #140 UCR #18307 1979-10-13
SIL00U0004	SILVERMAN, D. - EMAIL TO D. TIBOR REGARDING AMBROSIA MONOGYRA 2000-01-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 69487
EO Index: 70174
Key Quad: La Mesa (3211771)
Element Code: PDAST50010
Occurrence Number: 13
Occurrence Last Updated: 2016-08-23

Scientific Name: *Ambrosia monogyra*
Common Name: singlewhorl burrobrush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists:

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:
CHAPARRAL, SONORAN DESERT SCRUB.

Micro Habitat:
SANDY SOILS. 5-475 M.

Last Date Observed: 1965-10-09
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1965-10-09
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
GOAT RANCH MIDWAY OF MURPHY CANYON.

Detailed Location:
EXACT LOCATION UNKNOWN. CNDDB UNABLE TO LOCATE "GOAT RANCH"; MAPPED AS BEST GUESS ALONG THE MIDDLE PORTION OF MURPHY CANYON.

Ecological:
ASSOCIATED WITH BACCHARIS SERGILOIDES.

Threats:

General:
SITE BASED ON A 1937 GANDER COLLECTION. A 1965 ROOS COLLECTION FROM MURPHY CANYON IS ALSO ATTRIBUTED TO THIS SITE.

PLSS: T15S, R02W, Sec. 30 (S)
Accuracy: non-specific area
Area (acres): 135
UTM: Zone-11 N3633140 E488748
Latitude/Longitude: 32.83625 / -117.12023
Elevation (feet):

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

GAN37S0014 GANDER, F. - GANDER #4635 SD #19699 1937-10-14

ROO65S0014 ROOS, J. - ROOS SN UCSB #42206, UCR #23780, RSA #450488 & #659715, CLARK-A #1528-1958, CAS #906097 1965-10-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1519
EO Index: 103104
Key Quad: Imperial Beach (3211751)
Element Code: PDAST50010
Occurrence Number: 22
Occurrence Last Updated: 2016-08-17

Scientific Name: *Ambrosia monogyra*
Common Name: singlewhorl burrobrush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists:

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:
CHAPARRAL, SONORAN DESERT SCRUB.

Micro Habitat:
SANDY SOILS. 5-475 M.

Last Date Observed: 2013-11-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2013-11-07
Occurrence Rank: Fair
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:
NEAR HORSE TRAIL AND PILOT CHANNEL INTERSECTION, ABOUT 0.5 AIR MILE NORTH OF SMUGGLER GULCH, TIJUANA RIVER VALLEY RP.

Detailed Location:
MAPPED ACCORDING TO 2013 STOUT COORDINATES, IN THE NORTH 1/2 OF THE NE 1/4 OF SECTION 4.

Ecological:
DISTURBED HABITAT.

Threats:
ENCROACHMENT BY NON-NATIVE PLANTS SUCH AS CASTOR BEAN AND ARUNDO.

General:
3 PLANTS OBSERVED IN 2013.

PLSS: T19S, R02W, Sec. 4, NE (S)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3601657 E491654
Latitude/Longitude: 32.55227 / -117.08889
Elevation (feet): 25

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
STO13F0003 STOUT, J. (URS CORPORATION) - FIELD SURVEY FORM FOR AMBROSIA MONOGYRA 2013-11-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1520
EO Index: 103105
Key Quad: Imperial Beach (3211751)
Element Code: PDAST50010
Occurrence Number: 23
Occurrence Last Updated: 2016-08-17

Scientific Name: *Ambrosia monogyra*
Common Name: singlewhorl burrobrush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists:

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:
CHAPARRAL, SONORAN DESERT SCRUB.

Micro Habitat:
SANDY SOILS. 5-475 M.

Last Date Observed: 2012-10-30
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-10-30
Occurrence Rank: Fair
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
NORTH OF TIJUANA RIVER PILOT CHANNEL, ABOUT 0.8 AIR MILE NNW OF SMUGGLER GULCH, TIJUANA RIVER VALLEY.

Detailed Location:
MAPPED ACCORDING TO 2012 MACGREGOR COORDINATES, ALONG THE SECTION LINE BETWEEN THE NE 1/4 OF THE NW 1/4 OF SECTION 4 AND THE SE 1/4 OF THE SW 1/4 OF SECTION 33.

Ecological:
GROWING ON BANK ON NORTH SIDE OF TRAIL NEAR RIPARIAN SCRUB.

Threats:
POSSIBLY VULNERABLE TO TRAIL MAINTENANCE ACTIVITY.

General:
2 PLANTS OBSERVED IN 2012.

PLSS: T18S, R02W, Sec. 33, SW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3601920 E491137
Latitude/Longitude: 32.55464 / -117.09441
Elevation (feet): 30

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
MAC12F0002 MACGREGOR, C. - FIELD SURVEY FORM FOR AMBROSIA MONOGYRA 2012-10-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A1521	**EO Index:**	103106
Key Quad:	National City (3211761)	**Element Code:**	PDAST50010
Occurrence Number:	24	**Occurrence Last Updated:**	2016-08-29

Scientific Name: *Ambrosia monogyra* **Common Name:** singlewhorl burrobrush

Listing Status: **Federal:** None **Rare Plant Rank:** 2B.2

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G5

State: S2

General Habitat:

CHAPARRAL, SONORAN DESERT SCRUB.

Micro Habitat:

SANDY SOILS. 5-475 M.

Last Date Observed:	2011-05-25	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2011-05-25	**Occurrence Rank:**	Fair
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

WEST SIDE OF CA-125, JUST SOUTH OF ITS JUNCTION WITH CA-54, WEST OF SWEETWATER RESERVOIR.

Detailed Location:

MAPPED ACCORDING TO 2011 RECON DIGITAL DATA, IN THE SW 1/4 OF THE SW 1/4 OF SECTION 17.

Ecological:

BAHIOPSIS LACINIATA OCCURS NEARBY.

Threats:

POSSIBLY THREATENED BY WATER PIPELINE REPLACEMENT PROJECT BUT PLANTS WILL BE AVOIDED.

General:

10 PLANTS OBSERVED IN 2010. 1 PLANT OBSERVED IN 2011.

PLSS:	T17S, R01W, Sec. 17, SW (S)	**Accuracy:**	specific area	**Area (acres):**	2
UTM:	Zone-11 N3616610 E498830	**Latitude/Longitude:**	32.6872 / -117.01248	**Elevation (feet):**	115

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

GAR11R0001	GARROD, M. (SWEETWATER AUTHORITY) - 36-INCH RAW WATER PIPELINE REPLACEMENT PROJECT: INITIAL STUDY 2011-05-XX
REC11D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILES OF RARE PLANTS OBSERVED DURING SURVEYS FOR SWEETWATER DAM RAW WATER PIPELINE REPLACEMENT PROJECT 2011-01-04
REC11D0003	RECON ENVIRONMENTAL, INC. - TWO SHAPEFILES OF SENSITIVE SPECIES OBSERVED DURING SURVEYS FOR THREE SAN DIEGO PUBLIC WORKS PROJECTS, 2005-2011. 2011-10-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1522
Key Quad: La Mesa (3211771)
Occurrence Number: 25

EO Index: 103107
Element Code: PDAST50010
Occurrence Last Updated: 2016-08-17

Scientific Name: *Ambrosia monogyra*
Common Name: singlewhorl burrobrush

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 2B.2
Other Lists:

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:
CHAPARRAL, SONORAN DESERT SCRUB.

Micro Habitat:
SANDY SOILS. 5-475 M.

Last Date Observed: 2000-04-21
Last Survey Date: 2000-04-21
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NAVAJO CANYON; MIDDLE OF CANYON ACROSS FROM LARGEST SIDE CANYON AT STREAMBED, SAN DIEGO.

Detailed Location:
MAPPED AS BEST GUESS AROUND THE PORTION OF THE STREAMBED OF NAVAJO CANYON THAT IS AT THE MOUTH OF THE LARGEST SIDE CANYON.

Ecological:
CANYON BOTTOM. CLOSED MYOPORUM LAETUM, WASHINGTONIA ROBUSTA, SALIX, CORTADERIA SELLOANA / CLOSED BACCHARIS SAROTHROIDES RIPARIAN WOODLAND.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2000 BREHME COLLECTION.

PLSS: T16S, R02W, Sec. 10, S (S)
UTM: Zone-11 N3628000 E492872

Accuracy: 1/10 mile
Latitude/Longitude: 32.78992 / -117.07613

Area (acres): 18
Elevation (feet): 240

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
BRE00S0001 BREHMNE, C. & R. SILVERSTEIN - BREHME #12 SDSU #13284 2000-04-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1523
Key Quad: La Mesa (3211771)
Occurrence Number: 26
EO Index: 103108
Element Code: PDAST50010
Occurrence Last Updated: 2016-08-17

Scientific Name: *Ambrosia monogyra*
Common Name: singlewhorl burrobrush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists:

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:
CHAPARRAL, SONORAN DESERT SCRUB.

Micro Habitat:
SANDY SOILS. 5-475 M.

Last Date Observed: 1993-09-09
Last Survey Date: 1993-09-09
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NEAR JUNCTION OF FAIRMONT AND MONTEZUMA, SAN DIEGO.

Detailed Location:
MAPPED AS BEST GUESS AROUND THE JUNCTION OF FAIRMONT AVENUE AND MONTEZUMA ROAD.

Ecological:
CHAPARRAL.

Threats:

General:
SITE BASED ON A 1993 SMITH COLLECTION. A 1940 FITCH COLLECTION FROM "FAIRMOUNT C" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS: T16S, R02W, Sec. 21, NW (S)
Accuracy: 1/5 mile
Area (acres): 70
UTM: Zone-11 N3626057 E490915
Latitude/Longitude: 32.77237 / -117.097
Elevation (feet): 135

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

FIT40S0003 FITCH, J. - FITCH #9145 SDSU #1661 1940-10-29
SMI93S0013 SMITH, D. - SMITH #9XI93 SDSU #1720 & #1726 1993-09-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A1524	**EO Index:**	103109
Key Quad:	La Jolla (3211772)	**Element Code:**	PDAST50010
Occurrence Number:	27	**Occurrence Last Updated:**	2016-08-17

Scientific Name: *Ambrosia monogyra*

Common Name: singlewhorl burrobrush

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

Other Lists:

CNDDB Element Ranks: **Global:** G5

State: S2

General Habitat:

CHAPARRAL, SONORAN DESERT SCRUB.

Micro Habitat:

SANDY SOILS. 5-475 M.

Last Date Observed:	2012-10-28	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-10-28	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

RUFFIN CANYON OPEN SPACE; LOWER RUFFIN CANYON SOUTH OF SHAWN CANYON, SERRA MESA.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO 2012 RIEFNER COORDINATES, IN THE NW 1/4 OF THE NW 1/4 OF SECTION 18.

Ecological:

OUTER EDGE OF EPHEMERAL WASH IN COBBLY SOILS. VIGUIERA LACINIATA OCCURS NEARBY.

Threats:

POTENTIAL HABITAT DEGRADATION BY EXPANDING NON-NATIVE RIPARIAN TREE POPULATIONS.

General:

6 PLANTS OBSERVED IN 2012.

PLSS:	T16S, R02W, Sec. 18, NW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3627976 E487623	**Latitude/Longitude:**	32.78965 / -117.13218	**Elevation (feet):**	167

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

ESA13R0001	ENVIRONMENTAL SCIENCE ASSOCIATES - SAN DIEGO RIVER, RUFFIN CANYON TRAIL AND URBAN WALK, INITIAL STUDY / MITIGATED NEGATIVE DECLARATION 2013-03-XX
RIE12F0003	RIEFNER, R. - FIELD SURVEY FORM FOR AMBROSIA MONOGYRA 2012-10-28
RIE12S0007	RIEFNER, R. - RIEFNER #12-531 UCR #246476 2012-10-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1532
EO Index: 103118
Key Quad: Imperial Beach (3211751)
Element Code: PDAST50010
Occurrence Number: 30
Occurrence Last Updated: 2016-08-18

Scientific Name: *Ambrosia monogyra*
Common Name: singlewhorl burrobrush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists:

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:
CHAPARRAL, SONORAN DESERT SCRUB.

Micro Habitat:
SANDY SOILS. 5-475 M.

Last Date Observed: 2014-10-21
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2014-10-21
Occurrence Rank: Good
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:
JUST WEST OF DAIRY MART ROAD, TIJUANA RIVER VALLEY REGIONAL PARK.

Detailed Location:
MAPPED AS 2 POLYGONS ACCORDING TO 2014 MORSE DIGITAL DATA.

Ecological:
FLAT AREA IN OPENINGS IN SHRUBLANDS.

Threats:
TRAILS AND WEEDS ARE DISTURBANCES IN THIS AREA BUT DO NOT APPEAR TO BE THREATS.

General:
IN 2010, NORTHERN POLYGON HAD 10 PLANTS AND SOUTHERN POLYGON HAD 1 PLANT. A 1962 FULLER COLLECTION AND A 2008 WINANS COLLECTION FROM VICINITY OF DAIRY MART ROAD ARE ALSO ATTRIBUTED TO THIS SITE.

PLSS: T19S, R02W, Sec. 2, NW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3601490 E493813
Latitude/Longitude: 32.55078 / -117.0659
Elevation (feet): 35

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

FUL62S0013	FULLER, T. - FULLER #9759 CDA #7993 1962-10-16
MOR14U0001	MORSE, K. - TABLE AND KMLS OF SOUTHERN CALIFORNIA RARE PLANT OBSERVATIONS, 2014 2014-XX-XX
WIN08S0001	WINANS, B. - WINANS #1317450 CDA #26826 2008-10-31

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1533
EO Index: 103119
Key Quad: Imperial Beach (3211751)
Element Code: PDAST50010
Occurrence Number: 31
Occurrence Last Updated: 2016-08-18

Scientific Name: *Ambrosia monogyra*
Common Name: singlewhorl burrobrush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists:

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:
CHAPARRAL, SONORAN DESERT SCRUB.

Micro Habitat:
SANDY SOILS. 5-475 M.

Last Date Observed: 2014-10-21
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2014-10-21
Occurrence Rank: Unknown
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:
ABOUT 0.7 AIR MILE SW OF THE JUNCTION OF DAIRY MART ROAD AND I-5, TIJUANA RIVER VALLEY REGIONAL PARK.

Detailed Location:
MAPPED ACCORDING TO 2014 MORSE DIGITAL DATA, IN THE NW 1/4 OF THE NE 1/4 OF SECTION 3.

Ecological:
FLAT AREA IN OPENINGS IN SHRUBLANDS.

Threats:
TRAILS AND WEEDS ARE DISTURBANCES IN THIS AREA BUT DO NOT APPEAR TO BE THREATS.

General:
44 PLANTS OBSERVED IN 2010.

PLSS: T19S, R02W, Sec. 3, NE (S)
Accuracy: specific area
Area (acres): 4
UTM: Zone-11 N3601740 E493154
Latitude/Longitude: 32.55303 / -117.07292
Elevation (feet): 30

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
MOR14U0001 MORSE, K. - TABLE AND KMLS OF SOUTHERN CALIFORNIA RARE PLANT OBSERVATIONS, 2014 2014-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B3816
EO Index: 240
Key Quad: National City (3211761)
Element Code: PDAST57091
Occurrence Number: 5
Occurrence Last Updated: 2019-08-28

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 2018-07-19
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2018-07-19
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
JUST SOUTH OF SWEETWATER MARSH NATIONAL WILDLIFE REFUGE, 175 YARDS N OF INTERSECTION OF MARINA PARKWAY AND G STREET.

Detailed Location:
MAPPED ACCORDING TO 2018 INCE COORDINATES.

Ecological:
DISTURBED HABITAT THAT INCLUDES MOSTLY SALSOLA SP. COASTAL SAGE SCRUB SPECIES INCLUDING ENCELIA CALIFORNICA AND BACCHARIS SAROTHROIDES OCCUR SPORADICALLY IN THE AREA.

Threats:

General:
UNKNOWN NUMBER OF PLANTS SEEN IN 2018. TWO 1904 ABRAMS COLLECTIONS FROM CHULA VISTA AND A 1934 YOUNGBERG COLLECTION FROM "CHULA VISTA SEPTIC TANK" ARE ALSO ATTRIBUTED TO THIS SITE.

PLSS: T18S, R02W, Sec. 5 (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3610501 E490160
Latitude/Longitude: 32.63204 / -117.1049
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

ABR04S0006	ABRAMS, L. - ABRAMS #4193 DS #6398, GH #417967, CAS-BOT-BC #311633 1904-09-10
ABR04S0007	ABRAMS, L. - ABRAMS #4198 DS #6413, CAS-BOT-BC #311627 1904-09-10
INC18S0001	INCE, K. - INCE #8 SD #00018406 & #269348 2018-07-19
YOU34S0011	YOUNGBERG, F. - YOUNGBERG #23 POM #211988, #211989, & #263877, DS #679093, #749868, #749876, GH #417974, CAS-BOT-BC #311642-311644 1934-10-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87253
EO Index: 88236
Key Quad: Imperial Beach (3211751)
Element Code: PDAST57091
Occurrence Number: 24
Occurrence Last Updated: 2012-11-14

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 1934-10-26
Last Survey Date: 1934-10-26
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NEAR WESTERN SALT WORKS ON SAN DIEGO BAY BETWEEN CHULA VISTA AND OTAY.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN GENERAL VICINITY OF WESTERN SALT WORKS FACILITIES.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1934 COLLECTION BY YOUNGBERG. NEEDS FIELDWORK.

PLSS: T18S, R02W, Sec. 16 (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3607249 E491056
Latitude/Longitude: 32.60271 / -117.09530
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
YOU34S0010 YOUNGBERG, F. - YOUNGBERG #12 POM #211978, DS #749870, CAS-BOT-BC #311644 1934-10-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17693
Key Quad: Imperial Beach (3211751)
Occurrence Number: 25
EO Index: 88240
Element Code: PDAST57091
Occurrence Last Updated: 2012-11-14

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 1934-10-26
Last Survey Date: 1934-10-26
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
IMPERIAL BEACH.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN GENERAL VICINITY OF IMPERIAL BEACH TO ENCOMPASS COLLECTIONS FROM "SAND DUNES, IMPERIAL BEACH" AND "BETWEEN IMPERIAL BEACH AND PALM CITY."

Ecological:
SAND DUNES.

Threats:

General:
ONLY SOURCES OF INFORMATION FOR THIS OCCURRENCE ARE TWO 1934 COLLECTIONS BY YOUNGBERG. NEEDS FIELDWORK.

PLSS: T18S, R02W, Sec. 29 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3604660 E489427
Latitude/Longitude: 32.57934 / -117.11264
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

YOU34S0016	YOUNGBERG, F. - YOUNGBERG #24 POM #211974, DS #679053, #749874 & #749875, CAS-BOT-BC #311661-311663 1934-10-26
YOU34S0017	YOUNGBERG, F. - YOUNGBERG #13 POM #211994, DS #679052 & #749871, CAS-BOT-BC #311646 & #311647 1934-10-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87254
Key Quad: Imperial Beach (3211751)
Occurrence Number: 26
EO Index: 88241
Element Code: PDAST57091
Occurrence Last Updated: 2016-08-19

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 1934-08-19
Last Survey Date: 1934-08-19
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
TIAJUANA RIVER BOTTOM, 2 MILES FROM OCEAN.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB ALONG TIJUANA RIVER AROUND 2 MILES EAST OF THE OCEAN.

Ecological:

Threats:

General:
ONLY SOURCES OF INFORMATION FOR THIS OCCURRENCE ARE TWO 1934 COLLECTIONS BY YOUNGBERG. NEEDS FIELDWORK.

PLSS: T19S, R02W, Sec. 04 (S)
Accuracy: non-specific area
Area (acres): 126
UTM: Zone-11 N3601863 E491159
Latitude/Longitude: 32.55412 / -117.09416
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

YOU34S0018 YOUNGBERG, F. - YOUNGBERG #20 POM #211985 1934-08-19

YOU34S0030 YOUNGBERG, F. - YOUNGBERG #19 DS #679029, CAS-BOT-BC #311624 1934-08-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86498
EO Index: 88242
Key Quad: Imperial Beach (3211751)
Element Code: PDAST57091
Occurrence Number: 27
Occurrence Last Updated: 2012-11-14

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 2006-06-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-06-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
WESTERN END OF LICHTY MESA, NORTH OF TIJUANA.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN GENERAL VICINITY OF THE WESTERN SIDE OF LICHTY MESA.

Ecological:
FLAT MESA TOP.

Threats:

General:
"SEVERAL DOZEN" PLANTS OBSERVED DURING SURVEYS CONDUCTED IN APRIL, MAY, AND JUNE OF 2006.

PLSS: T19S, R02W, Sec. 08, W (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3599824 E488890
Latitude/Longitude: 32.53571 / -117.11830
Elevation (feet):

County Summary:
San Diego, Mexico

Quad Summary:
Imperial Beach (3211751)

Sources:

SCH07R0001 SCHEIDT, V. - THE LICHTY MESA, A BIOLOGICAL RESOURCES SURVEY REPORT AND EVALUATION OF RESOURCE VALUE, APN 663-020-02, SAN DIEGO, CA 2007-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87255
EO Index: 88243
Key Quad: Imperial Beach (3211751)
Element Code: PDAST57091
Occurrence Number: 28
Occurrence Last Updated: 2012-11-14

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 2012-02-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-02-17
Occurrence Rank: Unknown
Owner/Manager: DPR-BORDER FIELD SP
Trend: Unknown
Presence: Presumed Extant

Location:
W-FACING SLOPE OF BUNKER HILL; W OF SAN YSIDRO BORDER CROSSING, S OF MONUMENT RD, JUST N OF USA/MEXICO BORDER FENCE.

Detailed Location:
MAPPED ACCORDING TO 2012 REBMAN COORDINATES.

Ecological:
W-FACING SLOPE. COASTAL SAGE SCRUB WITH BAHIOPSIS LACINIATA, ENCELIA CALIFORNICA, ARTEMISIA CALIFORNICA, PERITOMA ARBOREA, ERIOGONUM FASCICULATUM, GLEBIONIS CORONARIUM, AND BRASSICA TOURNEFORTII.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2012 COLLECTION BY REBMAN; PLANTS NOTED AS "RARE."

PLSS: T19S, R02W, Sec. 08, E (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3599896 E489895
Latitude/Longitude: 32.53637 / -117.10761
Elevation (feet): 148

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
REB12S0002 REBMAN, J. ET AL. - REBMAN #22491 SD #219331 2012-02-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87256
EO Index: 88244
Key Quad: Imperial Beach (3211751)
Element Code: PDAST57091
Occurrence Number: 29
Occurrence Last Updated: 2012-11-15

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 1999-05-04
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1999-05-04
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
OTAY MESA; DILLON CANYON AND UNNAMED CANYONS TO THE NORTH, ABOUT 1.8 AIR MILES ESE OF THE I-805/SR-905 INTERSECTION.

Detailed Location:
10 POLYGONS MAPPED BY CNDDB ACCORDING TO A 1999 MAP FROM HELIX ENVIRONMENTAL PLANNING.

Ecological:

Threats:

General:
1998-1999 SURVEYS: 1 PLANT OBSERVED IN EACH OF THE 3 SOUTHWESTERN POLYGONS, AND 269 TOTAL PLANTS OBSERVED IN THE 7 NORTHEASTERN POLYGONS.

PLSS: T18S, R01W, Sec. 32, W (S)
Accuracy: specific area
Area (acres): 9
UTM: Zone-11 N3602826 E499177
Latitude/Longitude: 32.56285 / -117.00876
Elevation (feet): 450

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

HEL99R0001	HELIX ENVIRONMENTAL PLANNING, INC. - 1999 ANNUAL REPORT FOR PROTOCOL LEVEL WET SEASON SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP 1999-07-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	87257	**EO Index:**	88245
Key Quad:	National City (3211761)	**Element Code:**	PDAST57091
Occurrence Number:	30	**Occurrence Last Updated:**	2012-11-15

Scientific Name: *Isocoma menziesii var. decumbens*

Common Name: decumbent goldenbush

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G3G5T2T3

State: S2

Rare Plant Rank: 1B.2

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, CHAPARRAL.

Micro Habitat:

SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed:	2006-09-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2006-09-11	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

CHOLLAS LAKE COMMUNITY PARK; ON RD TO NORTH CHOLLAS CANYON LOT, 125 M NE OF INT OF COLLEGE GROVE DR & CAMINITO CHOLLAS.

Detailed Location:

MAPPED AS BEST GUESS BY CNDDB IN VICINITY OF ROAD TO PARKING LOT, JUST NORTHEAST OF GIVEN INTERSECTION. WITHIN THE NE 1/4 OF THE SE 1/4 OF SECTION 34.

Ecological:

DISTURBED GRAVELLY/SANDY SOIL IN BETWEEN CONCRETE DRAIN AND ROAD. INLAND SCRUB WITH CONYZA FLORIBUNDA, BACCHARIS SALICIFOLIA, AND HELIOTROPIUM CURASSAVICUM.

Threats:

General:

MAIN SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2006 COLLECTION BY CAIN. A 1935 COLLECTION BY GANDER FROM LEMON GROVE IS ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS:	T16S, R02W, Sec. 34, SE (S)	**Accuracy:**	1/10 mile	**Area (acres):**	0
UTM:	Zone-11 N3622090 E493431	**Latitude/Longitude:**	32.73661 / -117.07010	**Elevation (feet):**	361

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

CAI06S0004	CAIN, I. & T. FOSTER - CAIN #313 SD #188760 2006-09-11
GAN35S0058	GANDER, F. - GANDER #2544 SD #12205 1935-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87258
EO Index: 88246
Key Quad: National City (3211761)
Element Code: PDAST57091
Occurrence Number: 31
Occurrence Last Updated: 2012-12-06

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 2004-12-09
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2004-12-09
Occurrence Rank: Poor
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
NEAR CHOLLAS CREEK, NORTHWEST OF THE INTERSECTION OF 47TH STREET AND FAIRMOUNT AVENUE, CITY OF SAN DIEGO.

Detailed Location:
MAPPED IN THE SE 1/4 OF THE NW 1/4 OF SECTION 4 ACCORDING TO A 2004 MAP FROM SCHEIDT. ASSOCIATED WITH THE HISTORICAL FLOODPLAIN FRINGE OF CHOLLAS CREEK IN AN UPLAND SITUATION.

Ecological:
OPEN COASTAL SAGE SCRUB INDICATED BY ARTEMISIA CALIFORNICA, ENCELIA CALIFORNICA, ERIOGONUM FASCICULATUM, CORETHROGYNE FILAGINIFOLIA VAR. VIRGATA, AND LOTUS SCOPARIUS. GENERALLY SURROUNDED BY WEEDY VEGETATION. CLAY SOIL ON UPPER AREAS.

Threats:
SITE PROPOSED FOR RESIDENTIAL DEVELOPMENT.

General:
25 PLANTS OBSERVED IN 2004.

PLSS: T17S, R02W, Sec. 04, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3620876 E491278
Latitude/Longitude: 32.72564 / -117.09307
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
SCH04F0022 SCHEIDT, V. - FIELD SURVEY FORM FOR ISOCOMA MENZIESII VAR. DECUMBENS 2004-12-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87259
EO Index: 88248
Key Quad: National City (3211761)
Element Code: PDAST57091
Occurrence Number: 32
Occurrence Last Updated: 2012-11-15

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 2007-09-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2007-09-12
Occurrence Rank: Unknown
Owner/Manager: SWEETWATER AUTHORITY
Trend: Unknown
Presence: Presumed Extant

Location:
N SHORE OF SWEETWATER RESERVOIR; E OF NATIONAL CITY AND S OF LA PRESA. JUST E OF SWEETWATER AUTHORITY BUILDING.

Detailed Location:
MAPPED NEAR THE APPROXIMATE CENTER OF SECTION 17 ACCORDING TO 2007 REBMAN COORDINATES.

Ecological:
COASTAL SAGE SCRUB AND LAKE EDGE WITH ARTEMISIA CALIFORNICA, BACCHARIS SAROTHROIDES, MALOSMA LAURINA, CYLINDROPUNTIA PROLIFERA, SCHINUS MOLLE, AND FEROCACTUS VIRIDESCENS.

Threats:

General:
MAIN SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2007 COLLECTION BY REBMAN, PLANTS NOTED AS "UNCOMMON." A 1934 COLLECTION BY YOUNGBERG FROM "NEAR SWEETWATER DAM" IS ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS: T17S, R01W, Sec. 17 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3617324 E499478
Latitude/Longitude: 32.69363 / -117.00555
Elevation (feet): 256

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

REB07S0006 REBMAN, J. ET AL. - REBMAN #13885 SD #182941 2007-09-12

YOU34S0019 YOUNGBERG, F. - YOUNGBERG #43 POM #222586, CAS #356506, CAS-BOT-BC #311638 1934-08-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87260
EO Index: 88251
Key Quad: National City (3211761)
Element Code: PDAST57091
Occurrence Number: 33
Occurrence Last Updated: 2012-11-15

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 1934-10-26
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1934-10-26
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
ROOSEVELT AVE, NATIONAL CITY.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB ALONG ROOSEVELT AVE.

Ecological:
EMPTY LOT.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1934 COLLECTION BY YOUNGBERG. NEEDS FIELDWORK.

PLSS: T17S, R02W, Sec. 20 (S)
Accuracy: non-specific area
Area (acres): 92
UTM: Zone-11 N3615040 E489971
Latitude/Longitude: 32.67298 / -117.10696
Elevation (feet):

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

YOU34S0009 YOUNGBERG, F. - YOUNGBERG #10 POM #211973, #211990, & #211992, DS #749867, GH #417968 & #404926, CAS-BOT-BC #311635 1934-10-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87261
EO Index: 88256
Key Quad: National City (3211761)
Element Code: PDAST57091
Occurrence Number: 34
Occurrence Last Updated: 2016-09-12

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 2005-08-13
Last Survey Date: 2005-08-13
Owner/Manager: CITY OF CHULA VISTA
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
DEL REY CANYON, NORTHEAST OF JUNCTION OF E J ST AND PASEO DEL REY, CHULA VISTA.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB ALONG CANYON JUST NORTHEAST OF GIVEN JUNCTION.

Ecological:
CLAY, TOP OF SLOPE. CHAPARRAL.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2005 COLLECTION BY ACERRO. A 1934 YOUNGBERG COLLECTION FROM "TELEGRAPH CANYON NEAR CHULA VISTA" IS ALSO ATTRIBUTED TO THIS SITE BUT TELEGRAPH CANYON IS JUST SOUTH OF MAPPED SITE.

PLSS: T18S, R01W, Sec. 06 (S)
Accuracy: non-specific area
Area (acres): 33
UTM: Zone-11 N3610688 E497597
Latitude/Longitude: 32.63377 / -117.02561
Elevation (feet): 226

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

ACE05S0001 ACERRO, T. - ACERRO #9 SD #189537 2005-08-13

YOU34S0034 YOUNGBERG, F. - YOUNGBERG #36 GH #417969 1934-08-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87262
EO Index: 88261
Key Quad: Point Loma (3211762)
Element Code: PDAST57091
Occurrence Number: 35
Occurrence Last Updated: 2012-11-15

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 1934-07-18
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1934-07-18
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
LOMA PORTAL, NEAR ERSKINE CAMP, BELL ESTATE.

Detailed Location:
EXACT LOCATION UNKNOWN, UNABLE TO LOCATE ERSKINE CAMP OR BELL ESTATE. MAPPED BY CNDDB IN GENERAL VICINITY OF LOMA PORTAL.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1934 COLLECTION BY YOUNGBERG. NEEDS FIELDWORK.

PLSS: T16S, R03W, Sec. 32 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3622931 E479504
Latitude/Longitude: 32.74402 / -117.21876
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Point Loma (3211762), La Jolla (3211772)

Sources:
YOU34S0020 YOUNGBERG, F. - YOUNGBERG #47 POM #222633, CAS #356510, CAS-BOT-BC #311636 1934-07-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87263
EO Index: 88263
Key Quad: Point Loma (3211762)
Element Code: PDAST57091
Occurrence Number: 36
Occurrence Last Updated: 2012-11-15

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 1934-08-30
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1934-08-30
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
BALBOA PARK; NEAR BOY SCOUT INDIAN VILLAGE AND ROOSEVELT JUNIOR HIGH SCHOOL.

Detailed Location:
EXACT LOCATIONS UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN GENERAL VICINITY OF ROOSEVELT JR HS AND THE VETERANS MEMORIAL BUILDING; MEMORIAL BUILDING WAS BUILT ON A PORTION OF THE OLD INDIAN VILLAGE.

Ecological:

Threats:

General:
ONLY SOURCES OF INFORMATION FOR THIS OCCURRENCE ARE TWO 1934 COLLECTIONS BY YOUNGBERG. NEEDS FIELDWORK.

PLSS: T16S, R03W, Sec. 36, W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3622470 E486084
Latitude/Longitude: 32.73997 / -117.14853
Elevation (feet):

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

YOU34S0021	YOUNGBERG, F. - YOUNGBERG #48 POM #222631, CAS #356505, CAS-BOT-BC #311639 1934-08-30
YOU34S0022	YOUNGBERG, F. - YOUNGBERG #34 POM #222635, GH #417973 1934-08-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87264
EO Index: 88264
Key Quad: Point Loma (3211762)
Element Code: PDAST57091
Occurrence Number: 37
Occurrence Last Updated: 2012-11-15

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 1934-08-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1934-08-11
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SWITZER CANYON ROAD.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN SWITZER CANYON.

Ecological:
VERY DRY.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1934 COLLECTION BY YOUNGBERG. NEEDS FIELDWORK.

PLSS: T16S, R02W, Sec. 31, S (S)
Accuracy: non-specific area
Area (acres): 46
UTM: Zone-11 N3621710 E487815
Latitude/Longitude: 32.73313 / -117.13004
Elevation (feet):

County Summary:
San Diego

Quad Summary:
National City (3211761), Point Loma (3211762)

Sources:
YOU34S0023 YOUNGBERG, F. - YOUNGBERG #5 POM #211950, DS #749840, CAS-BOT-BC #311650 1934-08-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87265
EO Index: 88265
Key Quad: Point Loma (3211762)
Element Code: PDAST57091
Occurrence Number: 38
Occurrence Last Updated: 2012-11-15

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 2006-07-23
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-07-23
Occurrence Rank: Unknown
Owner/Manager: NPS-CABRILLO NM
Trend: Unknown
Presence: Presumed Extant

Location:
CABRILLO NATIONAL MONUMENT, SOUTHERN TIP OF POINT LOMA, NEAR OLD SPANISH LIGHTHOUSE.

Detailed Location:
EXACT LOCATIONS UNKNOWN. MAPPED BY CNDDB IN VICINITY OF OLD POINT LOMA LIGHTHOUSE TO ENCOMPASS COLLECTIONS FROM "200 FT FROM OLD SPANISH LIGHTHOUSE," "JUST SOUTH OF SP. LIGHT HOUSE," & "CABRILLO NM...JUST S OF HERPETOLOGY ARRAY 14."

Ecological:
CARLSBAD GRAVELLY LOAMY SAND. COASTAL SCRUB. ASSOCIATED WITH ERIOGONUM FASCICULATUM, EUPHORBIA MISERA, AND FEROCACTUS VIRIDESCENS.

Threats:

General:
MAIN SOURCES OF INFORMATION FOR THIS OCCURRENCE ARE A 1931 WOLF COLLECTION, A 1934 YOUNGBERG COLLECTION, AND A 2006 CAIN COLLECTION. A 1931 FOSBERG COLLECTION FROM "POINT LOMA, OCEAN BLUFFS" IS ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS: T17S, R03W, Sec. 30 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3614950 E477409
Latitude/Longitude: 32.67198 / -117.24094
Elevation (feet): 341

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

CAI06S0003	CAIN, I. & E. CLAYTON - CAIN #616 SD #184998 2006-07-23
FOS31S0051	FOSBERG, F. - FOSBERG #7298 POM #359523 1931-08-16
WOL31S0041	WOLF, C. - WOLF #2065 RSA #2020, DS #230359, CAS-BOT-BC #311626 1931-05-26
YOU34S0024	YOUNGBERG, F. - YOUNGBERG #45 POM #222856, CAS #356509, CAS-BOT-BC #311637 1934-07-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03758
Key Quad: Point Loma (3211762)
Occurrence Number: 39
EO Index: 88266
Element Code: PDAST57091
Occurrence Last Updated: 2016-08-19

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 1902-08-14
Last Survey Date: 1902-08-14
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NORTH ISLAND, SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN GENERAL VICINITY OF NORTH ISLAND.

Ecological:

Threats:

General:
ONLY SOURCES OF INFORMATION FOR THIS OCCURRENCE ARE 1902 COLLECTIONS BY ABRAMS AND HERRE. NEEDS FIELDWORK.

PLSS: T17S, R03W, Sec. 17 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3618040 E480464
Latitude/Longitude: 32.69992 / -117.20842
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

ABR02S0034 ABRAMS, L. - ABRAMS SN POM #50470 1902-08-14

HER02S0003 HERRE, A. - HERRE SN DS #107927, CAS-BOT-BC #315746 1902-08-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1542
Key Quad: Point Loma (3211762)
Occurrence Number: 40

EO Index: 88268
Element Code: PDAST57091
Occurrence Last Updated: 2016-08-19

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 1935-07-12
Last Survey Date: 1935-07-12
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
CORONADO ISLAND, SOUTH OF HOTEL.

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS AROUND THE AREA JUST SOUTH OF HOTEL DEL CORONADO (AN HISTORIC HOTEL THAT OPENED IN THE LATE 1800S).

Ecological:

Threats:
DEVELOPMENT.

General:
SITE BASED ON A 1908 DUDLEY COLLECTION. A 1931 COLLECTION BY PURER FROM "SILVER STRAND, ON EMBANKMENT ALONG ROAD" AND A 1935 ROSE COLLECTION FROM "CORONADO, SAND SPIT" ARE ALSO ATTRIBUTED TO THIS SITE. NEEDS FIELDWORK.

PLSS: T17S, R03W, Sec. 22 (S)
UTM: Zone-11 N3615837 E483336

Accuracy: 1/5 mile
Latitude/Longitude: 32.68009 / -117.17775

Area (acres): 70
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

DUD08S0003	DUDLEY, W. - DUDLEY SN DS #6401, CAS-BOT-BC #315747 1908-12-26
PUR31S0001	PURER, E. & F. DETMERS - PURER #13869 POM #359521 1931-09-01
ROS35S0022	ROSE, L. - ROSE #35327 CAS #228004, CAS-BOT-BC #315740 1935-07-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87266
EO Index: 88269
Key Quad: La Mesa (3211771)
Element Code: PDAST57091
Occurrence Number: 41
Occurrence Last Updated: 2012-11-15

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 2005-12-15
Last Survey Date: 2005-12-15
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SLOPES SOUTH OF MESA HEIGHTS ROAD, SANTEE.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AROUND KNOLL JUST SOUTH OF MESA HEIGHTS ROAD.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2005 PHOTO BY SCHEIDT.

PLSS: T15S, R01W, Sec. 32, NW (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3632166 E498763
Latitude/Longitude: 32.82752 / -117.01320
Elevation (feet):

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

SCH05I0010	SCHEIDT, V. - PHOTOS OF ISOCOMA MENZIESII VAR. DECUMBENS, CALPHOTOS ID #0000 0000 1205 0875, 0876, & 0503 2005-12-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87267
Key Quad: La Jolla (3211772)
Occurrence Number: 42
EO Index: 88270
Element Code: PDAST57091
Occurrence Last Updated: 2012-11-15

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 1934-07-22
Last Survey Date: 1934-07-22
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SOLEDAD MOUNTAIN, NEAR LA JOLLA.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN GENERAL VICINITY OF SOLEDAD MOUNTAIN.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1934 COLLECTION BY YOUNGBERG. NEEDS FIELDWORK.

PLSS: T15S, R04W, Sec. 25 (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3633557 E476373
Latitude/Longitude: 32.83981 / -117.25246
Elevation (feet):

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:
YOU34S0025 YOUNGBERG, F. - YOUNGBERG #7 POM #211953 1934-07-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 31949
Key Quad: La Jolla (3211772)
Occurrence Number: 43
EO Index: 88272
Element Code: PDAST57091
Occurrence Last Updated: 2012-12-10

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 1934-08-15
Last Survey Date: 1934-08-15
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
CROWN POINT, PACIFIC BEACH.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN VICINITY OF CROWN POINT ON MISSION BAY.

Ecological:

Threats:
THIS AREA HAS BEEN HIGHLY DEVELOPED SINCE 1934 COLLECTION WAS MADE; POSSIBLY EXTIRPATED.

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1934 COLLECTION BY YOUNGBERG. NEEDS FIELDWORK.

PLSS: T16S, R03W (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3627519 E477859
Latitude/Longitude: 32.78538 / -117.23644
Elevation (feet):

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
YOU34S0028 YOUNGBERG, F. - YOUNGBERG #17 POM #211979, #211981, #263886, DS #679095 & #749838, CAS-BOT-BC #311625 & #311645 1934-08-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87269
Key Quad: La Jolla (3211772)
Occurrence Number: 44
EO Index: 88273
Element Code: PDAST57091
Occurrence Last Updated: 2012-11-16

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 1934-08-08
Last Survey Date: 1934-08-08
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
CHESTERTON, CAMP KEARNY MESA.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN VICINITY OF CHESTERTON MILITARY HOUSING AREA.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1934 COLLECTION BY YOUNGBERG. NEEDS FIELDWORK.

PLSS: T16S, R03W, Sec. 11 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3628840 E485000
Latitude/Longitude: 32.79741 / -117.16020
Elevation (feet):

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
YOU34S0026 YOUNGBERG, F. - YOUNGBERG #22 POM #211993, DS #679100, #689942, #749837, GH #417971, CAS-BOT-BC #311621-311623 1934-08-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B3821	**EO Index:**	88274
Key Quad:	La Jolla (3211772)	**Element Code:**	PDAST57091
Occurrence Number:	45	**Occurrence Last Updated:**	2019-08-29

Scientific Name: *Isocoma menziesii var. decumbens*

Common Name: decumbent goldenbush

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G5T2T3

State: S2

General Habitat:

COASTAL SCRUB, CHAPARRAL.

Micro Habitat:

SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed:	2011-10-18	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2011-10-18	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MISSION VALLEY; SOUTH OF THE SAN DIEGO RIVER AND NORTH OF CAMINO DE LA REINA IN THE VACANT AREA EAST OF QUALCOMM WAY.

Detailed Location:

MAPPED ACCORDING TO 2011 NENOW COORDINATES, IN THE NE 1/4 OF THE NE 1/4 OF SECTION 24.

Ecological:

CHAPARRAL.

Threats:

General:

MAIN SOURCE OF INFORMATION FOR THIS SITE IS A 2011 NENOW COLLECTION. A 1934 YOUNGBERG COLLECTION FROM "MISSION VALLEY, EDGE OF CULTIVATED FIELD" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS:	T16S, R03W, Sec. 24, NE (S)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3626160 E487102	**Latitude/Longitude:**	32.77327 / -117.13772	**Elevation (feet):**	30

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

NEN11S0008	NENOW, N. - NENOW #2110 SD #252015 2011-10-18
YOU34S0027	YOUNGBERG, F. - YOUNGBERG #30 POM #222859, CAS #356508, CAS-BOT-BC #311658 1934-07-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1740
Key Quad: Otay Mesa (3211658)
Occurrence Number: 72

EO Index: 103331
Element Code: PDAST57091
Occurrence Last Updated: 2016-09-07

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 2012-05-10
Last Survey Date: 2012-05-10
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SPRING CANYON, SW OF JUNCTION OF OTAY MESA ROAD AND HERITAGE ROAD, OTAY MESA.

Detailed Location:
CITY OF SAN DIEGO OPEN SPACE PRESERVE. MAPPED ACCORDING TO 2012 REBMAN COORDINATES.

Ecological:
COASTAL SAGE SCRUB/RIPARIAN WITH ARTEMISIA CALIFORNICA, SIMMONDSIA CHINENSIS, RHUS INTEGRIFOLIA, MALACOTHAMNUS FASCICULATUS, HETEROMELES ARBUTIFOLIA, AND BACCHARIS SALICIFOLIA.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2012 REBMAN COLLECTION; MENTIONED AS "RARE" IN 2012.

PLSS: T18S, R01W, Sec. 32, SE (S)
UTM: Zone-11 N3602511 E499972

Accuracy: 80 meters
Latitude/Longitude: 32.56001 / -117.0003

Area (acres): 5
Elevation (feet): 328

County Summary:
San Diego

Quad Summary:
Otay Mesa (3211658), Imperial Beach (3211751)

Sources:
REB12S0034 REBMAN, J. ET AL. - REBMAN #23783 SD #225448 2012-05-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1741
Key Quad: Imperial Beach (3211751)
Occurrence Number: 73

EO Index: 103332
Element Code: PDAST57091
Occurrence Last Updated: 2016-09-07

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 2009-08-20
Last Survey Date: 2009-08-20
Owner/Manager: CALTRANS?
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
DENNERY WEST (CALTRANS), PROPERTY IN NE PORTION OF INTERSECTION OF OCEAN VIEW HILLS PKWY & OTAY MESA RD, OTAY MESA.

Detailed Location:
MAPPED ACCORDING TO 2009 KEDZIORA COORDINATES.

Ecological:
UPLAND IN VERNAL POOL COMPLEX. STOCKPEN GRAVELLY CLAY, FLAT. ASSOCIATED WITH DEINANDRA FASCICULATA, ARTEMISIA CALIFORNICA, NASSELLA PULCHRA, AND CORETHROGYNE FILAGINIFOLIA VAR. CALIFORNICA.

Threats:

General:
HUNDREDS OF PLANTS OBSERVED IN 2009.

PLSS: T18S, R01W, Sec. 29, SW (S)
UTM: Zone-11 N3603936 E498699

Accuracy: 80 meters
Latitude/Longitude: 32.57286 / -117.01386

Area (acres): 5
Elevation (feet): 525

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
KED09S0006 KEDZIORA, M. & E. BERGMAN - KEDZIORA #43 RSA #831046 & #0060555, SD #243544, UC #2045324 2009-08-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1749
Key Quad: National City (3211761)
Occurrence Number: 83

EO Index: 103343
Element Code: PDAST57091
Occurrence Last Updated: 2016-09-07

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 1934-08-11
Last Survey Date: 1934-08-11
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SUNNYSIDE.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS AROUND SUNNYSIDE.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1934 YOUNGBERG COLLECTION. NEEDS FIELDWORK.

PLSS: T17S, R01W, Sec. 20 (S)
UTM: Zone-11 N3615113 E498671

Accuracy: 3/5 mile
Latitude/Longitude: 32.67369 / -117.01418

Area (acres): 776
Elevation (feet):

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
YOU34S0033 YOUNGBERG, F. - YOUNGBERG #1 DS #749841, CAS-BOT-BC #311651 1934-08-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1750
Key Quad: National City (3211761)
Occurrence Number: 84

EO Index: 103344
Element Code: PDAST57091
Occurrence Last Updated: 2016-09-07

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 1934-06-19
Last Survey Date: 1934-06-19
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
MONTEREY HEIGHTS NEAR LEMON GROVE.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS IN THE VICINITY OF MONTEREY HEIGHTS PARK.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1934 YOUNGBERG COLLECTION.

PLSS: T17S, R02W, Sec. 1 (S)
Accuracy: 3/5 mile
Area (acres): 776
UTM: Zone-11 N3620661 E496837
Latitude/Longitude: 32.72373 / -117.03376
Elevation (feet):

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
YOU34S0031 YOUNGBERG, F. - YOUNGBERG #31 GH #417975 1934-06-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1751
Key Quad: La Mesa (3211771)
Occurrence Number: 85

EO Index: 103345
Element Code: PDAST57091
Occurrence Last Updated: 2016-09-07

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: PVT
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
CASTLEROCK SITE; NORTH OF MAST BLVD AND WEST OF MEDINA DRIVE, SANTEE.

Detailed Location:
MAPPED NON-SPECIFICALLY AROUND PROJECT SITE.

Ecological:
RIDGES, SLOPES, AND MESAS WITH SANDY SOIL IN DISTURBED COASTAL SAGE SCRUB.

Threats:
POSSIBLY THREATENED BY DEVELOPMENT.

General:
OBSERVED THROUGHOUT THE SITE DURING SURVEYS SOMETIME BETWEEN 2001 AND 2010. NEED ADDITIONAL INFORMATION ABOUT THIS SITE.

PLSS: T15S, R01W, Sec. 20 (S)
UTM: Zone-11 N3635475 E498732

Accuracy: non-specific area
Latitude/Longitude: 32.85737 / -117.01355

Area (acres): 217
Elevation (feet): 500

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
SDG13R0001 CITY OF SAN DIEGO - FINAL ENVIRONMENTAL IMPACT REPORT FOR THE CASTLEROCK PROJECT 2013-06-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1752
Key Quad: La Mesa (3211771)
Occurrence Number: 86

EO Index: 103346
Element Code: PDAST57091
Occurrence Last Updated: 2016-09-07

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 2011-08-14
Last Survey Date: 2011-08-14
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
MISSION TRAILS REGIONAL PARK NEAR THE DAM.

Detailed Location:
MAPPED ACCORDING TO 2011 SANBORN COORDINATES.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2011 SANBORN COLLECTION.

PLSS: T15S, R02W, Sec. 25, SW (S)
UTM: Zone-11 N3633375 E495893

Accuracy: 80 meters
Latitude/Longitude: 32.83842 / -117.04388

Area (acres): 5
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
SAN11S0099 SANBORN, J. - SANBORN #263 SD #226343 2011-08-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1753
Key Quad: La Mesa (3211771)
Occurrence Number: 87

EO Index: 103347
Element Code: PDAST57091
Occurrence Last Updated: 2016-09-12

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 2010-XX-XX
Last Survey Date: 2010-XX-XX
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
APPROXIMATELY 1 AIR MILE NW OF JUNCTION OF MISSION GORGE ROAD AND FATHER JUNIPERO SERRA TRAIL, NW OF LA MESA.

Detailed Location:
WITHIN MISSION TRAILS REGIONAL PARK. MAPPED AS 4 POLYGONS ACCORDING TO A 2010 HELIX MAP.

Ecological:
IN DIEGAN COASTAL SAGE SCRUB (INCLUDING DISTURBED) AND DEVELOPED LAND. VIGUIERA LACINIATA AND FEROCACTUS VIRIDESCENS OCCUR NEARBY.

Threats:
PORTIONS MAY BE IMPACTED BY PIPELINE RE-ALIGNMENT.

General:
310 INDIVIDUALS OBSERVED IN 2010.

PLSS: T15S, R02W, Sec. 34, NE (S)
UTM: Zone-11 N3632296 E493557

Accuracy: specific area
Latitude/Longitude: 32.82867 / -117.06883

Area (acres): 11
Elevation (feet): 715

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

HEL10R0024 HELIX ENVIRONMENTAL PLANNING, INC. - R0274 RELINING PIPELINE 4 STATE ROUTE 52 TO LAKE MURRAY & PIPELINE 3 30-INCH INTERCONNECT TO LAKE MURRAY CONTROL VALVE, BIOLOGICAL TECHNICAL REPORT 2010-10-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1767
Key Quad: La Jolla (3211772)
Occurrence Number: 88

EO Index: 103358
Element Code: PDAST57091
Occurrence Last Updated: 2016-09-08

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 2011-07-14
Last Survey Date: 2011-07-14
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
WEST SIDE OF LA JOLLA SCENIC DRIVE NORTH, ABOUT 220 YARDS SOUTH OF JUNCTION WITH VIA POSADA, LA JOLLA HEIGHTS.

Detailed Location:
LARGE VACANT LOT SOUTH OF A CHURCH PARKING LOT. MAPPED ACCORDING TO 2011 NENOW COORDINATES.

Ecological:
COASTAL SAGE SCRUB.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2011 NENOW COLLECTION.

PLSS: T15S, R04W, Sec. 24, SE (S)
UTM: Zone-11 N3635273 E477440

Accuracy: 80 meters
Latitude/Longitude: 32.85531 / -117.24111

Area (acres): 5
Elevation (feet): 363

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
NEN11S0002 NENOW, N. - NENOW #2039 UCR #255343, SD #252526 2011-07-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B3837
EO Index: 116754
Key Quad: National City (3211761)
Element Code: PDAST57091
Occurrence Number: 115
Occurrence Last Updated: 2019-08-29

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 2019-05-09
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2019-05-09
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
VACANT LOT ON NORTH SIDE OF E 16TH ST BETWEEN N AVE AND L AVE, NATIONAL CITY.

Detailed Location:
MAPPED ACCORDING TO SCHEIDT COORDINATES FROM INATURALIST.

Ecological:

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 2019.

PLSS: T17S, R02W, Sec. 21, SE (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3615080 E491444
Latitude/Longitude: 32.67335 / -117.09126
Elevation (feet): 57

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

SCH19U0005 SCHEIDT, V. - OBSERVATIONS OF AGAVE SHAWII VAR. SHAWII BY VINCE SCHEIDT FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-08-26. 2019-05-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B3839	**EO Index:**	116756
Key Quad:	La Mesa (3211771)	**Element Code:**	PDAST57091
Occurrence Number:	116	**Occurrence Last Updated:**	2019-08-30

Scientific Name: *Isocoma menziesii var. decumbens*

Common Name: decumbent goldenbush

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G3G5T2T3

State: S2

Rare Plant Rank: 1B.2

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, CHAPARRAL.

Micro Habitat:

SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed:	2013-06-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2013-06-15	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EAST SIDE OF LAKE MURRAY, MISSION TRAILS REGIONAL PARK.

Detailed Location:

MAPPED ACCORDING TO 2013 ROMAN COORDINATES FROM INATURALIST; ACCURRACY FOR COORDINATES IS GIVEN AS 223 M.

Ecological:

Threats:

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN 2013.

PLSS:	T16S, R02W, Sec. 13, NE (S)	**Accuracy:**	1/5 mile	**Area (acres):**	70
UTM:	Zone-11 N3627867 E496892	**Latitude/Longitude:**	32.78874 / -117.03319	**Elevation (feet):**	580

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

ROM13U0002 ROMAN, M. - OBSERVATION 301182 FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-08-30. 2013-06-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B3840	**EO Index:**	116757
Key Quad:	La Jolla (3211772)	**Element Code:**	PDAST57091
Occurrence Number:	117	**Occurrence Last Updated:**	2019-08-30

Scientific Name: *Isocoma menziesii var. decumbens*

Common Name: decumbent goldenbush

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G5T2T3

State: S2

General Habitat:

COASTAL SCRUB, CHAPARRAL.

Micro Habitat:

SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed:	2016-05-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-05-11	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

KEARNEY MESA; JUST EAST OF METROPOLITAN BIOSOLIDS CENTER, ~0.6 KM NW CONVOY STREET OVERPASS OF SR 52.

Detailed Location:

MAPPED ACCORDING TO 2016 ROBERTS COORDINATES.

Ecological:

MESA TOP ON CLAY SOIL. OPEN GOLDENBUSH SCRUB AND ANNUAL GRASSLAND.

Threats:

General:

ABOUT 300 PLANTS OBSERVED IN 2016.

PLSS:	T15S, R03W, Sec. 26, E (S)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3633776 E485287	**Latitude/Longitude:**	32.84194 / -117.15722	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

ROB16S0003 ROBERTS, F. ET AL. - ROBERTS #8195 SD #00023654 & #271751 2016-05-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B3841
Key Quad: La Jolla (3211772)
Occurrence Number: 118

EO Index: 116758
Element Code: PDAST57091
Occurrence Last Updated: 2019-08-30

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 2014-08-16
Last Survey Date: 2014-08-16
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
MARIAN BEAR NATURAL PARK; NEAR SW CORNER OF INTERSECTION OF HIGHWAY 52 AND I-805, SAN DIEGO.

Detailed Location:
NORTH OF MAIN TRAIL. MAPPED ACCORDING TO 2014 BREISCH COORDINATES.

Ecological:
FINE, HARD-PACKED DIRT. ASSOCIATED WITH SCRUB OAK, BUCKWHEAT, BACCHARIS, & GRASSES.

Threats:

General:
SITE IS BASED ON A 2014 BREISCH COLLECTION.

PLSS: T15S, R03W, Sec. 27, NW (S)
UTM: Zone-11 N3634196 E483056

Accuracy: 80 meters
Latitude/Longitude: 32.8457 / -117.18107

Area (acres): 5
Elevation (feet): 225

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
BRE14S0001 BREISCH, R. - BREISCH #1130 SD #258057 2014-08-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B3842
Key Quad: La Jolla (3211772)
Occurrence Number: 119

EO Index: 116759
Element Code: PDAST57091
Occurrence Last Updated: 2019-08-30

Scientific Name: *Isocoma menziesii var. decumbens*
Common Name: decumbent goldenbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G5T2T3
State: S2

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
SANDY SOILS; OFTEN IN DISTURBED SITES. 1-915 M.

Last Date Observed: 2012-06-06
Last Survey Date: 2012-06-06
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
KATE O SESSIONS MEMORIAL PARK; N PORTION NEAR PARKVIEW TERRACE, EAST OF SOLEDAD ROAD, PACIFIC BEACH.

Detailed Location:
IN THE UNDEVELOPED AREA OF THE PARK. MAPPED ACCORDING TO 2012 NENOW COORDINATES.

Ecological:
COASTAL SAGE SCRUB.

Threats:

General:
SITE IS BASED ON A 2012 NENOW COLLECTION.

PLSS: T16S, R04W, Sec. 1, NE (S)
UTM: Zone-11 N3630944 E477407

Accuracy: 80 meters
Latitude/Longitude: 32.81626 / -117.24136

Area (acres): 5
Elevation (feet): 375

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
NEN12S0006 NENOW, N. - NENOW #2544 SD #252525 2012-06-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36948
EO Index: 31945
Key Quad: Jamul Mountains (3211668)
Element Code: PDAST580A0
Occurrence Number: 24
Occurrence Last Updated: 2017-08-23

Scientific Name: *Iva hayesiana*
Common Name: San Diego marsh-elder

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:
RIVERWASHES. 1-430 M.

Last Date Observed: 2011-05-31
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2011-05-31
Occurrence Rank: Unknown
Owner/Manager: PVT, USFWS, STATE
Trend: Unknown
Presence: Presumed Extant

Location:
ALONG PROCTOR VALLEY ROAD WEST AND SOUTH OF GOBBLERS KNOB AND HORSESHOE BEND, CHULA VISTA.

Detailed Location:
4 POLYGONS MAPPED ACCORDING TO A 1995 RECON ENVIRONMENTAL MAP AND 2011 REBMAN COORDINATES.

Ecological:
MOSTLY REDDISH CLAY SUBSTRATES. COASTAL SAGE SCRUB WITH BAHIOPSIS LACINIATA, RHUS INTEGRIFOLIA, ARTEMISIA CALIFORNICA, CENTAUREA MELITENSIS, BRASSICA NIGRA, AND ISOCOMA MENZIESII VAR. DECUMBENS.

Threats:
BASED ON 2012 AERIAL IMAGERY, PORTIONS OF OCC HAVE BEEN EXTIRPATED BY DEVELOPMENT AND HWY CONSTRUCTION.

General:
SEEN AT EASTERN END OF OCCURRENCE IN 1989. "LOCALLY COMMON" THROUGHOUT OCCURRENCE IN 1995. 15% COVER NEAR MIDDLE OF OCC IN 2010. NOTED AS "RARE" NEAR MIDDLE OF OCCURRENCE IN 2011; PLANTS MAY HAVE BEEN PUT IN DURING RESTORATION EFFORTS.

PLSS: T17S, R01W, Sec. 28 (S)
Accuracy: specific area
Area (acres): 127
UTM: Zone-11 N3614180 E500794
Latitude/Longitude: 32.66527 / -116.99153
Elevation (feet): 250

County Summary:
San Diego

Quad Summary:
Jamul Mountains (3211668), National City (3211761)

Sources:

CHU91U0001	CITY OF CHULA VISTA - LETTER FROM GORDON HOWARD AND MAPS FROM ERC AND P&D BIOLOGICAL RESOURCES FROM VARIOUS EIRS. 1991-XX-XX
MIL02R0004	MILLER, K. ET AL. - 45-DAY REPORT FOR THE LEAST BELL'S VIREO (VIREO BELLII PUSILLUS) FOR THE BONITA MEADOWS MITIGATION SITE ADJACENT TO PROCTOR VALLEY ROAD IN SOUTHEAST SAN DIEGO COUNTY, CA. 2002-06-14
REB11S0041	REBMAN, J. ET AL. - REBMAN #22078 SD #219339 2011-05-31
REC95R0002	RECON - ADDENDUM, BIOLOGICAL RESOURCES TECHNICAL REPORT FOR STATE ROUTE 125 SOUTH, CITIZENS ADVISORY COMMITTEE VARIATION ALTERNATIVE 1995-06-21
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92574
EO Index: 93720
Key Quad: Imperial Beach (3211751)
Element Code: PDAST580A0
Occurrence Number: 37
Occurrence Last Updated: 2017-08-25

Scientific Name: *Iva hayesiana*
Common Name: San Diego marsh-elder

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:
RIVERWASHES. 1-430 M.

Last Date Observed: 2010-06-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2010-06-07
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA, PVT
Trend: Unknown
Presence: Presumed Extant

Location:
OTAY VALLEY BETWEEN I-805 AND HERITAGE RD CROSSING OF OTAY VALLEY, NORTH OF DENNERY CANYON.

Detailed Location:
11 POLYGONS MAPPED BY CNDDB, MOSTLY ON THE SOUTH SIDE OF OTAY VALLEY ROAD (MAIN ST). A 1970 GOEDEN COLLECTION FROM "OTAY RIVER WATERSHED, OTAY VALLEY RD, 3.6 MI E OF 3RD AVE" IS ALSO ATTRIBUTED TO THIS SITE.

Ecological:
SANDY-GRAVELLY RIVER BOTTOM PREVIOUSLY DISTURBED BY SAND & GRAVEL EXTRACTION OPERATIONS; SMALL SHRUBS & HERBACEOUS COVER. DISTURBED FLOODWAY WITH SCATTERED SALIX GOODDINGII, S. LASIOLEPIS, BACCHARIS GLUTINOSA, AND B. SAROTHROIDES.

Threats:
DEVELOPMENT. UPLANDS RECEIVE HEAVY ORV USE.

General:
10 W POLYGONS: 1000+ PLANTS OBSERVED IN 1984, "HIGH POPULATION DENSITY" OCCURRENCE OBSERVED IN 1990. E POLYGON: UNKNOWN NUMBER OF PLANTS SEEN IN ASSOCIATION WITH TAMARISK SCRUB DURING 1997-2004 SURVEYS. SEEN IN THIS VICINITY IN 2010.

PLSS: T18S, R01W, Sec. 19, N (S)
Accuracy: specific area
Area (acres): 65
UTM: Zone-11 N3606079 E498360
Latitude/Longitude: 32.59219 / -117.01746
Elevation (feet): 150

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

CHU06R0001	CITY OF CHULA VISTA - OTAY RANCH VILLAGES TWO, THREE, AND A PORTION OF VILLAGE FOUR, SECTIONAL PLANNING AREA (SPA) PLAN, FINAL SECOND TIER ENVIRONMENTAL IMPACT REPORT 2006-05-XX
GOE70S0001	GOEDEN, R. & D. RICKER - GOEDEN SN UCR #109676, RSA #643286 1970-06-09
PSB10R0001	PACIFIC SOUTHWEST BIOLOGICAL SERVICES (PACIFIC SOUTHWEST BIOLOGICAL SERVICES) - MAIN AND MAXWELL PROPERTY, OTAY RIVER VALLEY COASTAL CALIFORNIA GNATCATCHER PRESENCE/ABSENCE SURVEY. 2010-07-30
ROB92R0002	ROBERTS, ET AL. - OTAY RIVER VALLEY RESOURCE ENHANCEMENT PLAN PREPARED FOR THE COASTAL CONSERVANCY AND THE CITY OF CHULA VISTA 1992-09-23
WIE84F0016	WIER, E.N. - FIELD SURVEY FORM FOR IVA HAYESIANA 1984-07-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	36969	**EO Index:**	31966
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAST580A0
Occurrence Number:	38	**Occurrence Last Updated:**	2017-08-25

Scientific Name: *Iva hayesiana*

Common Name: San Diego marsh-elder

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G3

State: S2

General Habitat:

MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

RIVERWASHES. 1-430 M.

Last Date Observed:	2010-03-12	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2010-03-12	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF CHULA VISTA, SDG, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY VALLEY JUST SOUTH OF OTAY, BETWEEN I-805 AND BEYER BLVD.

Detailed Location:

3 POLYGONS MAPPED ACCORDING TO A 1985 SCHEIDT MAP, A 1992 ROBERTS MAP, AND 2010 VEGETATION SURVEY COORDINATES.

Ecological:

AREA DOMINATED BY SOUTHERN WILLOW SCRUB WITH AREAS OF FRESHWATER MARSH, BROOM BACCHARIS, AND MULEFAT SHRUBLAND. ASSOCIATED WITH SALIX LASIOLEPIS, S. GOODINGII, S. HINDSIANA, PLATANUS RACEMOSA, BACCHARIS SALICIFOLIA, TAMARIX, ETC.

Threats:

DEVELOPMENT, CHANNELIZATION, INVASIVE EXOTICS.

General:

1000+ PLANTS IN NUMEROUS COLONIES OBSERVED IN 1985. 7 COLONIES REPORTED IN 1990. 19% COVER OF IVA OBSERVED IN MIDDLE PART OF OCC IN 2010. COLLECTIONS AND OBSERVATIONS FROM 1937, 1962, AND 2009 FROM VICINITY OF OTAY ARE ATTRIBUTED HERE.

PLSS:	T18S, R02W, Sec. 23 (S)	**Accuracy:**	specific area	**Area (acres):**	147
UTM:	Zone-11 N3605753 E494593	**Latitude/Longitude:**	32.58924 / -117.05761	**Elevation (feet):**	50

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

ALG62S0001	ALGERT, E. - ALGERT SN CDA #8042 1962-06-27
GAN37S0046	GANDER, F. - GANDER #4257 SD #18035 1937-06-17
RIP09I0004	RIPMA, L. - PHOTOS OF IVA HAYESIANA, CALPHOTOS ID: 0000 0000 1009 0582, 0588 2009-05-20
ROB92R0002	ROBERTS, ET AL. - OTAY RIVER VALLEY RESOURCE ENHANCEMENT PLAN PREPARED FOR THE COASTAL CONSERVANCY AND THE CITY OF CHULA VISTA 1992-09-23
ROO37S0013	ROOS, J. - ROOS #2551 POM #266296, UCR #24028 1937-08-30
SCH85F0040	SCHEIDT, V. - FIELD SURVEY FORM FOR IVA HAYESIANA 1985-11-15
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92578	**EO Index:**	31970
Key Quad:	National City (3211761)	**Element Code:**	PDAST580A0
Occurrence Number:	39	**Occurrence Last Updated:**	2014-06-02

Scientific Name: *Iva hayesiana*

Common Name: San Diego marsh-elder

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G3

State: S2

General Habitat:

MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

RIVERWASHES. 1-430 M.

Last Date Observed:	1995-04-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1995-04-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	SDG COUNTY, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SWEETWATER RESERVOIR JUST SOUTHWEST OF SWEETWATER DAM, ABOUT 2.8 AIR MILES WEST OF SUMMIT OF MOTHER MIGUEL MOUNTAIN.

Detailed Location:

2 POLYGONS MAPPED IN THE WEST 1/2 OF THE SW 1/4 OF SECTION 17 ACCORDING TO A 1995 RECON ENVIRONMENTAL MAP.

Ecological:

RIVER BOTTOMLAND WITH SALIX, HYMENOCLEA MONOGYRA, BACCHARIS, ETC.

Threats:

BASED ON 2012 AERIAL IMAGERY, AT LEAST HALF OF THE OCCURRENCE HAS BEEN EXTIRPATED BY GOLF COURSE AND RD CONSTRUCTION.

General:

PLANTS NOTED AS LOCALLY COMMON IN 1995. A 1956 FERRIS COLLECTION FROM "SWEETWATER RIVER ~2 MILES ABOVE BONITA" IS ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS:	T17S, R01W, Sec. 17, SW (S)	**Accuracy:**	specific area	**Area (acres):**	21
UTM:	Zone-11 N3616706 E498780	**Latitude/Longitude:**	32.68806 / -117.01301	**Elevation (feet):**	150

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

FER56S0002	FERRIS, R. - FERRIS #13063 JEPS #18092, DS #381085, CAS-BOT-BC #324883 1956-09-15
REC95R0002	RECON - ADDENDUM, BIOLOGICAL RESOURCES TECHNICAL REPORT FOR STATE ROUTE 125 SOUTH, CITIZENS ADVISORY COMMITTEE VARIATION ALTERNATIVE 1995-06-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 64978
EO Index: 65057
Key Quad: La Mesa (3211771)
Element Code: PDAST580A0
Occurrence Number: 67
Occurrence Last Updated: 2014-06-03

Scientific Name: *Iva hayesiana*
Common Name: San Diego marsh-elder

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:
RIVERWASHES. 1-430 M.

Last Date Observed: 1935-06-21
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1935-06-21
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO?
Trend: Unknown
Presence: Presumed Extant

Location:
0.5 MILE SOUTHWEST OF MURRAY DAM IN ALVARADO CANYON.

Detailed Location:
MAPPED BY CNDDB AS A BEST GUESS.

Ecological:

Threats:
AREA HAS BEEN SIGNIFICANTLY DEVELOPED SINCE ORIGINAL OBSERVATION.

General:
BASED ON A 1934 YOUNGBERG COLLECTION AND A 1935 GANDER COLLECTION. NEEDS FIELDWORK.

PLSS: T16S, R02W, Sec. 14, SE (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3626689 E495026
Latitude/Longitude: 32.77810 / -117.05310
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

GAN35S0068 GANDER, F. - GANDER #22213 SD #11618 1935-06-21
YOU34S0004 YOUNGBERG, F. - YOUNGBERG SN POM #224517 1934-07-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92640
EO Index: 93790
Key Quad: Imperial Beach (3211751)
Element Code: PDAST580A0
Occurrence Number: 87
Occurrence Last Updated: 2014-06-05

Scientific Name: *Iva hayesiana*
Common Name: San Diego marsh-elder

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:
RIVERWASHES. 1-430 M.

Last Date Observed: 2003-08-26
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-08-26
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SOUTH SIDE OF POGGI CANYON, APPROXIMATELY 0.8 AIR MILE SOUTHEAST OF THE COMMUNITY HOSPITAL OF CHULA VISTA.

Detailed Location:
EXACT LOCATIONS UNKNOWN, MAPPED BY CNDDB AROUND GIVEN HABITAT OF SOUTHERN WILLOW SCRUB WITHIN RECON SURVEY SUBUNITS WHERE IVA IS REPORTED TO OCCUR.

Ecological:
SOUTHERN WILLOW SCRUB VEGETATION OF THE MAJOR DRAINAGE.

Threats:

General:
A FEW INDIVIDUALS OBSERVED IN 2003.

PLSS: T18S, R01W, Sec. 18, NE (S)
Accuracy: non-specific area
Area (acres): 10
UTM: Zone-11 N3607954 E498402
Latitude/Longitude: 32.60911 / -117.01703
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
REC04R0001 RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92641
Key Quad: Imperial Beach (3211751)
Occurrence Number: 88
EO Index: 93791
Element Code: PDAST580A0
Occurrence Last Updated: 2017-08-30

Scientific Name: *Iva hayesiana*
Common Name: San Diego marsh-elder

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S2
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:
RIVERWASHES. 1-430 M.

Last Date Observed: 2009-06-05
Last Survey Date: 2009-06-05
Owner/Manager: SDG COUNTY
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
TIJUANA RIVER VALLEY, APPROXIMATELY 1 AIR MILE SOUTHWEST OF THE INTERSECTION OF I-5 AND DAIRY MART ROAD.

Detailed Location:
MAPPED IN THE NW 1/4 OF THE SE 1/4 OF SECTION 3 ACCORDING TO 2009 VEGETATION SURVEY COORDINATES.

Ecological:
OPEN MULEFAT SCRUB ON RIPARIAN FLOODPLAIN BENCH. ASSOC W/ BACCHARIS SALICIFOLIA, GLEBIONIS CORONARIA, SALIX LAEVIGATA, S. LASIOLEPIS, TAMARIX RAMOSISSIMA, ISOCOMA MENZIESII VAR. MENZIESII, BRASSICA TOURNEFORTII, HIRSCHFELDIA INCANA, ETC.

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 2009.

PLSS: T19S, R02W, Sec. 03, SE (S)
UTM: Zone-11 N3601008 E493234
Accuracy: 80 meters
Latitude/Longitude: 32.54643 / -117.07206
Area (acres): 0
Elevation (feet): 55

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

VEG09F0268 VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR IVA HAYESIANA 2009-06-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92644
Key Quad: Point Loma (3211762)
Occurrence Number: 89
EO Index: 93794
Element Code: PDAST580A0
Occurrence Last Updated: 2014-06-05

Scientific Name: *Iva hayesiana*
Common Name: San Diego marsh-elder

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S2
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:
RIVERWASHES. 1-430 M.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SUNSET CLIFFS NATURAL PARK.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB TO ENCOMPASS THE PARK.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2012 NATIVE PLANT CHECKLIST FOR THE PARK, UNKNOWN WHEN PLANTS SEEN.

PLSS: T17S, R04W, Sec. 12, NW (S)
UTM: Zone-11 N3619952 E476189
Accuracy: non-specific area
Latitude/Longitude: 32.71708 / -117.25407
Area (acres): 59
Elevation (feet): 100

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

ANO12U0002 ANONYMOUS - NATIVE PLANTS AT SUNSET CLIFF NATURAL PARK 2012-06-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A6113
Key Quad: La Mesa (3211771)
Occurrence Number: 90
EO Index: 93796
Element Code: PDAST580A0
Occurrence Last Updated: 2017-08-28

Scientific Name: *Iva hayesiana*
Common Name: San Diego marsh-elder

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S2

Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:
RIVERWASHES. 1-430 M.

Last Date Observed: 2017-01-15
Last Survey Date: 2017-01-15
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
AT KUMEYAAY LAKE CAMPGROUND AND ABOUT 0.25 MILE WEST OF KUMEYAAY LAKE, MISSION TRAILS REGIONAL PARK, SAN DIEGO.

Detailed Location:
2 POLYGONS MAPPED BY CNDDB. EASTERN POLYGON IS SPECIFIC; WITHIN KUMEYAAY LAKE CAMPGROUND, BASED ON 2017 TOLLETT COORDINATES. WESTERN POLYGON IS NON-SPECIFIC, BASED ON 1999 SIMPSON COLLECTION FROM "~1/4 MILE W OF KUMEYAAY LAKE."

Ecological:
WESTERN POLYGON: SILTY LOAM. FLAT, EXPOSED, SPARSE WOODLAND. POSSIBLE FLOODPLAIN AREA.

Threats:

General:
UNKNOWN NUMBER OF PLANTS SEEN IN WESTERN POLYGON IN 1999. AT LEAST 3 PLANTS OBSERVED IN EASTERN POLYGON IN 2017.

PLSS: T15S, R02W, Sec. 25, E (S)
Accuracy: non-specific area
Area (acres): 71
UTM: Zone-11 N3633659 E496379
Latitude/Longitude: 32.84098 / -117.03869
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

SIM99S0001	SIMPSON, M. & L. SIMPSON - SIMPSON #2005 SDSU #12955 1999-08-11
TOL17U0001	TOLLETT, M. - OBSERVATION RECORD FOR IVA HAYESIANA, CALFLORA ID: CBO60952 2017-01-15
TOL17U0002	TOLLETT, M. - OBSERVATION RECORD FOR IVA HAYESIANA, CALFLORA ID: CBO60953 2017-01-15
TOL17U0003	TOLLETT, M. - OBSERVATION RECORD FOR IVA HAYESIANA, CALFLORA ID: CBO60959 2017-01-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92646
EO Index: 93797
Key Quad: La Mesa (3211771)
Element Code: PDAST580A0
Occurrence Number: 91
Occurrence Last Updated: 2014-06-05

Scientific Name: *Iva hayesiana*
Common Name: San Diego marsh-elder

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:
RIVERWASHES. 1-430 M.

Last Date Observed: 2010-01-08
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2010-01-08
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
NORTHEAST SIDE OF LAKE MURRAY, FROM 0.05 TO 0.65 AIR MILE SOUTH OF JACKSON DRIVE.

Detailed Location:
5 POLYGONS MAPPED ACCORDING TO A 2010 MAP BY HELIX ENVIRONMENTAL.

Ecological:
DIEGAN COASTAL SAGE SCRUB.

Threats:
1 INDIVIDUAL WOULD BE IMPACTED BY PIPELINE REALIGNMENT.

General:
2 INDIVIDUALS PLUS A 0.02-ACRE AREA OF THIS SPECIES OBSERVED IN 2010.

PLSS: T16S, R02W, Sec. 12, E (S)
Accuracy: specific area
Area (acres): 3
UTM: Zone-11 N3628457 E496497
Latitude/Longitude: 32.79405 / -117.03740
Elevation (feet): 600

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

HEL10R0024	HELIX ENVIRONMENTAL PLANNING, INC. - R0274 RELINING PIPELINE 4 STATE ROUTE 52 TO LAKE MURRAY & PIPELINE 3 30-INCH INTERCONNECT TO LAKE MURRAY CONTROL VALVE, BIOLOGICAL TECHNICAL REPORT 2010-10-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86432
Key Quad: La Jolla (3211772)
Occurrence Number: 92
EO Index: 93798
Element Code: PDAST580A0
Occurrence Last Updated: 2014-06-05

Scientific Name: *Iva hayesiana*
Common Name: San Diego marsh-elder

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S2
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:
RIVERWASHES. 1-430 M.

Last Date Observed: 2005-06-27
Last Survey Date: 2005-06-27
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
FAMOSA SLOUGH, NORTH OF INTERSECTION OF WEST POINT LOMA BLVD AND FAMOSA, POINT LOMA, CITY OF SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS A BEST GUESS.

Ecological:
STREAM BED WITH PACKED SOIL. DENSE VEGETATION WITH PENNISETUM CLANDESTINUM, JUNCUS ACUTUS, AND OENOTHERA ELATA.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2005 COLLECTION BY CAIN.

PLSS: T16S, R03W, Sec. 30, E (S)
UTM: Zone-11 N3624138 E478556
Accuracy: 1/5 mile
Latitude/Longitude: 32.75490 / -117.22891
Area (acres): 0
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
CAI05S0001 CAIN, I. & D. KIMBALL - CAIN #22 SD #170993 2005-06-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1469
Key Quad: National City (3211761)
Occurrence Number: 114
EO Index: 103050
Element Code: PDAST580A0
Occurrence Last Updated: 2016-08-16

Scientific Name: *Iva hayesiana*
Common Name: San Diego marsh-elder

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S2
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:
RIVERWASHES. 1-430 M.

Last Date Observed: 2013-09-12
Last Survey Date: 2013-09-12
Owner/Manager: CITY OF SAN DIEGO?
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:
BANK OF SOUTH BRANCH OF CHOLLAS CREEK, IMMEDIATELY S OF DOROTHY PETWAY NEIGHBORHOOD PARK, JUST E OF I-5/I-15 JUNCTION.

Detailed Location:
MAPPED ACCORDING TO 2013 MACGREGOR COORDINATES, IN THE SW 1/4 OF THE SW 1/4 OF SECTION 17.

Ecological:
GROWING ON NATURAL (UNPAVED) SOUTH BANK OF THE CREEK IN A LARGE MOUND AND AT EDGE OF CREEK. ASSOCIATED WITH ROSA CALIFORNICA, RIBES SPECIOSUM, ELYMUS CONDENSATUS, AND ARTEMISIA DOUGLASIANA. COASTAL SAGE PLANTS OCCUR ABOVE CREEK.

Threats:
TRAMPLING?

General:
1-2 PLANTS OBSERVED IN 2013.

PLSS: T17S, R02W, Sec. 17, SW (S)
UTM: Zone-11 N3617044 E488950
Accuracy: specific area
Latitude/Longitude: 32.69106 / -117.11788
Area (acres): 1
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
MAC13F0013 MACGREGOR, C. (REC CONSULTING, INC.) - FIELD SURVEY FORM FOR IVA HAYESIANA 2013-09-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 44529
Key Quad: Imperial Beach (3211751)
Occurrence Number: 131

EO Index: 103142
Element Code: PDAST580A0
Occurrence Last Updated: 2016-08-23

Scientific Name: *Iva hayesiana*
Common Name: San Diego marsh-elder

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S2

Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:
RIVERWASHES. 1-430 M.

Last Date Observed: 1894-06-28
Last Survey Date: 1894-06-28
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SAN YSIDRO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS AN 1894 MEARNS COLLECTION. NEEDS FIELDWORK.

PLSS: T18S, R02W, Sec. 36 (S)
UTM: Zone-11 N3601939 E496144

Accuracy: 1 mile
Latitude/Longitude: 32.55484 / -117.04107

Area (acres): 0
Elevation (feet):

County Summary:
San Diego, Mexico

Quad Summary:
Imperial Beach (3211751)

Sources:
MEA94S0010 MEARNS, E. & L. SCHOENFELDT - MEARNS #3814 DS #4668, CAS-BOT-BC #382560 1894-06-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A6149
Key Quad: La Mesa (3211771)
Occurrence Number: 135

EO Index: 107905
Element Code: PDAST580A0
Occurrence Last Updated: 2017-08-29

Scientific Name: *Iva hayesiana*
Common Name: San Diego marsh-elder

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S2

Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:
RIVERWASHES. 1-430 M.

Last Date Observed: 2010-06-30
Last Survey Date: 2010-06-30
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SOUTHEAST CORNER OF THE INTERCHANGE BETWEEN I-8 AND COLLEGE AVE, NORTHEAST OF SAN DIEGO STATE UNIVERSITY.

Detailed Location:
MAPPED IN THE WEST 1/2 OF THE SW 1/4 OF SECTION 14.

Ecological:
ASSOCIATED WITH WASHINGTONIA ROBUSTA, SALIX GOODDINGII, SCHINUS MOLLE, POPULUS FREMONTII SSP. FREMONTII, LEYMUS CONDENSATUS, BACCHARIS SALICIFOLIA, ARUNDO DONAX, SAMBUCUS NIGRA SSP. CERULEA, PHOENIX CANARIENSIS, RUMEX CRISPUS, ETC.

Threats:

General:
7% COVER OF IVA HAYESIANA OBSERVED DURING 2010 VEGETATION SURVEYS.

PLSS: T16S, R02W, Sec. 14, SW (S)
UTM: Zone-11 N3626677 E493799

Accuracy: 80 meters
Latitude/Longitude: 32.77798 / -117.06622

Area (acres): 5
Elevation (feet): 311

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

VEG16U0001 VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A6151
Key Quad: La Jolla (3211772)
Occurrence Number: 136

EO Index: 107907
Element Code: PDAST580A0
Occurrence Last Updated: 2017-08-29

Scientific Name: *Iva hayesiana*
Common Name: San Diego marsh-elder

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S2

Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:
RIVERWASHES. 1-430 M.

Last Date Observed: 1998-XX-XX
Last Survey Date: 1998-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
ROSE CANYON, BETWEEN GENESEE AVE AND I-805.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN WESTERN PORTION OF A PROJECT SITE PROVIDED IN A 1998 REPORT; IVA HAYESIANA REPORTED AS OCCURRING "ONLY IN A REVEGETATION SITE AT THE WEST END OF THE STUDY AREA."

Ecological:
THE RARE JUNCUS ACUTUS SSP. LEOPOLDII ALSO OCCURS AT THIS SITE.

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 1998.

PLSS: T15S, R03W, Sec. 21, NW (S)
UTM: Zone-11 N3636057 E480861

Accuracy: non-specific area
Latitude/Longitude: 32.86245 / -117.20457

Area (acres): 39
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

MAY98U0001 MAYER, D. (MERKEL AND ASSOCIATES, INC.) - CALIFORNIA GNATCATCHER SURVEYS FOR THE MIRAMAR TRUNK SEWER PROJECT, ROSE CANYON AREA. 1998-08-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A6159	**EO Index:**	107916
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDAST580A0
Occurrence Number:	143	**Occurrence Last Updated:**	2017-09-13

Scientific Name: *Iva hayesiana*

Common Name: San Diego marsh-elder

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G3

State: S2

General Habitat:

MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

RIVERWASHES. 1-430 M.

Last Date Observed:	2009-10-22	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-10-22	**Occurrence Rank:**	Unknown
Owner/Manager:	USFWS-TIJUANA SLOUGH NWR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

TIJUANA SLOUGH, ABOUT 1 AIR MILE SOUTH OF THE JUNCTION OF TOWER ROAD AND CONNECTICUT ST.

Detailed Location:

MAPPED IN THE NE 1/4 OF THE NE 1/4 OF SECTION 6 ACCORDING TO 2009 VEGETATION SURVEY COORDINATES.

Ecological:

ASSOCIATED WITH BROMUS DIANDRUS, ATRIPLEX CANESCENS, DISTICHLIS SPICATA, RAPHANUS SATIVUS, CHLORACANTHA SPINOSA, FRANKENIA SALINA, CYLINDROPUNTIA, CROTON CALIFORNICUS, AND ARUNDO DONAX.

Threats:

General:

LESS THAN 1% COVER OF IVA HAYESIANA OBSERVED DURING 2009 VEGETATION SURVEYS. HISTORIC COLLECTIONS FROM 1902, 1903, AND 1931 FROM "TIAJUANA RIVER" ARE ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS:	T19S, R02W, Sec. 6, NE (S)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3601866 E488792	**Latitude/Longitude:**	32.55413 / -117.11938	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

ABR03S0045	ABRAMS, L. - ABRAMS #3514 DS #4664, POM #156545, CAS-BOT-BC #324878 1903-05-14
ANO31S0006	ANONYMOUS - ANONYMOUS #1566 SDSU #2755 1931-07-01
HER02S0002	HERRE, A. - HERRE SN DS #143069, CAS-BOT-BC #324879 1902-08-08
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A6161
Key Quad: Imperial Beach (3211751)
Occurrence Number: 144

EO Index: 107918
Element Code: PDAST580A0
Occurrence Last Updated: 2017-08-30

Scientific Name: *Iva hayesiana*
Common Name: San Diego marsh-elder

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S2

Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:
RIVERWASHES. 1-430 M.

Last Date Observed: 2006-02-26
Last Survey Date: 2006-02-26
Owner/Manager: DPR-BORDER FIELD SP
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
BORDER FIELD STATE PARK, ABOUT 0.6 AIR MILE NORTH OF MILE MARKER 258 ON THE US/MEXICO BORDER.

Detailed Location:
MAPPED ACCORDING TO 2006 VEGETATION SURVEY COORDINATES.

Ecological:
ASSOCIATED WITH ABRONIA MARITIMA, ISOCOMA MENZIESII, CAMISSONIA CHEIRANTHIFOLIA, AMBROSIA CHAMISSONIS, ATRIPLEX CANESCENS, A. SEMIBACCATA, CYLINDROPUNTIA PROLIFERA, CARPOBROTUS EDULIS, SALSOLA TRAGUS, ISOCOMA MENZIESII, ETC.

Threats:

General:
ABOUT 1% COVER OF IVA HAYESIANA OBSERVED DURING 2006 VEGETATION SURVEYS.

PLSS: T19S, R02W, Sec. 6, S (S)
Accuracy: specific area
Area (acres): 5
UTM: Zone-11 N3600367 E488386
Latitude/Longitude: 32.54061 / -117.12368
Elevation (feet): 12

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

VEG16U0001 VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A6162
EO Index: 107919
Key Quad: Imperial Beach (3211751)
Element Code: PDAST580A0
Occurrence Number: 145
Occurrence Last Updated: 2017-08-30

Scientific Name: *Iva hayesiana*
Common Name: San Diego marsh-elder

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:
RIVERWASHES. 1-430 M.

Last Date Observed: 2016-10-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2016-10-12
Occurrence Rank: Unknown
Owner/Manager: DPR-BORDER FIELD SP
Trend: Unknown
Presence: Presumed Extant

Location:
MONUMENT ROAD, ABOUT 1.1 AIR MILES WEST OF ITS JUNCTION WITH 19TH STREET, BORDER FIELD STATE PARK.

Detailed Location:
MAPPED IN THE EAST 1/2 OF THE SW 1/4 OF SECTION 5 ACCORDING TO 2016 MORSE COORDINATES.

Ecological:

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 2016.

PLSS: T19S, R02W, Sec. 5, SW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3600683 E489524
Latitude/Longitude: 32.54347 / -117.11157
Elevation (feet): 18

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
MOR16U0020 MORSE, K. - OBSERVATION RECORD FOR IVA HAYESIANA, CALFLORA ID: CBO55935 2016-10-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03729
Key Quad: La Jolla (3211772)
Occurrence Number: 38
EO Index: 7268
Element Code: PDAST5L0A1
Occurrence Last Updated: 2010-11-23

Scientific Name: *Lasthenia glabrata ssp. coulteri*
Common Name: Coulter's goldfields

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4T2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_SBBG-Santa Barbara Botanic Garden

General Habitat:
COASTAL SALT MARSHES, PLAYAS, VERNAL POOLS.

Micro Habitat:
USUALLY FOUND ON ALKALINE SOILS IN PLAYAS, SINKS, AND GRASSLANDS. 1-1375 M.

Last Date Observed: 1939-03-21
Last Survey Date: 1939-03-21
Owner/Manager: CITY OF SAN DIEGO?
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
EAST END OF MISSION BAY.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS CENTERED IN THE EAST END OF MISSION BAY.

Ecological:
SALT MARSH.

Threats:

General:
SITE BASED ON A 1939 GANDER COLLECTION; MENTIONED AS "OCCASIONAL" IN 1939. BEAUCHAMP BOOK AND HIGGINS BOOK CITE "MISSION BAY" AND ARE ATTRIBUTED TO THIS OCCURRENCE. NEEDS FIELDWORK.

PLSS: T16S, R03W, Sec. 17 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3626690 E479422
Latitude/Longitude: 32.77793 / -117.21973
Elevation (feet):

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

BEA86B0001	BEAUCHAMP, R. - A FLORA OF SAN DIEGO COUNTY, CALIFORNIA 1986-XX-XX
GAN39S0010	GANDER, F. - GANDER #7001 SD #24332, RSA #26437, LA #103884 1939-03-21
HIG49B0001	HIGGINS, E. - ANNOTATED DISTRIBUTIONAL LIST OF THE FERNS AND FLOWERING PLANTS OF SAN DIEGO COUNTY 1949-11-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 23744
Key Quad: La Jolla (3211772)
Occurrence Number: 39
EO Index: 7202
Element Code: PDAST5L0A1
Occurrence Last Updated: 2010-12-23

Scientific Name: *Lasthenia glabrata ssp. coulteri*
Common Name: Coulter's goldfields

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4T2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_SBBG-Santa Barbara Botanic Garden

General Habitat:
COASTAL SALT MARSHES, PLAYAS, VERNAL POOLS.

Micro Habitat:
USUALLY FOUND ON ALKALINE SOILS IN PLAYAS, SINKS, AND GRASSLANDS. 1-1375 M.

Last Date Observed: 1876-04-XX
Last Survey Date: 1876-04-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SAN DIEGO RIVER AT OLD TOWN, SAN DIEGO.

Detailed Location:

Ecological:
GROWING IN SALT MARSH. ON A SALINE FLAT.

Threats:

General:
SITE BASED ON AN ANONYMOUS 1876 COLLECTION. NEEDS FIELDWORK.

PLSS: T16S, R03W, Sec. 28 (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3624427 E481397
Latitude/Longitude: 32.75755 / -117.19859
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Point Loma (3211762), La Jolla (3211772)

Sources:

ANO76S0005	ANONYMOUS - ANONYMOUS SN SD #8871 1876-04-XX
BEA86B0001	BEAUCHAMP, R. - A FLORA OF SAN DIEGO COUNTY, CALIFORNIA 1986-XX-XX
REI94U0002	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 80801
EO Index: 22068
Key Quad: National City (3211761)
Element Code: PDAST5L0A1
Occurrence Number: 40
Occurrence Last Updated: 2019-04-18

Scientific Name: *Lasthenia glabrata ssp. coulteri*
Common Name: Coulter's goldfields

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_SBBG-Santa Barbara Botanic Garden

CNDDB Element Ranks: **Global:** G4T2
State: S2

General Habitat:

COASTAL SALT MARSHES, PLAYAS, VERNAL POOLS.

Micro Habitat:

USUALLY FOUND ON ALKALINE SOILS IN PLAYAS, SINKS, AND GRASSLANDS. 1-1375 M.

Last Date Observed: 2001-04-30
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-04-30
Occurrence Rank: Unknown
Owner/Manager: USFWS-SAN DIEGO BAY NWR
Trend: Unknown
Presence: Presumed Extant

Location:

SWEETWATER MARSH NATIONAL WILDLIFE REFUGE, NEAR CHULA VISTA.

Detailed Location:

WEST OF RAILROAD TRACK. MAPPED BY CNDDB BASED ON 2001 ELVIN COORDINATES, IN THE SE 1/4 OF PROJECTED SECTION 32.

Ecological:

SALT PANS IN MIDDLE OF BACKDUNE MARSH, ON SLIGHT RISE. SANDY/SILTY SOILS. ASSOCIATES INCLUDE FRANKENIA, HORDEUM INTERCEDENS, ETC.

Threats:

General:

SITE BASED ON A 2001 ELVIN COLLECTION; DESCRIBED AS "SCARCE, BUT LOCALLY COMMON" IN 2001. 1969 WITHAM COLLECTION FROM "MOUTH OF SWEETWATER RIVER" AND BEAUCHAMP BOOK CITING "CHULA VISTA" ARE ATTRIBUTED TO THIS SITE.

PLSS: T17S, R02W, Sec. 32, SE (S)
Accuracy: 1/10 mile
Area (acres): 18
UTM: Zone-11 N3611752 E490205
Latitude/Longitude: 32.64333 / -117.10444
Elevation (feet): 5

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

BEA86B0001 BEAUCHAMP, R. - A FLORA OF SAN DIEGO COUNTY, CALIFORNIA 1986-XX-XX

ELV01S0015 ELVIN, M. ET AL. - ELVIN #1616 UCR #263682 2001-04-30

WIT69S0004 WITHAM, H. - WITHAM #201 SD #70324 1969-04-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04063
EO Index: 7522
Key Quad: Imperial Beach (3211751)
Element Code: PDAST5L0A1
Occurrence Number: 41
Occurrence Last Updated: 2010-11-23

Scientific Name: *Lasthenia glabrata ssp. coulteri*
Common Name: Coulter's goldfields

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_SBBG-Santa Barbara Botanic Garden

CNDDB Element Ranks: **Global:** G4T2
State: S2

General Habitat:

COASTAL SALT MARSHES, PLAYAS, VERNAL POOLS.

Micro Habitat:

USUALLY FOUND ON ALKALINE SOILS IN PLAYAS, SINKS, AND GRASSLANDS. 1-1375 M.

Last Date Observed: 1938-04-24
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1938-04-24
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

TIJUANA VALLEY, NEAR OCEAN.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS IN TIJUANA RIVER VALLEY, NEAR THE OCEAN.

Ecological:

SALT MARSH.

Threats:

General:

SITE BASED ON A 1938 HOWE COLLECTION. BEAUCHAMP BOOK CITES "TIJUANA RIVER ESTUARY" AND ZEDLER REPORT CITES "TIJUANA ESTUARY" WHICH ARE ATTRIBUTED TO THIS OCCURRENCE. NEEDS FIELDWORK.

PLSS: T19S, R02W, Sec. 06 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3601638 E488278
Latitude/Longitude: 32.55207 / -117.12485
Elevation (feet):

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

BEA86B0001	BEAUCHAMP, R. - A FLORA OF SAN DIEGO COUNTY, CALIFORNIA 1986-XX-XX
HOW38S0021	HOWE, D. - HOWE #627 SD #112561 1938-04-24
ZED82R0001	ZEDLER, J. - THE ECOLOGY OF SOUTHERN CALIFORNIA COASTAL SALT MARSHES: A COMMUNITY PROFILE, USFWS, BIOLOGICAL SERVICES PROGRAM, WASHINGTON, D.C. FWS/0BS-81/84.110PP (SOUTHERN COASTAL SALT MARSH) 1982-03-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17808
Key Quad: La Jolla (3211772)
Occurrence Number: 43
EO Index: 2520
Element Code: PDAST5L0A1
Occurrence Last Updated: 2010-11-23

Scientific Name: *Lasthenia glabrata ssp. coulteri*
Common Name: Coulter's goldfields

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4T2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_SBBG-Santa Barbara Botanic Garden

General Habitat:
COASTAL SALT MARSHES, PLAYAS, VERNAL POOLS.

Micro Habitat:
USUALLY FOUND ON ALKALINE SOILS IN PLAYAS, SINKS, AND GRASSLANDS. 1-1375 M.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SOUTH OF MIRAMAR ROAD AND WEST OF EASTGATE MALL INTERSECTION, WEST OF MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

Ecological:
IN VERY MESIC GRASSLANDS NEAR VERNAL POOLS.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS DESCRIPTION LISTED BY REISER WITH AN UNKNOWN DATE. NEEDS FIELDWORK.

PLSS: T15S, R03W (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3637171 E482684
Latitude/Longitude: 32.87253 / -117.18509
Elevation (feet): 380

County Summary:
San Diego

Quad Summary:
La Jolla (3211772), Del Mar (3211782)

Sources:
REI94U0002 REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 80867
EO Index: 81845
Key Quad: National City (3211761)
Element Code: PDAST5L0A1
Occurrence Number: 68
Occurrence Last Updated: 2010-11-29

Scientific Name: *Lasthenia glabrata ssp. coulteri*
Common Name: Coulter's goldfields

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G4T2
State: S2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_SBBG-Santa Barbara Botanic Garden

General Habitat:
COASTAL SALT MARSHES, PLAYAS, VERNAL POOLS.

Micro Habitat:
USUALLY FOUND ON ALKALINE SOILS IN PLAYAS, SINKS, AND GRASSLANDS. 1-1375 M.

Last Date Observed: 2006-04-09
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-04-09
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
NORTH CHOLLAS CANYON, CHOLLAS LAKE COMMUNITY PARK, CITY OF LEMON GROVE.

Detailed Location:
160 METERS SOUTHEAST OF PARKING LOT.

Ecological:
ROCKY, SEMI-DISTURBED AREA NEXT TO ROAD. ASSOCIATED SPECIES INCLUDE ISOCOMA MENZIESII, MELILOTUS INDICUS AND CHRYSANTHEMUM CORONARIUM.

Threats:

General:
UNKNOWN NUMBER OF PLANTS SEEN. ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2006 CAIN COLLECTION.

PLSS: T16S, R02W, Sec. 34, E (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3622150 E493476
Latitude/Longitude: 32.73715 / -117.06962
Elevation (feet): 345

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
CAI06S0002 CAIN, I. & T. FOSTER - CAIN #184 SD #178763 2006-04-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17841
EO Index: 81846
Key Quad: National City (3211761)
Element Code: PDAST5L0A1
Occurrence Number: 69
Occurrence Last Updated: 2010-11-30

Scientific Name: *Lasthenia glabrata ssp. coulteri*
Common Name: Coulter's goldfields

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G4T2
State: S2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_SBBG-Santa Barbara Botanic Garden

General Habitat:
COASTAL SALT MARSHES, PLAYAS, VERNAL POOLS.

Micro Habitat:
USUALLY FOUND ON ALKALINE SOILS IN PLAYAS, SINKS, AND GRASSLANDS. 1-1375 M.

Last Date Observed: 1892-05-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1892-05-12
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:
NATIONAL RANCH.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS CENTERED ON NATIONAL CITY. NATIONAL RANCH IS NOW KNOWN AS NATIONAL CITY.

Ecological:
NEAR SALT MARSHES.

Threats:
MUCH DEVELOPMENT HAS OCCURRED IN THIS AREA SINCE 1892. PROBABLY EXTIRPATED.

General:
SITE BASED ON VAGUE COLLECTIONS FROM THE LATE 1800S. NEEDS FIELDWORK.

PLSS: T17S, R02W (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3615016 E491044
Latitude/Longitude: 32.67278 / -117.09552
Elevation (feet):

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

CLE84S0008	CLEVELAND, D. - CLEVELAND SN UC #174186, SD #8875, GH #283123 1884-05-28
CLE85S0010	CLEVELAND, D. & E. GREEN - CLEVELAND SN SD #8874 1885-03-30
CLE92S0002	CLEVELAND, D. - CLEVELAND SN SD #8873 1892-05-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03993	**EO Index:**	48548
Key Quad:	La Jolla (3211772)	**Element Code:**	PDAST8H060
Occurrence Number:	19	**Occurrence Last Updated:**	2017-08-18

Scientific Name: *Senecio aphanactis*

Common Name: chaparral ragwort

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND, COASTAL SCRUB.

Micro Habitat:

DRYING ALKALINE FLATS. 20-1020 M.

Last Date Observed:	1903-03-22	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1903-03-22	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

UNIVERSITY HEIGHTS, SAN DIEGO.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN GENERAL VICINITY OF UNIVERSITY HEIGHTS IN SAN DIEGO.

Ecological:

Threats:

General:

MAIN SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1901 COLLECTION BY BRANDEGEE. SEVERAL VAGUE "SAN DIEGO" COLLECTIONS FROM 1861 THROUGH 1903 ARE ALSO ATTRIBUTED TO THIS OCCURRENCE. NEEDS FIELDWORK.

PLSS:	T16S, R03W, Sec. 25 (S)	**Accuracy:**	1 mile	**Area (acres):**	0
UTM:	Zone-11 N3624353 E486888	**Latitude/Longitude:**	32.75696 / -117.13998	**Elevation (feet):**	

County Summary:	**Quad Summary:**
San Diego	National City (3211761), Point Loma (3211762), La Mesa (3211771), La Jolla (3211772)

Sources:

ANO84S0030	ANONYMOUS - ANONYMOUS #645 GH #427819 1884-03-11
BRA01S0006	BRANDEGEE, K. - BRANDEGEE SN UC #91432 1901-04-XX
BRA03S0007	BRANDEGEE, T. - BRANDEGEE #3414 UC #131607 & #131758, DS #72689, CAS #12222, POM #115, GH #427818, CAS-BOT-BC #327379 & #327386 1903-03-22
BRA95S0005	BRANDEGEE, T. - BRANDEGEE SN UC #91430, RSA #473124 1895-03-04
CLE84S0009	CLEVELAND, D. - CLEVELAND SN UC #91428 1884-02-14
COO61S0006	COOPER, J. - COOPER SN GH #427816 1861-XX-XX
PRI82S0015	PRINGLE, C. - PRINGLE SN CAS-BOT-BC #327391, CAS #420444 1882-04-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86498
EO Index: 48561
Key Quad: Imperial Beach (3211751)
Element Code: PDAST8H060
Occurrence Number: 26
Occurrence Last Updated: 2012-08-14

Scientific Name: *Senecio aphanactis*
Common Name: chaparral ragwort

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
CHAPARRAL, CISMONTANE WOODLAND, COASTAL SCRUB.

Micro Habitat:
DRYING ALKALINE FLATS. 20-1020 M.

Last Date Observed: 1938-03-27
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1938-03-27
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
WESTERN EDGE OF LICHTY MESA, NORTH OF TIJUANA.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN GENERAL VICINITY OF THE WESTERN SIDE OF LICHTY MESA.

Ecological:
OPEN, EXPOSED SOILS.

Threats:

General:
MAIN SOURCE OF INFO IS SITE NAME GIVEN IN A 2007 SCHEIDT REPORT; UNSURE WHEN PLANTS WERE ORIGINALLY SEEN AND WHETHER OR NOT THEY WERE RELOCATED IN 2006 SURVEYS. A 1938 HOWE COLLECTION FROM "MESA ABOVE TIAJUANA, US SIDE" IS ATTRIBUTED HERE.

PLSS: T19S, R02W, Sec. 08, W (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3599824 E488890
Latitude/Longitude: 32.53571 / -117.11830
Elevation (feet):

County Summary:
San Diego, Mexico

Quad Summary:
Imperial Beach (3211751)

Sources:

HOW38S0024	HOWE, D. - HOWE #604 SD #112501 1938-03-27
SCH07R0001	SCHEIDT, V. - THE LICHTY MESA, A BIOLOGICAL RESOURCES SURVEY REPORT AND EVALUATION OF RESOURCE VALUE, APN 663-020-02, SAN DIEGO, CA 2007-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 39945
EO Index: 48562
Key Quad: Point Loma (3211762)
Element Code: PDAST8H060
Occurrence Number: 27
Occurrence Last Updated: 2002-08-13

Scientific Name: *Senecio aphanactis*
Common Name: chaparral ragwort

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
CHAPARRAL, CISMONTANE WOODLAND, COASTAL SCRUB.

Micro Habitat:
DRYING ALKALINE FLATS. 20-1020 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:
SILVER STRAND.

Detailed Location:
EXACT LOCATION UNKNOWN, MAPPED BY CNDDB IN VICINITY OF SILVER STRAND.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS REFERENCE IN REISER WHICH SUGGESTS THIS SITE IS LIKELY NO LONGER EXTANT. NEEDS FIELDWORK.

PLSS: T18S, R03W, Sec. 01 (S)
Accuracy: non-specific area
Area (acres): 1,584
UTM: Zone-11 N3611215 E486531
Latitude/Longitude: 32.63845 / -117.14360
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751), Point Loma (3211762)

Sources:
REI01B0001 REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36619
Key Quad: La Jolla (3211772)
Occurrence Number: 28
EO Index: 48563
Element Code: PDAST8H060
Occurrence Last Updated: 2012-08-29

Scientific Name: *Senecio aphanactis*
Common Name: chaparral ragwort

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S2
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPARRAL, CISMONTANE WOODLAND, COASTAL SCRUB.

Micro Habitat:
DRYING ALKALINE FLATS. 20-1020 M.

Last Date Observed: 1922-04-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
PACIFIC BEACH.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN GENERAL VICINITY OF PACIFIC BEACH.

Ecological:

Threats:

General:
OCCURRENCE IS BASED ON A 1922 COLLECTION BY SNYDER AND AN UNDATED REFERENCE IN REISER'S "RARE PLANTS OF SAN DIEGO COUNTY," WHERE HE SUGGESTS THAT THIS SITE MAY NO LONGER BE EXTANT. NEEDS FIELDWORK.

PLSS: T16S, R04W, Sec. 12 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3629673 E477019
Latitude/Longitude: 32.80479 / -117.24546
Elevation (feet):

County Summary:
San Diego, Pacific Ocean

Quad Summary:
La Jolla (3211772)

Sources:

REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
SNY22S0001	SNYDER, M. - SNYDER SN SD #5896 1922-04-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 49467
EO Index: 48564
Key Quad: La Mesa (3211771)
Element Code: PDAST8H060
Occurrence Number: 29
Occurrence Last Updated: 2012-08-15

Scientific Name: *Senecio aphanactis*
Common Name: chaparral ragwort

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
CHAPARRAL, CISMONTANE WOODLAND, COASTAL SCRUB.

Micro Habitat:
DRYING ALKALINE FLATS. 20-1020 M.

Last Date Observed: 1951-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:
KEARNEY MESA, 6 MILES NORTH OF SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN VICINITY OF KEARNY VILLA RD/I-5 AROUND 6 ROAD MILES NORTH OF SAN DIEGO. BASED ON 1951 COLLECTION FROM "6 MI N OF SAN DIEGO ON ESCONDIDO RD" AND REISER "KEARNEY MESA" SITE NAME.

Ecological:
ALONG OUTCROP OF RED ROCK.

Threats:

General:
OCCURRENCE IS BASED ON A 1951 COLLECTION BY PEARSON AND AN UNDATED REFERENCE IN REISER'S "RARE PLANTS OF SAN DIEGO COUNTY," WHERE HE SUGGESTS THAT THIS SITE MAY NO LONGER BE EXTANT. NEEDS FIELDWORK.

PLSS: T15S, R02W, Sec. 17 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3636766 E489089
Latitude/Longitude: 32.86896 / -117.11662
Elevation (feet):

County Summary:
San Diego

Quad Summary:
La Mesa (3211771), La Jolla (3211772), Poway (3211781), Del Mar (3211782)

Sources:

PEI51S0006	PEIRSON, F. - PEIRSON #3358 RSA #94839 1951-XX-XX
REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86503
EO Index: 87539
Key Quad: La Mesa (3211771)
Element Code: PDAST8H060
Occurrence Number: 37
Occurrence Last Updated: 2012-08-15

Scientific Name: *Senecio aphanactis*
Common Name: chaparral ragwort

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
CHAPARRAL, CISMONTANE WOODLAND, COASTAL SCRUB.

Micro Habitat:
DRYING ALKALINE FLATS. 20-1020 M.

Last Date Observed: 1935-04-01
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1935-04-01
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
MISSION GORGE, NORTHEAST OF SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB ALONG ENTIRE LENGTH OF MISSION GORGE.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1935 COLLECTION BY PURER. NEEDS FIELDWORK.

PLSS: T15S, R02W, Sec. 35 (S)
Accuracy: non-specific area
Area (acres): 186
UTM: Zone-11 N3631803 E494757
Latitude/Longitude: 32.82423 / -117.05600
Elevation (feet):

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
PUR35S0010 PURER, E. - PURER #6181 SD #30790, SEINET #11802862, M #198867 1935-04-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36703
EO Index: 2969
Key Quad: Point Loma (3211762)
Element Code: PDAST8Y070
Occurrence Number: 1
Occurrence Last Updated: 1998-07-29

Scientific Name: *Stylocline citroleum*
Common Name: oil neststraw

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:
CHENOPOD SCRUB, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
FLATS, CLAY SOILS IN OIL-PRODUCING AREAS. 50-400 M.

Last Date Observed: 1883-04-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1883-04-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SAN DIEGO.

Detailed Location:
EXACT LOCATION NOT KNOWN; MAPPED IN GENERAL VICINTY OF SAN DIEGO.

Ecological:

Threats:

General:
KNOWN FROM SINGLE COLLECTION BY CLEVELAND IN APRIL OF 1883 (SN, SD).

PLSS: T16S, R02W, Sec. 30 (S)
Accuracy: 5 miles
Area (acres): 0
UTM: Zone-11 N3623191 E487885
Latitude/Longitude: 32.74650 / -117.12931
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
National City (3211761), Point Loma (3211762), La Mesa (3211771), La Jolla (3211772)

Sources:

MOR92A0001 MOREFIELD, J.D. - THREE NEW SPECIES OF STYLOCLINE (ASTERACEAE: INULEAE) FROM CALIFORNIA AND THE MOJAVE DESERT. MADRONO VOL.39, NO. 2, PP. 114-130. 1992-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04151
EO Index: 18159
Key Quad: La Mesa (3211771)
Element Code: PDBOR0H010
Occurrence Number: 8
Occurrence Last Updated: 2008-08-11

Scientific Name: *Harpagonella palmeri*
Common Name: Palmer's grapplinghook

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 4.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G4
State: S3

General Habitat:
CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
CLAY SOILS; OPEN GRASSY AREAS WITHIN SHRUBLAND. 20-955 M.

Last Date Observed: 1982-02-21
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1982-02-21
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
N END OF SANTO RD IN TIERRA SANTA DEVELOPMENT N OF SAN DIEGO.

Detailed Location:
MAPPED IN NW1/4 OF SW1/4 SEC 28.

Ecological:
ON SANDY LOAM IN DISTURBED LOT ASSOCIATED WITH TRIFOLIUM SP. AND BROMUS SP.

Threats:
FURTHER RESIDENTIAL DEVELOPMENT IS THREAT.

General:
FEWER THAN 1000 PLANTS IN 1982.

PLSS: T15S, R02W, Sec. 28, SW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3633570 E490881
Latitude/Longitude: 32.84015 / -117.09743
Elevation (feet): 450

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
SIV82F0002 SIVINSKI, R. - FIELD SURVEY FORM FOR HARPAGONELLA PALMERI 1982-02-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03829
EO Index: 18157
Key Quad: La Jolla (3211772)
Element Code: PDBOR0H010
Occurrence Number: 9
Occurrence Last Updated: 2008-08-12

Scientific Name: *Harpagonella palmeri*
Common Name: Palmer's grapplinghook

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 4.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G4
State: S3

General Habitat:
CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
CLAY SOILS; OPEN GRASSY AREAS WITHIN SHRUBLAND. 20-955 M.

Last Date Observed: 1981-04-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1981-04-22
Occurrence Rank: None
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Possibly Extirpated

Location:
E SIDE OF TECOLOTE CANYON, NEAR END OF TAIT ST ABOUT 0.15 AIR MI ENE OF SEWAGE DISPOSAL.

Detailed Location:

Ecological:
ON SANDY LOAM IN COASTAL SAGE SCRUB. ASSOCIATED WITH ISOMERIS ARBOREA AND GRASSES.

Threats:
PLANNED RESIDENTIAL DEVELOPMENT WILL EXTIRPATE POPULATION (1981).

General:
FEWER THAN 100 PLANTS IN 1981. IS THIS ONE EXTIRPATED?

PLSS: T16S, R03W, Sec. 15, SW (S)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3627009 E483105
Latitude/Longitude: 32.78087 / -117.18040
Elevation (feet): 225

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
SIV81F0008 SIVINSKI, R. - FIELD SURVEY FORM FOR HARPAGONELLA PALMERI 1981-04-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04082
Key Quad: La Mesa (3211771)
Occurrence Number: 18
EO Index: 18153
Element Code: PDBOR0H010
Occurrence Last Updated: 2008-09-09

Scientific Name: *Harpagonella palmeri*
Common Name: Palmer's grapplinghook

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4
State: S3
Rare Plant Rank: 4.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
CLAY SOILS; OPEN GRASSY AREAS WITHIN SHRUBLAND. 20-955 M.

Last Date Observed: 198X-XX-XX
Last Survey Date: 198X-XX-XX
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
MARINE CORPS AIR STATION MIRAMAR; E OF I-15, N OF CLAIREMONT MESA BLVD & W OF SANTO RD (PARCEL G-2).

Detailed Location:
LOCATION INFO VAGUE; MAPPED AS BEST GUESS AT CNDDB BETWEEN ROADS AS DESCRIBED. LOCATION OF SANTO RD PARCEL UNKNOWN.

Ecological:

Threats:

General:

PLSS: T15S, R02W, Sec. 29 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3633125 E489494
Latitude/Longitude: 32.83612 / -117.11225
Elevation (feet): 350

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

WES87R0002 WESTEC SERVICES, INC. - ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED LAND SALES AND EXCHANGES SOUTH OF CALIFORNIA STATE ROUTE 52, NAVAL AIR STATION, MIRAMAR, SAN DIEGO COUNTY, CA 1987-04-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 20549
Key Quad: Point Loma (3211762)
Occurrence Number: 16
EO Index: 108653
Element Code: PDBRA16010
Occurrence Last Updated: 2017-12-05

Scientific Name: *Erysimum ammophilum*
Common Name: sand-loving wallflower

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.2
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_SBBG-Santa Barbara Botanic Garden

General Habitat:
CHAPARRAL (MARITIME), COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
SANDY OPENINGS. 3-320 M.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
POINT LOMA, NEAR SUNSET CLIFFS.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS FROM POINT LOMA BLVD SOUTH THROUGH SUNSET CLIFFS NATURAL PARK. POSSIBLY REFERRING OTHER PORTIONS OF SUNSET CLIFFS BLVD.

Ecological:

Threats:
DEVELOPMENT.

General:
SITE BASED ON AN UNDATED STOVER COLLECTION FROM SUNSET CLIFFS AND SITE NAME PROVIDED BY REISER IN "RARE PLANTS OF SAN DIEGO COUNTY" (1994). PROBABLY EXTIRPATED. ID OF PLANTS FROM SAN DIEGO COUNTY IS UNCLEAR; POSSIBLY A NEW TAXON.

PLSS: T17S, R04W, Sec. 01, W (S)
Accuracy: non-specific area
Area (acres): 113
UTM: Zone-11 N3620984 E475978
Latitude/Longitude: 32.72638 / -117.25635
Elevation (feet): 20

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

REB15U0001	REBMAN, J. - EMAIL REGARDING ERYSIMUM AMMOPHILUM IN SAN DIEGO COUNTY 2015-02-08
REI94U0002	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX
STONDS0008	STOVER, A. - STOVER SN SD #24755 XXXX-04-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A7108
Key Quad: Point Loma (3211762)
Occurrence Number: 17

EO Index: 108654
Element Code: PDBRA16010
Occurrence Last Updated: 2017-11-22

Scientific Name: *Erysimum ammophilum*
Common Name: sand-loving wallflower

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2
State: S2

Rare Plant Rank: 1B.2
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_SBBG-Santa Barbara Botanic Garden

General Habitat:
CHAPARRAL (MARITIME), COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
SANDY OPENINGS. 3-320 M.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
NEAR COLLIER PARK.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB AROUND COLLIER PARK IN OCEAN BEACH.

Ecological:

Threats:
DEVELOPMENT.

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS SITE NAME PROVIDED BY REISER IN "RARE PLANTS OF SAN DIEGO COUNTY" (1994). PROBABLY EXTIRPATED. ID OF PLANTS FROM SAN DIEGO COUNTY IS UNCLEAR; POSSIBLY A NEW TAXON.

PLSS: T16S, R03W, Sec. 31, N (S)
UTM: Zone-11 N3623339 E478006

Accuracy: 1/5 mile
Latitude/Longitude: 32.74767 / -117.23477

Area (acres): 70
Elevation (feet): 65

County Summary:
San Diego

Quad Summary:
Point Loma (3211762), La Jolla (3211772)

Sources:

REB15U0001	REBMAN, J. - EMAIL REGARDING ERYSIMUM AMMOPHILUM IN SAN DIEGO COUNTY 2015-02-08
REI94U0002	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A7004
EO Index: 108673
Key Quad: Point Loma (3211762)
Element Code: PDBRA16010
Occurrence Number: 33
Occurrence Last Updated: 2017-11-13

Scientific Name: *Erysimum ammophilum*
Common Name: sand-loving wallflower

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_SBBG-Santa Barbara Botanic Garden

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
CHAPARRAL (MARITIME), COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
SANDY OPENINGS. 3-320 M.

Last Date Observed: 1999-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1999-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DOD
Trend: Unknown
Presence: Presumed Extant

Location:
SOUTHERN TIP OF POINT LOMA, ABOUT 0.15 AIR MILE ENE OF LIGHTHOUSE.

Detailed Location:
MAPPED BY CNDDB BASED ON MAP IN A 2006 TIERRA DATA INC REPORT.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION IS A 2006 TIERRA DATA INC REPORT. UNKNOWN NUMBER OF PLANTS OBSERVED, PRESUMABLY IN 1999. ID OF PLANTS FROM SAN DIEGO COUNTY IS UNCLEAR; POSSIBLY A NEW TAXON.

PLSS: T17S, R03W, Sec. 30, S (S)
Accuracy: specific area
Area (acres): 4
UTM: Zone-11 N3614331 E477560
Latitude/Longitude: 32.66641 / -117.23932
Elevation (feet): 130

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

REB15U0001	REBMAN, J. - EMAIL REGARDING ERYSIMUM AMMOPHILUM IN SAN DIEGO COUNTY 2015-02-08
TIE06R0001	TIERRA DATA INC. & FIREWISE 2000, INC. - NAVAL BASE POINT LOMA AND CABRILLO NATIONAL MONUMENT JOINT WILDLAND FIRE MANAGEMENT PLAN 2006-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A7005
EO Index: 108681
Key Quad: Point Loma (3211762)
Element Code: PDBRA16010
Occurrence Number: 34
Occurrence Last Updated: 2017-11-13

Scientific Name: *Erysimum ammophilum*
Common Name: sand-loving wallflower

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_SBBG-Santa Barbara Botanic Garden

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
CHAPARRAL (MARITIME), COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
SANDY OPENINGS. 3-320 M.

Last Date Observed: 1999-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1999-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVY
Trend: Unknown
Presence: Presumed Extant

Location:
POINT LOMA; ABOUT 0.8 AIR MILE NW OF BALLAST POINT.

Detailed Location:
MAPPED BY CNDDB BASED ON MAP IN A 2006 TIERRA DATA INC REPORT.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION IS A 2006 TIERRA DATA INC REPORT. UNKNOWN NUMBER OF PLANTS OBSERVED, PRESUMABLY IN 1999. ID OF PLANTS FROM SAN DIEGO COUNTY IS UNCLEAR; POSSIBLY A NEW TAXON.

PLSS: T17S, R03W, Sec. 18, SW (S)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3617510 E477258
Latitude/Longitude: 32.69507 / -117.24262
Elevation (feet): 200

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

REB15U0001	REBMAN, J. - EMAIL REGARDING ERYSIMUM AMMOPHILUM IN SAN DIEGO COUNTY 2015-02-08
TIE06R0001	TIERRA DATA INC. & FIREWISE 2000, INC. - NAVAL BASE POINT LOMA AND CABRILLO NATIONAL MONUMENT JOINT WILDLAND FIRE MANAGEMENT PLAN 2006-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A7006
EO Index: 108685
Key Quad: Point Loma (3211762)
Element Code: PDBRA16010
Occurrence Number: 35
Occurrence Last Updated: 2017-11-14

Scientific Name: *Erysimum ammophilum*
Common Name: sand-loving wallflower

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_SBBG-Santa Barbara Botanic Garden

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
CHAPARRAL (MARITIME), COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
SANDY OPENINGS. 3-320 M.

Last Date Observed: 1992-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1992-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVY
Trend: Unknown
Presence: Presumed Extant

Location:
WEST OF CABRILLO MEMORIAL DR, ABOUT 1.25-1.5 AIR MILES NW OF BALLAST POINT.

Detailed Location:
MAPPED AS 3 POLYGONS BY CNDDB BASED ON MAP DETAIL PROVIDED BY WOODWARD-CLYDE ASSOCIATES (1981) AND ADVANCED SCIENCES, INC (1993).

Ecological:

Threats:

General:
UNKNOWN NUMBER OF PLANTS SEEN IN NORTHERN TWO POLYGONS IN 1981, AND IN SOUTHERN POLYGON IN 1992. ID OF PLANTS FROM SAN DIEGO COUNTY IS UNCLEAR; POSSIBLY A NEW TAXON.

PLSS: T17S, R04W, Sec. 13, N (S)
Accuracy: specific area
Area (acres): 12
UTM: Zone-11 N3618125 E476492
Latitude/Longitude: 32.7006 / -117.25081
Elevation (feet): 290

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

ASI93R0001	ADVANCED SCIENCES, INC. - TERRESTRIAL BIOLOGICAL SURVEY AND INVENTORY OF NAVY PROPERTY ON POINT LOMA, SAN DIEGO, CALIFORNIA 1993-05-XX
REB15U0001	REBMAN, J. - EMAIL REGARDING ERYSIMUM AMMOPHILUM IN SAN DIEGO COUNTY 2015-02-08
WOO81R0001	WOODWARD & CLYDE - TERRESTRIAL BIOSURVEY AND INVENTORY OF NAVAL PROPERTY ON POINT LOMA 1981-11-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A7007
Key Quad: Point Loma (3211762)
Occurrence Number: 36

EO Index: 108686
Element Code: PDBRA16010
Occurrence Last Updated: 2017-11-14

Scientific Name: *Erysimum ammophilum*
Common Name: sand-loving wallflower

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2
State: S2

Rare Plant Rank: 1B.2
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_SBBG-Santa Barbara Botanic Garden

General Habitat:
CHAPARRAL (MARITIME), COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
SANDY OPENINGS. 3-320 M.

Last Date Observed: 1992-XX-XX
Last Survey Date: 1992-XX-XX
Owner/Manager: DOD-NAVY
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
POINT LOMA; WEST OF CABRILLO MEMORIAL DR, ABOUT 1.75 AIR MILES NNW OF BALLAST POINT.

Detailed Location:
MAPPED BY CNDDB BASED ON MAP DETAIL PROVIDED BY WOODWARD-CLYDE ASSOCIATES (1981) AND ADVANCED SCIENCES, INC (1993).

Ecological:

Threats:

General:
UNKNOWN NUMBER OF PLANTS SEEN IN 1981 & 1992. ID OF PLANTS FROM SAN DIEGO COUNTY IS UNCLEAR; POSSIBLY A NEW TAXON.

PLSS: T17S, R04W, Sec. 12, SW (S)
Accuracy: specific area
Area (acres): 3
UTM: Zone-11 N3618858 E476478
Latitude/Longitude: 32.70722 / -117.25097
Elevation (feet): 325

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

ASI93R0001	ADVANCED SCIENCES, INC. - TERRESTRIAL BIOLOGICAL SURVEY AND INVENTORY OF NAVY PROPERTY ON POINT LOMA, SAN DIEGO, CALIFORNIA 1993-05-XX
REB15U0001	REBMAN, J. - EMAIL REGARDING ERYSIMUM AMMOPHILUM IN SAN DIEGO COUNTY 2015-02-08
WOO81R0001	WOODWARD & CLYDE - TERRESTRIAL BIOSURVEY AND INVENTORY OF NAVAL PROPERTY ON POINT LOMA 1981-11-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03648
EO Index: 314
Key Quad: Point Loma (3211762)
Element Code: PDBRA1M114
Occurrence Number: 10
Occurrence Last Updated: 1996-03-29

Scientific Name: *Lepidium virginicum var. robinsonii*
Common Name: Robinson's pepper-grass

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 4.3
Other Lists:

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
DRY SOILS, SHRUBLAND. 4-1435 M.

Last Date Observed: 1913-04-24
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1913-04-24
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
POINT LOMA.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB TO ENCOMPASS POINT LOMA.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1913 COLLECTION BY EASTWOOD. NEEDS FIELDWORK.

PLSS: T17S, R04W, Sec. 13 (S)
Accuracy: non-specific area
Area (acres): 1,127
UTM: Zone-11 N3617217 E476849
Latitude/Longitude: 32.69243 / -117.24697
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
EAS13S0007 EASTWOOD, A. - EASTWOOD SN CAS #78067 1913-04-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 85142
EO Index: 48305
Key Quad: La Jolla (3211772)
Element Code: PDBRA1M114
Occurrence Number: 21
Occurrence Last Updated: 2013-04-09

Scientific Name: *Lepidium virginicum var. robinsonii*
Common Name: Robinson's pepper-grass

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 4.3
Other Lists:

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
DRY SOILS, SHRUBLAND. 4-1435 M.

Last Date Observed: 2012-03-30
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-03-30
Occurrence Rank: Fair
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
SOUTHEAST LOBE OF FIESTA ISLAND, ABOUT 0.5 AIR MILE WEST OF SEA WORLD DRIVE AND I-5 INTERCHANGE, SAN DIEGO.

Detailed Location:
3 POLYGONS MAPPED ACCORDING TO 2011 AND 2012 DIGITAL DATA PROVIDED BY CNPS.

Ecological:
SILTY CLAY WITH SAND. ASSOCIATED WITH CAMISSONIOPSIS CHEIRANTHIFOLIA, CARDIONEMA RAMOSISSIMUM, LOTUS NUTTALLIANUS, CARPOBROTUS EDULIS, BACCHARIS SAROTHRAE, AND THE RARE ACMISPON PROSTRATUS AND NEMACAULIS DENUDATA.

Threats:
THREATENED BY INVASIVE PLANTS AND TRAMPLING FROM HUMANS AND DOGS.

General:
10,000 PLANTS ESTIMATED IN NW POLY IN 2011. 2012: 469-569 PLANTS SEEN IN MIDDLE POLY, 1 PLANT SEEN IN SE POLY. A LATER 2012 SITE VISIT REPORTS 454 PLANTS, UNKNOWN IF THESE INCLUDE OR ARE IN ADDITION TO THE PRIOR 2012 POPULATION #S.

PLSS: T16S, R03W, Sec. 20 (S)
Accuracy: specific area
Area (acres): 6
UTM: Zone-11 N3625728 E479886
Latitude/Longitude: 32.76926 / -117.21474
Elevation (feet): 20

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

CNP11D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2011 SURVEYS FOR SAN DIEGO DUNE PLANTS 2011-XX-XX
CNP11U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2011 SURVEYS FOR SAN DIEGO DUNE PLANTS 2011-XX-XX
CNP12D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
CNP12U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
LAN12U0001	LANDIS, F. ET AL. - OBSERVATION RECORDS FOR LEPIDIUM VIRGINICUM VAR. ROBINSONII (CITED IN CNP12U0002) 2012-03-23
LAN12U0002	LANDIS, F. & R. GREENBERG - OBSERVATION RECORD FOR LEPIDIUM VIRGINICUM VAR. ROBINSONII (CITED IN CNP12U0002) 2012-03-30
ROB11U0005	ROBERTS, R. & N. BOUSCAREN - OBSERVATION RECORD FOR LEPIDIUM VIRGINICUM VAR. ROBINSONII (CITED IN CNP11U0002) 2011-04-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 51196
EO Index: 51196
Key Quad: National City (3211761)
Element Code: PDBRA1M114
Occurrence Number: 45
Occurrence Last Updated: 2012-02-21

Scientific Name: *Lepidium virginicum var. robinsonii*
Common Name: Robinson's pepper-grass

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 4.3
Other Lists:

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
DRY SOILS, SHRUBLAND. 4-1435 M.

Last Date Observed: 1935-01-29
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1935-01-29
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
FEDERAL BOULEVARD, NEAR EMERALD HILLS CLUBHOUSE, SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN, UNABLE TO LOCATE EMERALD HILLS CLUBHOUSE. MAPPED AS BEST GUESS BY CNDDB TO ENCOMPASS FEDERAL BOULEVARD.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1935 COLLECTION BY GANDER. NEEDS FIELDWORK.

PLSS: T16S, R02W, Sec. 35 (S)
Accuracy: non-specific area
Area (acres): 114
UTM: Zone-11 N3621815 E494683
Latitude/Longitude: 32.73414 / -117.05674
Elevation (feet):

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:
GAN35S0053 GANDER, F. - GANDER #1134 SD #10181, RSA #13395 1935-01-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 51197
EO Index: 51197
Key Quad: Point Loma (3211762)
Element Code: PDBRA1M114
Occurrence Number: 46
Occurrence Last Updated: 2012-02-21

Scientific Name: *Lepidium virginicum var. robinsonii*
Common Name: Robinson's pepper-grass

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 4.3
Other Lists:

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
DRY SOILS, SHRUBLAND. 4-1435 M.

Last Date Observed: 1962-05-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1962-05-12
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO-BALBOA PARK
Trend: Unknown
Presence: Presumed Extant

Location:
FLORIDA STREET CANYON, BALBOA PARK, SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB ALONG FLORIDA DRIVE WITHIN BALBOA PARK.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCEIS A 1962 COLLECTION BY MORAN. NEEDS FIELDWORK.

PLSS: T16S, R03W, Sec. 36 (S)
Accuracy: non-specific area
Area (acres): 82
UTM: Zone-11 N3621582 E486581
Latitude/Longitude: 32.73196 / -117.14321
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
MOR62S0003 MORAN, R. - MORAN #9679 SD #53658 1962-05-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	51199	**EO Index:**	51199
Key Quad:	National City (3211761)	**Element Code:**	PDBRA1M114
Occurrence Number:	47	**Occurrence Last Updated:**	2013-04-09

Scientific Name: *Lepidium virginicum var. robinsonii* **Common Name:** Robinson's pepper-grass

Listing Status: **Federal:** None **Rare Plant Rank:** 4.3

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G5T3

State: S3

General Habitat:

CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

DRY SOILS, SHRUBLAND. 4-1435 M.

Last Date Observed:	1994-03-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1994-03-24	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

HILLS NORTH OF HWY 94, APPROXIMATELY 0.4 AND 0.6 AIR MILE ENE OF JUNCTION WITH MASSACHUSETTS AVE, LA MESA.

Detailed Location:

2 POLYGONS MAPPED IN THE SE 1/4 OF THE SE 1/4 OF SECTION 25 ACCORDING TO A 1995 MAP BY KOLTZ.

Ecological:

HILLSIDE BURN.

Threats:

2010 AERIAL PHOTO SHOWS HOUSING DEVELOPMENT ON THIS SITE.

General:

AN ISOLATED, BUT FAIRLY VIGOROUS POPULATION REPORTED IN VICINITY BY REISER IN 1994. BASED ON 2010 AERIAL PHOTO, DEVELOPMENT COMPLETELY COVERS W POLYGON, BUT E POLYGON OCCURS ON A HILLSIDE THAT MAY MAY STILL HAVE SOME NATIVE VEGETATION.

PLSS:	T16S, R02W, Sec. 25, SE (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3623408 E496878	**Latitude/Longitude:**	32.74852 / -117.03332	**Elevation (feet):**	600

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

KOL95R0001	KOLTZ, A. (PACIFIC SOUTHWEST BIOLOGICAL SERVICES) - CALIFORNIA GNATCATCHER RESULTS 1995-02-20
REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
REI94S0007	REISER, C. - REISER SN SD #138908 1994-03-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 85170
EO Index: 86190
Key Quad: Imperial Beach (3211751)
Element Code: PDBRA1M114
Occurrence Number: 74
Occurrence Last Updated: 2012-02-23

Scientific Name: *Lepidium virginicum var. robinsonii*
Common Name: Robinson's pepper-grass

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 4.3
Other Lists:

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
DRY SOILS, SHRUBLAND. 4-1435 M.

Last Date Observed: 1971-02-03
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1971-02-03
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
OTAY VALLEY ROAD, EAST OF RENDERING PLANT.

Detailed Location:
EXACT LOCATION UNKNOWN, UNABLE TO LOCATE RENDERING PLANT. MAPPED AS BEST GUESS BY CNDDB ALONG OTAY VALLEY ROAD/MAIN STREET IN VICINITY OF GIVEN ELEVATION OF 66 FT.

Ecological:
DRY ROCKY SLOPE.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1971 COLLECTION BY BEAUCHAMP. NEEDS FIELDWORK.

PLSS: T18S, R02W, Sec. 23, N (S)
Accuracy: non-specific area
Area (acres): 78
UTM: Zone-11 N3606362 E494273
Latitude/Longitude: 32.59473 / -117.06102
Elevation (feet): 66

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
BEA71S0044 BEAUCHAMP, R.M. - BEAUCHAMP #1524 SD #83604 1971-02-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	85171	**EO Index:**	86191
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDBRA1M114
Occurrence Number:	75	**Occurrence Last Updated:**	2012-02-23

Scientific Name: *Lepidium virginicum var. robinsonii* **Common Name:** Robinson's pepper-grass

Listing Status: **Federal:** None **Rare Plant Rank:** 4.3

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G5T3

State: S3

General Habitat:

CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

DRY SOILS, SHRUBLAND. 4-1435 M.

Last Date Observed:	2002-03-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2002-03-11	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

LICHTY MESA; SLUMP IN N CENTRAL PORTION OF MESA, 100 M N OF US/MEXICO BORDER, 620 M E OF PACIFIC OCEAN, IMPERIAL BEACH.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO 2002 UTM COORDINATES PROVIDED BY ELVIN.

Ecological:

SANDY OPENINGS OF COASTAL SAGE SCRUB, IN FINE-GRAINED SANDY DEPOSITS IN TRAIL ON CLAY AND SANDSTONE BASE. ASSOC W/ PHACELIA STELLARIS, CROTON CALIFORNICUS, CAMISSONIA MICRANTHA, ERODIUM CICUTARIUM, ENCELIA CALIFORNICA, PLANTAGO ERECTA, ETC.

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2002 COLLECTION BY ELVIN ET AL.

PLSS:	T19S, R02W, Sec. 08, SW (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3599826 E488887	**Latitude/Longitude:**	32.53573 / -117.11834	**Elevation (feet):**	52

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

ELV02S0006 ELVIN, M. ET AL. - ELVIN #1886 SD #152633 2002-03-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	85172	**EO Index:**	86192
Key Quad:	La Mesa (3211771)	**Element Code:**	PDBRA1M114
Occurrence Number:	76	**Occurrence Last Updated:**	2012-02-23

Scientific Name: *Lepidium virginicum var. robinsonii* **Common Name:** Robinson's pepper-grass

Listing Status: **Federal:** None **Rare Plant Rank:** 4.3

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G5T3

State: S3

General Habitat:

CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

DRY SOILS, SHRUBLAND. 4-1435 M.

Last Date Observed:	2006-04-25	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2006-04-25	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

TIERRASANTA CANYON; JUST SOUTH OF INTERSECTION OF CALLE DE VIDA AND RUEDA DRIVE, EAST OF THE POWERLINE ROAD, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS A BEST GUESS BASED ON LOCATION DESCRIPTION.

Ecological:

SANDY CLAY MIXED WITH CLASTS. DISTURBED COASTAL SAGE SCRUB.

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2006 COLLECTION BY STEVENSON.

PLSS:	T15S, R02W, Sec. 34, SW (S)	**Accuracy:**	1/10 mile	**Area (acres):**	0
UTM:	Zone-11 N3631480 E492492	**Latitude/Longitude:**	32.82131 / -117.08020	**Elevation (feet):**	499

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

STE06S0001 STEVENSON, C. - STEVENSON #38 SD #183730 2006-04-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 85173
EO Index: 86193
Key Quad: La Mesa (3211771)
Element Code: PDBRA1M114
Occurrence Number: 77
Occurrence Last Updated: 2012-02-23

Scientific Name: *Lepidium virginicum var. robinsonii*
Common Name: Robinson's pepper-grass

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 4.3
Other Lists:

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
DRY SOILS, SHRUBLAND. 4-1435 M.

Last Date Observed: 2005-03-04
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-03-04
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
NORTHWEST SIDE OF LAKE MURRAY ON CITY MSCP PROPERTY NEAR TRAIL AROUND LAKE, JUST NORTH OF LA MESA.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB ALONG TRAIL ON THE NORTHWEST SIDE OF THE LAKE.

Ecological:
COASTAL SAGE SCRUB WITH ARTEMISIA CALIFORNICA, LOTUS SCOPARIUS, BACCHARIS SAROTHROIDES, MALOSMA LAURINA, SELAGINELLA CINERASCENS, AND PLAGIOBOTHRYS COLLINUS.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2005 COLLECTION BY REBMAN ET AL.

PLSS: T16S, R02W, Sec. 12, S (S)
Accuracy: non-specific area
Area (acres): 83
UTM: Zone-11 N3627961 E495868
Latitude/Longitude: 32.78958 / -117.04412
Elevation (feet): 541

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
REB05S0014 REBMAN, J. ET AL. - REBMAN #11159 SD #168394 2005-03-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 85185
EO Index: 86203
Key Quad: La Jolla (3211772)
Element Code: PDBRA1M114
Occurrence Number: 78
Occurrence Last Updated: 2012-02-27

Scientific Name: *Lepidium virginicum var. robinsonii*
Common Name: Robinson's pepper-grass

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 4.3
Other Lists:

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
DRY SOILS, SHRUBLAND. 4-1435 M.

Last Date Observed: 1937-01-18
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1937-01-18
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
CANYON 0.5 MILE NORTH OF SCRIPPS INSTITUTION, SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB TO ENCOMPASS CANYON ~0.5 AIR MILE NORTH OF SCRIPPS INSTITUTION OF OCEANOGRAPHY.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1937 COLLECTION BY GANDER. NEEDS FIELDWORK.

PLSS: T15S, R04W, Sec. 13, N (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3637325 E476724
Latitude/Longitude: 32.87381 / -117.24880
Elevation (feet):

County Summary:
San Diego

Quad Summary:
La Jolla (3211772), Del Mar (3211782)

Sources:
GAN37S0037 GANDER, F. - GANDER #3012 SD #16527 1937-01-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 85187
EO Index: 86204
Key Quad: La Jolla (3211772)
Element Code: PDBRA1M114
Occurrence Number: 79
Occurrence Last Updated: 2012-02-27

Scientific Name: *Lepidium virginicum var. robinsonii*
Common Name: Robinson's pepper-grass

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 4.3
Other Lists:

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
DRY SOILS, SHRUBLAND. 4-1435 M.

Last Date Observed: 2003-04-02
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-04-02
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
ROSE CANYON EAST OF THE 805 FREEWAY, MIRA MESA.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB ALONG ROSE CANYON EAST OF HWY 805 WITHIN GIVEN USGS QUAD LA JOLLA.

Ecological:
FLAT, BRAIDED, EPHEMERAL DRAINAGE. COBBLY WITH SANDSTONE. COASTAL SAGE SCRUB, SOUTHERN MARITIME CHAPARRAL, VERNAL POOLS, BRACKISH MARSH WITH BACCHARIS SAROTHROIDES, LONICERA SUBSPICATA, ERIODICTYON CRASSIFOLIUM, BROMUS HORDEACEUS, ETC.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2003 COLLECTION BY ELVIN & BALK.

PLSS: T15S, R03W, Sec. 15 (S)
Accuracy: non-specific area
Area (acres): 113
UTM: Zone-11 N3636955 E483489
Latitude/Longitude: 32.87059 / -117.17648
Elevation (feet):

County Summary:
San Diego

Quad Summary:
La Jolla (3211772), Del Mar (3211782)

Sources:
ELV03S0018 ELVIN, M., & M. BALK - ELVIN #2416 UCR #217367 2003-04-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	85188	**EO Index:**	86205
Key Quad:	La Jolla (3211772)	**Element Code:**	PDBRA1M114
Occurrence Number:	80	**Occurrence Last Updated:**	2013-04-09

Scientific Name: *Lepidium virginicum var. robinsonii*

Common Name: Robinson's pepper-grass

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 4.3

Other Lists:

CNDDB Element Ranks: **Global:** G5T3

State: S3

General Habitat:

CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

DRY SOILS, SHRUBLAND. 4-1435 M.

Last Date Observed:	2012-04-05	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-04-05	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

FIESTA ISLAND; CENTER OF ISLAND, NEAR EASTERN ROAD APPROXIMATELY 0.4 AIR MILE EAST OF RADIO TOWER ISLAND, MISSION BAY.

Detailed Location:

2 POLYGONS MAPPED ACCORDING TO 2011 AND 2012 DIGITAL DATA PROVIDED BY CNPS.

Ecological:

SANDY SOIL, IN OPEN <25% COVER. ASSOCIATED WITH AMBROSIA CHAMISSONIS, CAMISSONIOPSIS CHEIRANTHIFOLIA, HETEROTHECA GRANDIFLORA, AIRA SP., ERODIUM CICUTARIUM, AND THE RARE NEMACAULIS DENUDATA VAR. DENUDATA.

Threats:

DISTURBED BY DOG WALKERS AND WEED CLEARING WITH FRONT LOADER. NON-NATIVE GLEBIONIS AND ERODIUM THREATEN.

General:

5 PLANTS OBSERVED IN NORTHERN POLYGON IN 2011. 5800 PLANTS OBSERVED IN NORTHERN POLYGON AND 421 PLANTS OBSERVED IN SOUTHERN POLYGON IN 2012.

PLSS:	T16S, R03W, Sec. 17, SW (S)	**Accuracy:**	specific area	**Area (acres):**	6
UTM:	Zone-11 N3627052 E479634	**Latitude/Longitude:**	32.78120 / -117.21747	**Elevation (feet):**	15

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

CNP11D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2011 SURVEYS FOR SAN DIEGO DUNE PLANTS 2011-XX-XX
CNP11U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2011 SURVEYS FOR SAN DIEGO DUNE PLANTS 2011-XX-XX
CNP12D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
CNP12U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
LAN11U0001	LANDIS, F. - OBSERVATION RECORD FOR LEPIDIUM VIRGINICUM VAR. ROBINSONII (CITED IN CNP11U0002) 2011-04-15
LAN12U0003	LANDIS, F. - OBSERVATION RECORDS FOR LEPIDIUM VIRGINICUM VAR. ROBINSONII (CITED IN CNP12U0002) 2012-04-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 39267
Key Quad: Otay Mesa (3211658)
Occurrence Number: 10

EO Index: 35147
Element Code: PDBRA2G060
Occurrence Last Updated: 1998-11-12

Scientific Name: *Streptanthus bernardinus*
Common Name: Laguna Mountains jewelflower

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4
State: S3S4

Rare Plant Rank: 4.3
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
CHAPARRAL, LOWER MONTANE CONIFEROUS FOREST.

Micro Habitat:
CLAY OR DECOMPOSED GRANITE SOILS; SOMETIMES IN DISTURBED AREAS SUCH AS STREAMSIDES OR ROADCUTS. 1440-2500 M.

Last Date Observed: 1939-04-23
Last Survey Date: 1939-04-23
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
OTAY LAKES.

Detailed Location:
EXACT LOCATION NOT KNOWN. MAPPED IN THE GENERAL VICINITY OF UPPER & LOWER OTAY LAKES.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1939 COLLECTION BY WOGLUM.

PLSS: T18S, R01W, Sec. 11 (S)
UTM: Zone-11 N3609656 E504963

Accuracy: 5 miles
Latitude/Longitude: 32.62445 / -116.94709

Area (acres): 0
Elevation (feet): 1,400

County Summary:
San Diego

Quad Summary:
Otay Mountain (3211657), Otay Mesa (3211658), Dulzura (3211667), Jamul Mountains (3211668), Imperial Beach (3211751), National City (3211761)

Sources:
WOG39S0001 WOGLUM, R. - WOGLUM #2268 RSA 1939-04-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04387
EO Index: 6273
Key Quad: National City (3211761)
Element Code: PDCAC08060
Occurrence Number: 7
Occurrence Last Updated: 2013-10-03

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?
State: S2S3

General Habitat:

CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2010-06-28
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2010-06-28
Occurrence Rank: Fair
Owner/Manager: SWEETWATER AUTH, SDG CO, PVT
Trend: Unknown
Presence: Presumed Extant

Location:

VICINITY OF SWEETWATER RESERVOIR DAM.

Detailed Location:

MAPPED BY CNDDB AS 12 POLYGONS MOSTLY IN THE WEST 1/2 OF SECTION 17 AND IN THE SE 1/4 OF SECTION 18.

Ecological:

MARITIME SUCCULENT SCRUB/DIEGAN COASTAL SAGE SCRUB. FOUND WITH ARTEMISIA CALIFORNICA, SIMMONDSIA CHINENSIS, ERIOGONUM FASCICULATUM, MALOSMA LAURINA, BACCHARIS SAROTHRAE, SCHISMUS BARBATUS, BROMUS MADRITENSIS RUBENS, & ADOLPHIA CALIFORNICA.

Threats:

DEVELOPMENT, ROAD CONSTRUCTION AND PIPELINE/SEWER REPAIRS ARE POSSIBLE THREATS.

General:

POPULATION NUMBERS ARE FOR PORTIONS OF OCCURRENCE: 215 INDIVIDUALS OBSERVED IN 1978 BETWEEN PART OF THIS OCCURRENCE AND OCC #S 1, 4 AND 5, 35 PLANTS OBSERVED IN 1994, SCATTERED ACROSS SITE IN 2004, 2 IN 2010. INCLUDES FORMER OCC #150.

PLSS: T17S, R01W, Sec. 17 (S)
Accuracy: specific area
Area (acres): 86
UTM: Zone-11 N3617077 E498979
Latitude/Longitude: 32.69140 / -117.01088
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

CIB78F0001	CIBIT, C. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1978-02-18
EDW95U0002	EDWARDS, C. & A. KOLTZ (PACIFIC SOUTHWEST BIOLOGICAL SERVICES) - CALIFORNIA GNATCATCHER SURVEY RESULTS 1995-01-17
FAM05R0001	FAMOLARO, P. (SWEETWATER AUTHORITY) - BIOLOGICAL RESOURCES TECHNICAL REPORT FOR THE ROBERT A. PERDUE WATER TREATMENT PLANT AND SWEETWATER RESERVOIR DAM MASTER PLAN 2005-07-11
GAR11R0001	GARROD, M. (SWEETWATER AUTHORITY) - 36-INCH RAW WATER PIPELINE REPLACEMENT PROJECT: INITIAL STUDY 2011-05-XX
MAR04U0001	MARQUEZ, D. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION-2004 FOCUSED SURVEY RESULTS FOR THE COASTAL CALIFORNIA GNATCATCHER AT THE SPRING VALLEY SUSPENSION BRIDGE SITE, SPRING VALLEY, CALIFORNIA 2004-03-16
MON94F0005	MONTIJO, R. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1994-10-06
REB07S0009	REBMAN, J. ET AL. - REBMAN #13875 SD #178289 2007-09-12
REC11D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILES OF RARE PLANTS OBSERVED DURING SURVEYS FOR SWEETWATER DAM RAW WATER PIPELINE REPLACEMENT PROJECT 2011-01-04
REC11D0003	RECON ENVIRONMENTAL, INC. - TWO SHAPEFILES OF SENSITIVE SPECIES OBSERVED DURING SURVEYS FOR THREE SAN DIEGO PUBLIC WORKS PROJECTS, 2005-2011. 2011-10-20
REC95R0002	RECON - ADDENDUM, BIOLOGICAL RESOURCES TECHNICAL REPORT FOR STATE ROUTE 125 SOUTH, CITIZENS ADVISORY COMMITTEE VARIATION ALTERNATIVE 1995-06-21
SAU04F0004	SAUCEDO-ORTIZ, D. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-02-24
SDG08U0001	COUNTY OF SAN DIEGO - DRAFT HABITAT LOSS PERMIT FOR THE SWEETWATER RESERVOIR LOOP TRAIL 2008-07-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	90532	**EO Index:**	12832
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCAC08060
Occurrence Number:	10	**Occurrence Last Updated:**	2015-11-10

Scientific Name: *Ferocactus viridescens*

Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed:	2012-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-XX-XX	**Occurrence Rank:**	Fair
Owner/Manager:	DPR-BORDER FIELD SP, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NEAR INTERNATIONAL BORDER MONUMENT #258 AND LICHTY MESA, NEAR US/MEXICO BORDER.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO 2008 AND 2009 COORDINATES IN THE SOUTH 1/2 OF SECTION 7 AND THE SW CORNER OF SECTION 8. VAGUE COLLECTIONS FROM "NEAR BORDER MONUMENT 258" ARE ALSO ATTRIBUTED TO THIS SITE.

Ecological:

LOAMY MARINE SEDIMENT WITH RHUS INTEGRIFOLIA, ATRIPLEX POLYCARPA, ERIOGONUM FASCICULATUM, MESEMBRYANTHEMUM CRYSTALLINUM, DISTICHLIS SPICATA, ISOCOMA MENZIESII, LIMONIUM PEREZII, LYCIUM CALIFORNICUM, CYLINDROPUNTIA PROLIFERA, ETC.

Threats:

CONSTRUCTION OF TRIPLE BORDER FENCE THREATENS.

General:

TYPE LOCALITY. EASTERN POLYGON (LICHTY MESA): SMALL POPULATION IN 2006, UNKNOWN NUMBER OBSERVED IN 2008 DURING SURVEY FOR AGAVE SHAWII SSP. SHAWII. WESTERN POLYGON: OBSERVED DURING 2009 VEGETATION SURVEYS. OBSERVED IN AREA IN 2011/2012.

PLSS:	T19S, R02W, Sec. 07, S (S)	**Accuracy:**	specific area	**Area (acres):**	13
UTM:	Zone-11 N3599774 E488481	**Latitude/Longitude:**	32.53526 / -117.12266	**Elevation (feet):**	30

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BEC12R0001	BECK, C. - ENVIRONMENTAL MONITORING REPORT FOR THE REPLACEMENT AND MAINTENANCE OF TACTICAL INFRASTRUCTURE, SURF FENCE, U.S. BORDER PATROL SAN DIEGO SECTOR, IMPERIAL BEACH STATION, CALIFORNIA 2012-09-XX
GAN36S0092	GANDER, F. - GANDER #489 SD #13297 1936-01-28
HAR55S0001	HARBISON, C. - HARBISON SN SD #45802 1955-03-10
SCH07R0001	SCHEIDT, V. - THE LICHTY MESA, A BIOLOGICAL RESOURCES SURVEY REPORT AND EVALUATION OF RESOURCE VALUE, APN 663-020-02, SAN DIEGO, CA 2007-08-XX
VAN08F0037	VANDERPLANK, S. - FIELD SURVEY FORM FOR AGAVE SHAWII VAR. SHAWII 2008-03-21
VEG09F0205	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2009-06-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04163
EO Index: 21404
Key Quad: La Mesa (3211771)
Element Code: PDCAC08060
Occurrence Number: 11
Occurrence Last Updated: 1998-09-09

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1

CNDDB Element Ranks: **Global:** G3?
State: S2S3
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 1998-02-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1998-02-11
Occurrence Rank: Good
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
WEST OF SAN DIEGO STATE UNIVERSITY; ABOUT 0.9 MILE ESE OF JUNCTION OF I-15 AND I-8 ALONG FAIRMONT AVENUE, SAN DIEGO.

Detailed Location:
TWO COLONIES: ONE ALONG S-FACING SLOPE JUST NE OF THE JUNCTION OF FAIRMONT AVE AND MONTEZUMA AVE, THE SECOND IS ON EDGE OF STEEP SLOPE ABOVE MINOR DRAINAGE ABOUT 0.2 MILE NORTH OF JUNCTION.

Ecological:
ON INTERFACE BETWEEN COBBLY LOAM AND SOFT MARINE SANDSTONE. GROWING IN CHAPARRAL AND MARITIME SUCCULENT SCRUB WITH ENCELIA CALIFORNICA, SIMMONDSIA CHINENSIS, RHUS INTEGRIFOLIA, ADENOSTOMA FASCICULATUM, SALVIA MELLIFERA, POROPHYLLUM, ET AL.

Threats:
SITE PROPOSED FOR PARTIAL DEVELOPMENT (1981, 1998).

General:
FEWER THAN 100 PLANTS IN SOUTHERN COLONY IN 1981, 2 PLANTS IN NORTHERN COLONY IN 1998. ACCORDING TO SIVINSKI (1981) THIS IS LAST UNDEVELOPED RIDGE ON MESA.

PLSS: T16S, R02W, Sec. 21, NW (S)
Accuracy: specific area
Area (acres): 7
UTM: Zone-11 N3626240 E491069
Latitude/Longitude: 32.77403 / -117.09535
Elevation (feet): 300

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

SCH98F0015	SCHEIDT, V. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1998-02-11
SIV81F0012	SIVINSKI, R. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1981-09-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04164
Key Quad: La Mesa (3211771)
Occurrence Number: 12
EO Index: 21401
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-03

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2004-04-15
Last Survey Date: 2004-04-15
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:
BETWEEN ELANUS AND SHEPARD CANYONS; JUST W AND NE OF JUNCTION OF SR 52 AND SANTO RD, MIRAMAR MARINE CORPS AIR STATION.

Detailed Location:
MAPPED BY CNDDB AS 5 POLYGONS IN THE SOUTH 1/2 OF THE NW 1/4 OF SECTION 28 ACCORDING TO A 1982 MAP AND RECON DIGITAL DATA.

Ecological:
NATIVE GRASSLAND, RECENTLY BURNED (2003). ASSOCIATED WITH NASSELLA PULCHRA, SOLANUM PARISHII, ERIOPHYLLUM CONFERTIFLORUM, AND MIRABILIS CALIFORNICA. REDDING SOILS, ROCKY. HILLSIDE, SW-FACING SLOPE.

Threats:
THREATENED BY URBANIZATION, ORVS, AND ILLEGAL DUMPING IN 1981.

General:
FEWER THAN 100 INDIVIDUALS OBSERVED IN THIS AREA IN 1981. 88 PLANTS WERE OBSERVED IN PORTIONS OF THIS SITE IN 2004.

PLSS: T15S, R02W, Sec. 28, NW (S)
Accuracy: specific area
Area (acres): 23
UTM: Zone-11 N3633888 E491012
Latitude/Longitude: 32.84301 / -117.09603
Elevation (feet): 450

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

ANO82M0001	ANONYMOUS - AERIAL PHOTO OF KEARNY MESA VICINITY WITH RARE PLANT LOCATIONS 1982-05-25
REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05
SCH04F0048	SCHEID, G. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-04-15
SIV81F0013	SIVINSKI, R. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1981-04-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04271
EO Index: 21399
Key Quad: La Mesa (3211771)
Element Code: PDCAC08060
Occurrence Number: 13
Occurrence Last Updated: 2013-10-03

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?
State: S2S3

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2008-05-09
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2008-05-09
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
OAK CANYON; APPROXIMATELY 0.65 AIR MILE ESE OF THE SUMMIT OF FORTUNA MOUNTAIN, MISSION TRAILS REGIONAL PARK.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO A 1981 SIVINSKI MAP IN THE NW 1/4 OF THE NW 1/4 OF SECTION 25.

Ecological:
ON ROCKY CANYON SIDE ON FINE SANDY LOAM. ASSOCIATED WITH SALVIA MELLIFERA AND ERIOGONUM FASCICULATUM. BRODIAEA ORCUTTII OCCURS NEARBY.

Threats:

General:
FEWER THAN 10 INDIVIDUALS SEEN IN 1981. A 2008 CAIN & CLAYTON COLLECTION FROM "MISSION TRAILS REGIONAL PARK, NE SECTION...IN OAK CANYON CREEK" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS: T15S, R02W, Sec. 25, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3634213 E495363
Latitude/Longitude: 32.84598 / -117.04954
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

CAI08S0002	CAIN, I. & E. CLAYTON - CAIN #840 SDSU #18557 2008-05-09
SIV81F0014	SIVINSKI, R. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1981-05-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03834
Key Quad: La Jolla (3211772)
Occurrence Number: 14

EO Index: 19994
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-03

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 1981-03-10
Last Survey Date: 1981-03-10
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Decreasing

Location:
RIDGE TOPS ON EAST SIDE OF TECOLOTE CANYON; JUST WEST OF WEST END OF GOODWIN STREET, LINDA VISTA.

Detailed Location:
MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO A 1981 SIVINSKI MAP IN THE CENTER OF THE SOUTH 1/2 OF SECTION 15.

Ecological:
ON FINE SANDY LOAM, LINDA VISTA FORMATION. ASSOCIATED WITH ARTEMISIA CALIFORNICA AND ANNUAL GRASSES.

Threats:
PLANNED URBANIZATION WILL EXTIRPATE ~90% OF OCCURRENCE (1981). 2012 AERIAL IMAGERY SHOWS MOST OF AREA IS NOW DEVELOPED.

General:
FEWER THAN 1000 INDIVIDUALS IN 1981. ADDITIONAL INDIVIDUALS MAY BE PRESENT ON RIDGETOPS TO THE NORTH.

PLSS: T16S, R03W, Sec. 15, S (S)
UTM: Zone-11 N3626836 E483218

Accuracy: specific area
Latitude/Longitude: 32.77931 / -117.17920

Area (acres): 12
Elevation (feet): 240

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
SIV81F0010 SIVINSKI, R. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1981-03-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90533
Key Quad: Point Loma (3211762)
Occurrence Number: 15
EO Index: 2970
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-03

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 1903-05-05
Last Survey Date: 1903-05-05
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
CORNER OF REDWOOD AND FIRST, SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS AT THE CORNER OF REDWOOD STREET AND 1ST AVENUE IN SAN DIEGO.

Ecological:

Threats:
AREA HAS BEEN HIGHLY DEVELOPED SINCE COLLECTION WAS MADE; POSSIBLY EXTIRPATED.

General:
MAIN SOURCE OF INFORMATION FOR THIS SITE IS AN ANONYMOUS UNDATED COLLECTION. A 1903 ABRAMS COLLECTION FROM "MISSION HILLS" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS: T16S, R03W, Sec. 35 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3622215 E484640
Latitude/Longitude: 32.73764 / -117.16393
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

ABR03S0006	ABRAMS, L. - ABRAMS #3395 DS #30524, CAS-BOT-BC #56206, POM #155592 1903-06-06
ANONDS0112	ANONYMOUS - ANONYMOUS SN UC #1714614 XXXX-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03653
Key Quad: La Jolla (3211772)
Occurrence Number: 16

EO Index: 21400
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-03

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2009-07-06
Last Survey Date: 2009-07-06
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
JUST SOUTH OF EASTER CROSS, SOLEDAD NATURAL OPEN SPACE PARK.

Detailed Location:
MAPPED NEAR THE CENTER OF THE SE 1/4 OF SECTION 25 ACCORDING TO 2009 VEGCAMP COORDINATES.

Ecological:
SOUTH-FACING, STEEP, ERODED SLOPE. COASTAL SAGE SCRUB ASSOCIATED WITH SALVIA MELLIFERA, ERIOGONUM FASCICULATUM, RHUS INTEGRIFOLIA, BASSIA, ARTEMISIA CALIFORNICA, BRACHYPODIUM DISTACHYON, BROMUS RUBENS, SCHISMUS, ENCELIA CALIFORNICA, ETC.

Threats:

General:
OBSERVED DURING A 2009 VEGETATION SURVEY. NEEDS MORE DETAILED POPULATION INFORMATION.

PLSS: T15S, R04W, Sec. 25, SE (S)
UTM: Zone-11 N3633441 E477067

Accuracy: 80 meters
Latitude/Longitude: 32.83878 / -117.24504

Area (acres): 0
Elevation (feet): 500

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

CNPNDM0022	CALIFORNIA NATIVE PLANT SOCIETY - MAP OF LA JOLLA FOR FEROCACTUS VIRIDESCENS. XXXX-XX-XX
VEG09F0230	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2009-07-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04102
Key Quad: National City (3211761)
Occurrence Number: 30
EO Index: 21387
Element Code: PDCAC08060
Occurrence Last Updated: 1989-08-11

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NORTH PART OF MT HOPE CEMETERY, SAN DIEGO.

Detailed Location:

Ecological:

Threats:

General:
UNKNOWN WHEN SEEN. MAPPED AS PER LOCATION #5A ON CNPS MAP. NO OTHER SOURCE OF INFORMATION.

PLSS: T17S, R02W, Sec. 08 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3619579 E489455
Latitude/Longitude: 32.71393 / -117.11252
Elevation (feet): 180

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
CNPNDM0024 CALIFORNIA NATIVE PLANT SOCIETY - MAP OF NATIONAL CITY FOR FEROCACTUS VIRIDESCENS. XXXX-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04211
Key Quad: National City (3211761)
Occurrence Number: 31
EO Index: 21388
Element Code: PDCAC08060
Occurrence Last Updated: 1989-08-11

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NEAR LANOITAN AVE & 16TH ST, NATIONAL CITY.

Detailed Location:

Ecological:

Threats:

General:
UNKNOWN WHEN SEEN. MAPPED AS PER LOCATION #5B ON CNPS MAP. NO OTHER SOURCE OF INFORMATION.

PLSS: T17S, R02W, Sec. 22 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3615412 E492580
Latitude/Longitude: 32.67636 / -117.07914
Elevation (feet): 100

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
CNPNDM0024 CALIFORNIA NATIVE PLANT SOCIETY - MAP OF NATIONAL CITY FOR FEROCACTUS VIRIDESCENS. XXXX-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04258
EO Index: 12774
Key Quad: National City (3211761)
Element Code: PDCAC08060
Occurrence Number: 32
Occurrence Last Updated: 1989-08-11

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1

CNDDB Element Ranks: **Global:** G3?
State: S2S3
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
NEAR JUNCTION OF SEA BREEZE DR & WINCHESTER ST, NATIONAL CITY.

Detailed Location:

Ecological:

Threats:

General:
UNKNOWN WHEN SEEN. MAPPED AS PER LOCATION #5C ON CNPS MAP. NO OTHER SOURCE OF INFORMATION.

PLSS: T17S, R02W, Sec. 23 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3615265 E494194
Latitude/Longitude: 32.67505 / -117.06192
Elevation (feet): 250

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
CNPNDM0024 CALIFORNIA NATIVE PLANT SOCIETY - MAP OF NATIONAL CITY FOR FEROCACTUS VIRIDESCENS. XXXX-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04298
EO Index: 21384
Key Quad: National City (3211761)
Element Code: PDCAC08060
Occurrence Number: 33
Occurrence Last Updated: 2013-10-15

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?
State: S2S3

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA, PVT
Trend: Unknown
Presence: Presumed Extant

Location:
WITHIN RICE CANYON AND A TRIBUTARY OF RICE CANYON; ON EITHER SIDE OF TERRA NOVA DR, BETWEEN LYNWOOD HILLS AND BONITA.

Detailed Location:
MAPPED BY CNDDB AS 7 POLYGONS ACCORDING TO A 1981 OBERBAUER MAP (WEST POLYGON) AND 2004 RECON DIGITAL DATA (REMAINING POLYGONS). IN THE NORTH 1/2 OF SECTION 1 AND THE WEST 1/2 OF THE SE 1/4 OF SECTION 36.

Ecological:
THE RARE CYLINDROPUNTIA CALIFORNICA VAR. CALIFORNICA AND ATRIPLEX PACIFICA ARE PRESENT NEARBY.

Threats:

General:
WESTERN POLYGON BASED ON A 1981 OBERBAUER MAP. REMAINING POLYGONS OBSERVED IN 2003 WITH A FEW INDIVIDUALS OBSERVED IN THE 3 NORTHERN POLYGONS AND ABOUT 15 INDIVIDUALS OBSERVED IN THE 3 SOUTHERN POLYGONS.

PLSS: T17S, R02W, Sec. 36, SE (S)
Accuracy: specific area
Area (acres): 14
UTM: Zone-11 N3611702 E496425
Latitude/Longitude: 32.64291 / -117.03810
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

CNPNDM0024	CALIFORNIA NATIVE PLANT SOCIETY - MAP OF NATIONAL CITY FOR FEROCACTUS VIRIDESCENS. XXXX-XX-XX
OBE81M0001	OBERBAUER, T. - MAP OF THE RICE CANYON AREA 1981-XX-XX
REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04152	**EO Index:**	21385
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCAC08060
Occurrence Number:	34	**Occurrence Last Updated:**	2015-11-10

Scientific Name: *Ferocactus viridescens*

Common Name: San Diego barrel cactus

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G3?

State: S2S3

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed:	2015-02-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-02-11	**Occurrence Rank:**	Good
Owner/Manager:	SDG COUNTY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

WEST END OF SPOONERS MESA, BETWEEN MONUMENT ROAD AND THE MEXICAN BORDER.

Detailed Location:

MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO DIGITAL DATA AND MAP FROM SAN DIEGO COUNTY, AND 2015 MORSE COORDINATES. NEAR THE COMMON CORNER OF SECTIONS 4, 5, 8, AND 9.

Ecological:

OPEN, LOW MARITIME SUCCULENT SCRUB - COASTAL SAGE SCRUB DOMINATED BY BAHIOPSIS LACINIATA AND ERIOGONUM FASCICULATUM. ON STEEP, S-FACING COBBLY SLOPES. HERB COVER IS SPARSE. ASSOCIATES INCLUDE LEPIDIUM NITIDUM, ACALYPHA CALIFORNICA, ETC.

Threats:

GRAVEL MINING IS A THREAT AND OCCURS ADJACENT TO POPULATION (1984).

General:

POP NUMBERS FOR PORTIONS OF SITE: SEVERAL HUNDRED IN 1984, ~7500 IN 2007, 1 PLANT IN 2009, AT LEAST 11 IN 2015. A 1963 ANDERSON COLLECTION FROM "1/4 MILE N OF INTERNATIONAL BORDER AND ABOUT 1 MILE E OF PACIFIC OCEAN" IS ATTRIBUTED HERE.

PLSS:	T19S, R02W, Sec. 4, SW (S)	**Accuracy:**	specific area	**Area (acres):**	37
UTM:	Zone-11 N3600524 E490476	**Latitude/Longitude:**	32.54204 / -117.10143	**Elevation (feet):**	200

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

AND63S0009	ANDERSON, E. - ANDERSON #1995 POM #316997 1963-07-12
BIT84F0010	BITTMAN, R. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1984-04-XX
MOR15D0003	MORSE, K. - KMZ FILE WITH 2015 RARE PLANT OBSERVATIONS (JANUARY-JULY 2015 OBSERVATIONS) 2015-XX-XX
ROU06S0001	ROULLARD, P. - ROULLARD #125 SD #180371 2006-06-07
SDG07R0001	SAN DIEGO COUNTY - TIJUANA RIVER VALLEY REGIONAL PARK, AREA SPECIFIC MANAGEMENT DIRECTIVES 2007-06-22
SDG10D0001	SAN DIEGO COUNTY - SPECIES POINT OBSERVATIONS BY COUNTY OF SAN DIEGO (SANBIOS DATABASE). 2010-06-23
VEG09F0208	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2009-06-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03632	**EO Index:**	21371
Key Quad:	Del Mar (3211782)	**Element Code:**	PDCAC08060
Occurrence Number:	44	**Occurrence Last Updated:**	2015-10-29

Scientific Name: *Ferocactus viridescens*

Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed:	2015-09-09	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-09-09	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

JUST WEST OF UC SAN DIEGO; APPROX 0.35 AIR MI NW AND 0.2 AIR MI SW OF LA JOLLA FARMS/LA JOLLA SHORES DR JUNCTION.

Detailed Location:

MAPPED BY CNDDB AS 4 POLYGONS. TWO NORTHERN POLYGONS BASED ON A 2010 MAP, SOUTHERN POLYGON BASED ON A 2009 VEGETATION SURVEY, REMAINING POLYGON BASED ON 2015 MORSE COORDINATES. IN THE SW 1/4 OF SECTION 12 AND THE NW 1/4 OF SECTION 13.

Ecological:

MARITIME SUCCULENT SCRUB WITH ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM VAR. FASCICULATUM, RHUS INTEGRIFOLIA, LYCIUM CALIFORNICUM, ENCELIA CALIFORNICA, DUDLEYA EDULIS, MALOSMA LAURINA, ASTRAGALUS TRICHOPODUS, BROMUS DIANDRUS, ETC.

Threats:

General:

1 TO 10 INDIVIDUALS OBSERVED AT EACH OF 4 POINT LOCATIONS IN 2009 (2 NORTHERN POLYGONS). SOUTHERN POLYGON OBSERVED DURING A 2009 VEGETATION SURVEY. UNKNOWN NUMBER OBSERVED IN REMAINING POLYGON IN 2015.

PLSS:	T15S, R04W, Sec. 12, SW (S)	**Accuracy:**	specific area	**Area (acres):**	8
UTM:	Zone-11 N3637825 E476719	**Latitude/Longitude:**	32.87832 / -117.24888	**Elevation (feet):**	250

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772), Del Mar (3211782)

Sources:

CNPNDM0036	CALIFORNIA NATIVE PLANT SOCIETY - MAP OF FEROCACTUS VIRIDESCENS. XXXX-XX-XX
MOR15U0002	MORSE, K. - OBSERVATION RECORD FOR FEROCACTUS VIRIDESCENS, CALFLORA ID: CBO40390 2015-09-09
TAI10U0001	TECHNOLOGY ASSOCIATES INTERNATIONAL CORPORATION - BIOLOGICAL RESOURCES IMPACT ANALYSIS FOR THE UCSD UNIVERSITY HOUSE REHABILITATION PROJECT, SAN DIEGO COUNTY, CA 2010-09-09
VEG09F0234	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2009-06-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04320
EO Index: 14271
Key Quad: La Mesa (3211771)
Element Code: PDCAC08060
Occurrence Number: 45
Occurrence Last Updated: 2013-10-15

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1

CNDDB Element Ranks: **Global:** G3?
State: S2S3
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2011-07-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2011-07-07
Occurrence Rank: Fair
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
ALONG LITTLE SYCAMORE CANYON AND ADJACENT SPRING CANYON, NORTHWEST OF SANTEE.

Detailed Location:
MAPPED BY CNDDB AS 23 POLYGONS ACCORDING TO A 1984 LOY MAP, 2004 KIM COORDINATES, 2008 SAUNDERS COORDINATES, AND A 2011 TETRA TECH PROJECT SITE MAP.

Ecological:
SCATTERED ALONG RIDGES AND UPPER SLOPES IN SPARSE COASTAL SAGE SCRUB/GRASSLAND. ERIOGONUM FASCICULATUM DOMINANT. COBBLE/PEBBLE SUBSTRATE ON REDDING COBBLY LOAM SOILS. ALSO ASSOCIATED WITH MUILLA CLEVELANDII. AREA BURNED IN 2003.

Threats:
PROPOSED LANDFILL OPERATIONS AND EXPANSION. ALSO THREATENED BY QUAIL BRUSH GENERATION PROJECT (PLANTS TO BE RELOCATED).

General:
FEWER THAN 1000 PLANTS OBSERVED IN 1984. UNKNOWN NUMBER OBSERVED IN THIS AREA IN 2003. 45 PLANTS OBSERVED IN 2004. 12 PLANTS OBSERVED IN THE 2 SE-MOST POLYGONS IN 2008. UNK # IN 2011 BUT 40 PLANTS ARE TO BE IMPACTED. INCLUDES FORMER EO #46.

PLSS: T15S, R02W, Sec. 13, SE (S)
Accuracy: specific area
Area (acres): 124
UTM: Zone-11 N3636017 E496900
Latitude/Longitude: 32.86225 / -117.03313
Elevation (feet): 800

County Summary:
San Diego

Quad Summary:
La Mesa (3211771), Poway (3211781)

Sources:

CLA03U0001	CLARK, E. (RECON ENVIRONMENTAL, INC.) - REVISED POST-SURVEY NOTIFICATION OF FOCUSED SURVEYS FOR COASTAL CALIFORNIA GNATCATCHER ON THE SYCAMORE LANDFILL EXPANSION PROJECT SITE, SAN DIEGO, CALIFORNIA 2003-10-06
KIM04F0021	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-04-13
KIM04F0022	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-04-13
KIM04F0023	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-03-16
LOY84F0002	LOY, M. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1984-05-XX
SAU08F0001	SAUNDERS, M. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2008-08-27
SAU08F0002	SAUNDERS, M. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2008-08-27
SAU08F0003	SAUNDERS, M. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2008-08-27
TET11R0003	TETRA TECH, INC. - COGENTRIX QUAIL BRUSH GENERATION PROJECT, APPLICATION FOR CERTIFICATION, SECTION 4.12 BIOLOGICAL RESOURCES 2011-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17516
EO Index: 16504
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC08060
Occurrence Number: 47
Occurrence Last Updated: 2013-11-26

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?
State: S2S3

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 1984-07-13
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1984-07-13
Occurrence Rank: Poor
Owner/Manager: PVT, CITY OF SAN DIEGO
Trend: Decreasing
Presence: Presumed Extant

Location:
ABOUT 1 MILE EAST OF I-805 AND 0.5 MILE SOUTH OF OTAY VALLEY RD, UPLANDS ON SOUTH SIDE OF OTAY RIVER VALLEY.

Detailed Location:

Ecological:
SPARSELY VEGETATED UPPER SLOPES, USUALLY S-FACING. COBBLY RED SOILS; LINNE CLAY LOAM. COASTAL SAGE SCRUB. ASSOCIATED WITH ACACIA SMALLII, EUPHORBIA MISERA, DUDLEYA VARIEGATA, MAMMILLARIA DIOICA, AND AMBROSIA CHENOPODIIFOLIA.

Threats:
AREA BEING STUDIED FOR DEVELOPMENT; UPLANDS RECEIVE HEAVY ORV USE (1984). MOST OF AREA HAS SINCE BEEN DEVELOPED.

General:
FEWER THAN 1000 PLANTS OBSERVED IN 1984. BASED ON 2012 AERIAL IMAGERY, MAJORITY OF AREA HAS SINCE BEEN DEVELOPED.

PLSS: T18S, R01W, Sec. 19, S (S)
Accuracy: specific area
Area (acres): 149
UTM: Zone-11 N3605486 E497620
Latitude/Longitude: 32.58684 / -117.02536
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
WIE84F0007 WIER, E. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1984-07-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04065
EO Index: 21373
Key Quad: La Mesa (3211771)
Element Code: PDCAC08060
Occurrence Number: 48
Occurrence Last Updated: 2013-11-22

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?
State: S2S3

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2006-05-19
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-05-19
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:
NEAR THE JUNCTION OF MURPHY CANYON AND I-15, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:
MAPPED BY CNDDB AS 8 POLYGONS ACCORDING TO A 1982 MAP AND LOCATION DESCRIPTION ON A 2006 BUEGGE COLLECTION. IN THE WEST 1/2 OF SECTION 29 AND WITHIN SECTION 30.

Ecological:
SOIL TAN, SANDY, WITH ABUNDANT ROUNDED COBBLE. STEEP SLOPES. SW ASPECT. DISTURBED COASTAL SAGE SCRUB. BURNED IN 2003. ASSOCIATED WITH LOTUS SCOPARIUS, CENTAUREA MELITENSIS, MALOSMA LAURINA, SALVIA MELLIFERA, AND HEMIZONIA FLORIBUNDA.

Threats:
BASED ON 2012 AERIAL IMAGERY, PORTIONS OF SITE EXTIRPATED BY HIGHWAY CONSTRUCTION.

General:
MAJORITY OF SITE BASED ON A 1982 MAP; UNKNOWN WHEN SEEN. OBSERVED IN AREA IN 1986 (BAUDER'S AA3-7 POOLS). ABOUT 20+ PLANTS IN 2006 IN MURPHY CYN "100 M WEST OF I-15 AND 30 M SOUTH OF HWY 52 OFFRAMP." INCLUDES FORMER OCCURRENCES #96-99.

PLSS: T15S, R02W, Sec. 29, W (S)
Accuracy: specific area
Area (acres): 87
UTM: Zone-11 N3633759 E488924
Latitude/Longitude: 32.84184 / -117.11835
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
La Mesa (3211771), La Jolla (3211772)

Sources:

ANO82M0001	ANONYMOUS - AERIAL PHOTO OF KEARNY MESA VICINITY WITH RARE PLANT LOCATIONS 1982-05-25
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BUE06S0004	BUEGGE, J. & M. LOY - BUEGGE #1399 SD #170168 2006-05-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03850
Key Quad: La Jolla (3211772)
Occurrence Number: 49
EO Index: 21377
Element Code: PDCAC08060
Occurrence Last Updated: 2013-11-14

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SAN CLEMENTE CANYON AND TRIBUTARY JUST EAST OF HWY 805, SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS 3 POLYGONS IN THE WEST HALF OF THE NW 1/4 OF SECTION 26 AND THE NORTH 1/2 OF THE NE 1/4 OF SECTION 27.

Ecological:

Threats:

General:
MAIN SOURCE OF INFORMATION IS A 1982 MAP; UNKNOWN WHEN PLANTS WERE SEEN. 10 INDIVIDUALS OBSERVED IN THIS AREA ON AN UNKNOWN DATE (LATE 1970S TO MID 1980S). NEEDS FIELDWORK. INCLUDES FORMER OCCURRENCE #50.

PLSS: T15S, R03W, Sec. 26, NW (S)
Accuracy: specific area
Area (acres): 29
UTM: Zone-11 N3634394 E484167
Latitude/Longitude: 32.84750 / -117.16919
Elevation (feet): 350

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

ANO82M0001	ANONYMOUS - AERIAL PHOTO OF KEARNY MESA VICINITY WITH RARE PLANT LOCATIONS 1982-05-25
WES87R0002	WESTEC SERVICES, INC. - ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED LAND SALES AND EXCHANGES SOUTH OF CALIFORNIA STATE ROUTE 52, NAVAL AIR STATION, MIRAMAR, SAN DIEGO COUNTY, CA 1987-04-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03908
EO Index: 21372
Key Quad: La Jolla (3211772)
Element Code: PDCAC08060
Occurrence Number: 51
Occurrence Last Updated: 2013-11-14

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?
State: S2S3

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:
SAN CLEMENTE CANYON, APPROXIMATELY 1.2 MILES EAST OF HWY 805, SAN DIEGO.

Detailed Location:
IN THE SOUTH 1/2 OF THE SE 1/4 OF SECTION 23.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1982 MAP; UNKNOWN WHEN PLANTS WERE OBSERVED. NEEDS FIELDWORK.

PLSS: T15S, R03W, Sec. 23, SE (S)
Accuracy: specific area
Area (acres): 22
UTM: Zone-11 N3634744 E485152
Latitude/Longitude: 32.85068 / -117.15867
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
ANO82M0001 ANONYMOUS - AERIAL PHOTO OF KEARNY MESA VICINITY WITH RARE PLANT LOCATIONS 1982-05-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04343	**EO Index:**	22368
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCAC08060
Occurrence Number:	52	**Occurrence Last Updated:**	2019-01-07

Scientific Name: *Ferocactus viridescens*

Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed:	2018-07-17	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2018-07-17	**Occurrence Rank:**	Good
Owner/Manager:	PVT, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH RIM OF WESTERN OTAY MESA, FROM I-805 EAST TO VICINITY OF SPRING CANYON AND WRUCK CANYON, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS MANY POLYGONS. LARGE SW POLYGON BASED ON 1986 VANDERWIER MAP; REMAINING POLYGONS BASED ON A 1995 RIGGAN & ASSOCIATES MAP, 1998 MERKEL & ASSOC MAP, 1999 HELIX MAP, 2001 CALTRANS MAP, AND COORDINATES FROM 2009, 2012, 2018.

Ecological:

COASTAL SAGE SCRUB. ASSOCIATED WITH SIMMONDSIA CHINENSIS, ARTEMISIA CALIFORNICA, EUPHORBIA MISERA, SISYRINCHIUM BELLUM, DUDLEYA VARIEGATA, MALOSMA LAURINA, RHUS INTEGRIFOLIA, MALACOTHAMNUS FASCICULATUS, BERGEROCACTUS EMORYI, ETC.

Threats:

LOTS OF FOOT AND VEHICULAR TRAFFIC. POTENTIAL DEVELOPMENT, NON-NATIVE PLANTS, GOAT GRAZING.

General:

POPULATION NUMBERS FOR PORTIONS OF SITE: FEWER THAN 1000 INDIVIDUALS IN SW POLYGON IN 1986, SEVERAL THOUSAND PLANTS IN 1995, UNKNOWN NUMBER IN 1997 & 1998, 238+ INDIVIDUALS OBSERVED IN 1998/1999, <1% COVER IN 2009, ~15 IN 2012, 16 IN 2018.

PLSS:	T19S, R01W, Sec. 5 (S)	**Accuracy:**	specific area	**Area (acres):**	238
UTM:	Zone-11 N3601731 E499180	**Latitude/Longitude:**	32.55297 / -117.00874	**Elevation (feet):**	450

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

BAL09F0025	BALO, K. & J. GAUDETTE (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR CYLINDROPUNTIA CALIFORNICA VAR. CALIFORNICA 2009-05-15
CAL01M0002	CALTRANS - MAPS SHOWING SENSITIVE PLANT SPECIES IMPACT FOOTPRINT FOR ROUTE 905, REVISED 2001 2001-06-XX
HEL99R0001	HELIX ENVIRONMENTAL PLANNING, INC. - 1999 ANNUAL REPORT FOR PROTOCOL LEVEL WET SEASON SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP 1999-07-28
JAM01U0001	JAMES, R. - MAP AND LETTER REGARDING DEINANDRA CONJUGENS ON OTAY MESA 2001-02-27
MAC18F0004	MACGREGOR, C. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2018-07-17
MAC18F0005	MACGREGOR, C. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2018-07-17
MAC18F0006	MACGREGOR, C. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2018-07-17
MAC18F0007	MACGREGOR, C. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2018-07-17
MAC18F0008	MACGREGOR, C. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2018-07-17
MAC18F0014	MACGREGOR, C. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2018-07-17
MER98U0001	EMLET, D. (MERKEL AND ASSOCIATES, INC.) - CALIFORNIA GNATCATCHER SURVEY REPORT FOR THE CANDLELIGHT PROPERTY PROJECT 1998-09-29
REB12S0026	REBMAN, J. ET AL. - REBMAN #23833 SD #225514 2012-05-10
RIG95R0001	RIGGAN, R. (R.B. RIGGAN AND ASSOCIATES) - CALIFORNIA GNATCATCHER - SUBMITTAL OF SURVEY REPORTS - NOTIFICATION OF AVAILABILITY OF MITIGATION PROPERTY. 1995-05-23
SCH97F0046	SCHEIDT, V. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 1997-08-08
VAN86F0002	VANDERWIER, J. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1986-02-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04337
EO Index: 21369
Key Quad: National City (3211761)
Element Code: PDCAC08060
Occurrence Number: 53
Occurrence Last Updated: 2013-10-16

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?
State: S2S3

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:
RICE CANYON, APPROXIMATELY 0.7 AIR MILE SSE OF ALLEN SCHOOL, CHULA VISTA.

Detailed Location:

Ecological:
IN COASTAL SAGE SCRUB.

Threats:
BASED ON 2012 AERIAL IMAGERY, SITE LOOKS TO HAVE BEEN EXTIRPATED BY DEVELOPMENT. SOME NATURAL HABITAT REMAINS TO SOUTH.

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1981 OBERBAUER MAP. UNKNOWN WHEN OR HOW MANY PLANTS WERE SEEN.

PLSS: T17S, R01W, Sec. 31, SW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3612014 E497282
Latitude/Longitude: 32.64573 / -117.02897
Elevation (feet): 380

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
OBE81M0001 OBERBAUER, T. - MAP OF THE RICE CANYON AREA 1981-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90623
Key Quad: National City (3211761)
Occurrence Number: 54
EO Index: 21366
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-16

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
RICE CANYON, APPROXIMATELY 1 AIR MILE SE OF ALLEN SCHOOL, CHULA VISTA.

Detailed Location:

Ecological:
IN COASTAL SAGE SCRUB.

Threats:
BASED ON 2012 AERIAL IMAGERY, SITE LOOKS TO HAVE BEEN EXTIRPATED BY DEVELOPMENT. SOME NATURAL HABITAT REMAINS TO SOUTH.

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1981 OBERBAUER MAP. UNKNOWN WHEN OR HOW MANY PLANTS WERE SEEN.

PLSS: T17S, R01W, Sec. 31, SE (S)
Accuracy: specific area
Area (acres): 14
UTM: Zone-11 N3612071 E498139
Latitude/Longitude: 32.64624 / -117.01983
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
OBE81M0001 OBERBAUER, T. - MAP OF THE RICE CANYON AREA 1981-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04384
EO Index: 21368
Key Quad: National City (3211761)
Element Code: PDCAC08060
Occurrence Number: 55
Occurrence Last Updated: 2013-11-14

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1

CNDDB Element Ranks: **Global:** G3?
State: S2S3
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Fair
Owner/Manager: CITY OF CHULA VISTA, PVT
Trend: Unknown
Presence: Presumed Extant

Location:
NORTH SIDE OF RICE CYN AND SOUTH SIDE OF LONG CYN; APPROX 1.5 TO 2 ROAD MILES SE OF OTAY LAKES RD/BONITA RD JUNCTION.

Detailed Location:
MAPPED BY CNDDB AS 5 POLYGONS ACCORDING TO A 1981 OBERBAUER MAP AND 2004 RECON DIGITAL DATA.

Ecological:
IN COASTAL SAGE SCRUB AND RHUS WOODLAND.

Threats:
BASED ON 2012 AERIAL IMAGERY, 2 WEST POLYGONS LOOK TO HAVE BEEN EXTIRPATED BY DEVELOPMENT.

General:
FEWER THAN 1000 IN 1986. IN 2003, 60 PLANTS WERE OBSERVED IN SE POLYGON AND AN UNKNOWN NUMBER WERE OBSERVED IN NORTH-MOST POLYGON. REMAINING POLYGONS BASED ON A 1981 OBERBAUER MAP; UNKNOWN WHEN SEEN. INCLUDES FORMER OCCURRENCES #56 AND 57.

PLSS: T17S, R01W, Sec. 32 (S)
Accuracy: specific area
Area (acres): 27
UTM: Zone-11 N3612444 E499524
Latitude/Longitude: 32.64961 / -117.00507
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

OBE81M0001	OBERBAUER, T. - MAP OF THE RICE CANYON AREA 1981-XX-XX
REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05
SCH86F0011	SCHEIDT, V. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1986-08-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04385
EO Index: 21364
Key Quad: National City (3211761)
Element Code: PDCAC08060
Occurrence Number: 58
Occurrence Last Updated: 2013-11-22

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?
State: S2S3

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:
SOUTH SIDE OF RICE CANYON, 0.75 AIR MILE SSW OF BM 445 ON TOPOGRAPHIC MAP, CHULA VISTA.

Detailed Location:

Ecological:
IN COASTAL SAGE SCRUB.

Threats:
BASED ON 2012 AERIAL IMAGERY, SITE LOOKS TO HAVE BEEN EXTIRPATED BY DEVELOPMENT. SOME NATURAL HABITAT REMAINS IN AREA.

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1981 OBERBAUER MAP. UNKNOWN WHEN OR HOW MANY PLANTS WERE SEEN.

PLSS: T18S, R01W, Sec. 05, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3611408 E498794
Latitude/Longitude: 32.64026 / -117.01285
Elevation (feet): 450

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
OBE81M0001 OBERBAUER, T. - MAP OF THE RICE CANYON AREA 1981-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71919
Key Quad: La Mesa (3211771)
Occurrence Number: 59

EO Index: 21365
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-16

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 1985-04-04
Last Survey Date: 1985-04-04
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Decreasing

Location:
LA MESA, NW SIDE OF JUNCTION OF FLETCHER PARKWAY AND AMAYA DRIVE.

Detailed Location:
IN THE NW 1/4 OF THE NE 1/4 OF SECTION 17.

Ecological:
ON EDGE OF DEVELOPED MESA IN COASTAL SAGE SCRUB. ASSOCIATED WITH LOTUS SCOPARIUS, ARTEMISIA CALIFORNICA AND ERIOGONUM FASCICULATUM.

Threats:
RESIDENTIAL DEVELOPMENT. FREEWAY RAMP IS PLANNED FOR SITE (1985).

General:
2 INDIVIDUALS OBSERVED IN 1985.

PLSS: T16S, R01W, Sec. 17, NE (S)
UTM: Zone-11 N3627671 E499615

Accuracy: 1/10 mile
Latitude/Longitude: 32.78697 / -117.00410

Area (acres): 0
Elevation (feet): 600

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
STE85F0009 STEELE, B. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1985-04-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04423
EO Index: 21350
Key Quad: El Cajon (3211678)
Element Code: PDCAC08060
Occurrence Number: 77
Occurrence Last Updated: 2013-11-18

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?
State: S2S3

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 1981-04-03
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1981-04-03
Occurrence Rank: Poor
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
NORTH OF FLETCHER PARKWAY & EAST OF FANITA DRIVE, NORTH OF LA MESA.

Detailed Location:

Ecological:
ON A RELICTUAL PATCH OF SOUTHERN CALIFORNIA GRASSLAND SURROUNDED BY DEVELOPMENT. ASSOCIATED WITH AVENA AND STIPA.

Threats:
SURROUNDED BY DEVELOPMENT.

General:
FEWER THAN 10 PLANTS IN 1981.

PLSS: T16S, R01W, Sec. 05 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3630119 E499943
Latitude/Longitude: 32.80906 / -117.00060
Elevation (feet): 700

County Summary:
San Diego

Quad Summary:
El Cajon (3211678), La Mesa (3211771)

Sources:
SCH81F0016 SCHEIDT, V. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1981-04-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04317
EO Index: 22367
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC08060
Occurrence Number: 79
Occurrence Last Updated: 2019-01-07

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1

CNDDB Element Ranks: **Global:** G3?
State: S2S3
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2017-05-10
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2017-05-10
Occurrence Rank: Fair
Owner/Manager: SDG COUNTY, CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

BOTH SIDES OF MOODY CANYON, WESTERN OTAY MESA, EAST OF SAN YSIDRO.

Detailed Location:

MAPPED BY CNDDB AS 19 POLYGONS BASED ON A 1998 RECON MAP, A 2012 MAP FOR THE FURBY-NORTH PROPERTY, AND 2017 RECON ENVIRONMENTAL DIGITAL DATA.

Ecological:

ON ROCKY SOIL IN MARITIME DESERT SCRUB WITH ENCELIA CALIFORNICA AND OPUNTIA PROLIFERA. OTHER RARE SPECIES NEARBY INCLUDE CISTANTHE MARITIMA, LYCIUM CALIFORNICUM, ATRIPLEX PACIFICA, AND DICHONDRA OCCIDENTALIS.

Threats:

PROPOSED FOR DEVELOPMENT (1981). PROPERTY HAS AN UNOFFICIAL NETWORK OF DIRT ROADS (USED BY ORVS) AND TRAILS.

General:

1000-10,000 PLANTS OBSERVED IN 1981. 3 INDIVIDUALS OBSERVED IN AREA IN 1994. 35 INDIVIDUALS OBSERVED ACROSS SITE IN 2011. SOUTH PORTION OF SITE EAST OF BEYER SCHOOL: 2 INDIVIDUALS OBSERVED BETWEEN 1995 AND 1998, 9 PLANTS IN 2017.

PLSS: T18S, R02W, Sec. 36, E (S)
Accuracy: specific area
Area (acres): 15
UTM: Zone-11 N3602371 E496688
Latitude/Longitude: 32.55874 / -117.03528
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

ALB12R0001	ALBRIGHT, B. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - RESOURCE MANAGEMENT PLAN FOR FURBY-NORTH PROPERTY: SAN DIEGO COUNTY 2012-06-29
BOH17D0007	BOHAC, S. (RECON ENVIRONMENTAL, INC.) - SHAPEFILES FOR SPECIES DETECTIONS ASSOCIATED WITH THE BEYER PARK BIOLOGICAL REPORT, 2017 2017-XX-XX
EDW95U0001	EDWARDS, C. & A. KOLTZ (PACIFIC SOUTHWEST BIOLOGICAL SERVICES) - CALIFORNIA GNATCATCHER SURVEY RESULTS 1995-01-17
REC98R0002	RECON - BIOLOGICAL TECHNICAL REPORT FOR THE BEYER HILLS PROJECT 1998-08-24
SCH81F0018	SCHEIDT, V. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1981-05-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04415
Key Quad: El Cajon (3211678)
Occurrence Number: 80
EO Index: 13526
Element Code: PDCAC08060
Occurrence Last Updated: 2017-07-07

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2011-11-14
Last Survey Date: 2011-11-14
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
FANITA RANCH AND SURROUNDING AREA, WEST OF HIGHWAY 67, EAST OF WEST SYCAMORE CANYON, NW PORTION OF SANTEE.

Detailed Location:
MANY POLYGONS MAPPED ACCORDING TO MAPS FROM 1992, 1994, 1998 AND 2011 SANDERS COORDINATES.

Ecological:
HABITATS INCLUDE DIEGAN COASTAL SAGE SCRUB, CHAMISE CHAPARRAL, BURNED COASTAL SAGE SCRUB, MIXED CHAPARRAL, AND NON-NATIVE GRASSLAND. ASSOCIATED WITH AVENA FATUA, LOTUS SCOPARIUS, VULPIA MYUROS, BRACHYPODIUM DISTACHYON, BROMUS RUBENS, ETC.

Threats:
WITHIN FANITA RANCH RESIDENTIAL DEVELOPMENT PROJECT; SITE HAS COMPLEX SYSTEM OF DIRT RDS/TRAILS USED ILLEGALLY BY ORVS.

General:
POPULATION NUMBERS FOR PORTIONS OF SITE: <50 PLANTS IN 1983, UNKNOWN NUMBER OF PLANTS OBSERVED IN 1991 AND 1998, 25 PLANTS OBSERVED IN 1994, <1% COVER OF FEROCACTUS OBSERVED DURING 2010 VEG SURVEYS, UNK # IN 2011. INCLUDES EO #134-137, 152.

PLSS: T15S, R01W, Sec. 16 (S)
Accuracy: specific area
Area (acres): 126
UTM: Zone-11 N3637272 E500917
Latitude/Longitude: 32.87358 / -116.9902
Elevation (feet): 600

County Summary:
San Diego

Quad Summary:
El Cajon (3211678), San Vicente Reservoir (3211688), La Mesa (3211771)

Sources:

DUD98R0001	DUDEK & ASSOCIATES, INC. - QUINO CHECKERSPOT SURVEY FOR FANITA RANCH, SAN DIEGO CO (INCLUDES DATA FROM PRIOR SURVEYS FOR OTHER SPECIES) 1998-06-05
OGD92R0001	OGDEN ENVIRONMENTAL AND ENERGY SERVICES COMPANY - BIOLOGICAL TECHNICAL REPORT FOR FANITA RANCH 1992-06-12
SAN11S0097	SANBORN, J. - SANBORN #268 SD #226432 2011-11-14
SCH83F0017	SCHEIDT, V. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1983-09-01
SCH94F0023	SCHEIDT, V. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1994-10-28
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90630
Key Quad: Imperial Beach (3211751)
Occurrence Number: 81

EO Index: 91219
Element Code: PDCAC08060
Occurrence Last Updated: 2017-07-07

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2009-06-09
Last Survey Date: 2009-06-09
Owner/Manager: PVT, CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NORTH RIM OF WESTERN OTAY MESA, FROM I-805 EAST TO VICINITY OF DENNERY CANYON, SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS MANY POLYGONS. PORTION OF WEST-MOST POLYGON IS NON-SPECIFIC AROUND THE MARITIME SUCCULENT SCRUB ON THE RIVIERA DEL SOL PROPERTY; REMAINING POLYGONS ARE BASED ON SPECIFIC DATA.

Ecological:
MARITIME SUCCULENT SCRUB WITH SIMMONDSIA CHINENSIS, CYLINDROPUNTIA PROLIFERA, ERIOGONUM FASCICULATUM, ARTEMISIA CALIFORNICA, RHUS INTEGRIFOLIA, NASSELLA PULCHRA, BROMUS MADRITENSIS, VIGUIERA LACINIATA, ACHNATHERUM DIEGOENSE, ETC.

Threats:
PORTIONS OF SITE HAVE SINCE BEEN DEVELOPED.

General:
FEWER THAN 10,000 PLANTS NEAR CHESTER GRADE IN 1984. APPROXIMATELY 18 PLANTS OBSERVED AROUND 1995 (BASED ON 2001 CALTRANS MAP). UNKNOWN NUMBER IN 2001, 2002, & 2008. OBSERVED DURING VEGETATION SURVEYS IN 2009. INCLUDES FORMER OCC #156.

PLSS: T18S, R01W, Sec. 30 (S)
Accuracy: specific area
Area (acres): 154
UTM: Zone-11 N3604221 E497895
Latitude/Longitude: 32.57544 / -117.02243
Elevation (feet): 500

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BOE98F0001	BOESSOCO, H. - FIELD SURVEY FORM FOR AMBROSIA CHENOPODIIFOLIA & FEROCACTUS VIRIDESCENS & EUPHORBIA MISERA & ADOLPHIA CALIFORNICA 1998-04-24
CAL01M0002	CALTRANS - MAPS SHOWING SENSITIVE PLANT SPECIES IMPACT FOOTPRINT FOR ROUTE 905, REVISED 2001 2001-06-XX
DAV08U0001	DAVERIN, C. - RESULTS OF CALIFORNIA GNATCATCHER SURVEYS ON THE SAN YSIDRO ELEMENTARY SCHOOL 8 SITE. 2008-06-20
HOL85F0134	HOLLAND, R. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1985-02-11
JAM01U0001	JAMES, R. - MAP AND LETTER REGARDING DEINANDRA CONJUGENS ON OTAY MESA 2001-02-27
MIL02R0003	MILLER, K. ET AL. (CALIFORNIA DEPARTMENT OF TRANSPORTATION) - 45-DAY REPORT FOR THE CALIFORNIA GNATCATCHER (POLIOPTILA CALIFORNICA CALIFORNICA) FOR THE WALL-HUDSON PROPERTY SOUTH OF STATE ROUTE 905 (SR 905) IN SOUTHERN SAN DIEGO COUNTY, CA 2002-09-05
MOE01R0001	MOE, D. (REC CONSULTING, INC.) - SUMMARY REPORT OF CALIFORNIA GNATCATCHER SURVEYS FOR RIVIERA DEL SOL (USFWS TE009390-2). 2001-08-06
SCH84F0031	SCHEIDT, V. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1984-10-01
SDG92R0001	CITY OF SAN DIEGO - PORTIONS OF AN ENVIRONMENTAL IMPACT REPORT FOR THE CALIFORNIA TERRACES PRECISE PLAN 1992-XX-XX
VEG09F0197	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2009-05-22
VEG09F0200	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2009-06-09
VEG09F0203	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2009-06-09
VEG09F0223	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2009-05-22
VEG09F0231	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2009-06-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04372
Key Quad: La Mesa (3211771)
Occurrence Number: 82

EO Index: 21343
Element Code: PDCAC08060
Occurrence Last Updated: 1989-08-11

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 1984-12-26
Last Survey Date: 1984-12-26
Owner/Manager: PVT
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
AT END OF LYMBROOKEN LANE, SOUTH OF PROSPECT AVE, SANTEE.

Detailed Location:

Ecological:
IN DISTURBED SAGE SCRUB ON STEEP, ROCKY SLOPE. ASSOCIATED WITH SALVIA APIANA, ERIOGONUM FASCICULATUM.

Threats:

General:
FEWER THAN 50 PLANTS IN 1984.

PLSS: T15S, R01W, Sec. 32 (S)
UTM: Zone-11 N3632299 E498758

Accuracy: 1/5 mile
Latitude/Longitude: 32.82872 / -117.01326

Area (acres): 0
Elevation (feet): 520

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
SCH84F0030 SCHEIDT, V. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1984-12-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04299
EO Index: 19585
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC08060
Occurrence Number: 83
Occurrence Last Updated: 2013-10-17

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1

CNDDB Element Ranks: **Global:** G3?
State: S2S3
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2009-06-09
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-06-09
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA, PVT
Trend: Unknown
Presence: Presumed Extant

Location:
NORTH OF PALM AVENUE AND WEST OF I-805, OTAY RIVER VALLEY, SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS 2 POLYGONS IN THE SOUTH 1/2 OF THE SW 1/4 OF SECTION 24.

Ecological:
IN POCKET OF MARITIME SAGE SCRUB ON CANYON WALL. COMPOSITE CLAY SOIL. ASSOCIATED WITH COREOPSIS GIGANTEA, VIGUIERA LACINIATA, SIMMONDSIA CHINENSIS, ARTEMISIA CALIFORNICA, RHUS INTEGRIFOLIA, ERIOGONUM FASCICULATUM, ADOLPHIA CALIFORNICA, ETC.

Threats:

General:
FEWER THAN 10 PLANTS OBSERVED IN EASTERN POLYGON IN 1985. OBSERVED IN WESTERN POLYGON DURING 2009 VEGETATION SURVEYS.

PLSS: T18S, R02W, Sec. 24, SW (S)
Accuracy: specific area
Area (acres): 12
UTM: Zone-11 N3605405 E495539
Latitude/Longitude: 32.58611 / -117.04753
Elevation (feet): 150

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

SCH85F0031	SCHEIDT, V. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1985-11-15
VEG09F0221	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2009-06-09
VEG09F0232	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2009-06-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90632
EO Index: 21342
Key Quad: National City (3211761)
Element Code: PDCAC08060
Occurrence Number: 84
Occurrence Last Updated: 2013-11-26

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?
State: S2S3

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2013-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2013-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
NORTH SIDE OF CHOLLAS CREEK, BOTH SIDES OF THE CROSSING OF FAIRMOUNT AVENUE WITH CHOLLAS CREEK, SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS 7 POLYGONS, MOSTLY IN THE NW 1/4 OF SECTION 4.

Ecological:
ON SLOPES OF ROAD LEADING DOWN TO FLOODPLAIN. ASSOCIATED WITH ENCELIA CALIFORNICA AND ARTEMISIA CALIFORNICA.

Threats:
AREA IN PROPOSED REALIGNMENT OF FAIRMOUNT AVENUE (1986).

General:
FEWER THAN 100 PLANTS IN 1986. MAIN SOURCE OF INFORMATION FOR THIS SITE IS A MAP FROM SAN DIEGO CANYONLANDS; UNKNOWN NUMBER OF PLANTS PRESUMABLY OBSERVED IN 2012/2013.

PLSS: T17S, R02W, Sec. 04, NW (S)
Accuracy: specific area
Area (acres): 10
UTM: Zone-11 N3620947 E490990
Latitude/Longitude: 32.72628 / -117.09614
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

SCH86F0010	SCHEIDT, V. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1986-03-07
SDC13M0002	SAN DIEGO CANYONLANDS - MAPS OF VEGETATION/HABITAT CONDITIONS AT CHOLLAS CREEK - CITY HEIGHTS 2013-03-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04265	**EO Index:**	21334
Key Quad:	La Mesa (3211771)	**Element Code:**	PDCAC08060
Occurrence Number:	91	**Occurrence Last Updated:**	2013-10-18

Scientific Name: *Ferocactus viridescens*

Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed:	2004-09-23	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2004-09-23	**Occurrence Rank:**	Excellent
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

UPPER PORTIONS OF OAK CANYON, FROM ABOUT 0.7 TO 2.8 MILES NORTH OF ITS JUNCTION WITH SR 52, MCAS MIRAMAR.

Detailed Location:

WITHIN OAK CANYON AND TRIBUTARIES OF OAK CANYON. MAPPED BY CNDDB AS 37 POLYGONS ACCORDING TO A 1985 FWS MAP AND RECON DIGITAL DATA.

Ecological:

COASTAL SAGE SCRUB - CHAPARRAL MIX, NATIVE GRASSLAND; RECENTLY BURNED (2003). REDDING SOILS, HILLSIDE. ASSOCIATED WITH NASSELLA PULCHRA, ERODIUM SP., AVENA FATUA, BROMUS, OPUNTIA LITTORALIS, ERIOGONUM FASCICULATUM, ADENOSTOMA, ETC.

Threats:

THREATS INCLUDE CONTROLLED BURNING AND LIVESTOCK GRAZING.

General:

26 CACTI OBSERVED IN A SMALL PORTION OF OCCURRENCE IN 1985 BY USFWS STAFF. 1391 OBSERVED IN 2003. 6617 OBSERVED IN 2004.

PLSS:	T15S, R02W, Sec. 11 (S)	**Accuracy:**	specific area	**Area (acres):**	85
UTM:	Zone-11 N3637396 E494855	**Latitude/Longitude:**	32.87468 / -117.05499	**Elevation (feet):**	750

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), Poway (3211781)

Sources:

FWS85R0008	U.S. FISH & WILDLIFE SERVICE - FIELD SURVEY OF BIOLOGICAL RESOURCES OF SPECIFIC CANYON HABITATS OF MIRAMAR NAVAL AIR STATION, CALIFORNIA 1985-09-XX
REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05
SAU03F0001	SAUCEDO-ORTIZ, D. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2003-06-16
SAU03F0002	SAUCEDO-ORTIZ, D. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2003-06-16
SCH03F0033	SCHEID, G. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2003-05-29
SCH04F0029	SCHEID, G. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-04-01
SCH04F0030	SCHEID, G. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-04-29
SCH04F0031	SCHEID, G. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-09-23
SCH04F0036	SCHEID, G. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-05-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90640
Key Quad: Point Loma (3211762)
Occurrence Number: 93

EO Index: 316
Element Code: PDCAC08060
Occurrence Last Updated: 2019-01-07

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2018-05-12
Last Survey Date: 2018-05-12
Owner/Manager: DOD-NAVY, NPS-CABRILLO NM
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Excellent
Trend: Unknown

Location:
POINT LOMA PENINSULA.

Detailed Location:
SCATTERED POPS ACROSS POINT LOMA FROM TIP N TO SUNSET CLIFFS PARK. MAPPED AS SPECIFIC POLYGONS BASED ON 1981 WOODWARD MAP, 1993 ASI MAP, 2006 TIERRA DATA MAP, AND 2013-2018 COORDINATES. N-MOST POLY NON-SPECIFIC AROUND SUNSET CLIFFS PARK.

Ecological:
THROUGHOUT POINT LOMA, PARTICULARLY ON DRY, EXPOSED KNOLLS & FLATS IN THE MARITIME SAGE SCRUB & MARITIME DESERT SCRUB COMMUNITIES. WITH SEVERAL OTHER RARE PLANTS INCLUDING OPUNTIA PARRYI SERPENTINA & CORETHROGYNE FILAGINIFOLIA INCANA.

Threats:

General:
SCATTERED INDIVIDUALS OBSERVED ACROSS OCCURRENCE IN 1981, 1992, AND 1999. ABOUT 10 PLANTS SEEN IN 1987 AT THE CABRILLO NATIONAL MONUMENT. UNKNOWN NUMBER OF PLANTS OBSERVED IN A PORTION OF SITE IN 2008, 2015, AND 2018.

PLSS: T17S, R04W, Sec. 13 (S)
UTM: Zone-11 N3617957 E476637

Accuracy: specific area
Latitude/Longitude: 32.6991 / -117.24925

Area (acres): 271
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

ANO12U0002	ANONYMOUS - NATIVE PLANTS AT SUNSET CLIFF NATURAL PARK 2012-06-22
ASI93R0001	ADVANCED SCIENCES, INC. - TERRESTRIAL BIOLOGICAL SURVEY AND INVENTORY OF NAVY PROPERTY ON POINT LOMA, SAN DIEGO, CALIFORNIA 1993-05-XX
BER87F0018	BERG, K. & J. STEWART - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 1987-06-17
EST03S0008	ESTRELLA, D. & R. LAURI - ESTRELLA #174 SD #158501, SDSU #15683 2003-06-25
EST03S0009	ESTRELLA, D. - ESTRELLA #72 SDSU #15682 2003-04-07
KEE13U0001	KEELAN, B. - EXPORT OF DATA FROM BRIAN KEELAN'S PLANT DATABASE 2013-07-26
MAR88M0001	MARTIN, E. - COPIES OF WOODWARD-CLYDE MAPS FOR POINT LOMA (WOO81R0001) SHOWING ADDITIONAL PLANT DATA. 1988-09-14
MCE93S0006	MCEACHERN, K. - MCEACHERN #CABR-195 SBBG #35119 1993-06-11
MOR15D0003	MORSE, K. - KMZ FILE WITH 2015 RARE PLANT OBSERVATIONS (JANUARY-JULY 2015 OBSERVATIONS) 2015-XX-XX
REB15S0012	REBMAN, J. & D. SMITH - REBMAN #29869 SD #248613 2015-04-14
STR18U0001	STREET-MORRIS, R. - OBSERVATION RECORD FOR FEROCACTUS VIRIDESCENS, CALFLORA ID: PO88916 2018-05-12
TIE06R0001	TIERRA DATA INC. & FIREWISE 2000, INC. - NAVAL BASE POINT LOMA AND CABRILLO NATIONAL MONUMENT JOINT WILDLAND FIRE MANAGEMENT PLAN 2006-06-XX
WOO81M0001	WOODWARD & CLYDE - 7 1/2 MINUTE TOPO QUAD W/ OCCURRENCES OF FEROCACTUS VIRIDESCENS 1981-XX-XX
WOO81R0001	WOODWARD & CLYDE - TERRESTRIAL BIOSURVEY AND INVENTORY OF NAVAL PROPERTY ON POINT LOMA 1981-11-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04105
Key Quad: La Mesa (3211771)
Occurrence Number: 94

EO Index: 21335
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-18

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 1980-07-XX
Last Survey Date: 1980-07-XX
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
MURPHY CANYON HEIGHTS PARCEL APPROX 0.6 AIR MILE NNE OF JUNCTION I-15 & FRIARS RD, WEST OF ADMIRAL BAKER GOLF COURSE.

Detailed Location:
JUST SOUTH OF THE CENTER OF SECTION 8.

Ecological:
OBSERVED ON S-FACING SLOPE IN CANYON ON WEST SIDE OF PARCEL, EAST OF I-15.

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 1980.

PLSS: T16S, R02W, Sec. 08, S (S)
UTM: Zone-11 N3628732 E489749

Accuracy: 80 meters
Latitude/Longitude: 32.79650 / -117.10948

Area (acres): 0
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

PSB80R0001 PSBS - PACIFIC SOUTHWEST BIOLOGICAL SERVICES, INC. - BIOLOGICAL ASSESSMENT FOR MURPHY CANYON HEIGHTS, TIERRASANTA, AND CAMP ELLIOT SITES, SAN DIEGO 1980-10-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04216
Key Quad: La Mesa (3211771)
Occurrence Number: 95
EO Index: 14264
Element Code: PDCAC08060
Occurrence Last Updated: 2013-11-14

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2010-01-08
Last Survey Date: 2010-01-08
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:
BETWEEN MISSION GORGE AND SHEPHERD CANYON; FROM ABOUT 0.9 AIR MI SW TO 2.3 MILES SSW OF FORTUNA MOUNTAIN SUMMIT.

Detailed Location:
MAPPED BY CNDDB AS 9 POLYGONS TO ENCOMPASS MULTIPLE SOURCES OF INFORMATION. POPULATIONS APPEAR TO BE WITHIN MISSION TRAILS REGIONAL PARK; SOME MAY BE WITHIN SDG&E EASEMENTS.

Ecological:
GENERALLY SCATTERED ON UNDISTURBED MESA TOPS AND EXPOSED RIDGES OR STONY SLOPES WITH COASTAL SAGE SCRUB/SOUTHERN MIXED CHAPARRAL VEGETATION. BURNED IN OCTOBER 2003.

Threats:
RESIDENTIAL DEVELOPMENT THREATENS SITE (1980).

General:
POPULATION NUMBERS ARE FOR PORTIONS OF OCCURRENCE: MANY SCATTERED INDIVIDUALS OBSERVED IN 1980, 2 PLANTS OBSERVED IN 2003, 36 PLANTS OBSERVED IN 2004, 5 OBSERVED IN 2007, 1 INDIVIDUAL OBSERVED IN 2010.

PLSS: T15S, R02W, Sec. 34 (S)
Accuracy: specific area
Area (acres): 137
UTM: Zone-11 N3632342 E493219
Latitude/Longitude: 32.82908 / -117.07244
Elevation (feet): 700

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

ASP08R0002	ASPEN ENVIRONMENTAL GROUP - FINAL ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT AND PROPOSED LAND USE AMENDMENT, SAN DIEGO GAS & ELECTRIC CO APPLICATION FOR THE SUNRISE POWERLINK PROJECT, SEC D.2 2008-10-XX
HEL10R0024	HELIX ENVIRONMENTAL PLANNING, INC. - R0274 RELINING PIPELINE 4 STATE ROUTE 52 TO LAKE MURRAY & PIPELINE 3 30-INCH INTERCONNECT TO LAKE MURRAY CONTROL VALVE, BIOLOGICAL TECHNICAL REPORT 2010-10-08
KIM03F0042	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2003-04-23
KIM04F0024	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-04-21
PSB80R0001	PSBS - PACIFIC SOUTHWEST BIOLOGICAL SERVICES, INC. - BIOLOGICAL ASSESSMENT FOR MURPHY CANYON HEIGHTS, TIERRASANTA, AND CAMP ELLIOT SITES, SAN DIEGO 1980-10-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	20540	**EO Index:**	9814
Key Quad:	Otay Mesa (3211658)	**Element Code:**	PDCAC08060
Occurrence Number:	107	**Occurrence Last Updated:**	2013-11-25

Scientific Name: *Ferocactus viridescens*

Common Name: San Diego barrel cactus

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G3?

State: S2S3

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed:	2009-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

FROM ABOUT 1.3 MILES EAST OF I-805/MAIN ST, EXTENDING EAST TO SR 125, BETWEEN THE OTAY RIVER AND OTAY RANCH.

Detailed Location:

MANY POLYGONS MAPPED TO ENCOMPASS MULTIPLE SOURCES OF INFORMATION. IN THE NORTH 1/2 OF SECTION 20 EXTENDING EAST INTO SECTION 21 AND THE NORTH 1/2 OF SECTION 22, AND EXTENDING NORTH INTO THE SOUTH 1/2 OF SECTION 16.

Ecological:

MOST OFTEN FOUND ON CLIFF FACES AND OPEN AREAS WITHIN COASTAL SAGE SCRUB AND MARITIME SUCCULENT SCRUB COMMUNITIES. ALSO ASSOCIATED WITH THE RARE VIGUIERA LACINIATA, JUNCUS ACUTUS SSP. LEOPOLDII, CISTANTHE MARITIMA, IVA HAYESIANA, ETC.

Threats:

DEVELOPMENT AND QUARRY OPERATIONS COULD THREATEN.

General:

POPULATION NUMBERS ARE FOR PORTIONS OF OCCURRENCE: 3 IN NORTH PART OF SITE IN 2002, ABOUT 200 INDIVIDUALS OBSERVED IN EAST PART OF SITE IN 2008. UNKNOWN NUMBER OBSERVED IN 1990, 2004, 2009. INCLUDES FORMER OCCURRENCE #108 & #157.

PLSS:	T18S, R01W, Sec. 21 (S)	**Accuracy:**	specific area	**Area (acres):**	293
UTM:	Zone-11 N3606213 E501127	**Latitude/Longitude:**	32.59340 / -116.98798	**Elevation (feet):**	350

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

ATI04R0001	ATILES, R. (MERKEL AND ASSOCIATES, INC.) - 45-DAY LETTER REPORT OF FOCUSED COASTAL CALIFORNIA GNATCATCHER SURVEYS FOR THE OTAY VALLEY ROAD PROJECT, LOCATED IN THE CITY OF CHULA VISTA, SAN DIEGO COUNTY 2004-06-07
CHU06R0001	CITY OF CHULA VISTA - OTAY RANCH VILLAGES TWO, THREE, AND A PORTION OF VILLAGE FOUR, SECTIONAL PLANNING AREA (SPA) PLAN, FINAL SECOND TIER ENVIRONMENTAL IMPACT REPORT 2006-05-XX
CHU11R0001	CITY OF CHULA VISTA - DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE OTAY VALLEY QUARRY RECLAMATION PLAN AMENDMENT 2011-03-XX
CHU13R0001	CITY OF CHULA VISTA - OTAY RANCH VILLAGE 8 WEST, SECTIONAL PLANNING AREA PLAN AND TENTATIVE MAP, DRAFT ENVIRONMENTAL IMPACT REPORT. CHAPTER 5.6 BIOLOGICAL RESOURCES. 2013-06-XX
ROB92R0002	ROBERTS, ET AL. - OTAY RIVER VALLEY RESOURCE ENHANCEMENT PLAN PREPARED FOR THE COASTAL CONSERVANCY AND THE CITY OF CHULA VISTA 1992-09-23
SCH89R0001	SCHEID, G. ET AL. - BIOLOGICAL RESOURCES INVENTORY REPORT FOR THE OTAY RANCH PROPERTY 1989-10-12
ZIP90M0001	ZIPPIN, D. - MAPS OF SEVERAL RARE PLANTS IN THE OTAY RANCH AREA, ACCOMPANIES THE BOTANICAL RESOURCES REPORT FOR THE OTAY RANCH PROPERTY 1990-XX-XX
ZIP90R0001	ZIPPIN, D. - BOTANICAL RESOURCES REPORT FOR THE OTAY RANCH PROPERTY 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 20527
EO Index: 9838
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC08060
Occurrence Number: 110
Occurrence Last Updated: 2013-11-15

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?
State: S2S3

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Poor
Owner/Manager: PVT, CITY OF CHULA VISTA
Trend: Decreasing
Presence: Presumed Extant

Location:
BOTH SIDES OF TELEGRAPH CANYON EXTENDING SOUTH TO POGGI CYN; ABOUT 1.5 TO 2.1 AIR MILES EAST OF I-805, EAST CHULA VISTA.

Detailed Location:
MAPPED BY CNDDB AS 6 POLYGONS BASED ON MAPS FROM THE LATE 1980S AND EARLY 1990S, AND 2004 RECON DIGITAL DATA (NW-MOST POLYGON).

Ecological:
S-FACING SLOPE. MAP SHOWS PLANTS OCCURRING NEAR VIGUIERA LACINIATA.

Threats:
BASED ON 2012 AERIAL IMAGERY, EVERYTHING EXCEPT NW-MOST POLYGON APPEARS TO HAVE BEEN EXTIRPATED BY DEVELOPMENT.

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN PORTIONS OF SITE IN 1989, 1990, 1991, AND 2003. INCLUDES FORMER OCCURRENCE #111 & #138. A 1939 HOWE COLLECTION FROM "TELEGRAPH CANYON" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS: T18S, R01W, Sec. 08 (S)
Accuracy: specific area
Area (acres): 71
UTM: Zone-11 N3609331 E498832
Latitude/Longitude: 32.62153 / -117.01244
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751), National City (3211761)

Sources:

CHU91U0001	CITY OF CHULA VISTA - LETTER FROM GORDON HOWARD AND MAPS FROM ERC AND P&D BIOLOGICAL RESOURCES FROM VARIOUS EIRS. 1991-XX-XX
HOW39S0017	HOWE, D. - HOWE #874 SD #113525 1939-06-04
REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05
SCH89R0001	SCHEID, G. ET AL. - BIOLOGICAL RESOURCES INVENTORY REPORT FOR THE OTAY RANCH PROPERTY 1989-10-12
ZIP90M0001	ZIPPIN, D. - MAPS OF SEVERAL RARE PLANTS IN THE OTAY RANCH AREA, ACCOMPANIES THE BOTANICAL RESOURCES REPORT FOR THE OTAY RANCH PROPERTY 1990-XX-XX
ZIP90R0001	ZIPPIN, D. - BOTANICAL RESOURCES REPORT FOR THE OTAY RANCH PROPERTY 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 22554
Key Quad: National City (3211761)
Occurrence Number: 119
EO Index: 25035
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-21

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2001-XX-XX
Last Survey Date: 2001-XX-XX
Owner/Manager: DOD-NAVY
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
CHOLLAS HEIGHTS NAVAL RADIO STATION, JUST NORTH OF CHOLLAS RESERVOIR, WEST OF LEMON GROVE.

Detailed Location:
MAPPED BY CNDDB AS 2 POLYGONS BASED ON A 1991 DUNHAM MAP, IN THE WEST 1/2 OF THE NW 1/4 OF SECTION 35.

Ecological:
MOSTLY ON S- AND W-FACING SLOPES IN MARITIME SUCCULENT SCRUB WITH VIGUIERA LACINIATA, BUT ALSO FOUND ON W-FACING SLOPE IN DIEGAN COASTAL SAGE SCRUB IN NORTHERN POLYGON.

Threats:
DEVELOPMENT COULD THREATEN.

General:
35 PLANTS SEEN IN S POLYGON, AND 25 SEEN IN N POLYGON IN 1991 DURING SURVEY FOR MILITARY FAMILY HOUSING PROJECT. ALSO OBSERVED IN S POLYGON IN 2000/2001.

PLSS: T16S, R02W, Sec. 35, NW (S)
Accuracy: specific area
Area (acres): 3
UTM: Zone-11 N3622353 E493840
Latitude/Longitude: 32.73898 / -117.06574
Elevation (feet): 440

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

DUN91R0001	DUNHAM, K. - BIOLOGICAL TECHNICAL REPORT FOR MILITARY HOUSING PROJECT CHOLLAS HEIGHTS TRANSMITTER STATION. SEVERAL RARE PLANTS, ANIMALS, AND NC'S. 1991-04-01
LOE02R0001	LOEFFLER, W. (RECON ENVIRONMENTAL, INC.) - ANNUAL REPORT FOR COASTAL CALIFORNIA GNATCATCHER POPULATION SURVEYS ON THREE NAVY FAMILY HOUSING AREAS, SAN DIEGO COUNTY, CALIFORNIA 2002-07-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21911
Key Quad: Imperial Beach (3211751)
Occurrence Number: 149

EO Index: 7914
Element Code: PDCAC08060
Occurrence Last Updated: 2019-01-08

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2012-XX-XX
Last Survey Date: 2012-XX-XX
Owner/Manager: DOD-NAVY
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:
US NAVAL RADIO STATION AT IMPERIAL BEACH; 0.5-0.7 MILE NORTH OF CORONADO CORP BOUNDARY, WEST OF HWY 75.

Detailed Location:
MAPPED AS 3 POLYGONS ACCORDING TO A 2015 DEPARTMENT OF THE NAVY REPORT.

Ecological:
HABITAT DESCRIBED AS UNIQUE SALT FLAT AREA DOMINATED BY SALICORNIA VIRGINICA. OTHER ASSOCIATED SPECIES INCLUDE AMBLYOPAPPUS PUSILLUS, GASOUL NODIFLORUM, PSILOCARPHUS TENELLUS, OPUNTIA PROLIFERA, AND DUDLEYA VARIEGATA.

Threats:
POTENTIAL IMPACTS TO THE POPULATION INCLUDE OFF-ROAD VEHICLE ACTIVITY AND SPECIMEN COLLECTING.

General:
APPROXIMATELY 200 PLANTS WERE OBSERVED IN 1987. THE SITE IS LOCATED IN A PROTECTED AREA OF THE RADIO FACILITY AND APPEARS TO BE IN GOOD CONDITION. UNKNOWN NUMBER OF PLANTS SEEN IN 2004 AND 2012.

PLSS: T18S, R02W, Sec. 19, NE (S)
Accuracy: specific area
Area (acres): 14

UTM: Zone-11 N3606601 E488314
Latitude/Longitude: 32.59684 / -117.12454
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

DON15U0001	DEPARTMENT OF THE NAVY - REVISED FINDINGS ON CONSISTENCY DETERMINATION FOR THE NAVAL BASE CORONADO COASTAL CAMPUS PROJECT 2015-02-06
WAG89R0002	WAGONER, R. - NATURAL RESOURCE MANAGEMENT PLAN, NAVAL RECEIVING FACILITY. 1989-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90674
Key Quad: National City (3211761)
Occurrence Number: 160
EO Index: 47435
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-21

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2000-12-27
Last Survey Date: 2000-12-27
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:
SOUTH OF PARADISE VALLEY ROAD, ABOUT 0.15-0.5 MILE WEST OF HARBISON SCHOOL, NATIONAL CITY.

Detailed Location:
SOUTH OF PARADISE VALLEY ROAD, BETWEEN HARBISON SCHOOL AND MUNDA ROAD. ON EASTERN-MOST PORTION OF A 17-ACRE PROPERTY.

Ecological:
IN COASTAL SAGE SCRUB IN RELATIVELY UNDISTURBED HABITAT.

Threats:
POSSIBLY LOCATED IN AREA TO BE DEVELOPED, SITE SHOULD BE SALVAGED.

General:
MORE THAN 20 PLANTS OBSERVED IN 2000. PLANTS ARE RELATIVELY UNCOMMON ONSITE. SITE IS SURROUNDED ON THREE SIDES BY DEVELOPMENT AND IS TO BE PARTIALLY DEVELOPED.

PLSS: T17S, R02W, Sec. 14, SW (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3616739 E493868
Latitude/Longitude: 32.68833 / -117.06540
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
SCH00F0010 SCHEIDT, V. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2000-12-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 62447
Key Quad: La Mesa (3211771)
Occurrence Number: 166
EO Index: 62484
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-22

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2004-04-21
Last Survey Date: 2004-04-21
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:
JUST NE OF US NAVAL REC FACILITIES GOLF COURSE; ALONG TRANSMISSION LINE CORRIDOR & WEST END OF VIA TEMPRANO, SAN DIEGO.

Detailed Location:
MAPPED AS CNDDB AS 2 POLYGONS BASED ON 2004 KIM COORDINATES AND A 2009 HELIX MAP.

Ecological:
COASTAL SAGE SCRUB. FOUND WITH ACANTHOMINTHA ILICIFOLIA.

Threats:
RESIDENTIAL HOUSING ON BOTH SIDES OF TRANSMISSION LINE CORRIDOR.

General:
6 INDIVIDUALS OBSERVED IN SOUTHERN POLYGON IN 2004. 6 INDIVIDUALS OBSERVED IN NORTHERN POLYGON SOMETIME BEFORE 2009.

PLSS: T16S, R02W, Sec. 04, NE (S)
Accuracy: specific area
Area (acres): 10
UTM: Zone-11 N3631135 E492004
Latitude/Longitude: 32.81819 / -117.08541
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

HEL09R0013	HELIX ENVIRONMENTAL PLANNING, INC. - FINAL FUEL REDUCTION PLAN FOR THE SCRIPPS RANCH AREA OF THE CITY OF SAN DIEGO'S BRUSH MANAGEMENT PROJECT 2009-05-22
KIM04F0026	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-04-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 62448
Key Quad: La Mesa (3211771)
Occurrence Number: 167
EO Index: 62485
Element Code: PDCAC08060
Occurrence Last Updated: 2016-11-02

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2003-05-07
Last Survey Date: 2003-05-07
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:
0.8 AIR MILE NORTH-NORTHWEST OF THE JUNCTION OF I-8 & I-15, SAN DIEGO.

Detailed Location:
JUST NORTH OF FRIARS ROAD, ALONG THE SDG&E TRANSMISSION LINE CORRIDOR. MAPPED AS 2 POLYGONS, IN THE NW 1/4 OF NW 1/4 OF SECTION 17 AND THE SW 1/4 OF THE SW 1/4 OF SECTION 8.

Ecological:
DIEGAN COASTAL SAGE SCRUB. HOLOCARPHA VIRGATA OCCURS NEARBY.

Threats:
RESIDENTIAL HOUSING TO THE WEST.

General:
2 INDIVIDUALS OBSERVED IN NORTHERN POLYGON IN 1994. 1 INDIVIDUAL OBSERVED IN SOUTHERN POLYGON IN 2003.

PLSS: T16S, R02W, Sec. 17, NW (S)
Accuracy: specific area
Area (acres): 6
UTM: Zone-11 N3627989 E489018
Latitude/Longitude: 32.78978 / -117.11728
Elevation (feet): 250

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

KIM03F0045	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2003-05-07
KOL94R0001	KOLTZ, B. & C. EDWARDS (PACIFIC SOUTHWEST BIOLOGICAL SERVICES) - COASTAL CALIFORNIA GNATCATCHER SURVEY RESULTS. 1994-11-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90711
EO Index: 91284
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC08060
Occurrence Number: 193
Occurrence Last Updated: 2016-11-08

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1

CNDDB Element Ranks: **Global:** G3?
State: S2S3
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2009-06-25
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-06-25
Occurrence Rank: Unknown
Owner/Manager: PVT-THE ENVIRONMENTAL TRUST
Trend: Unknown
Presence: Presumed Extant

Location:
SOUTH SIDE OF MOODY CANYON; APPROXIMATELY 0.5 AIR MILE SW OF THE JUNCTION OF OTAY MESA RD AND SR 905, WEST OTAY MESA.

Detailed Location:
MAPPED AS 3 POLYGONS NEAR THE CENTER OF SECTION 31.

Ecological:
ASSOCIATED WITH SIMMONDSIA CHINENSIS, AMBROSIA CHENOPODIIFOLIA, CYLINDROPUNTIA PROLIFERA, ERIOGONUM FASCICULATUM, EUPHORBIA MISERA, VIGUIERA LACINIATA, MUHLENBERGIA MICROSPERMA, DUDLEYA EDULIS, LEPIDIUM NITIDUM, MAMMILLARIA DIOICA, ETC.

Threats:

General:
TWO EASTERN POLYGONS OBSERVED IN 1998. WESTERN POLYGON OBSERVED DURING A 2009 VEGETATION SURVEY.

PLSS: T18S, R01W, Sec. 31 (S)
Accuracy: specific area
Area (acres): 3
UTM: Zone-11 N3602689 E497800
Latitude/Longitude: 32.56161 / -117.02344
Elevation (feet): 450

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

MER98U0001	EMLET, D. (MERKEL AND ASSOCIATES, INC.) - CALIFORNIA GNATCATCHER SURVEY REPORT FOR THE CANDLELIGHT PROPERTY PROJECT 1998-09-29
VEG09F0204	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2009-06-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90712
EO Index: 91285
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC08060
Occurrence Number: 194
Occurrence Last Updated: 2016-10-21

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1

CNDDB Element Ranks: **Global:** G3?
State: S2S3
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2012-01-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-01-11
Occurrence Rank: Unknown
Owner/Manager: DPR-BORDER FIELD SP
Trend: Unknown
Presence: Presumed Extant

Location:
COONS RANCH, 3/8 MILE EAST OF OCEAN AND 3/4 MILE NORTH OF MEXICO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS 3/8 AIR MILE EAST OF OCEAN AND 3/4 AIR MILES NORTH OF MEXICO BASED ON LOCATION DESCRIPTION ON COLLECTION LABEL. ELEVATION ON COLLECTION LABEL IS 30 METERS BUT THIS IS HIGH FOR THIS AREA.

Ecological:
HILL. CALIFORNIA CHAPARRAL. NORTH SLOPE.

Threats:

General:
SITE BASED ON A 1950 BENSON COLLECTION. A 2012 MORSE PHOTO FROM BORDERFIELD STATE PARK WITH VAGUE COORDINATES FROM THE NORTH END OF THE PARK IS ALSO ATTRIBUTED TO THIS SITE. NEEDS FIELDWORK.

PLSS: T19S, R02W, Sec. 06 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3600925 E488749
Latitude/Longitude: 32.54564 / -117.11982
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

BEN50S0002 BENSON, L. - BENSON #14336 POM #278127A & B 1950-04-29

MOR12I0009 MORSE, K. - PHOTO OF FEROCACTUS VIRIDESCENS, CALPHOTOS ID: 0000 0000 0913 1516 2012-01-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90722
EO Index: 91286
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC08060
Occurrence Number: 195
Occurrence Last Updated: 2013-11-15

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?
State: S2S3

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 1986-04-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1986-04-14
Occurrence Rank: Poor
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
BETWEEN DENNERY CANYON AND CHESTER GRADE, WEST OF BROWN FIELD, NORTH END OF OTAY MESA.

Detailed Location:
BAUDER'S J4 POOLS. IN THE SW 1/4 OF THE NE 1/4 OF SECTION 29.

Ecological:
ASSOCIATED WITH ARTEMISIA CALIFORNICA, BROMUS RUBENS, ERIOGONUM FASCICULATUM, ERODIUM CICUTARIUM, HEMIZONIA FASCICULATA, ETC.

Threats:
DIRT RD BISECTS MESA, PROPOSED FOR DEVELOPMENT IN 1986. MUCH OF AREA HAS BEEN DEVELOPED BASED ON 2012 AERIAL IMAGERY.

General:
OBSERVED DURING 1986 VERNAL POOL SURVEYS.

PLSS: T18S, R01W, Sec. 29, NE (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3604420 E499696
Latitude/Longitude: 32.57723 / -117.00322
Elevation (feet): 500

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

BAU86R0001 BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90723
EO Index: 91287
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC08060
Occurrence Number: 196
Occurrence Last Updated: 2013-10-25

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1

CNDDB Element Ranks: **Global:** G3?
State: S2S3
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2003-01-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-01-XX
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
BETWEEN POGGI CANYON AND OTAY VALLEY; APPROXIMATELY 0.2 AIR MILE SE OF SEQUOIA ST/BRANDYWINE AVE JUNCTION, CHULA VISTA.

Detailed Location:
EL DORADO RIDGE SITE. IN THE SOUTH 1/2 OF THE SW 1/4 OF SECTION 18. MAP ATTACHED TO SOURCE DOES NOT INDICATE WHERE THE FEROCACTUS WERE OBSERVED; MAPPED BY CNDDB AROUND THE MARITIME SUCCULENT SCRUB ON THE PROPERTY.

Ecological:
MARITIME SUCCULENT SCRUB DOMINATED BY ENCELIA CALIFORNICA, VIGUIERA LACINIATA, ARTEMISIA CALIFORNICA, SIMMONDSIA CHINENSIS, JOJOBA, AND ACACIA. DOZENS OF CACTUS PATCHES ARE INTERSPERSED IN AREA INCLUDING MAMMILLARIA DIOICA, OPUNTIA, ETC.

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED DURING A SURVEY FOR COASTAL CALIFORNIA GNATCATCHERS ON THE PROPERTY IN 2003.

PLSS: T18S, R01W, Sec. 18, SW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3606913 E497462
Latitude/Longitude: 32.59972 / -117.02704
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

CLA03U0002 CLARK, A. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION-FOCUSED SURVEY RESULTS FOR THE COASTAL CALIFORNIA GNATCATCHER ON THE EL DORADO RIDGE SITE IN CHULA VISTA, CALIFORNIA 2003-02-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90724
Key Quad: Imperial Beach (3211751)
Occurrence Number: 197
EO Index: 91288
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-25

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2003-XX-XX
Last Survey Date: 2003-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
POGGI CANYON; APPROXIMATELY 1.2 ROAD MILES EAST OF THE OLYMPIC PARKWAY/I-805 JUNCTION, CHULA VISTA.

Detailed Location:
SOUTH SIDE OF POGGI CANYON. MAPPED BY CNDDB IN THE NE 1/4 OF THE NE 1/4 OF SECTION 18 ACCORDING TO 2004 RECON DIGITAL DATA.

Ecological:
DIEGAN COASTAL SAGE SCRUB. LOCATED NEAR OTAY TARPLANT (DEINANDRA CONJUGENS).

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 2003.

PLSS: T18S, R01W, Sec. 18, NE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3607993 E498507
Latitude/Longitude: 32.60946 / -117.01591
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90725
EO Index: 91289
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC08060
Occurrence Number: 198
Occurrence Last Updated: 2013-10-25

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1

CNDDB Element Ranks: **Global:** G3?
State: S2S3
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:
POGGI CANYON; APPROXIMATELY 0.6 ROAD MILE EAST OF THE OLYMPIC PARKWAY/I-805 JUNCTION, CHULA VISTA.

Detailed Location:
NORTH SIDE OF POGGI CANYON. MAPPED BY CNDDB IN THE NE 1/4 OF THE NW 1/4 OF SECTION 18 ACCORDING TO 2004 RECON DIGITAL DATA.

Ecological:
MARITIME SUCCULENT SCRUB.

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 2003.

PLSS: T18S, R01W, Sec. 18, NW (S)
Accuracy: specific area
Area (acres): 3
UTM: Zone-11 N3607985 E497511
Latitude/Longitude: 32.60938 / -117.02652
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90726
EO Index: 91290
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC08060
Occurrence Number: 199
Occurrence Last Updated: 2013-11-15

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1

CNDDB Element Ranks: **Global:** G3?
State: S2S3
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
JUST NE OF THE JUNCTION OF E PALOMAR STREET AND I-805, CHULA VISTA.

Detailed Location:

Ecological:

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED SOMETIME PRIOR TO 2009.

PLSS: T18S, R02W, Sec. 12, SE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3608651 E496486
Latitude/Longitude: 32.61539 / -117.03744
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

CAL11R0002	CALIFORNIA DEPARTMENT OF TRANSPORTATION - INTERSTATE 805 MANAGED LANES SOUTH PROJECT, FINAL EIR/EA WITH FONSI 2011-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90727
Key Quad: National City (3211761)
Occurrence Number: 200
EO Index: 91291
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-25

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2003-XX-XX
Last Survey Date: 2003-XX-XX
Owner/Manager: CITY OF CHULA VISTA
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
TRIBUTARY OF RICE CANYON; APPROXIMATELY 1.6 TO 2.2 ROAD MILES ESE OF E H STREET / I-805 JUNCTION, CHULA VISTA.

Detailed Location:
SOUTH OF E H STREET. MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO 2004 RECON DIGITAL DATA.

Ecological:
COASTAL SAGE SCRUB. OCCURS NEAR SNAKE CHOLLA AND GOLDEN SPINED CEREUS.

Threats:

General:
35 PLANTS OBSERVED IN 2003.

PLSS: T18S, R01W, Sec. 06 (S)
Accuracy: specific area
Area (acres): 5
UTM: Zone-11 N3610722 E497755
Latitude/Longitude: 32.63408 / -117.02392
Elevation (feet): 350

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90728
Key Quad: National City (3211761)
Occurrence Number: 201
EO Index: 91292
Element Code: PDCAC08060
Occurrence Last Updated: 2013-11-15

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2003-XX-XX
Last Survey Date: 2003-XX-XX
Owner/Manager: CITY OF CHULA VISTA, PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
APPROXIMATELY 0.1 ROAD MILE NORTH OF THE JUNCTION OF E J STREET AND I-805, CHULA VISTA.

Detailed Location:
BOTH SIDES OF I-805. MAPPED BY CNDDB AS 2 POLYGONS. EASTERN POLYGON BASED ON 2004 RECON DIGITAL DATA. WESTERN POLYGON BASED ON A MAP FROM A 2011 CALTRANS REPORT. IN THE SW 1/4 OF NW 1/4 OF SECTION 1.

Ecological:
MARITIME SUCCULENT SCRUB.

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN EASTERN POLYGON IN 2003 AND IN WESTERN POLYGON SOMETIME PRIOR TO 2009.

PLSS: T18S, R02W, Sec. 01, NW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3610969 E495581
Latitude/Longitude: 32.63629 / -117.04710
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

CAL11R0002	CALIFORNIA DEPARTMENT OF TRANSPORTATION - INTERSTATE 805 MANAGED LANES SOUTH PROJECT, FINAL EIR/EA WITH FONSI 2011-06-XX
REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90729
EO Index: 91312
Key Quad: National City (3211761)
Element Code: PDCAC08060
Occurrence Number: 202
Occurrence Last Updated: 2013-10-25

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?
State: S2S3

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:
NORTH SIDE OF COUNTRY VISTAS LANE ABOUT 0.1 AIR MILE NE OF ITS JUNCTION WITH CANYON DRIVE, LONG CANYON, CHULA VISTA.

Detailed Location:
MAPPED IN THE FAR SW 1/4 OF THE SE 1/4 OF SECTION 29 ACCORDING TO 2004 RECON DIGITAL DATA.

Ecological:

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 2003.

PLSS: T17S, R01W, Sec. 29, SE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3613240 E499617
Latitude/Longitude: 32.65679 / -117.00408
Elevation (feet): 300

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90730
Key Quad: National City (3211761)
Occurrence Number: 203
EO Index: 91314
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-25

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2003-XX-XX
Last Survey Date: 2003-XX-XX
Owner/Manager: CITY OF CHULA VISTA, PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
APPROXIMATELY 0.6 AIR MILE SOUTH OF THE JUNCTION OF CENTRAL AVENUE WITH CORRAL CANYON ROAD, LONG CANYON, CHULA VISTA.

Detailed Location:
MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO 2004 RECON DIGITAL DATA.

Ecological:

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 2003.

PLSS: T17S, R01W, Sec. 29, W (S)
Accuracy: specific area
Area (acres): 4
UTM: Zone-11 N3613937 E498966
Latitude/Longitude: 32.66308 / -117.01101
Elevation (feet): 300

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90731
EO Index: 91322
Key Quad: National City (3211761)
Element Code: PDCAC08060
Occurrence Number: 204
Occurrence Last Updated: 2013-10-25

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?
State: S2S3

General Habitat:

CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 19XX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 19XX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

SOUTH OF IMPERIAL AVENUE, WEST OF 45TH STREET AND EAST OF SAN PASQUAL, SAN DIEGO.

Detailed Location:

"NORTH CREEK" SITE. MAPPED BY CNDDB AS BEST GUESS AROUND THE GIVEN AREA. NEAR THE COMMON CORNER OF SECTIONS 8, 9, 16, AND 17.

Ecological:

Threats:

MUCH OF THIS AREA HAS BEEN DEVELOPED.

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A DOCUMENT THAT MENTIONED SEVERAL INDIVIDUALS OF COAST BARREL CACTUS WERE OBSERVED ON THIS SITE. OBSERVED SOMETIME PRIOR TO 1996.

PLSS: T17S, R02W, Sec. 09, SW (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3618279 E490538
Latitude/Longitude: 32.70221 / -117.10095
Elevation (feet): 100

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

ANONDU0076 ANONYMOUS - CENTRAL SECTOR, STATE ROUTE 15 EAST TO EUCLID AVENUE. IN: SOUTHEASTERN SAN DIEGO COMMUNITY PLAN. SAN DIEGO PLANNING DEPARTMENT. 2009. XXXX-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90733
Key Quad: National City (3211761)
Occurrence Number: 205
EO Index: 91325
Element Code: PDCAC08060
Occurrence Last Updated: 2013-11-15

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
JUST NORTHWEST OF THE JUNCTION OF INTERSTATE 805 AND SR 94, SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO A CALTRANS MAP. NEAR THE CENTER OF THE SE 1/4 OF SECTION 5.

Ecological:

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED SOMETIME PRIOR TO 2009.

PLSS: T17S, R02W, Sec. 05, SE (S)
Accuracy: specific area
Area (acres): 3
UTM: Zone-11 N3620325 E490053
Latitude/Longitude: 32.72066 / -117.10614
Elevation (feet): 150

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

CAL11R0002 CALIFORNIA DEPARTMENT OF TRANSPORTATION - INTERSTATE 805 MANAGED LANES SOUTH PROJECT, FINAL EIR/EA WITH FONSI 2011-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90734
EO Index: 91331
Key Quad: National City (3211761)
Element Code: PDCAC08060
Occurrence Number: 206
Occurrence Last Updated: 2017-07-07

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?
State: S2S3

General Habitat:

CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2005-04-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-04-XX
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

BETWEEN HIGH STREET AND EASTRIDGE DRIVE, JUST NORTH OF LEMON GROVE AND SR 94.

Detailed Location:

MAPPED BY CNDDB AS 9 POLYGONS ACCORDING TO A MAP IN A 1995 KOLTZ REPORT AND TO INCLUDE SOUTHERN BOUNDARY OF PROPERTY INDICATED IN A 2005 RIGGAN REPORT. IN THE SOUTH 1/2 OF SECTION 30 EXTENDING INTO THE SE 1/4 OF SECTION 25.

Ecological:

SAGE SCRUB DOMINATED BY ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, MALOSMA LAURINA, RHAMNUS CROCEA, VIGUIERA LACINIATA, MIRABILIS CALIFORNICA, SALVIA APIANA, AND MIMULUS AURANTIACUS.

Threats:

SURROUNDED BY DEVELOPMENT. WEST-MOST POLYGON LOOKS TO HAVE BEEN EXTIRPATED BY DEVELOPMENT BASED ON 2012 AERIAL IMAGERY.

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN 1994. ABOUT 40 INDIVIDUALS OBSERVED IN A SMALL PORTION OF SITE IN 2005.

PLSS: T16S, R01W, Sec. 30, S (S)
Accuracy: specific area
Area (acres): 15
UTM: Zone-11 N3623538 E497395
Latitude/Longitude: 32.74968 / -117.0278
Elevation (feet): 650

County Summary:

San Diego

Quad Summary:

National City (3211761), La Mesa (3211771)

Sources:

KOL95R0001 KOLTZ, A. (PACIFIC SOUTHWEST BIOLOGICAL SERVICES) - CALIFORNIA GNATCATCHER RESULTS 1995-02-20

RIG05R0001 R.B. RIGGAN AND ASSOCIATES (R.B. RIGGAN AND ASSOCIATES) - REPORT OF BIOLOGICAL ASSESSMENT IN LA MESA, CALIFORNIA. 2005-08-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 77885
Key Quad: Point Loma (3211762)
Occurrence Number: 207
EO Index: 91332
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-25

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2008-06-05
Last Survey Date: 2008-06-05
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
BALBOA PARK; EAST SIDE OF FLORIDA DRIVE IN SIDE CANYON SW OF THE VELODROME, SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS AROUND THE AREA SW OF THE VELODROME AND WEST OF THE PARK NURSERY.

Ecological:
ROCKY COBBLE IN COASTAL SAGE SCRUB.

Threats:

General:
SITE BASED ON A 1989 BALBOA PARK MASTER PLAN REPORT AND A 2008 NENOW COLLECTION. FOUND IN SMALL POPULATIONS EAST OF FLORIDA DRIVE IN A RECENTLY BURNED CANYON AND IN A SMALL FINGER CANYON WEST OF THE PARK NURSERY IN 1989. NEED MAP DETAIL.

PLSS: T16S, R03W, Sec. 36, SE (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3621826 E486662
Latitude/Longitude: 32.73416 / -117.14235
Elevation (feet): 250

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

EST89R0002	ESTRADA LAND PLANNING, INC., ETC. - BALBOA PARK MASTER PLAN 1989-07-25
NEN08S0002	NENOW, N. & L. GLACY - NENOW #387B SD #191499 2008-06-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90735
Key Quad: Point Loma (3211762)
Occurrence Number: 208
EO Index: 91333
Element Code: PDCAC08060
Occurrence Last Updated: 2015-10-30

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2009-05-29
Last Survey Date: 2009-05-29
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:
SWITZER CANYON, BALBOA PARK.

Detailed Location:
MAPPED AS 2 POLYGONS. EAST POLYGON IS NON-SPECIFIC, MAPPED BY CNDDB AS BEST GUESS "BETWEEN 2ND AND 3RD HOLES" IN BALBOA PARK GOLF COURSE. WEST POLYGON IS SPECIFIC BASED ON A 2009 FORM FOR CYLINDROPUNTIA WITH FEROCACTUS LISTED AS ASSOCIATE.

Ecological:

Threats:

General:
OVER A HUNDRED PLANTS OBSERVED IN EASTERN POLYGON IN 1989. 1% COVER OF FEROCACTUS VIRIDESCENS NOTED IN WESTERN POLYGON IN 2009.

PLSS: T17S, R03W, Sec. 1, NE (S)
Accuracy: non-specific area
Area (acres): 22
UTM: Zone-11 N3620947 E486920
Latitude/Longitude: 32.72624 / -117.13959
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

EST89R0002	ESTRADA LAND PLANNING, INC., ETC. - BALBOA PARK MASTER PLAN 1989-07-25
MIL09F0025	MILLER, B. & M. JENNINGS (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR OPUNTIA CALIFORNICA VAR. CALIFORNICA 2009-05-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90736
Key Quad: La Mesa (3211771)
Occurrence Number: 209
EO Index: 91340
Element Code: PDCAC08060
Occurrence Last Updated: 2016-10-25

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2001-05-02
Last Survey Date: 2001-05-02
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
WEST EDGE OF SYCAMORE CANYON; FROM MAST BLVD NORTH TO VICINITY OF QUAIL CANYON, SANTEE.

Detailed Location:
MAPPED BY CNDDB AS 8 POLYGONS ACCORDING TO A CITY OF SAN DIEGO MAP FOR THE CASTLEROCK PROJECT. ALONG THE SECTION LINE BETWEEN THE EAST 1/2 OF SECTION 19 AND THE WEST 1/2 OF SECTION 20, EXTENDING INTO THE SW 1/4 OF SECTION 17.

Ecological:
COASTAL SAGE SCRUB ON SOUTH AND WEST-FACING SLOPES AND RIDGES, GENERALLY IN HARD AND COBBLE-LADEN SOIL.

Threats:

General:
75 CLUSTERS CONTAINING 208 INDIVIDUAL CACTI ARE SCATTERED ON THIS PROPERTY; SURVEYS WERE CONDUCTED BETWEEN 2001 AND 2010. "SEVERAL CACTI" OBSERVED DURING 2001 GNATCATCHER SURVEYS.

PLSS: T15S, R01W, Sec. 19, E (S)
Accuracy: specific area
Area (acres): 20
UTM: Zone-11 N3635706 E498609
Latitude/Longitude: 32.85945 / -117.01486
Elevation (feet): 500

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

KLE01R0002	KLEIN, M. & C. EDWARDS (KLEIN-EDWARDS PROFESSIONAL SERVICES) - RESULTS OF PROTOCOL SURVEYS PERFORMED FOR COASTAL CALIFORNIA GNATCATCHER AT THE EAST ELLIOTT SITE, CITY OF SAN DIEGO, SAN DIEGO COUNTY, CALIFORNIA. 2001-08-25
SDG13R0001	CITY OF SAN DIEGO - FINAL ENVIRONMENTAL IMPACT REPORT FOR THE CASTLEROCK PROJECT 2013-06-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90737
Key Quad: La Mesa (3211771)
Occurrence Number: 210
EO Index: 91341
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-25

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2003-06-05
Last Survey Date: 2003-06-05
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:
APPROXIMATELY 0.4 AIR MILE NW OF THE JUNCTION OF OAK CANYON WITH SR 52, ABOUT 0.7 AIR MILE NNE OF FORTUNA MTN SUMMIT.

Detailed Location:
MAPPED BY CNDDB IN THE SW 1/4 OF THE NE 1/4 OF SECTION 23 BASED ON RECON DIGITAL DATA.

Ecological:
HILLSIDE. SW ASPECT.

Threats:

General:
2 INDIVIDUALS OBSERVED IN 2003.

PLSS: T15S, R02W, Sec. 23, NE (S)
UTM: Zone-11 N3635410 E494746
Accuracy: specific area
Latitude/Longitude: 32.85677 / -117.05614
Area (acres): 1
Elevation (feet): 750

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05
SCH03F0033	SCHEID, G. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2003-05-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	90738	**EO Index:**	91344
Key Quad:	La Mesa (3211771)	**Element Code:**	PDCAC08060
Occurrence Number:	211	**Occurrence Last Updated:**	2013-11-26

Scientific Name: *Ferocactus viridescens*

Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed:	2004-05-20	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2004-05-20	**Occurrence Rank:**	Good
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

TOWARDS THE HEADWATERS OF ELANUS AND SHEPERD CANYONS; FROM 0.9 AIR MILE WEST TO 1.3 AIR MILES NW OF FORTUNA MTN SUMMIT.

Detailed Location:

MAPPED BY CNDDB AS 7 POLYGONS BASED ON A 1980 MAP (SOUTHERN POLYGON) AND RECON DIGITAL DATA (REMAINING POLYGONS).

Ecological:

NON-NATIVE GRASSLAND, RECENTLY BURNED (2003). SAN MIGUEL EXCHEQUER AND REDDING SOILS. HILLSIDE, SOUTH-FACING SLOPES.

Threats:

SOUTH-MOST POLYGON POSSIBLY EXTIRPATED BY ROAD CONSTRUCTION.

General:

POPULATION NUMBERS IN POLYGONS FROM NORTH TO SOUTH IN 2004: 31, 3, 82, 25, 3, AND 2. THE SOUTH-MOST POLYGON WAS OBSERVED SOMETIME IN 1980.

PLSS:	T15S, R02W, Sec. 22 (S)	**Accuracy:**	specific area	**Area (acres):**	23
UTM:	Zone-11 N3634933 E492874	**Latitude/Longitude:**	32.85245 / -117.07615	**Elevation (feet):**	700

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

PSB80R0001	PSBS - PACIFIC SOUTHWEST BIOLOGICAL SERVICES, INC. - BIOLOGICAL ASSESSMENT FOR MURPHY CANYON HEIGHTS, TIERRASANTA, AND CAMP ELLIOT SITES, SAN DIEGO 1980-10-01
REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05
SCH04F0039	SCHEID, G. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-05-06
SCH04F0041	SCHEID, G. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-05-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90739
Key Quad: La Mesa (3211771)
Occurrence Number: 212
EO Index: 91348
Element Code: PDCAC08060
Occurrence Last Updated: 2013-11-15

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2004-05-06
Last Survey Date: 2004-05-06
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Excellent
Trend: Unknown

Location:
TOWARD THE HEADWATERS OF ELANUS CANYON; APPROXIMATELY 1.6 AIR MILES NW OF FORTUNA MOUNTAIN SUMMIT.

Detailed Location:
MAPPED BY CNDDB AS 5 POLYGONS BASED ON RECON DIGITAL DATA. MOSTLY IN THE EAST 1/2 OF THE NE 1/4 OF SECTION 21.

Ecological:
HILLSIDE. SOUTH AND SW ASPECT. ROCK OUTCROPS.

Threats:

General:
POPULATION NUMBERS IN POLYGONS FROM NORTH TO SOUTH IN 2004: 6, 14, 30, 3, AND 63.

PLSS: T15S, R02W, Sec. 21, NE (S)
Accuracy: specific area
Area (acres): 6
UTM: Zone-11 N3635613 E491932
Latitude/Longitude: 32.85859 / -117.08621
Elevation (feet): 650

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05
SCH04F0039	SCHEID, G. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-05-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	90740	**EO Index:**	91349
Key Quad:	La Mesa (3211771)	**Element Code:**	PDCAC08060
Occurrence Number:	213	**Occurrence Last Updated:**	2013-11-15

Scientific Name: *Ferocactus viridescens*

Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed:	2004-07-13	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2004-07-13	**Occurrence Rank:**	Excellent
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

TOWARD THE HEADWATERS OF MURPHY CANYON; APPROXIMATELY 1.3 TO 2 AIR MILES NNW OF FORTUNA MOUNTAIN SUMMIT.

Detailed Location:

MAPPED BY CNDDB AS 8 POLYGONS BASED ON RECON DIGITAL DATA.

Ecological:

COASTAL SAGE SCRUB, SOUTHERN MIXED CHAPARRAL, AND CHAMISE CHAPARRAL. ASSOCIATED WITH SALVIA MELLIFERA, ERIOGONUM FASCICULATUM, OPUNTIA LITTORALIS, ADENOSTOMA FASCICULATA, XYLOCOCCUS BICOLOR, YUCCA SCHIDIGERA, QUERCUS, ETC.

Threats:

General:

POPULATION NUMBERS IN POLYGONS FROM NORTH TO SOUTH: 6 IN 2004, 26 IN 2004, 3 IN 2003, 34 IN 2004, 1 IN 2003, 17 IN 2003, 39 IN 2004, AND 7 IN 2004.

PLSS:	T15S, R02W, Sec. 15 (S)	**Accuracy:**	specific area	**Area (acres):**	10
UTM:	Zone-11 N3636578 E493037	**Latitude/Longitude:**	32.86729 / -117.07442	**Elevation (feet):**	750

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05
SAU03F0006	SAUCEDO-ORTIZ, D. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2003-03-13
SAU03F0007	SAUCEDO-ORTIZ, D. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2003-06-26
SCH04F0033	SCHEID, G. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-04-06
SCH04F0034	SCHEID, G. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-07-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90741
Key Quad: La Mesa (3211771)
Occurrence Number: 214
EO Index: 91351
Element Code: PDCAC08060
Occurrence Last Updated: 2013-11-15

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2004-07-13
Last Survey Date: 2004-07-13
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Excellent
Trend: Unknown

Location:
BETWEEN MURPHY CANYON AND ELANUS CANYON, APPROXIMATELY 0.8 TO 1.5 AIR MILES NE OF SR 52 / I-15 JUNCTION.

Detailed Location:
MAPPED BY CNDDB AS 11 POLYGONS BASED ON RECON DIGITAL DATA. IN THE SE 1/4 SE 1/4 OF SECTION 20, THE NW 1/4 SW 1/4 OF SECTION 21, AND THE NE 1/4 OF SECTION 29.

Ecological:
SOUTHERN MIXED CHAPARRAL AND CHAMISE CHAPARRAL (RECENTLY BURNED, 2003). ASSOCIATED WITH ADENOSTOMA FASCICULATA, XYLOCOCCUS BICOLOR, AND YUCCA SCHIDIGERA. REDDING SOILS. HILLSIDE ON SOUTH AND EAST-FACING SLOPES.

Threats:

General:
242 PLANTS OBSERVED IN 2004.

PLSS: T15S, R02W, Sec. 20, SE (S)
UTM: Zone-11 N3634618 E490089
Accuracy: specific area
Latitude/Longitude: 32.84959 / -117.10591
Area (acres): 16
Elevation (feet): 450

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05
SCH04F0047	SCHEID, G. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-07-13
SCH04F0050	SCHEID, G. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-03-25
SCH04F0051	SCHEID, G. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2004-06-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90745
Key Quad: La Mesa (3211771)
Occurrence Number: 215
EO Index: 91363
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-28

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2009-XX-XX
Last Survey Date: 2009-XX-XX
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:
SHEPARD CANYON APPROXIMATELY 0.2 AIR MILE NE OF SANTO ROAD / ANTIGUA BLVD JUNCTION, TIERRASANTA OPEN SPACE, SAN DIEGO.

Detailed Location:
MAPPED ACCORDING TO A 2009 HELIX ENVIRONMENTAL PLANNING, INC MAP. IN THE SW 1/4 SW 1/4 OF SECTION 28.

Ecological:
DIEGAN COASTAL SAGE SCRUB.

Threats:

General:
1 INDIVIDUAL OBSERVED AT THIS SITE IN 2009.

PLSS: T15S, R02W, Sec. 28, SW (S)
UTM: Zone-11 N3633067 E490782
Accuracy: 80 meters
Latitude/Longitude: 32.83561 / -117.09848
Area (acres): 0
Elevation (feet): 350

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
HEL09R0013 HELIX ENVIRONMENTAL PLANNING, INC. - FINAL FUEL REDUCTION PLAN FOR THE SCRIPPS RANCH AREA OF THE CITY OF SAN DIEGO'S BRUSH MANAGEMENT PROJECT 2009-05-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90747
Key Quad: La Mesa (3211771)
Occurrence Number: 216
EO Index: 91365
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-28

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SOUTH OF THE EAST END OF CAMINO PLAYA MALAGA, SIDE CANYON OFF OF SHEPHERD CANYON, TIERRASANTA OPEN SPACE, SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO A SAN DIEGO CANYONLANDS MAP CREATED IN 2013. IN THE NE 1/4 OF THE NE 1/4 OF SECTION 33.

Ecological:

Threats:

General:
UNKNOWN WHEN THE FEROCACTUS WAS SEEN. NEED ADDITIONAL INFORMATION ABOUT THIS SITE.

PLSS: T15S, R02W, Sec. 33, NE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3632730 E491806
Latitude/Longitude: 32.83258 / -117.08754
Elevation (feet): 450

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
SDC13M0001 SAN DIEGO CANYONLANDS - MAP OF VEGETATION/HABITAT CONDITIONS AT SHEPHERD CANYON 2013-06-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90748
Key Quad: La Mesa (3211771)
Occurrence Number: 217
EO Index: 91367
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-28

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2009-XX-XX
Last Survey Date: 2009-XX-XX
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SE SIDE OF CASALS PLACE, SIDE CANYON OFF OF SHEPHERD CANYON, MISSION TRAILS REGIONAL PARK, SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO A 2009 HELIX ENVIRONMENTAL PLANNING INC MAP. IN THE NW 1/4 NW 1/4 OF SECTION 34.

Ecological:
DIEGAN COASTAL SAGE SCRUB.

Threats:

General:
6 INDIVIDUALS OBSERVED AT THIS SITE IN 2009.

PLSS: T15S, R02W, Sec. 34, NW (S)
UTM: Zone-11 N3632532 E492401
Accuracy: 80 meters
Latitude/Longitude: 32.83079 / -117.08119
Area (acres): 0
Elevation (feet): 550

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

HEL09R0013	HELIX ENVIRONMENTAL PLANNING, INC. - FINAL FUEL REDUCTION PLAN FOR THE SCRIPPS RANCH AREA OF THE CITY OF SAN DIEGO'S BRUSH MANAGEMENT PROJECT 2009-05-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90749
Key Quad: La Jolla (3211772)
Occurrence Number: 218
EO Index: 91368
Element Code: PDCAC08060
Occurrence Last Updated: 2017-07-07

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2012-10-XX
Last Survey Date: 2012-10-XX
Owner/Manager: CITY OF SAN DIEGO, PVT-SDGE
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SANDROCK, SHAWN, AND LOWER PORTION OF RUFFIN CANYONS, SERRA MESA, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS 11 POLYGONS ACCORDING TO AN AFFINIS MAP, AN ENVIRONMENTAL SCIENCE ASSOCIATES MAP, & 2010 VEGETATION SURVEYS. IN THE FAR EAST 1/2 OF SECTION 12, THE SW 1/4 OF SECTION 7, AND THE NE 1/4 OF THE NE 1/4 OF SECTION 13.

Ecological:

OPEN, COBBLY SCRUB HABITATS. ASSOCIATED WITH BROMUS MADRITENSIS, AVENA FATUA, ERIOGONUM FASCICULATUM, OPUNTIA LITTORALIS, RHUS INTEGRIFOLIA, BROMUS RUBENS, BRACHYPODIUM DISTACHYON, NASSELLA LEPIDA, CENTAUREA MELITENSIS, ARTEMISIA, ETC.

Threats:

CACTUS WITHIN VEGETATION CLEARING AREA WILL BE SALVAGED AND TRANSPLANTED ON PROJECT SITE.

General:

SMALL PORTION OF THIS SITE OBSERVED IN 2002 & 2010. WIDESPREAD BETWEEN OCCURRENCES #218 AND #219 IN 2012.

PLSS: T16S, R03W, Sec. 12, E (S)
Accuracy: specific area
Area (acres): 25
UTM: Zone-11 N3628437 E487250
Latitude/Longitude: 32.79381 / -117.13617
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

AFF02U0002	GROSS, M. (AFFINIS) - RESULTS OF PROTOCOL SURVEYS FOR THE CALIFORNIA GNATCATCHER, SERRA MESA SDGE PROPERTY. 2002-07-09
ESA13R0001	ENVIRONMENTAL SCIENCE ASSOCIATES - SAN DIEGO RIVER, RUFFIN CANYON TRAIL AND URBAN WALK, INITIAL STUDY / MITIGATED NEGATIVE DECLARATION 2013-03-XX
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90750
Key Quad: La Jolla (3211772)
Occurrence Number: 219

EO Index: 91371
Element Code: PDCAC08060
Occurrence Last Updated: 2013-11-05

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2012-10-XX
Last Survey Date: 2012-10-XX
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
UPPER PORTION OF RUFFIN CANYON, JUST SE OF TAFT JUNIOR HIGH SCHOOL, SERRA MESA, SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO AN ENVIRONMENTAL SCIENCE ASSOCIATES MAP. IN THE SE 1/4 OF THE NW 1/4 OF SECTION 7.

Ecological:
OPEN, COBBLY SCRUB HABITATS.

Threats:
CACTUS WITHIN VEGETATION CLEARING AREA WILL BE SALVAGED AND TRANSPLANTED ON PROJECT SITE.

General:
WIDESPREAD BETWEEN OCCURRENCES #218 AND #219 IN 2012.

PLSS: T16S, R02W, Sec. 07, NW (S)
Accuracy: specific area
Area (acres): 3
UTM: Zone-11 N3629117 E487778
Latitude/Longitude: 32.79994 / -117.13052
Elevation (feet): 350

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

ESA13R0001	ENVIRONMENTAL SCIENCE ASSOCIATES - SAN DIEGO RIVER, RUFFIN CANYON TRAIL AND URBAN WALK, INITIAL STUDY / MITIGATED NEGATIVE DECLARATION 2013-03-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	90751	**EO Index:**	91384
Key Quad:	La Jolla (3211772)	**Element Code:**	PDCAC08060
Occurrence Number:	220	**Occurrence Last Updated:**	2013-11-15

Scientific Name: *Ferocactus viridescens*

Common Name: San Diego barrel cactus

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G3?

State: S2S3

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed:	2009-07-16	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-07-16	**Occurrence Rank:**	Excellent
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

TECOLOTE CANYON NATURAL OPEN SPACE; JUST NORTH OF UNIVERSITY OF SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS 6 POLYGONS ACCORDING TO 2004 CITY OF SAN DIEGO DIGITAL DATA AND 2009 VEGCAMP COORDINATES. IN THE SOUTH 1/2 OF THE SE 1/4 OF SECTION 16 EXTENDING INTO THE NE 1/4 OF THE NE 1/4 OF SECTION 21.

Ecological:

ASSOCIATED WITH ARTEMISIA CALIFORNIA, VIGUIERA LACINIATA, LYCIUM CALIFORNICUM, SALVIA MELLIFERA, BROMUS RUBENS, B. MADRITENSIS, ERIOGONUM FASCICULATUM, OPUNTIA LITTORALIS, VULPIA MYUROS, CYLINDROPUNTIA PROLIFERA, SALSOLA TRAGUS, ETC.

Threats:

SURROUNDED BY DEVELOPMENT.

General:

APPROXIMATELY 333 INDIVIDUALS OBSERVED ACROSS SITE IN 2004. OBSERVED DURING VEGETATION SURVEYS IN 2009; "MAMMILLARIA DIOICA AND FEROCACTUS VIRIDESCENS WERE NESTLED EVERYWHERE BENEATH THE TALLER COASTAL SAGE SCRUB SHRUBS."

PLSS:	T16S, R03W, Sec. 16, SE (S)	**Accuracy:**	specific area	**Area (acres):**	8
UTM:	Zone-11 N3626567 E482109	**Latitude/Longitude:**	32.77687 / -117.19103	**Elevation (feet):**	150

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

SDG04D0001	CITY OF SAN DIEGO - SHAPEFILE OF BASELINE SURVEY DATA FOR TECOLOTE CANYON 2004-XX-XX
VEG09F0226	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2009-07-16
VEG09F0227	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2009-07-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90752
Key Quad: La Jolla (3211772)
Occurrence Number: 221
EO Index: 91389
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-28

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2004-06-30
Last Survey Date: 2004-06-30
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
TECOLOTE CANYON NATURAL OPEN SPACE; NE SIDE OF TECOLOTE CANYON GOLF COURSE, BETWEEN LINDA VISTA AND BAY PARK.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO 2004 CITY OF SAN DIEGO DIGITAL DATA IN THE SW 1/4 OF THE SW 1/4 OF SECTION 10.

Ecological:

Threats:

General:
A SINGLE PLANT OBSERVED IN 2004.

PLSS: T16S, R03W, Sec. 10, SW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3628224 E482495
Latitude/Longitude: 32.79182 / -117.18694
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
SDG04D0001 CITY OF SAN DIEGO - SHAPEFILE OF BASELINE SURVEY DATA FOR TECOLOTE CANYON 2004-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90753
Key Quad: La Jolla (3211772)
Occurrence Number: 222
EO Index: 91391
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-28

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2009-06-24
Last Survey Date: 2009-06-24
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
TECOLOTE CANYON NATURAL OPEN SPACE; SOUTH END OF OLD KETTLE ROAD, SW OF SAN DIEGO MESA COLLEGE, SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO 2004 CITY OF SAN DIEGO DIGITAL DATA AND 2009 VEGCAMP COORDINATES IN THE SW 1/4 OF THE NE 1/4 OF SECTION 10.

Ecological:
ASSOCIATED WITH QUERCUS BERBERIDIFOLIA, ADENOSTOMA FASCICULATUM, OPUNTIA LITTORALIS, RHUS INTEGRIFOLIA, MARAH MACROCARPUS, AND SALVIA MELLIFERA.

Threats:

General:
APPROXIMATELY 29 INDIVIDUALS OBSERVED IN 2004. UNKNOWN NUMBER OBSERVED IN 2009 DURING A VEGETATION SURVEY.

PLSS: T16S, R03W, Sec. 10, NE (S)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3629123 E483480
Latitude/Longitude: 32.79994 / -117.17644
Elevation (feet): 200

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

SDG04D0001	CITY OF SAN DIEGO - SHAPEFILE OF BASELINE SURVEY DATA FOR TECOLOTE CANYON 2004-XX-XX
VEG09F0224	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2009-06-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90754
Key Quad: La Jolla (3211772)
Occurrence Number: 223

EO Index: 91393
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-28

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2009-06-24
Last Survey Date: 2009-06-24
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SW END OF KEARNY MESA COMMUNITY PARK, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO 2009 VEGCAMP COORDINATES IN THE FAR SW 1/4 OF THE NW 1/4 OF SECTION 11.

Ecological:

VERY ROCKY, COBBLY, GENERALLY WEST-FACING UNDULATING SLOPE. ASSOCIATED WITH SALVIA MELLIFERA, VIGUIERA LACINIATA, ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, MIMULUS AURANTIACUS, MALOSMA LAURINA, ACHNATHERUM DIEGOENSE, AVENA, ETC.

Threats:

General:

"LOTS OF FEROCACTUS ON OPEN AREAS" IN 2009.

PLSS: T16S, R03W, Sec. 11, NW (S)
UTM: Zone-11 N3629013 E484035

Accuracy: 80 meters
Latitude/Longitude: 32.79896 / -117.17051

Area (acres): 0
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

VEG09F0225 VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2009-06-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90755
Key Quad: La Jolla (3211772)
Occurrence Number: 224

EO Index: 91394
Element Code: PDCAC08060
Occurrence Last Updated: 2013-11-18

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2004-06-30
Last Survey Date: 2004-06-30
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:

TECOLOTE CANYON NATURAL OPEN SPACE PARK; BETWEEN BALBOA AVE AND MOUNT ACADIA BLVD, BETWEEN CLAIREMONT AND SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO 2004 CITY OF SAN DIEGO DIGITAL DATA IN THE NW 1/4 OF THE NE 1/4 OF SECTION 9 AND THE SW 1/4 OF THE SE 1/4 OF SECTION 4.

Ecological:

Threats:

General:

A SINGLE PLANT OBSERVED IN EACH POLYGON IN 2004.

PLSS: T16S, R03W, Sec. 09, NE (S)
UTM: Zone-11 N3629694 E481850

Accuracy: specific area
Latitude/Longitude: 32.80507 / -117.19386

Area (acres): 2
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

SDG04D0001 CITY OF SAN DIEGO - SHAPEFILE OF BASELINE SURVEY DATA FOR TECOLOTE CANYON 2004-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90772
Key Quad: La Jolla (3211772)
Occurrence Number: 225
EO Index: 91395
Element Code: PDCAC08060
Occurrence Last Updated: 2013-11-18

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2004-06-30
Last Survey Date: 2004-06-30
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:
TECOLOTE CYN OPEN SPACE; NORTH SIDE OF BALBOA AVE, ~0.26 TO 0.56 MILE E OF ITS JUNCTION WITH CLAIREMONT AVE, SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO 2004 CITY OF SAN DIEGO DIGITAL DATA IN THE CENTER AND IN THE SW 1/4 OF THE NE 1/4 OF SECTION 4.

Ecological:

Threats:

General:
A SINGLE INDIVIDUAL IN SW POLYGON AND 3 INDIVIDUALS IN NE POLYGON IN 2004.

PLSS: T16S, R03W, Sec. 04 (S)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3630799 E481862
Latitude/Longitude: 32.81504 / -117.19375
Elevation (feet): 250

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:
SDG04D0001 CITY OF SAN DIEGO - SHAPEFILE OF BASELINE SURVEY DATA FOR TECOLOTE CANYON 2004-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90773
Key Quad: La Jolla (3211772)
Occurrence Number: 226
EO Index: 91396
Element Code: PDCAC08060
Occurrence Last Updated: 2013-11-18

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2004-06-30
Last Survey Date: 2004-06-30
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:
TECOLOTE CANYON NATURAL OPEN SPACE PARK; JUST SOUTH OF THE SOUTH END OF KEEFELD AVENUE, NORTH CLAIREMONT.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO 2004 CITY OF SAN DIEGO DIGITAL DATA IN NE 1/4 OF THE SW 1/4 OF SECTION 33.

Ecological:

Threats:

General:
2 PLANTS OBSERVED IN 2004.

PLSS: T15S, R03W, Sec. 33, SW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3632102 E481555
Latitude/Longitude: 32.82679 / -117.19706
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
SDG04D0001 CITY OF SAN DIEGO - SHAPEFILE OF BASELINE SURVEY DATA FOR TECOLOTE CANYON 2004-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90774
Key Quad: La Jolla (3211772)
Occurrence Number: 227

EO Index: 91399
Element Code: PDCAC08060
Occurrence Last Updated: 2015-11-05

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2012-04-17
Last Survey Date: 2012-04-17
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

KATE O. SESSIONS MEMORIAL PARK; EAST SIDE OF SOLEDAD RD AND SOUTH OF MT SOLEDAD.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO 2012 NENOW COORDINATES, IN THE WEST 1/2 OF SECTION 6.

Ecological:

DRY, STEEP, SOUTH-FACING SLOPE. DIVERSE COASTAL SCRUB WITH RHUS INTEGRIFOLIA IN PATCHES. ASSOCIATED WITH ARTEMISIA CALIFORNICA, BROMUS RUBENS, ERIOGONUM FASCICULATUM, ENCELIA CALIFORNICA, BRACHYPODIUM DISTACHYON, LEPIDIUM NITIDUM, ETC.

Threats:

General:

SOUTHERN POLYGON OBSERVED DURING A VEGETATION SURVEY IN 2009. BOTH POLYGONS OBSERVED IN 2012.

PLSS: T16S, R03W, Sec. 6, W (S)
Accuracy: specific area
Area (acres): 10

UTM: Zone-11 N3630612 E477764
Latitude/Longitude: 32.81328 / -117.23754
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

NEN12S0001	NENOW, N. - NENOW #2319 SD #237806 2012-04-17
NEN12S0002	NENOW, N. - NENOW #2320 SD #237807 2012-04-17
VEG09F0229	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2009-07-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90775
Key Quad: La Jolla (3211772)
Occurrence Number: 228

EO Index: 91401
Element Code: PDCAC08060
Occurrence Last Updated: 2013-11-18

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 1996-11-27
Last Survey Date: 1996-11-27
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
WEST FLANK OF SOLEDAD MOUNTAIN, SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS WEST OF SOLEDAD MOUNTAIN TO ENCOMPASS THE GIVEN ELEVATION OF AROUND 200 FEET.

Ecological:

Threats:
AREA IS HIGHLY DEVELOPED.

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1996 LOY COLLECTION. NEEDS FIELDWORK.

PLSS: T15S, R04W, Sec. 26 (S)
UTM: Zone-11 N3633344 E475067

Accuracy: 2/5 mile
Latitude/Longitude: 32.83787 / -117.26641

Area (acres): 0
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
LOY96S0001 LOY, M. - LOY #101 SD #140582 1996-11-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90776
Key Quad: La Jolla (3211772)
Occurrence Number: 229
EO Index: 91411
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-30

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2011-06-14
Last Survey Date: 2011-06-14
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
VICINITY OF SCRIPPS INSTITUTION OF OCEANOGRAPHY, SW OF UC SAN DIEGO.

Detailed Location:
SOUTH SIDE OF EXPEDITION WAY. MAPPED BY CNDDB AS 3 POLYGONS BASED ON A 2001 AND 2011 MAP.

Ecological:
WITHIN COASTAL SAGE SCRUB AND EUCALYPTUS WOODLAND.

Threats:

General:
OBSERVED IN AREA IN 1989. IN 2001, NORTHERN POLYGON HAD 8 PLANTS, SE POLYGON HAD 2 PLANTS, AND SW POLYGON HAD 5 PLANTS. IN 2011, THE SW POLYGON HAD 2 PLANTS.

PLSS: T15S, R04W, Sec. 13, SW (S)
Accuracy: specific area
Area (acres): 15
UTM: Zone-11 N3636561 E476810
Latitude/Longitude: 32.86692 / -117.24786
Elevation (feet): 250

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

DUD11U0001	DUDEK AND ASSOCIATES - APPENDIX B: BIOLOGICAL RESOURCES IMPACT MEMORANDUM FOR THE SCRIPPS INSTITUTION OF OCEANOGRAPHY RESEARCH SUPPORT FACILITIES PROJECT 2011-XX-XX
HEL04R0010	HELIX ENVIRONMENTAL PLANNING, INC. - BIOLOGICAL RESOURCES TECHNICAL REPORT, 2004 UCSD LONG RANGE DEVELOPMENT PLAN UPDATE 2004-09-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90777
Key Quad: La Jolla (3211772)
Occurrence Number: 230
EO Index: 91416
Element Code: PDCAC08060
Occurrence Last Updated: 2013-10-30

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
JUST SE OF THE JUNCTION OF INTERSTATE 805 AND MIRAMAR ROAD, BETWEEN ROSE CANYON AND CARROLL CANYON.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO A MAP PROVIDED IN AN ANONYMOUS REPORT.

Ecological:

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED SOMETIME PRIOR TO 2010.

PLSS: T15S, R03W, Sec. 16, N (S)
Accuracy: specific area
Area (acres): 4
UTM: Zone-11 N3637409 E481665
Latitude/Longitude: 32.87466 / -117.19598
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
La Jolla (3211772), Del Mar (3211782)

Sources:
ANO10R0001 ANONYMOUS - EXHIBIT J: KNOWN BIOLOGICAL RESOURCES ON THE NOBEL DR. SITE AND NEARBY PROPERTIES 2010-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90833
EO Index: 91868
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC08060
Occurrence Number: 272
Occurrence Last Updated: 2013-11-18

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1

CNDDB Element Ranks: **Global:** G3?
State: S2S3
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2013-08-20
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2013-08-20
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
1 MILE SOUTH OF OTAY, EAST OF NATIONAL BOULEVARD, SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN. SITE BASED ON A 1948 RUSH COLLECTION FROM "1 MILE SOUTH OF OTAY" AND A 2013 OBSERVATION FROM "2701-2999 E BEYER BLVD." MAPPED BY CNDDB ON THE EAST SIDE OF E BEYER BLVD/NATIONAL AVE AROUND 2701-2999 E BEYER BLVD.

Ecological:

Threats:
THERE HAS BEEN A LOT OF DEVELOPMENT IN THIS AREA.

General:
SITE BASED ON A 1948 RUSH COLLECTION AND 2013 OBSERVATION. NEEDS FIELDWORK.

PLSS: T18S, R02W, Sec. 26 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3604801 E493762
Latitude/Longitude: 32.58064 / -117.06646
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

INA13U0001	INATURALIST - OBSERVATION RECORD FOR FEROCACTUS VIRIDESCENS, CALFLORA ID #IN:371616 2013-08-20
RUS48S0002	RUSH, H. - RUSH SN RSA #439067 1948-05-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90834
Key Quad: National City (3211761)
Occurrence Number: 273
EO Index: 91869
Element Code: PDCAC08060
Occurrence Last Updated: 2013-11-26

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2013-XX-XX
Last Survey Date: 2013-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
APPROXIMATELY 0.1 AIR MILE SSW OF WHERE EUCLID AVENUE CROSSES CHOLLAS CREEK, EAST SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO A SAN DIEGO CANYONLANDS MAP CREATED IN 2013. IN THE NW 1/4 OF THE SE 1/4 OF SECTION 33.

Ecological:

Threats:

General:
SITE BASED ON A MAP FROM SAN DIEGO CANYONLANDS; UNKNOWN NUMBER OF PLANTS PRESUMABLY OBSERVED IN 2012/2013.

PLSS: T16S, R02W, Sec. 33, SE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3621906 E491631
Latitude/Longitude: 32.73494 / -117.08931
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
SDC13M0002 SAN DIEGO CANYONLANDS - MAPS OF VEGETATION/HABITAT CONDITIONS AT CHOLLAS CREEK - CITY HEIGHTS 2013-03-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90892
Key Quad: National City (3211761)
Occurrence Number: 277
EO Index: 91934
Element Code: PDCAC08060
Occurrence Last Updated: 2017-07-07

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2004-XX-XX
Last Survey Date: 2004-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
JUST EAST OF LYNNDALE PLACE, APPROXIMATELY 0.2 AIR MILE NE OF THE JUNCTION OF I-805 AND E H STREET, LYNWOOD HILLS.

Detailed Location:
MAPPED ACCORDING TO A 2011 CALTRANS MAP, IN THE SW 1/4 OF THE SE 1/4 OF SECTION 35.

Ecological:
OCCURS NEAR SNAKE CHOLLA, KNOTWEED SPINEFLOWER, AND SAN DIEGO SUNFLOWER.

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 2004.

PLSS: T17S, R02W, Sec. 35, SE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3611740 E494908
Latitude/Longitude: 32.64325 / -117.05428
Elevation (feet): 150

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

CAL11R0002	CALIFORNIA DEPARTMENT OF TRANSPORTATION - INTERSTATE 805 MANAGED LANES SOUTH PROJECT, FINAL EIR/EA WITH FONSI 2011-06-XX
CLA05U0001	CLARK, A. (RECON ENVIRONMENTAL, INC.) - CORRECTED POST-SURVEY NOTIFICATION-FOCUSED SURVEY RESULTS FOR THE COASTAL CALIFORNICA GNATCATCHER ON THE LYNNDALE PLACE PROPERTY, CHULA VISTA. 2005-04-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 98106
Key Quad: Imperial Beach (3211751)
Occurrence Number: 279

EO Index: 99516
Element Code: PDCAC08060
Occurrence Last Updated: 2015-11-05

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2007-XX-XX
Last Survey Date: 2007-XX-XX
Owner/Manager: SDG COUNTY
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

EAST END OF SPOONERS MESA, BETWEEN MONUMENT ROAD AND THE MEXICAN BORDER, TIJUANA RIVER VALLEY REGIONAL PARK.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO A MAP FROM A SAN DIEGO COUNTY REPORT ON TIJUANA RIVER VALLEY REGIONAL PARK, IN THE NE 1/4 OF THE SW 1/4 OF SECTION 3.

Ecological:

COASTAL SAGE SCRUB NEAR VIGUIERA LACINIATA.

Threats:

General:

1 PLANT OBSERVED IN 2007.

PLSS: T19S, R02W, Sec. 3, SW (S)
UTM: Zone-11 N3600764 E492776

Accuracy: 80 meters
Latitude/Longitude: 32.54423 / -117.07694

Area (acres): 5
Elevation (feet): 170

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

SDG07R0001 SAN DIEGO COUNTY - TIJUANA RIVER VALLEY REGIONAL PARK, AREA SPECIFIC MANAGEMENT DIRECTIVES 2007-06-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 98108
Key Quad: La Mesa (3211771)
Occurrence Number: 280
EO Index: 99517
Element Code: PDCAC08060
Occurrence Last Updated: 2015-11-05

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2011-10-24
Last Survey Date: 2011-10-24
Owner/Manager: DOD?
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:
JUST SE OF THE SOUTH END OF VIACHA DRIVE, NEAR ADMIRAL BAKER GOLF COURSE.

Detailed Location:
MAPPED ACCORDING TO 2014 MCDERMOTT DIGITAL DATA, IN THE SW 1/4 OF THE SW 1/4 OF SECTION 4. SITE IS ON THE BORDER BETWEEN ADMIRAL BAKER GOLF COURSE PROPERTY AND TIERRASANTA OPEN SPACE PROPERTY.

Ecological:
DIEGAN COASTAL SAGE SCRUB.

Threats:

General:
1 PLANT OBSERVED IN 2011.

PLSS: T16S, R02W, Sec. 4, SW (S)
UTM: Zone-11 N3629872 E490846
Accuracy: specific area
Latitude/Longitude: 32.80679 / -117.09778
Area (acres): 1
Elevation (feet): 220

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

MCD14D0001	MCDERMOTT, F. (RECON ENVIRONMENTAL, INC.) - CNDDB SPECIES DATA SUBMITTAL, RECON ENVIRONMENTAL, INC. 2014-06-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 98109
Key Quad: La Mesa (3211771)
Occurrence Number: 281
EO Index: 99520
Element Code: PDCAC08060
Occurrence Last Updated: 2015-11-05

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2011-10-24
Last Survey Date: 2011-10-24
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:
APPROXIMATELY 0.2 AIR MILE ENE OF THE SOUTH END OF SANTO ROAD, JUST WEST OF THE SW END OF TIERRASANTA OPEN SPACE.

Detailed Location:
MAPPED ACCORDING TO 2014 MCDERMOTT DIGITAL DATA, IN THE NE 1/4 OF THE NE 1/4 OF SECTION 8.

Ecological:
OPEN DIEGAN COASTAL SAGE SCRUB.

Threats:

General:
2 PLANTS OBSERVED IN 2011.

PLSS: T16S, R02W, Sec. 8, NE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3629297 E490342
Latitude/Longitude: 32.80159 / -117.10316
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

MCD14D0001 MCDERMOTT, F. (RECON ENVIRONMENTAL, INC.) - CNDDB SPECIES DATA SUBMITTAL, RECON ENVIRONMENTAL, INC. 2014-06-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A2313
EO Index: 103927
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC08060
Occurrence Number: 291
Occurrence Last Updated: 2016-10-21

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3?
State: S2S3

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2002-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2002-XX-XX
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
BETWEEN POGGI CANYON AND WOLF CANYON, APPROXIMATELY 1.5 AIR MILES WSW OF OTAY RANCH.

Detailed Location:
MAPPED ACCORDING TO A 2002 DUDEK AND ASSOCIATES, INC MAP, IN THE EAST 1/2 OF THE NW 1/4 OF SECTION 17.

Ecological:
COASTAL SAGE SCRUB WITH CALIFORNIA SAGEBRUSH, CALIFORNIA BUCKWHEAT, BACCHARIS SAROTHROIDES, AND SALVIA MELLIFERA. DEINANDRA CONJUGENS ALSO OCCURS AT THIS SITE.

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 2002.

PLSS: T18S, R01W, Sec. 17, NW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3607903 E499183
Latitude/Longitude: 32.60865 / -117.0087
Elevation (feet): 465

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
DUD02U0004 DUDEK & ASSOCIATES, INC. - CALIFORNIA GNATCATCHER SURVEY FOR THE OTAY RANCH VILLAGE 2 PROJECT, CITY OF CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA 2002-05-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A5225
Key Quad: National City (3211761)
Occurrence Number: 299

EO Index: 106937
Element Code: PDCAC08060
Occurrence Last Updated: 2017-07-07

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2014-04-26
Last Survey Date: 2014-04-26
Owner/Manager: CITY OF CHULA VISTA
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SOUTH OF THE JUNCTION OF E J STREET AND LA SENDA WAY, SOUTH SIDE OF RICE CANYON.

Detailed Location:
MAPPED ACCORDING TO 2014 VEGETATION SURVEY COORDINATES, IN THE NE 1/4 OF THE SE 1/4 OF SECTION 1.

Ecological:
ASSOCIATED WITH ARTEMISIA CALIFORNICA, SIMMONDSIA CHINENSIS, VIGUIERA LACINIATA, RHUS INTEGRIFOLIA, SCHISMUS BARBATUS, STIPA LEPIDA, YUCCA SCHIDIGERA, CYLINDROPUNTIA PROLIFERA, C. CALIFORNICA, ENCELIA CALIFORNICA, CHAMAESYCE POLYCARPA, ETC.

Threats:

General:
LESS THAN 1% COVER OF FEROCACTUS VIRIDESCENS OBSERVED IN 2014.

PLSS: T18S, R02W, Sec. 1, SE (S)
UTM: Zone-11 N3610655 E496868

Accuracy: specific area
Latitude/Longitude: 32.63347 / -117.03339

Area (acres): 1
Elevation (feet): 345

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

VEG16U0001 VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A5226
Key Quad: National City (3211761)
Occurrence Number: 300
EO Index: 106938
Element Code: PDCAC08060
Occurrence Last Updated: 2017-07-18

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3?
State: S2S3
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2017-04-22
Last Survey Date: 2017-04-22
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:
JUST EAST OF THE JUNCTION OF MARKET STREET AND GLEN ROAD, CHOLLAS RADIO SYSTEM OPEN SPACE, SAN DIEGO.

Detailed Location:
MAPPED ACCORDING TO 2010 VEGETATION SURVEY COORDINATES AND 2017 HARVEY COORDINATES.

Ecological:
ASSOCIATED WITH ADOLPHIA CALIFORNICA, CYLINDROPUNTIA PROLIFERA, SIMMONDSIA CHINENSIS, ERIOGONUM FASCICULATUM, ARTEMISIA CALIFORNICA, OPUNTIA LITTORALIS, HEMIZONIA FASCICULATA, VIGUIERA LACINIATA, OPUNTIA LITTORALIS, LEPIDIUM NITIDUM, ETC.

Threats:

General:
<1% TO 1% COVER OF FEROCACTUS VIRIDESCENS DURING 2010 VEGETATION SURVEYS. 7 PLANTS OBSERVED IN THE WEST PORTION OF SITE IN 2017.

PLSS: T17S, R02W, Sec. 10, NW (S)
Accuracy: specific area
Area (acres): 20
UTM: Zone-11 N3619220 E492661
Latitude/Longitude: 32.71072 / -117.0783
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

HAR17F0009	HARVEY, C. - FIELD SURVEY FORM FOR FEROCACTUS VIRIDESCENS 2017-04-22
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1839
Key Quad: Imperial Beach (3211751)
Occurrence Number: 304

EO Index: 113758
Element Code: PDCAC08060
Occurrence Last Updated: 2019-01-08

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2012-XX-XX
Last Survey Date: 2012-XX-XX
Owner/Manager: DOD-NAVY
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SILVER STRAND; JUST NORTH OF REDMAN STREET AND WEST OF CA-75.

Detailed Location:
MAPPED AS 2 POLYGONS ACCORDING TO A 2015 DEPARTMENT OF NAVY MAP.

Ecological:
DIEGAN COASTAL SAGE SCRUB AND DISTURBED HABITAT.

Threats:
POTENTIALLY IMPACTED BY PROPOSED COASTAL CAMPUS DEVELOPMENT.

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN NE POLYGON IN 2004 AND SW POLYGON IN 2012.

PLSS: T18S, R02W, Sec. 18, S (S)
UTM: Zone-11 N3607151 E488039

Accuracy: specific area
Latitude/Longitude: 32.6018 / -117.12747

Area (acres): 1
Elevation (feet): 30

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

DON15U0001 DEPARTMENT OF THE NAVY - REVISED FINDINGS ON CONSISTENCY DETERMINATION FOR THE NAVAL BASE CORONADO COASTAL CAMPUS PROJECT 2015-02-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1840
Key Quad: La Mesa (3211771)
Occurrence Number: 305

EO Index: 113759
Element Code: PDCAC08060
Occurrence Last Updated: 2019-01-07

Scientific Name: *Ferocactus viridescens*
Common Name: San Diego barrel cactus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3?
State: S2S3

Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPPARAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OFTEN ON EXPOSED, LEVEL OR SOUTH-SLOPING AREAS; OFTEN IN COASTAL SCRUB NEAR CREST OF SLOPES. 3-490 M.

Last Date Observed: 2017-04-11
Last Survey Date: 2017-04-11
Owner/Manager: STATE
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
JUST NW OF THE JUNCTION OF COLLEGE AVENUE AND I-8, SAN DIEGO STATE UNIVERSITY ECOLOGICAL RESERVE.

Detailed Location:
MAPPED ACCORDING TO 2017 SIMPSON COORDINATES, ON THE SECTION LINE BETWEEN THE NW 1/4 OF THE SW 1/4 OF SECTION 14 AND THE NE 1/4 OF THE SE 1/4 OF SECTION 15.

Ecological:
HARD, RED CLAY SOIL WITH SCATTERED BOULDERS. SLIGHT SOUTH-FACING SLOPE. COASTAL SAGE SCRUB WITH SALVIA MELLIFERA, BACCHARIS SAROTHROIDES, ARTEMISIA CALIFORNICA, MALOSMA LAURINA, AND RHUS INTEGRIFOLIA.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2017 SIMPSON COLLECTION; "5 SHOOTS FROM BASE" IN 2017.

PLSS: T16S, R02W, Sec. 14, SW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3626952 E493700
Latitude/Longitude: 32.78047 / -117.06727
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
SIM17S0001 SIMPSON, M. & M. MULLIGAN - SIMPSON #4078 SDSU #22039 2017-04-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04282	**EO Index:**	16878
Key Quad:	National City (3211761)	**Element Code:**	PDCAC0D2Y1
Occurrence Number:	1	**Occurrence Last Updated:**	2019-03-25

Scientific Name: *Cylindropuntia californica var. californica*

Common Name: snake cholla

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

15-290 M.

Last Date Observed:	2014-04-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2014-04-26	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF CHULA VISTA, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

RICE CANYON, JUST EAST OF LYNWOOD HILLS EXTENDING FOR ABOUT 1.4 AIR MILES SE, NE CHULA VISTA.

Detailed Location:

MAPPED BY CNDDB AS 13 POLYGONS BASED ON A 1981 OBERBAUER MAP, 2004 RECON DIGITAL DATA, AND VEGETATION SURVEY COORDINATES.

Ecological:

COASTAL SAGE SCRUB. ASSOCIATED WITH ARTEMISIA CALIFORNICA, SIMMONDSIA CHINENSIS, VIGUIERA LACINIATA, RHUS INTEGRIFOLIA, SCHISMUS BARBATUS, STIPA LEPIDA, YUCCA SCHIDIGERA, CYLINDROPUNTIA PROLIFERA, ENCELIA CALIFORNICA, CHAMAESYCE, ETC.

Threats:

PORTIONS HAVE BEEN EXTIRPATED BY DEVELOPMENT.

General:

OBSERVED IN THIS AREA AROUND 1981 AND 1986. SCATTERED PLANTS OBSERVED DURING 2002/2003 SURVEYS. LESS THAN 1% COVER OF CYLINDROPUNTIA CALIFORNICA OBSERVED IN PART OF SITE IN 2014. INCLUDES FORMER OCCURRENCES #2-5.

PLSS:	T18S, R02W, Sec. 1 (S)	**Accuracy:**	specific area	**Area (acres):**	75
UTM:	Zone-11 N3611477 E496510	**Latitude/Longitude:**	32.64089 / -117.03721	**Elevation (feet):**	250

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

OBE81M0001	OBERBAUER, T. - MAP OF THE RICE CANYON AREA 1981-XX-XX
OBE83U0013	OBERBAUER, T. - RECORD OF PHONE CONVERSATION WITH S. COCHRANE 1983-XX-XX
PAR86S0014	PARFITT, B. & K. ROBERTS - PARFITT #3527 SD #138734 1986-04-26
REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04357
EO Index: 21473
Key Quad: National City (3211761)
Element Code: PDCAC0D2Y1
Occurrence Number: 6
Occurrence Last Updated: 2015-02-10

Scientific Name: *Cylindropuntia californica var. californica*
Common Name: snake cholla

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
15-290 M.

Last Date Observed: 1981-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1981-XX-XX
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:
NORTH SIDE OF RICE CANYON, 1.75 MILES EAST OF LYNWOOD HILLS.

Detailed Location:
MAPPED IN THE NW 1/4 OF THE SE 1/4 OF SECTION 31 BASED ON A 1981 OBERBAUER MAP.

Ecological:
RHUS WOODLAND.

Threats:
BASED ON 2014 AERIAL IMAGERY, SITE LOOKS TO HAVE BEEN EXTIRPATED BY DEVELOPMENT.

General:
OBSERVED BY OBERBAUER AROUND 1981.

PLSS: T17S, R01W, Sec. 31, SE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3612197 E498043
Latitude/Longitude: 32.64738 / -117.02086
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

OBE81M0001	OBERBAUER, T. - MAP OF THE RICE CANYON AREA 1981-XX-XX
OBE83U0013	OBERBAUER, T. - RECORD OF PHONE CONVERSATION WITH S. COCHRANE 1983-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82391
EO Index: 20987
Key Quad: National City (3211761)
Element Code: PDCAC0D2Y1
Occurrence Number: 9
Occurrence Last Updated: 2015-02-05

Scientific Name: *Cylindropuntia californica var. californica*
Common Name: snake cholla

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
15-290 M.

Last Date Observed: 1999-09-10
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1999-09-10
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO?
Trend: Unknown
Presence: Presumed Extant

Location:
CANYON JUST SOUTH OF JUNIPER STREET BETWEEN 33RD STREET AND COMMONWEALTH AVENUE, NORTH PARK AREA OF SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS IN CANYON JUST SOUTH OF JUNIPER STREET. ELEVATION ON COLLECTION LABEL IS 140 METERS BUT ELEVATION IN THIS AREA IS CLOSER TO 140 FEET.

Ecological:
COAST SAGE SCRUB/COASTAL CHAPARRAL.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1999 COLLECTION BY REBMAN. NEEDS POPULATION INFORMATION.

PLSS: T17S, R02W, Sec. 06, NE (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3621168 E488637
Latitude/Longitude: 32.72825 / -117.12126
Elevation (feet): 140

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
REB99S0001 REBMAN, J. ET AL. - REBMAN #6020 UCR #112172, SD #143673, HCIB #14197, SEINET #7992813 1999-09-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04145
EO Index: 1242
Key Quad: National City (3211761)
Element Code: PDCAC0D2Y1
Occurrence Number: 10
Occurrence Last Updated: 2015-02-05

Scientific Name: *Cylindropuntia californica var. californica*
Common Name: snake cholla

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
15-290 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO, PVT
Trend: Unknown
Presence: Presumed Extant

Location:
JUST NW AND NE OF THE JUNCTION OF INTERSTATE 805 AND CA-94, SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO A VAGUE 1986 SCHEIDT MAP AND A 2011 CALTRANS MAP, IN THE WEST 1/2 OF SECTION 4 AND THE SE 1/4 OF SECTION 5.

Ecological:
MARITIME SUCCULENT SCRUB AND DISTURBED COASTAL SAGE SCRUB. OCCURS NEAR A POPULATION OF FEROCACTUS VIRIDESCENS. ALSO ASSOCIATED WITH ENCELIA CALIFORNICA, ARTEMISIA CALIFORNICA, AND OPUNTIA PROLIFERA.

Threats:
NE POLYGON WAS IN PATH OF ROAD REALIGNMENT IN 1986.

General:
FEWER THAN 10 PLANTS OBSERVED IN NE POLYGON IN 1986. UNKNOWN NUMBER OF PLANTS OBSERVED IN REMAINING POLYGONS SOMETIME PRIOR TO 2009. INCLUDES FORMER OCCURRENCE #12.

PLSS: T17S, R02W, Sec. 04, W (S)
Accuracy: non-specific area
Area (acres): 32
UTM: Zone-11 N3620548 E490597
Latitude/Longitude: 32.72267 / -117.10033
Elevation (feet): 150

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

CAL11R0002	CALIFORNIA DEPARTMENT OF TRANSPORTATION - INTERSTATE 805 MANAGED LANES SOUTH PROJECT, FINAL EIR/EA WITH FONSI 2011-06-XX
SCH86F0015	SCHEIDT, V. - FIELD SURVEY FORM FOR OPUNTIA PARRYI SERPENTINA (OPUNTIA CALIFORNICA VAR. CALIFORNICA) 1986-03-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04328	**EO Index:**	21470
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCAC0D2Y1
Occurrence Number:	11	**Occurrence Last Updated:**	2019-03-25

Scientific Name: *Cylindropuntia californica var. californica*

Common Name: snake cholla

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

15-290 M.

Last Date Observed:	2017-05-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-05-10	**Occurrence Rank:**	Good
Owner/Manager:	SDG COUNTY, CITY OF SDG, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BOTH SIDES OF MOODY CANYON, JUST EAST OF SAN YSIDRO.

Detailed Location:

MAPPED BY CNDDB AS 4 POLYGONS; THREE NORTHERN POLYGONS ARE SPECIFIC, SOUTHERN POLYGON IS NON-SPECIFIC AROUND PROPERTY BOUNDARY. A 1961 LINDSAY COLLECTION FROM "HILLS JUST N OF SAN YSIDRO" IS ALSO ATTRIBUTED TO THIS SITE.

Ecological:

COASTAL SAGE SCRUB AND MARITIME SUCCULENT SCRUB. IN ROCKY AREA ASSOCIATED WITH ENCELIA CALIFORNICA, OPUNTIA PROLIFERA, AMBROSIA CHENOPODIFOLIA, FEROCACTUS VIRIDESCENS, EUPHORBIA MISERA, FISHHOOK CACTUS, AND JOJOBA.

Threats:

DEVELOPMENT.

General:

NORTH POLYGON: 100+ PLANTS IN 1981; OBSERVED IN PATCHES, SOME FAIRLY DENSE, IN 2011. MIDDLE POLYGONS: OBSERVED IN 1998, 3 IN 2016, 5 IN 2017. SOUTH POLYGON: A FEW SCATTERED INDIVIDUALS ON THIS PROPERTY IN 1994. INCLUDES FORMER EO #7.

PLSS:	T18S, R02W, Sec. 36, E (S)	**Accuracy:**	non-specific area	**Area (acres):**	56
UTM:	Zone-11 N3602068 E496812	**Latitude/Longitude:**	32.55601 / -117.03395	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

ALB12R0001	ALBRIGHT, B. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - RESOURCE MANAGEMENT PLAN FOR FURBY-NORTH PROPERTY: SAN DIEGO COUNTY 2012-06-29
BOH17D0007	BOHAC, S. (RECON ENVIRONMENTAL, INC.) - SHAPEFILES FOR SPECIES DETECTIONS ASSOCIATED WITH THE BEYER PARK BIOLOGICAL REPORT, 2017 2017-XX-XX
EDW95U0001	EDWARDS, C. & A. KOLTZ (PACIFIC SOUTHWEST BIOLOGICAL SERVICES) - CALIFORNIA GNATCATCHER SURVEY RESULTS 1995-01-17
LIN61S0001	LINDSAY, G. - LINDSAY #3108 SD #84080 1961-04-16
OBE83U0013	OBERBAUER, T. - RECORD OF PHONE CONVERSATION WITH S. COCHRANE 1983-XX-XX
REC98R0002	RECON - BIOLOGICAL TECHNICAL REPORT FOR THE BEYER HILLS PROJECT 1998-08-24
SAN87S0006	SANDERS, A. ET AL. - SANDERS #7099 UCR #50595 1987-05-14
SCH81F0030	SCHEIDT, V. - FIELD SURVEY FORM FOR OPUNTIA PARRYI SERPENTINA (OPUNTIA CALIFORNICA VAR. CALIFORNICA) 1981-05-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 95146
EO Index: 312
Key Quad: Point Loma (3211762)
Element Code: PDCAC0D2Y1
Occurrence Number: 13
Occurrence Last Updated: 2019-05-28

Scientific Name: *Cylindropuntia californica var. californica*
Common Name: snake cholla

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
15-290 M.

Last Date Observed: 2019-04-27
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2019-04-27
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVY, NPS-CABRILLO NM
Trend: Unknown
Presence: Presumed Extant

Location:
POINT LOMA.

Detailed Location:
MAPPED AS MANY POLYGONS SCATTERED ACROSS POINT LOMA BASED ON MAPS FROM 1981, 1989, 1993, 2006, AND INATURALIST COORDINATES. PORTIONS OF THIS POPULATION NEAR MCCLELLAND ROAD AND JUST NORTH OF CABRILLO NATIONAL MONUMENT ARE PLANTED SITES.

Ecological:
THROUGHOUT POINT LOMA, WITH SEVERAL OTHER RARE PLANTS INCLUDING FEROCACTUS VIRIDESCENS, COREOPSIS MARITIMA, DICHONDRA OCCIDENTALIS, AND SELAGINELLA CINERASCENS. MOST COMMON ON WELL-DRAINED, SOUTH-FACING SLOPES.

Threats:

General:
OCCURS AS SCATTERED INDIVIDUALS. OBSERVED IN 1981, 1992, 1997, 1999, 2014, 2016, 2018, AND 2019. INCLUDES FORMER OCCURRENCES #8, 14-24.

PLSS: T17S, R04W, Sec. 24 (S)
Accuracy: specific area
Area (acres): 134
UTM: Zone-11 N3616499 E476880
Latitude/Longitude: 32.68595 / -117.24663
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

ASI93R0001	ADVANCED SCIENCES, INC. - TERRESTRIAL BIOLOGICAL SURVEY AND INVENTORY OF NAVY PROPERTY ON POINT LOMA, SAN DIEGO, CALIFORNIA 1993-05-XX
DOU99I0001	DOUGHERTY, J. - PHOTO OF OPUNTIA PARRYI VAR. SERPENTINA, CALPHOTOS ID #0000 0000 0201 0103 1999-07-01
INA19U0004	INATURALIST - INATURALIST OBSERVATIONS OF CYLINDROPUNTIA CALIFORNICA, FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-05-28. 2019-05-28
MAR88M0001	MARTIN, E. - COPIES OF WOODWARD-CLYDE MAPS FOR POINT LOMA (WOO81R0001) SHOWING ADDITIONAL PLANT DATA. 1988-09-14
OBE83U0013	OBERBAUER, T. - RECORD OF PHONE CONVERSATION WITH S. COCHRANE 1983-XX-XX
SER01R0001	SDSU SOIL ECOLOGY AND RESTORATION GROUP - POINT LOMA SUBMARINE BASE RESTORATION REPORT 2001-05-08
TIE06R0001	TIERRA DATA INC. & FIREWISE 2000, INC. - NAVAL BASE POINT LOMA AND CABRILLO NATIONAL MONUMENT JOINT WILDLAND FIRE MANAGEMENT PLAN 2006-06-XX
WOO81R0001	WOODWARD & CLYDE - TERRESTRIAL BIOSURVEY AND INVENTORY OF NAVAL PROPERTY ON POINT LOMA 1981-11-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	95193	**EO Index:**	96331
Key Quad:	National City (3211761)	**Element Code:**	PDCAC0D2Y1
Occurrence Number:	28	**Occurrence Last Updated:**	2019-05-28

Scientific Name: *Cylindropuntia californica var. californica*

Common Name: snake cholla

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

15-290 M.

Last Date Observed:	2018-10-22	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2018-10-22	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH SIDE OF A TRIBUTARY OF RICE CANYON, ABOUT 1.1 AIR MILES ENE OF THE JUNCTION OF TELEGRAPH CANYON RD AND I-805.

Detailed Location:

MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO 2004 RECON DIGITAL DATA AND 2018 INATURALIST COORDINATES FOR CYLINDROPUNTIA CALIFORNIA.

Ecological:

OCCURS NEAR POPULATIONS OF SAN DIEGO BARREL CACTUS.

Threats:

General:

8 PLANTS OBSERVED DURING 2002/2003 SURVEYS. UNKNOWN NUMBER SEEN IN 2018. ALSO OBSERVED HERE DURING THE LATE 1980S/EARLY 1990S AS INDICATED IN A 1991 P&D BIOLOGICAL RESOURCES MAP; MAP IS VAGUE, MAY HAVE BEEN MORE EXTENSIVE IN THIS AREA.

PLSS:	T18S, R01W, Sec. 6 (S)	**Accuracy:**	specific area	**Area (acres):**	8
UTM:	Zone-11 N3610703 E497867	**Latitude/Longitude:**	32.6339 / -117.02274	**Elevation (feet):**	350

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

CHU91U0001	CITY OF CHULA VISTA - LETTER FROM GORDON HOWARD AND MAPS FROM ERC AND P&D BIOLOGICAL RESOURCES FROM VARIOUS EIRS. 1991-XX-XX
INA19U0004	INATURALIST - INATURALIST OBSERVATIONS OF CYLINDROPUNTIA CALIFORNICA, FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-05-28. 2019-05-28
REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	61833	**EO Index:**	61869
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCAC0D2Y1
Occurrence Number:	30	**Occurrence Last Updated:**	2015-02-10

Scientific Name: *Cylindropuntia californica var. californica*

Common Name: snake cholla

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

15-290 M.

Last Date Observed:	2000-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2000-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ABOUT 1 AIR MILE NE OF THE JUNCTION OF OTAY VALLEY ROAD AND INTERSTATE 805, WEST OF OTAY LANDFILL, SE CHULA VISTA.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO A 1993 WOODWARD-CLYDE MAP OF THE PROJECT AREA THIS SPECIES WAS FOUND ON AND A 2000 MERKEL & ASSOCIATES MAP. IN THE NW 1/4 OF SE 1/4 OF SECTION 18.

Ecological:

ANNUAL GRASSLAND AND COASTAL SAGE SCRUB. FOUND WITH ARTEMISIA FASCICULATUM, ERIOGONUM FASCICULATUM, RHUS INTEGRIFOLIA, AND VIGUIERA LACINIATA. OTAY TARPLANT ALSO OBSERVED NEARBY.

Threats:

PROPOSED RESERVOIR/PIPELINE PROJECT.

General:

WOODWARD-CLYDE REPORTS "OPUNTIA PARRYI" IN AREA IN 1993 (CNDDB ASSUMES THEY MEAN O. PARRYI VAR. SERPENTINA, NOW C. CALIFORNICA CALFORNICA). 1 PLANT SEEN BETWEEN 1996 & 2000. REISER REPORT "WEST OF OTAY LANDFILL" ALSO ATTRIBUTED HERE.

PLSS:	T18S, R01W, Sec. 18, SE (S)	**Accuracy:**	specific area	**Area (acres):**	12
UTM:	Zone-11 N3607354 E497941	**Latitude/Longitude:**	32.60369 / -117.02193	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

MER00U0006	MERKEL, K. (MERKEL AND ASSOCIATES, INC.) - LETTER AND MAP REGARDING THE CHULA VISTA SPORTS PARK PROPOSED MINOR AMENDMENT AREA 2000-12-28
REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
WOO93R0001	WOODWARD-CLYDE & ASSOCIATES - ENVIRONMENTAL IMPACT ASSESSMENT FOR RESERVOIR 458-3 1993-08-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 61834
EO Index: 61870
Key Quad: National City (3211761)
Element Code: PDCAC0D2Y1
Occurrence Number: 31
Occurrence Last Updated: 2015-02-10

Scientific Name: *Cylindropuntia californica var. californica*
Common Name: snake cholla

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
15-290 M.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:
NORTH SIDE OF TELEGRAPH CANYON, APPROXIMATELY 0.3 AIR MILE SW OF CHULA BM 502, EAST CHULA VISTA.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO 2004 RECON DIGITAL DATA, ON THE SECTION LINE BETWEEN THE NE 1/4 NE 1/4 SECTION 7 AND THE NW 1/4 NW 1/4 SECTION 8.

Ecological:
COASTAL SAGE SCRUB. OCCURS NEAR A POPULATION OF CALIFORNIA FAGONIA.

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED DURING 2002/2003 SURVEYS.

PLSS: T18S, R01W, Sec. 08, NW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3609732 E498640
Latitude/Longitude: 32.62515 / -117.01449
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751), National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04119
EO Index: 61881
Key Quad: National City (3211761)
Element Code: PDCAC0D2Y1
Occurrence Number: 32
Occurrence Last Updated: 2005-07-05

Scientific Name: *Cylindropuntia californica var. californica*
Common Name: snake cholla

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
15-290 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
E STREET MARSH, CHULA VISTA.

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS 0.5 MILE WEST OF I-5 AT E STREET IN CHULA VISTA.

Ecological:

Threats:

General:
PARFITT COLLECTION IS THE ONLY SOURCE FOR THIS SITE. NEEDS FIELDWORK.

PLSS: T18S, R02W, Sec. 05 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3611116 E489768
Latitude/Longitude: 32.63759 / -117.10908
Elevation (feet):

County Summary:
San Diego, Pacific Ocean

Quad Summary:
National City (3211761)

Sources:
PARNDS0016 PARFITT, B. - PARFITT #3520 HERBARIUM UNKNOWN (CITED IN MADRONO, VOL. 39, NO. 2, PP. 103) XXXX-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 93519
EO Index: 96286
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC0D2Y1
Occurrence Number: 34
Occurrence Last Updated: 2019-05-24

Scientific Name: *Cylindropuntia californica var. californica*
Common Name: snake cholla

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
15-290 M.

Last Date Observed: 2018-05-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2018-05-14
Occurrence Rank: Fair
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
NORTHEAST OF CONFLUENCE OF WRUCK CANYON AND SPRING CANYON, ABOUT 2.3 AIR MILES EAST OF SAN YSIDRO.

Detailed Location:
OTAY MITIGATION SITE. MAPPED BY CNDDB ACCORDING TO SAN DIEGO MANAGEMENT AND MONITORING PROGRAM (SDMMP) DIGITAL DATA, IN THE NORTH 1/2 OF THE NE 1/4 OF SECTION 5.

Ecological:
MARITIME SUCCULENT SCRUB WITH ERODIUM, AMBROSIA CHENOPODIFOLIA, SIMMODSIA CHINENSIS, SELAGINELLA CINERASCENS, BROMUS MADRITENSIS, ARTEMISIA CALIFORNICA, DEINANDRA FASCICULATA, VIGUIERA LACINIATA, CENTAUREA MELITENSIS, ETC.

Threats:
OFF-ROAD VEHICLES/MOTORCYCLES, NON-NATIVE PLANTS, HISTORIC GRAZING, TRAILS.

General:
47 PLANTS OBSERVED IN 2002, UNKNOWN NUMBER OF PLANTS OBSERVED IN 2005 AND 2007, 30 PLANTS OBSERVED IN 2008 AND 2009, 14 PLANTS IN 2014, 57 PLANTS IN 2015, 43 PLANTS IN 2016, 54 PLANTS IN 2017, 83 PLANTS IN 2018.

PLSS: T19S, R01W, Sec. 5, NE (S)
Accuracy: specific area
Area (acres): 4
UTM: Zone-11 N3601583 E499882
Latitude/Longitude: 32.55164 / -117.00125
Elevation (feet): 420

County Summary:
San Diego

Quad Summary:
Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

BAL09F0025	BALO, K. & J. GAUDETTE (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR CYLINDROPUNTIA CALIFORNICA VAR. CALIFORNICA 2009-05-15
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92232
EO Index: 96287
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC0D2Y1
Occurrence Number: 35
Occurrence Last Updated: 2015-02-06

Scientific Name: *Cylindropuntia californica var. californica*
Common Name: snake cholla

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
15-290 M.

Last Date Observed: 2008-05-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2008-05-07
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
OTAY MESA EAST OF CITY OF SAN YSIDRO, ABOUT 0.6 MI NORTH OF THE BORDER WITH MEXICO, 2 MI SW OF BROWN MUNICIPAL AIRPORT.

Detailed Location:
MAPPED IN THE NE 1/4 OF THE NW 1/4 OF SECTION 5 ACCORDING TO 2008 SALVATO COORDINATES.

Ecological:
SANDY CANYON BOTTOM WITH EPHEMERAL STREAM AND VERNAL POOLS, NOW OVERGROWN WITH WEEDY GRASSES. HIGHLY DISTURBED COASTAL SAGE SCRUB ON N-FACING CANYON WALLS. DRY, ROCKY SLOPES.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2008 COLLECTION BY SALVATO, PLANTS NOTED AS "UNCOMMON."

PLSS: T19S, R01W, Sec. 05, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3601711 E499242
Latitude/Longitude: 32.55279 / -117.00806
Elevation (feet): 367

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
SAL08S0006 SALVATO, T. & E. KLEIN - SALVATO #3489 UCR #192781 2008-05-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B3127	**EO Index:**	96288
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCAC0D2Y1
Occurrence Number:	36	**Occurrence Last Updated:**	2019-05-24

Scientific Name: *Cylindropuntia californica var. californica*

Common Name: snake cholla

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

15-290 M.

Last Date Observed:	2015-04-21	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-04-21	**Occurrence Rank:**	Good
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH RIM OF OTAY MESA; NORTHEAST OF SAN YSIDRO BORDER CROSSING.

Detailed Location:

MAPPED AS 2 POLYGONS ACCORDING TO 2013 VEGETATION SURVEY COORDINATES AND DIGITAL DATA FROM SAN DIEGO MANAGEMENT AND MONITORING PROGRAM (SDMMP).

Ecological:

MARITIME SUCCULENT SCRUB WITH SIMMONDSIA CHINENSIS, ERODIUM, BROMUS MADRITENSIS, VIGUIERA LACINIATA, EUPHORBIA MISERA, DEINANDRA FASCICULATA, ERIOGONUM FASCICULATUM, CYLINDROPUNTIA PROLIFERA, SALSOLA TRAGUS, CENTAUREA, ETC.

Threats:

OFF-ROAD ACTIVITY, BORDER PATROL, NON-NATIVES, HISTORIC GRAZING, TRAILS.

General:

WESTERN POLYGON: LESS THAN 1% COVER OF CYLINDROPUNTIA SEEN DURING 2013 VEGETATION SURVEYS. EASTERN POLYGON: 173 PLANTS IN 2002, UNKNOWN NUMBER IN 2005 AND 2007, 15 PLANTS IN 2008, 25 PLANTS IN 2009, 13 PLANTS IN 2014, 32 PLANTS IN 2015.

PLSS:	T19S, R01W, Sec. 6, S (S)	**Accuracy:**	specific area	**Area (acres):**	6
UTM:	Zone-11 N3600987 E497730	**Latitude/Longitude:**	32.54626 / -117.02418	**Elevation (feet):**	360

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BAL09F0024	BALO, K. & J. GAUDETTE (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA & OPUNTIA CALIFORNICA VAR. CALIFORNICA 2009-05-15
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 95154
EO Index: 96289
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC0D2Y1
Occurrence Number: 37
Occurrence Last Updated: 2019-05-31

Scientific Name: *Cylindropuntia californica var. californica*
Common Name: snake cholla

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
15-290 M.

Last Date Observed: 2006-05-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-05-16
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
EASTERN END OF LICHTY MESA, NORTH OF TIJUANA.

Detailed Location:
MAPPED ACCORDING TO 2006 SCHEIDT COORDINATES.

Ecological:
COAST CHOLLA ALSO OCCURS ON SITE, PRIMARILY ON THE MORE WESTERN PORTIONS OF THE MESA TOP.

Threats:

General:
SEVERAL DOZEN CLUMPS OBSERVED AT EASTERN END OF LICHTY MESA. A 1936 GANDER COLLECTION FROM "NEAR BORDER MONUMENT 258" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS: T19S, R02W, Sec. 8, W (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3599796 E488914
Latitude/Longitude: 32.53546 / -117.11806
Elevation (feet): 75

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

GAN36S0113	GANDER, F. - GANDER #487 SD #13296 1936-01-28
SCH07R0001	SCHEIDT, V. - THE LICHTY MESA, A BIOLOGICAL RESOURCES SURVEY REPORT AND EVALUATION OF RESOURCE VALUE, APN 663-020-02, SAN DIEGO, CA 2007-08-XX
SCH19U0001	SCHEIDT, V. - INATURALIST OBSERVATIONS OF CYLINDROPUNTIA CALIFORNICA VAR. CALIFORNICA, FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-05-31. 2019-05-31

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	95155	**EO Index:**	96290
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCAC0D2Y1
Occurrence Number:	38	**Occurrence Last Updated:**	2019-03-25

Scientific Name: *Cylindropuntia californica var. californica*

Common Name: snake cholla

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

15-290 M.

Last Date Observed:	2009-06-09	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-06-09	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

APPROXIMATELY 0.6 AIR MILE NE OF THE JUNCTION OF CA-905 AND INTERSTATE 805, NW END OF OTAY MESA.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO A 1992 MAP, IN THE NW 1/4 OF THE SW 1/4 OF SECTION 30.

Ecological:

Threats:

SITE THREATENED BY DEVELOPMENT ACCORDING TO 1992 REPORT.

General:

SITE BASED ON AN EXTRACT FROM A 1992 REPORT WHICH SHOWS "SNAKE CHOLLA" ON ATTACHED MAP; SURVEYS PRESUMABLY PERFORMED IN 1991. 1% COVER OF CYLINDROPUNTIA CALIFORNICA OBSERVED DURING 2009 VEGETATION SURVEY.

PLSS:	T18S, R01W, Sec. 30, SW (S)	**Accuracy:**	specific area	**Area (acres):**	9
UTM:	Zone-11 N3604043 E497030	**Latitude/Longitude:**	32.57382 / -117.03163	**Elevation (feet):**	450

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

SDG92R0001	CITY OF SAN DIEGO - PORTIONS OF AN ENVIRONMENTAL IMPACT REPORT FOR THE CALIFORNIA TERRACES PRECISE PLAN 1992-XX-XX
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 95161
EO Index: 96296
Key Quad: National City (3211761)
Element Code: PDCAC0D2Y1
Occurrence Number: 42
Occurrence Last Updated: 2015-02-09

Scientific Name: *Cylindropuntia californica var. californica*
Common Name: snake cholla

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
15-290 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
APPROXIMATELY 0.2 AIR MILE NE OF THE JUNCTION OF INTERSTATE 805 AND E H STREET, JUST SW OF LYNWOOD HILLS.

Detailed Location:
MAPPED ACCORDING TO A 2011 CALTRANS MAP, IN THE SW 1/4 OF THE SE 1/4 OF SECTION 35.

Ecological:
MARITIME SUCCULENT SCRUB. NEAR POPULATIONS OF FEROCACTUS VIRIDESCENS, ATRIPLEX PACIFICA, CHORIZANTHE POLYGONOIDES VAR. LONGISPINA, AND VIGUIERA LACINIATA.

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED SOMETIME PRIOR TO 2009.

PLSS: T17S, R02W, Sec. 35, SE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3611754 E494924
Latitude/Longitude: 32.64337 / -117.05411
Elevation (feet): 150

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

CAL11R0002	CALIFORNIA DEPARTMENT OF TRANSPORTATION - INTERSTATE 805 MANAGED LANES SOUTH PROJECT, FINAL EIR/EA WITH FONSI 2011-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	95162	**EO Index:**	96297
Key Quad:	National City (3211761)	**Element Code:**	PDCAC0D2Y1
Occurrence Number:	43	**Occurrence Last Updated:**	2015-02-09

Scientific Name: *Cylindropuntia californica var. californica*

Common Name: snake cholla

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

15-290 M.

Last Date Observed:	2003-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

APPROXIMATELY 0.5 AIR MILE SOUTH OF THE JUNCTION OF OTAY LAKES ROAD AND BONITA ROAD, BONITA.

Detailed Location:

WITHIN CITY OF CHULA VISTA OPEN SPACE. MAPPED BY CNDDB ACCORDING TO 2004 RECON DIGITAL DATA, IN THE NW 1/4 OF THE NW 1/4 OF SECTION 31.

Ecological:

COASTAL SAGE SCRUB.

Threats:

General:

OBSERVED DURING 2002/2003 SURVEYS.

PLSS:	T17S, R01W, Sec. 31, NW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3612914 E497128	**Latitude/Longitude:**	32.65385 / -117.03062	**Elevation (feet):**	200

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	95163	**EO Index:**	96298
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCAC0D2Y1
Occurrence Number:	44	**Occurrence Last Updated:**	2015-02-09

Scientific Name: *Cylindropuntia californica var. californica*

Common Name: snake cholla

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

15-290 M.

Last Date Observed:	2003-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH SIDE OF POGGI CANYON; JUST SE OF THE SOUTH END OF TABER DRIVE, NORTH OF OLYMPIC PARKWAY, NORTH OF OTAY VALLEY.

Detailed Location:

WITHIN CITY OF CHULA VISTA OPEN SPACE. MAPPED BY CNDDB ACCORDING TO 2004 RECON DIGITAL DATA, IN THE NW 1/4 OF THE NW 1/4 OF SECTION 17.

Ecological:

DIEGAN COASTAL SAGE SCRUB/MARITIME SUCCULENT SCRUB.

Threats:

General:

A FEW SCATTERED INDIVIDUALS OBSERVED DURING 2002/2003 SURVEYS.

PLSS:	T18S, R01W, Sec. 17, NW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3608225 E498721	**Latitude/Longitude:**	32.61155 / -117.01362	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	95164	**EO Index:**	96299
Key Quad:	National City (3211761)	**Element Code:**	PDCAC0D2Y1
Occurrence Number:	45	**Occurrence Last Updated:**	2015-02-09

Scientific Name: *Cylindropuntia californica var. californica*

Common Name: snake cholla

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

15-290 M.

Last Date Observed:	XXXX-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	XXXX-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

JUST WEST OF THE JUNCTION OF COLUMBINE AND OLIVE STREETS, HOLLYWOOD CANYON, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB BASED ON A SAN DIEGO CANYONLANDS MAP WHICH INDICATES THAT CYLINDROPUNTIA CALIFORNICA VAR. CALIFORNICA OCCURS IN THIS AREA.

Ecological:

CHAPARRAL DOMINANT WITH A SIGNIFICANT AMOUNT OF COAST SAGE SCRUB SPECIES. ASSOCIATED WITH MALOSMA LAURINA, ERIODICTYON CRASSIFOLIUM, ADENOSTOMA FASCICULATUM, QUERCUS BERBERIDIFOLIA, HETEROMELES ARBUTIFOLIA, ERIOGONUM FASCICULATUM, ETC.

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A SAN DIEGO CANYONLANDS MAP WITH NOTES ON VEGETATION COMMUNITIES; UNKNOWN WHEN PLANTS WERE SEEN.

PLSS:	T16S, R02W, Sec. 32, SE (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3621924 E490404	**Latitude/Longitude:**	32.73509 / -117.10241	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

SDC12M0001	SAN DIEGO CANYONLANDS - EXISTING CONDITIONS MAP SET FOR HOLLYWOOD CANYON WITH COMPREHENSIVE NOTES ON VEGETATION COMMUNITIES 2012-02-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 95170
EO Index: 96306
Key Quad: National City (3211761)
Element Code: PDCAC0D2Y1
Occurrence Number: 46
Occurrence Last Updated: 2015-02-09

Scientific Name: *Cylindropuntia californica var. californica*
Common Name: snake cholla

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
15-290 M.

Last Date Observed: 2000-04-18
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2000-04-18
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
CEDAR RIDGE PARK CANYON AREA, SAN DIEGO URBAN CANYONS.

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS AROUND THE OPEN SPACE AREA JUST SOUTH OF CEDAR RIDGE PARK. ELEVATION ON COLLECTION LABEL GIVEN AS 150 METERS BUT ELEVATION IN THIS AREA IS CLOSER TO 150 FEET.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2000 REBMAN COLLECTION.

PLSS: T17S, R02W, Sec. 05, SW (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3620443 E488901
Latitude/Longitude: 32.72171 / -117.11843
Elevation (feet): 150

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
REB00S0015 REBMAN, J. - REBMAN #6489 SD #148414, SDSU #16191, UCR #148968 2000-04-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	95177	**EO Index:**	96311
Key Quad:	Point Loma (3211762)	**Element Code:**	PDCAC0D2Y1
Occurrence Number:	47	**Occurrence Last Updated:**	2019-05-24

Scientific Name: *Cylindropuntia californica var. californica*

Common Name: snake cholla

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

15-290 M.

Last Date Observed:	2018-07-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2018-07-10	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SWITZER CYN; JUST NORTH, AS WELL AS 0.3 AND 0.5 AIR MILE NE, OF THE JUNCTION OF PERSHING DR AND FLORIDA DR, BALBOA PARK.

Detailed Location:

MAPPED BY CNDDB AS 3 POLYGONS. NE-MOST POLYGON IS NON-SPECIFIC BASED ON A 1989 REPORT FROM "NEAR THE 3RD GREEN." REMAINING POLYGONS ARE SPECIFIC ACCORDING TO 2008 GREGORY COORDINATES AND DIGITAL DATA FROM CITY OF SAN DIEGO AND SDMMP.

Ecological:

DIEGAN COASTAL SAGE SCRUB WITH ARTEMISIA CALIFORNICA, DEINANDRA FASCICULATA, YUCCA SCHIDIGERA, ADENOSTOMA FASCICULATUM, ERIOGONUM FASCICULATUM, ENCELIA CALIFORNICA, GNAPHALIUM BICOLOR, ISOCOMA MENZIESII, SALVIA MELLIFERA, ETC.

Threats:

NON-NATIVES, DUMPING, TRAILS.

General:

NE POLY: SEEN IN 1989. MID POLY: 21 IN 2002, 1 IN 2007, 3 IN 2008, 30 IN 2009, 2 IN 2015, 7 IN 2016, 8 IN 2017 & 2018. SW POLY: 4-5 COLONIES IN 2008. 1960 LINDSAY COLLECTION FROM "AT INTERSECTION OF FLORIDA DR AND PERSHING DR" ATTRIB HERE.

PLSS:	T17S, R03W, Sec. 1, E (S)	**Accuracy:**	non-specific area	**Area (acres):**	25
UTM:	Zone-11 N3620920 E486911	**Latitude/Longitude:**	32.726 / -117.13969	**Elevation (feet):**	150

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

EST89R0002	ESTRADA LAND PLANNING, INC., ETC. - BALBOA PARK MASTER PLAN 1989-07-25
GAN37S0048	GANDER, F. - GANDER #3865 SD #18139 1937-05-26
GRE08S0010	GREGORY, J. ET AL. - GREGORY #2778 SD #185963, DES #00078020, SEINET #6812442 2008-05-02
LIN60S0003	LINDSAY, G. - LINDSAY #2959 SD #84052 1960-10-24
MIL09F0025	MILLER, B. & M. JENNINGS (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR OPUNTIA CALIFORNICA VAR. CALIFORNICA 2009-05-29
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 39945
Key Quad: Point Loma (3211762)
Occurrence Number: 48
EO Index: 96313
Element Code: PDCAC0D2Y1
Occurrence Last Updated: 2015-02-09

Scientific Name: *Cylindropuntia californica var. californica*
Common Name: snake cholla

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3T2
State: S1
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
15-290 M.

Last Date Observed: 1952-05-11
Last Survey Date: 1952-05-11
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SILVER STRAND.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB TO ENCOMPASS SILVER STRAND.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1952 COLLECTION BY HOWE. NEEDS FIELDWORK.

PLSS: T18S, R03W, Sec. 01 (S)
Accuracy: non-specific area
Area (acres): 1,584
UTM: Zone-11 N3611215 E486531
Latitude/Longitude: 32.63845 / -117.14360
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751), Point Loma (3211762)

Sources:
HOW52S0010 HOWE, D. - HOWE #2205 SD #113446 1952-05-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 95180
EO Index: 96315
Key Quad: National City (3211761)
Element Code: PDCAC0D2Y1
Occurrence Number: 49
Occurrence Last Updated: 2015-02-09

Scientific Name: *Cylindropuntia californica var. californica*
Common Name: snake cholla

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
15-290 M.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:
JUST SW OF THE JUNCTION OF CRESTVIEW DRIVE AND COUNTRY VISTAS LANE, NORTH SIDE OF LONG CANYON, EAST OF BONITA.

Detailed Location:
MAPPED BY CNDDB AROUND "SUBUNIT 4-1CW" AS INDICATED IN A 2004 RECON REPORT; UNKNOWN WHERE WITHIN THIS SUBUNIT CYLINDROPUNTIA CALIFORNICA VAR. CALIFORNICA WAS OBSERVED.

Ecological:
DIEGAN COASTAL SAGE SCRUB.

Threats:

General:
A FEW INDIVIDUALS OBSERVED DURING 2002/2003 SURVEYS.

PLSS: T17S, R01W, Sec. 29, SW (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3613383 E499203
Latitude/Longitude: 32.65808 / -117.00849
Elevation (feet): 350

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

REC04R0001 RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 95181
EO Index: 96318
Key Quad: National City (3211761)
Element Code: PDCAC0D2Y1
Occurrence Number: 50
Occurrence Last Updated: 2015-02-10

Scientific Name: *Cylindropuntia californica var. californica*
Common Name: snake cholla

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
15-290 M.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:
JUST SW OF THE JUNCTION OF TELEGRAPH CANYON ROAD AND BUENA VISTA WAY, NORTH SIDE OF TELEGRAPH CANYON.

Detailed Location:
MAPPED BY CNDDB AROUND "SUBUNIT 2-2DW" AS INDICATED IN A 2004 RECON REPORT; UNKNOWN WHERE WITHIN THIS SUBUNIT CYLINDROPUNTIA CALIFORNICA VAR. CALIFORNICA WAS OBSERVED.

Ecological:
COASTAL SAGE SCRUB.

Threats:

General:
OBSERVED DURING 2002/2003 SURVEYS.

PLSS: T18S, R01W, Sec. 05, SE (S)
Accuracy: non-specific area
Area (acres): 8
UTM: Zone-11 N3610132 E499597
Latitude/Longitude: 32.62875 / -117.00429
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
REC04R0001 RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 95183
EO Index: 96319
Key Quad: National City (3211761)
Element Code: PDCAC0D2Y1
Occurrence Number: 51
Occurrence Last Updated: 2015-02-09

Scientific Name: *Cylindropuntia californica var. californica*
Common Name: snake cholla

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
15-290 M.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:
NORTH SIDE OF TELEGRAPH CANYON ABOUT 1 MILE EAST OF ITS JUNCTION WITH INTERSTATE 805, CHULA VISTA.

Detailed Location:
MAPPED BY CNDDB NON-SPECIFICALLY AROUND "SUBUNIT 2-2B" AS INDICATED IN A 2004 RECON REPORT; UNKNOWN WHERE WITHIN THIS SUBUNIT CYLINDROPUNTIA CALIFORNICA VAR. CALIFORNICA WAS OBSERVED.

Ecological:
COASTAL SAGE SCRUB.

Threats:

General:
OBSERVED DURING 2002/2003 SURVEYS.

PLSS: T18S, R01W, Sec. 06, S (S)
Accuracy: non-specific area
Area (acres): 32
UTM: Zone-11 N3610017 E497774
Latitude/Longitude: 32.62772 / -117.02372
Elevation (feet): 350

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751), National City (3211761)

Sources:
REC04R0001 RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B3156	**EO Index:**	115075
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCAC0D2Y1
Occurrence Number:	56	**Occurrence Last Updated:**	2019-05-31

Scientific Name: *Cylindropuntia californica var. californica*

Common Name: snake cholla

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3T2
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

15-290 M.

Last Date Observed:	2014-06-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2014-06-26	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

APPROXIMATELY 0.3 AIR MILE NE OF THE JUNCTION OF BRANDYWINE AVENUE AND OTAY VALLEY ROAD, CHULA VISTA.

Detailed Location:

MAPPED AS 3 POLYGONS ACCORDING TO INATURALIST COORDINATES, IN THE SOUTH 1/2 OF THE SW 1/4 OF SECTION 18.

Ecological:

Threats:

General:

OBSERVED IN THIS AREA IN 2004, 2005, 2013, AND 2014.

PLSS:	T18S, R01W, Sec. 18, SW (S)	**Accuracy:**	specific area	**Area (acres):**	3
UTM:	Zone-11 N3606887 E497485	**Latitude/Longitude:**	32.59948 / -117.0268	**Elevation (feet):**	250

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

SCH19U0001 SCHEIDT, V. - INATURALIST OBSERVATIONS OF CYLINDROPUNTIA CALIFORNICA VAR. CALIFORNICA, FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-05-31. 2019-05-31

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 23089
EO Index: 19784
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC11010
Occurrence Number: 1
Occurrence Last Updated: 2012-12-19

Scientific Name: *Bergerocactus emoryi*
Common Name: golden-spined cereus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G2G3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:
LIMITED TO THE COASTAL BELT. 3-520 M.

Last Date Observed: 1986-02-06
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1986-02-06
Occurrence Rank: Good
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SOUTH RIM OF OTAY MESA; APPROXIMATELY 0.4 AIR MILE NORTHEAST OF SAN YSIDRO BORDER CROSSING.

Detailed Location:
JUST WEST OF CHOLLA PATCH AND NORTH OF A POOL AREA AND ROAD. MAPPED IN THE NW 1/4 OF THE SE 1/4 OF SECTION 6 ACCORDING TO A 1986 MAP BY VANDERWIER.

Ecological:
COASTAL SAGE SCRUB. OLIVENHAIN SOIL SERIES. ASSOCIATED WITH VIGUIERA LACINIATA, SIMMONDSIA CHINENSIS, MIRABILIS CALIFORNICA, ERIOGONUM FASCICULATUM, LOTUS SCOPARIUS, ISOMERIS ARBOREA, AND ARTEMISIA CALIFORNICA.

Threats:
POTENTIAL DISTURBANCE FROM NEARBY ROAD AND PROPOSED DEVELOPMENT.

General:
FEWER THAN 10 PATCHES OBSERVED IN 1986. A 1971 PHOTO BY BEAUCHAMP FROM SAN YSIDRO IS ALSO ATTRIBUTED TO THIS OCCURRENCE. INCLUDES FORMER OCCURRENCE #17.

PLSS: T19S, R01W, Sec. 06, SE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3601041 E497851
Latitude/Longitude: 32.54675 / -117.02289
Elevation (feet): 350

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

BEA71I0001 BEAUCHAMP, R. - PHOTO OF BERGEROCACTUS EMORYI, CALPHOTOS ID #0000 0000 0502 0528 1971-05-13

VAN86F0005 VANDERWIER, J. - FIELD SURVEY FORM FOR BERGEROCACTUS EMORYI 1986-02-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87704
EO Index: 7178
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC11010
Occurrence Number: 3
Occurrence Last Updated: 2018-05-14

Scientific Name: *Bergerocactus emoryi*
Common Name: golden-spined cereus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G2G3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:
LIMITED TO THE COASTAL BELT. 3-520 M.

Last Date Observed: 2013-03-13
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2013-03-13
Occurrence Rank: Unknown
Owner/Manager: DPR-BORDER FIELD SP, PVT
Trend: Unknown
Presence: Presumed Extant

Location:
LICHTY MESA AND BORDER FIELD STATE PARK; SOUTH OF BORDER FIELD NAVAL RESERVATION AND IMPERIAL BEACH.

Detailed Location:
2 POLYGONS MAPPED BY CNDDB: WESTERN POLYGON IS BASED ON 2009 VEGCAMP COORDINATES, EASTERN POLYGON MAPPED AT WESTERN EDGE OF LICHTY MESA BASED ON WRITTEN DESCRIPTION FROM SCHEIDT (2007).

Ecological:
COASTAL BLUFF SCRUB ON STABILIZED DUNE. ASSOCIATED WITH RHUS INTEGRIFOLIA, ATRIPLEX POLYCARPA, ERIOGONUM FASCICULATUM VAR. FASCICULATUM, MESEMBRYANTHEMUM CRYSTALLINUM, DISTICHLIS SPICATA, CRYPTANTHA SP., ENCELIA CALIFORNICA, ETC.

Threats:
BORDER PATROL ACTIVITY, ROADS CRISS-CROSSING MESA.

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 1982, 2001, 2006, & 2013. WESTERN POLYGON: 0.2% COVER OF BERGEROCACTUS SEEN IN A 1-5 ACRE AREA IN 2009. A 1913 EASTWOOD COLLECTION AND A 1935 GANDER COLLECTION ARE ALSO ATTRIBUTED TO THIS SITE.

PLSS: T19S, R02W, Sec. 07, S (S)
Accuracy: specific area
Area (acres): 16
UTM: Zone-11 N3599794 E488527
Latitude/Longitude: 32.53544 / -117.12218
Elevation (feet): 50

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

BEC12R0001	BECK, C. - ENVIRONMENTAL MONITORING REPORT FOR THE REPLACEMENT AND MAINTENANCE OF TACTICAL INFRASTRUCTURE, SURF FENCE, U.S. BORDER PATROL SAN DIEGO SECTOR, IMPERIAL BEACH STATION, CALIFORNIA 2012-09-XX
EAS13S0004	EASTWOOD, A. - EASTWOOD #2938 CAS #50441 1913-04-24
GAN35S0059	GANDER, F. - GANDER #488 SD #13209 1935-01-28
GRO13S0012	GROSS, L. ET AL. - GROSS #5932 RSA #799785 2013-03-13
OBE82F0003	OBERBAUER, T.A. - FIELD SURVEY FORMS FOR BERGEROCACTUS EMORYI 1982-XX-XX
SCH07R0001	SCHEIDT, V. - THE LICHTY MESA, A BIOLOGICAL RESOURCES SURVEY REPORT AND EVALUATION OF RESOURCE VALUE, APN 663-020-02, SAN DIEGO, CA 2007-08-XX
SUT01F0008	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-03
VEG09F0079	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR BERGEROCACTUS EMORYI 2009-06-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04158	**EO Index:**	21431
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCAC11010
Occurrence Number:	4	**Occurrence Last Updated:**	2018-05-14

Scientific Name: *Bergerocactus emoryi*

Common Name: golden-spined cereus

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G2G3

State: S2

General Habitat:

COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:

LIMITED TO THE COASTAL BELT. 3-520 M.

Last Date Observed:	2015-02-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-02-11	**Occurrence Rank:**	Unknown
Owner/Manager:	SDG COUNTY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SPOONERS MESA; SOUTH OF MONUMENT ROAD, APPROXIMATELY 1 AIR MILE WEST OF INTERSECTION WITH HOLLISTER STREET.

Detailed Location:

3 POLYGONS MAPPED BY CNDDB ACCORDING TO A 1982 MAP BY OBERBAUER, A 1984 MAP BY BITTMAN, 2009 COORDINATES FROM VEGCAMP, AND 2015 MORSE COORDINATES. WITHIN THE WEST HALF OF SW 1/4 OF SECTION 4, SE 1/4 OF SE 1/4 OF SEC 5, AND NW 1/4 OF SEC 9.

Ecological:

IN MARITIME SAGE SCRUB. GROWS ON SLOPES, BLUFFS, AND CLIFFS IN THE REGION. ASSOCIATED WITH VIGUIERA LACINIATA, ERIOGONUM FASCICULATUM VAR. FASCICULATUM, LEPIDIUM NITIDUM VAR. NITIDUM, ACALYPHA CALIFORNICA, CNEORIDIUM DUMOSUM, ETC.

Threats:

THREATENED BY FOOT TRAFFIC AND CAMPFIRES ASSOCIATED WITH ILLEGAL BORDER CROSSINGS.

General:

UNKNOWN NUMBER IN 1982 AND 1984. 22 PATCHES IN 2007. 1% COVER OF BERGEROCACTUS OBSERVED IN 2009. UNKNOWN NUMBER IN 2015. COLLECTIONS FROM 1950, 1951, 1963, AND 1971 ALSO ATTRIBUTED TO THIS SITE. INCLUDES FORMER OCC #S 14 &15.

PLSS:	T19S, R02W, Sec. 4, SW (S)	**Accuracy:**	specific area	**Area (acres):**	19
UTM:	Zone-11 N3600385 E490514	**Latitude/Longitude:**	32.54078 / -117.10102	**Elevation (feet):**	250

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

AND63S0008	ANDERSON, E. - ANDERSON #1994 POM #317759 1963-07-12
BEA71S0053	BEAUCHAMP, R. - BEAUCHAMP #1639 SD #83549 1971-02-21
BEN50S0001	BENSON, L. - BENSON #14337 POM #285764, UTC #175098, SEINET #224232 1950-04-29
BIT84R0003	BITTMAN, R. - SITE ECOLOGICAL SUMMARY FOR SPOONERS MESA 1984-XX-XX
MOR15D0003	MORSE, K. - KMZ FILE WITH 2015 RARE PLANT OBSERVATIONS (JANUARY-JULY 2015 OBSERVATIONS) 2015-XX-XX
OBE82F0003	OBERBAUER, T.A. - FIELD SURVEY FORMS FOR BERGEROCACTUS EMORYI 1982-XX-XX
SDG07R0001	SAN DIEGO COUNTY - TIJUANA RIVER VALLEY REGIONAL PARK, AREA SPECIFIC MANAGEMENT DIRECTIVES 2007-06-22
SOK51S0001	SOKOL, O. - SOKOL SN DS #330182 OR #330482 (NOT LEGIBLE) 1951-03-30
VEG09F0080	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR BERGEROCACTUS EMORYI 2009-06-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03669	**EO Index:**	21427
Key Quad:	Point Loma (3211762)	**Element Code:**	PDCAC11010
Occurrence Number:	6	**Occurrence Last Updated:**	2018-05-14

Scientific Name: *Bergerocactus emoryi*

Common Name: golden-spined cereus

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G2G3

State: S2

General Habitat:

COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:

LIMITED TO THE COASTAL BELT. 3-520 M.

Last Date Observed:	2015-04-14	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-04-14	**Occurrence Rank:**	Unknown
Owner/Manager:	NPS-CABRILLO NM	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

POINT LOMA; CABRILLO NATIONAL MONUMENT, JUST WEST OF OLD LIGHTHOUSE AND WHALE OVERLOOK.

Detailed Location:

MAPPED ACCORDING TO A VAGUE 1982 MAP BY OBERBAUER (SOUTHERN POLYGON) AND 2015 REBMAN COORDINATES (NORTHERN POLYGON).

Ecological:

W- AND SSW-FACING SLOPES; OPEN SUCCULENT SCRUB. WITH RHUS INTEGRIFOLIA, SALVIA MELLIFERA, ERIOGONUM FASCICULATUM, YUCCA SCHIDIGERA, AND ARTEMISIA CALIFORNICA.

Threats:

General:

SEEN IN S POLYGON IN 1982. "RARE" IN N POLYGON IN 2015. 1993 MCEACHERN COLLECTION FROM "BELOW WHALE OVERLOOK, 375 FT" AND 2011 SCHEIDT PHOTO FROM "CABRILLO NM WNW OF OLD LIGHTHOUSE ON W-FACING SLOPES" ALSO ATTRIBUTED HERE.

PLSS:	T17S, R03W, Sec. 30, W (S)	**Accuracy:**	specific area	**Area (acres):**	24
UTM:	Zone-11 N3614944 E477185	**Latitude/Longitude:**	32.67193 / -117.24333	**Elevation (feet):**	170

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

KEE13U0001	KEELAN, B. - EXPORT OF DATA FROM BRIAN KEELAN'S PLANT DATABASE 2013-07-26
MCE93S0005	MCEACHERN, K. - MCEACHERN #CABR-201 SBBG #56668 1993-06-11
OBE82F0003	OBERBAUER, T.A. - FIELD SURVEY FORMS FOR BERGEROCACTUS EMORYI 1982-XX-XX
REB15S0017	REBMAN, J. & D. SMITH - REBMAN #29875 SD #248610 2015-04-14
SCH11I0007	SCHEIDT, V. - PHOTO OF BERGEROCACTUS EMORYI, CALPHOTOS ID #0000 0000 1211 1043 2011-11-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03657	**EO Index:**	21428
Key Quad:	Point Loma (3211762)	**Element Code:**	PDCAC11010
Occurrence Number:	7	**Occurrence Last Updated:**	2018-05-14

Scientific Name: *Bergerocactus emoryi*

Common Name: golden-spined cereus

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G2G3

State: S2

General Habitat:

COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:

LIMITED TO THE COASTAL BELT. 3-520 M.

Last Date Observed:	1992-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1992-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVAL OCEAN SYSTEMS CENTER	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

POINT LOMA; NAVAL OCEANS SYSTEMS CENTER ALONG THE SOUTHWEST SIDE OF FORT ROSECRANS NATIONAL CEMETERY.

Detailed Location:

MAPPED AS 2 POLYGONS ACCORDING TO A 1981 MAP FROM A WOODWARD & CLYDE REPORT AND A MAP FROM A 1993 ADVANCED SCIENCES, INC REPORT.

Ecological:

ASSOCIATED WITH THE RARE FEROCACTUS VIRIDESCENS.

Threats:

HOTTENTOT FIG APPEARS TO BE SLOWLY ENCROACHING UPON THIS COLONY.

General:

EASTERN POLYGON: SMALL STAND OBSERVED IN 1981, NOT SEEN IN 1992. WESTERN POLYGON: UNKNOWN NUMBER OBSERVED IN 1992.

PLSS:	T17S, R04W, Sec. 24 (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3616172 E476890	**Latitude/Longitude:**	32.683 / -117.24651	**Elevation (feet):**	250

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

ASI93R0001	ADVANCED SCIENCES, INC. - TERRESTRIAL BIOLOGICAL SURVEY AND INVENTORY OF NAVY PROPERTY ON POINT LOMA, SAN DIEGO, CALIFORNIA 1993-05-XX
WOO81R0001	WOODWARD & CLYDE - TERRESTRIAL BIOSURVEY AND INVENTORY OF NAVAL PROPERTY ON POINT LOMA 1981-11-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03613	**EO Index:**	21426
Key Quad:	Point Loma (3211762)	**Element Code:**	PDCAC11010
Occurrence Number:	8	**Occurrence Last Updated:**	2018-05-14

Scientific Name: *Bergerocactus emoryi*

Common Name: golden-spined cereus

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G2G3

State: S2

General Habitat:

COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:

LIMITED TO THE COASTAL BELT. 3-520 M.

Last Date Observed:	1992-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1992-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVAL OCEAN SYSTEMS CENTER	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

POINT LOMA; NAVAL OCEANS SYSTEMS CENTER, WEST SLOPE TERRACE APPROXIMATELY 1.6 AIR MILES NORTH OF SEWAGE PLANT.

Detailed Location:

MAPPED ACCORDING TO A 1981 MAP FROM A WOODWARD & CLYDE REPORT AND A MAP FROM A 1993 ADVANCED SCIENCES, INC REPORT.

Ecological:

Threats:

General:

APPROXIMATELY 200-300 STEMS OBSERVED IN ONE STAND IN 1981. PLANTS RELOCATED IN 1992.

PLSS:	T17S, R04W, Sec. 12, SE (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3618462 E476133	**Latitude/Longitude:**	32.70364 / -117.25464	**Elevation (feet):**	100

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

ASI93R0001	ADVANCED SCIENCES, INC. - TERRESTRIAL BIOLOGICAL SURVEY AND INVENTORY OF NAVY PROPERTY ON POINT LOMA, SAN DIEGO, CALIFORNIA 1993-05-XX
WOO81R0001	WOODWARD & CLYDE - TERRESTRIAL BIOSURVEY AND INVENTORY OF NAVAL PROPERTY ON POINT LOMA 1981-11-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	87769	**EO Index:**	17106
Key Quad:	National City (3211761)	**Element Code:**	PDCAC11010
Occurrence Number:	29	**Occurrence Last Updated:**	2013-01-10

Scientific Name: *Bergerocactus emoryi*

Common Name: golden-spined cereus

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G2G3

State: S2

General Habitat:

COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:

LIMITED TO THE COASTAL BELT. 3-520 M.

Last Date Observed:	2003-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALONG SOUTH SIDE OF H ST, APPROXIMATELY 1.6 AIR MILES ESE OF ITS INTERSECTION WITH HIGHWAY 805, SOUTH OF RICE CANYON.

Detailed Location:

MAPPED IN THE SW 1/4 OF THE NW 1/4 OF SECTION 6 ACCORDING TO A 1991 MAP FROM THE CITY OF CHULA VISTA AND 2004 DIGITAL DATA FROM RECON ENVIRONMENTAL.

Ecological:

DIEGAN COASTAL SAGE SCRUB HABITAT.

Threats:

IMMEDIATELY THREATENED BY NEW HOUSING DEVELOPMENT AND URBANIZATION (1991).

General:

1 SIZEABLE SHRUB SEEN BY REISER; OBSERVATION DATE UNKNOWN, POSSIBLY IN 1990 OR 1991. "A FEW SMALL POPULATIONS" OBSERVED IN OCCURRENCE #S 29 AND 36 IN 2003.

PLSS:	T18S, R01W, Sec. 06, NW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3610880 E497329	**Latitude/Longitude:**	32.63550 / -117.02846	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

CHU91U0001	CITY OF CHULA VISTA - LETTER FROM GORDON HOWARD AND MAPS FROM ERC AND P&D BIOLOGICAL RESOURCES FROM VARIOUS EIRS. 1991-XX-XX
REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05
REI91R0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1991-04-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 61540
EO Index: 61576
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC11010
Occurrence Number: 31
Occurrence Last Updated: 2005-06-09

Scientific Name: *Bergerocactus emoryi*
Common Name: golden-spined cereus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G2G3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:
LIMITED TO THE COASTAL BELT. 3-520 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
EAST OF BEYER WAY IN SAN YSIDRO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB ALONG BEYER WAY NORTHEAST OF JUNCTION OF HWY 5 AND HWY 905.

Ecological:

Threats:

General:
2001 REISER REPORT IS THE ONLY SOURCE OF INFORMATION FOR THIS SITE. NEEDS FIELDWORK.

PLSS: T18S, R02W, Sec. 23 (S)
Accuracy: non-specific area
Area (acres): 87
UTM: Zone-11 N3605265 E494201
Latitude/Longitude: 32.58483 / -117.06178
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
REI01B0001 REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	87770	**EO Index:**	88734
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCAC11010
Occurrence Number:	33	**Occurrence Last Updated:**	2013-01-10

Scientific Name: *Bergerocactus emoryi*

Common Name: golden-spined cereus

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G2G3

State: S2

General Habitat:

COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:

LIMITED TO THE COASTAL BELT. 3-520 M.

Last Date Observed:	2003-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTHERN SIDE OF POGGI CANYON AND OLYMPIC PARKWAY, APPROXIMATELY 0.5 AIR MILE SOUTHEAST OF PARKVIEW ELEMENTARY SCHOOL.

Detailed Location:

MAPPED ACCORDING TO 2004 DIGITAL DATA FROM RECON ENVIRONMENTAL IN THE NE 1/4 OF THE NW 1/4 OF PROJECTED SECTION 18.

Ecological:

MARITIME SUCCULENT SCRUB.

Threats:

General:

"A FEW INDIVIDUALS" OBSERVED IN 2003.

PLSS:	T18S, R01W, Sec. 18, NW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3607989 E497718	**Latitude/Longitude:**	32.60942 / -117.02432	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87771
EO Index: 88735
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC11010
Occurrence Number: 34
Occurrence Last Updated: 2013-01-02

Scientific Name: *Bergerocactus emoryi*
Common Name: golden-spined cereus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G2G3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:
LIMITED TO THE COASTAL BELT. 3-520 M.

Last Date Observed: 2009-06-09
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-06-09
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
WESTERN EDGE OF OTAY MESA; APPROXIMATELY 0.6 AIR MILE NORTHEAST OF THE INTERSECTION OF HWY 805 AND HWY 905.

Detailed Location:
MAPPED IN THE WESTERN HALF OF THE SW 1/4 OF SECTION 30 ACCORDING TO 2009 VEGCAMP COORDINATES.

Ecological:
N-FACING SLOPE. FINE SILTY CLAY. ASSOCIATED WITH RHUS INTEGRIFOLIA, SIMMONDSIA CHINENSIS, BROMUS RUBENS, ENCELIA CALIFORNICA, ARTEMISIA CALIFORNICA, CENTAUREA MELITENSIS, BROMUS HORDEACEUS, MARAH MACROCARPUS VAR. MACROCARPUS, ETC.

Threats:

General:
0.2% COVER OF BERGEROCACTUS EMORYI OBSERVED OVER A >5 ACRE AREA IN 2009.

PLSS: T18S, R01W, Sec. 30, SW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3603899 E497167
Latitude/Longitude: 32.57253 / -117.03017
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
VEG09F0081 VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR BERGEROCACTUS EMORYI 2009-06-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87772
EO Index: 88736
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC11010
Occurrence Number: 35
Occurrence Last Updated: 2013-01-02

Scientific Name: *Bergerocactus emoryi*
Common Name: golden-spined cereus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G2G3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:
LIMITED TO THE COASTAL BELT. 3-520 M.

Last Date Observed: 2006-06-01
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-06-01
Occurrence Rank: Unknown
Owner/Manager: DPR-BORDER FIELD SP
Trend: Unknown
Presence: Presumed Extant

Location:
LOWER TERRACE WEST OF BUNKER HILL, APPROXIMATELY 1 MILE EAST OF COAST AT MEXICAN BOUNDARY.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN VICINITY OF TERRACE AT THE WESTERN SLOPE OF BUNKER HILL.

Ecological:
W-FACING SLOPE.

Threats:

General:
DENSE STAND REPORTED BY SCHEIDT IN 2006. A 1940 HOWE COLLECTION FROM "S SIDE OF TIA JUANA VALLEY, BLUFF ~1 MI FROM OCEAN" AND A 1948 RUSH COLLECTION FROM "~1 MI E OF MONUMENT ON SEACOAST AT MEXICAN BOUNDARY" ATTRIBUTED HERE.

PLSS: T19S, R02W, Sec. 08 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3600014 E489774
Latitude/Longitude: 32.53743 / -117.10890
Elevation (feet): 100

County Summary:
San Diego, Mexico

Quad Summary:
Imperial Beach (3211751)

Sources:

HOW40S0012	HOWE, D. - HOWE #999 SD #113520 1940-04-21
RUS48S0001	RUSH, H. - RUSH SN RSA #438415 1948-05-30
SCH06I0009	SCHEIDT, V. - PHOTO OF BERGEROCACTUS EMORYI, CALPHOTOS ID #0000 0000 0606 0203 2006-06-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 87773
EO Index: 88737
Key Quad: National City (3211761)
Element Code: PDCAC11010
Occurrence Number: 36
Occurrence Last Updated: 2013-01-10

Scientific Name: *Bergerocactus emoryi*
Common Name: golden-spined cereus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G2G3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:
LIMITED TO THE COASTAL BELT. 3-520 M.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:
SOUTHERN SIDE OF CAMINO DEL SOL, APPROXIMATELY 2.1 AIR MILES ESE OF THE INTERSECTION OF H ST AND HWY 805.

Detailed Location:
MAPPED IN THE APPROXIMATE CENTER OF THE EASTERN HALF OF SECTION 6 ACCORDING TO DIGITAL DATA FROM RECON ENVIRONMENTAL.

Ecological:
DIEGAN COASTAL SAGE SCRUB HABITAT.

Threats:

General:
"A FEW SMALL POPULATIONS" OBSERVED IN OCCURRENCE #S 29 AND 36 IN 2003.

PLSS: T18S, R01W, Sec. 06, E (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3610759 E498235
Latitude/Longitude: 32.63441 / -117.01881
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A9412
EO Index: 111258
Key Quad: Imperial Beach (3211751)
Element Code: PDCAC11010
Occurrence Number: 81
Occurrence Last Updated: 2018-05-14

Scientific Name: *Bergerocactus emoryi*
Common Name: golden-spined cereus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G2G3
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:
LIMITED TO THE COASTAL BELT. 3-520 M.

Last Date Observed: 2012-05-10
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-05-10
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SW OF HERITAGE ROAD, EAST OF I-805 AND SOUTH OF HWY 905, SW OF BROWN FIELD AIRPORT, OTAY MESA AREA.

Detailed Location:
MAPPED ACCORDING TO 2012 REBMAN COORDINATES, IN THE NW 1/4 OF THE NE 1/4 OF SECTION 5.

Ecological:
ON A WEST-FACING SLOPE OF A CANYON. COASTAL SAGE SCRUB WITH RHUS INTEGRIFOLIA, SIMMONDSIA CHINENSIS, ARTEMISIA CALIFORNICA, AND MALACOTHAMNUS FASCICULATUS.

Threats:

General:
RARE WITH ABOUT 3 DIFFERENT CLUMPS PRESENT IN 2012.

PLSS: T19S, R01W, Sec. 5, NE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3601783 E499700
Latitude/Longitude: 32.55344 / -117.0032
Elevation (feet): 420

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
REB12S0050 REBMAN, J. ET AL. - REBMAN #23832 SD #225509 2012-05-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92644
Key Quad: Point Loma (3211762)
Occurrence Number: 82
EO Index: 111260
Element Code: PDCAC11010
Occurrence Last Updated: 2018-05-14

Scientific Name: *Bergerocactus emoryi*
Common Name: golden-spined cereus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S2
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:
LIMITED TO THE COASTAL BELT. 3-520 M.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SUNSET CLIFFS NATURAL PARK.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB TO ENCOMPASS THE PARK.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2012 NATIVE PLANT CHECKLIST FOR THE PARK, UNKNOWN WHEN PLANTS SEEN.

PLSS: T17S, R04W, Sec. 12, NW (S)
UTM: Zone-11 N3619952 E476189
Accuracy: non-specific area
Latitude/Longitude: 32.71708 / -117.25407
Area (acres): 59
Elevation (feet): 100

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
ANO12U0002 ANONYMOUS - NATIVE PLANTS AT SUNSET CLIFF NATURAL PARK 2012-06-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03519
Key Quad: La Jolla (3211772)
Occurrence Number: 83

EO Index: 111261
Element Code: PDCAC11010
Occurrence Last Updated: 2018-05-14

Scientific Name: *Bergerocactus emoryi*
Common Name: golden-spined cereus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S2

Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:
LIMITED TO THE COASTAL BELT. 3-520 M.

Last Date Observed: 1912-XX-XX
Last Survey Date: 1912-XX-XX
Owner/Manager: UNKNOWN
Presence: Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
LA JOLLA.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS AROUND THE TOWN OF LA JOLLA.

Ecological:

Threats:
SITE LIKELY EXTIRPATED; AREA HEAVILY DEVELOPED SINCE COLLECTION WAS MADE.

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1912 SMITH COLLECTION.

PLSS: T15S, R04W, Sec. 27 (S)
UTM: Zone-11 N3633342 E473790

Accuracy: 1 mile
Latitude/Longitude: 32.83782 / -117.28005

Area (acres): 0
Elevation (feet):

County Summary:
San Diego, Pacific Ocean

Quad Summary:
La Jolla (3211772)

Sources:
SMI12S0018 SMITH, H. - SMITH #5280 MO #1438901, SEINET #10886326 1912-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	17572	**EO Index:**	11762
Key Quad:	Point Loma (3211762)	**Element Code:**	PDCHE02010
Occurrence Number:	9	**Occurrence Last Updated:**	2011-08-08

Scientific Name: *Aphanisma blitoides* **Common Name:** aphanisma

Listing Status: **Federal:** None **Rare Plant Rank:** 1B.2

State: None **Other Lists:** SB_SBBG-Santa Barbara Botanic Garden

CNDDB Element Ranks: **Global:** G3G4

State: S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:

ON BLUFFS AND SLOPES NEAR THE OCEAN IN SANDY OR CLAY SOILS. 3-305 M.

Last Date Observed:	2003-06-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-06-10	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

POINT LOMA NAVAL FACILITY, SPAWAR. ON W SIDE OF WOODWARD RD, CA. 500 FT N OF WOODWARD RD & PROPAGATION RD INTERSECTION.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS ALONG LONGITUDINAL SECTION OF WOODWARD ROAD. UNABLE TO IDENTIFY PROPAGATION RD.

Ecological:

SANDY SOIL. W-FACING, FLAT SLOPE. GROWING ALONG PREVIOUSLY DISTURBED ROADSIDE. ADJACENT TO MARITIME SUCCULENT SCRUB: LYCIUM CALIFORNICUM, ENCELIA CALIFORNICA, AND RHUS INTEGRIFOLIA.

Threats:

THREATENED BY NAVY CONSTRUCTION.

General:

MAIN SOURCE OF INFORMATION FOR THIS SITE IS A 2003 ESTRELLA ET AL. COLLECTION. POINT LOMA POPULATION THOUGHT TO BE EXTIRPATED BY NAVY CONSTRUCTION ACCORDING TO A 1989 REISER REPORT. NEEDS FIELDWORK.

PLSS:	T17S, R04W, Sec. 13 (S)	**Accuracy:**	non-specific area	**Area (acres):**	89
UTM:	Zone-11 N3618222 E476248	**Latitude/Longitude:**	32.70148 / -117.25340	**Elevation (feet):**	123

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

EST03S0002	ESTRELLA, D. - ESTRELLA #100 SD #158495, SDSU #15688, SBBG #117611 2003-04-25
EST03S0003	ESTRELLA, D. - ESTRELLA #163 SD #158494, SDSU #15689, SBBG #117612 2003-06-10
REI89R0002	REISER, C. - THE RARE PLANTS OF SAN DIEGO COUNTY 1989-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 22501
EO Index: 18130
Key Quad: La Jolla (3211772)
Element Code: PDCHE02010
Occurrence Number: 22
Occurrence Last Updated: 2009-06-26

Scientific Name: *Aphanisma blitoides*
Common Name: aphanisma

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_SBBG-Santa Barbara Botanic Garden

CNDDB Element Ranks: **Global:** G3G4
State: S2

General Habitat:
COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON BLUFFS AND SLOPES NEAR THE OCEAN IN SANDY OR CLAY SOILS. 3-305 M.

Last Date Observed: 1927-04-19
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1927-04-19
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
HEADLAND JUST SOUTH OF TORREY PINES.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS ALONG BLUFFS OF POINT LA JOLLA, SOUTH OF TORREY PINES STATE RESERVE.

Ecological:

Threats:

General:
MAIN SOURCE OF INFORMATION FOR THIS SITE IS A 1927 PEIRSON & JEPSON COLLECTION. AN 1895 SNYDER COLLECTION FROM "LA JOLLA" AND A 1927 JEPSON COLLECTION FROM "LA JOLLA, MESA HEADLANDS NEAR OCEAN" ALSO ATTRIBUTED HERE. NEEDS FIELDWORK.

PLSS: T15S, R04W (S)
Accuracy: non-specific area
Area (acres): 57
UTM: Zone-11 N3634596 E474907
Latitude/Longitude: 32.84916 / -117.26815
Elevation (feet): 20

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

JEP27S0014	JEPSON, W. - JEPSON #11898 JEPS #59511, SEINET #191318, UTC #405 1927-04-19
PEI27S0008	PEIRSON, F. & W. JEPSON - PEIRSON #7526 RSA #65887 1927-04-19
SNY95S0002	SNYDER, M. - SNYDER SN SD #1395 1895-04-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04063
EO Index: 76577
Key Quad: Imperial Beach (3211751)
Element Code: PDCHE02010
Occurrence Number: 32
Occurrence Last Updated: 2009-06-29

Scientific Name: *Aphanisma blitoides*
Common Name: aphanisma

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_SBBG-Santa Barbara Botanic Garden

CNDDB Element Ranks: **Global:** G3G4
State: S2

General Habitat:
COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON BLUFFS AND SLOPES NEAR THE OCEAN IN SANDY OR CLAY SOILS. 3-305 M.

Last Date Observed: 1941-06-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1941-06-15
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
TIJUANA VALLEY, ALKALI FLAT NEAR OCEAN.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS IN TIJUANA RIVER VALLEY, NEAR THE OCEAN.

Ecological:
ON DRY HILLSIDES.

Threats:

General:
MAIN SOURCE OF INFORMATION FOR THIS SITE IS A 1941 HOWE COLLECTION. A VAGUE 1903 ABRAMS COLLECTION ALSO ATTRIBUTED HERE. NEEDS FIELDWORK.

PLSS: T19S, R02W, Sec. 06 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3601638 E488278
Latitude/Longitude: 32.55207 / -117.12485
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

ABR03S0033 ABRAMS, L. - ABRAMS #3480 POM #156450 1903-05-14

HOW41S0006 HOWE, D. - HOWE #1113 SD #112588 1941-06-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04175
EO Index: 76579
Key Quad: National City (3211761)
Element Code: PDCHE02010
Occurrence Number: 33
Occurrence Last Updated: 2009-07-03

Scientific Name: *Aphanisma blitoides*
Common Name: aphanisma

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_SBBG-Santa Barbara Botanic Garden

CNDDB Element Ranks: **Global:** G3G4
State: S2

General Habitat:
COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON BLUFFS AND SLOPES NEAR THE OCEAN IN SANDY OR CLAY SOILS. 3-305 M.

Last Date Observed: 1884-05-13
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1884-05-13
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
CHOLLAS.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS IN VICINITY OF CHOLLAS VALLEY.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS AN 1884 ORCUTT COLLECTION. NEEDS FIELDWORK.

PLSS: T17S, R02W, Sec. 04 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3621148 E491277
Latitude/Longitude: 32.72810 / -117.09309
Elevation (feet):

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
ORC84S0010 ORCUTT, C. - ORCUTT SN UC #7033 1884-05-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 39945
Key Quad: Point Loma (3211762)
Occurrence Number: 34
EO Index: 76581
Element Code: PDCHE02010
Occurrence Last Updated: 2009-07-03

Scientific Name: *Aphanisma blitoides*
Common Name: aphanisma

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_SBBG-Santa Barbara Botanic Garden

CNDDB Element Ranks: **Global:** G3G4
State: S2

General Habitat:
COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON BLUFFS AND SLOPES NEAR THE OCEAN IN SANDY OR CLAY SOILS. 3-305 M.

Last Date Observed: 1935-03-30
Last Survey Date: 1935-03-30
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SILVER STRAND.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS ALONG LENGTH OF SILVER STRAND STATE BEACH.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1935 PURER COLLECTION. NEEDS FIELDWORK.

PLSS: T18S, R03W, Sec. 01 (S)
Accuracy: non-specific area
Area (acres): 1,584
UTM: Zone-11 N3611215 E486531
Latitude/Longitude: 32.63845 / -117.14360
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751), Point Loma (3211762)

Sources:
PUR35S0006 PURER, E. - PURER #6154 SD #39536 1935-03-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 75731
EO Index: 76582
Key Quad: Point Loma (3211762)
Element Code: PDCHE02010
Occurrence Number: 35
Occurrence Last Updated: 2019-12-09

Scientific Name: *Aphanisma blitoides*
Common Name: aphanisma

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_SBBG-Santa Barbara Botanic Garden

CNDDB Element Ranks: **Global:** G3G4
State: S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:

ON BLUFFS AND SLOPES NEAR THE OCEAN IN SANDY OR CLAY SOILS. 3-305 M.

Last Date Observed: 2018-02-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2018-02-16
Occurrence Rank: Unknown
Owner/Manager: NPS-CABRILLO NM, DOD-NAVY
Trend: Unknown
Presence: Presumed Extant

Location:

CABRILLO NATIONAL MONUMENT, FROM 0.4 TO 0.8 AIR MILE NNW OF LIGHTHOUSE, POINT LOMA.

Detailed Location:

MAPPED AS 4 POLYGONS BASED ON 2003 DOSSEY LOCATION DESCRIPTION (SE CORNER OF SEWAGE PUMP STATION FENCE), 2015 MORSE COORDINATES, 2015 REBMAN COORDINATES, AND DIGITAL DATA FROM SDMMP.

Ecological:

GROWING AMONG ENCELIA. MARITIME COASTAL SAGE SCRUB WITH ENCELIA CALIFORNICA, LYCIUM CALIFORNICUM, SUAEDA TAXIFOLIA, MESEMBRYANTHEMUM CRYSTALLINUM, M. NODIFLORUM, ATRIPLEX SEMIBACCATA, A. LENTIFORMIS, AND RHUS INTEGRIFOLIA.

Threats:

COMPETITION WITH NATIVE AND NON-NATIVE PLANTS, TRAMPLING, EROSION, GENERAL VEGETATION MANAGEMENT, TRAILS.

General:

POPULATION NUMBERS FOR PORTIONS OF OCCURRENCE: UNKNOWN NUMBER OF PLANTS SEEN IN 2003, ~220 PLANTS SEEN IN 2015, UNKNOWN # IN 2016, 1751 PLANTS SEEN IN 2017, UNKNOWN # IN 2018.

PLSS: T17S, R04W, Sec. 25 (S)
Accuracy: specific area
Area (acres): 12
UTM: Zone-11 N3615066 E477168
Latitude/Longitude: 32.67303 / -117.24351
Elevation (feet): 100

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

BAI19U0004	BAILEY, J. - OBSERVATIONS OF APHANISMA BLITOIDES BY JAMES BAILEY FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-12-09. 2019-04-25
DOS03S0001	DOSSEY, R. - DOSSEY SN SD #158323 2003-04-04
MOR15D0003	MORSE, K. - KMZ FILE WITH 2015 RARE PLANT OBSERVATIONS (JANUARY-JULY 2015 OBSERVATIONS) 2015-XX-XX
MOR15I0001	MORSE, K. - PHOTOS OF APHANISMA BLITOIDES, CALPHOTOS ID: 0000 0000 0515 1925-1950, 1952-1968 2015-05-20
REB15S0001	REBMAN, J. ET AL. - REBMAN #29560 SD #244392 2015-03-11
REB15S0031	REBMAN, J. & A. TAYLOR - REBMAN #29847 SD #246425 2015-04-14
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36619
EO Index: 76583
Key Quad: La Jolla (3211772)
Element Code: PDCHE02010
Occurrence Number: 36
Occurrence Last Updated: 2009-07-03

Scientific Name: *Aphanisma blitoides*
Common Name: aphanisma

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_SBBG-Santa Barbara Botanic Garden

CNDDB Element Ranks: **Global:** G3G4
State: S2

General Habitat:
COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON BLUFFS AND SLOPES NEAR THE OCEAN IN SANDY OR CLAY SOILS. 3-305 M.

Last Date Observed: 1935-03-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1935-03-16
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
PACIFIC BEACH.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS IN THE VICINITY OF PACIFIC BEACH.

Ecological:

Threats:

General:
SITE BASED ON TWO 1935 GANDER COLLECTIONS. NEEDS FIELDWORK.

PLSS: T16S, R04W, Sec. 12 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3629673 E477019
Latitude/Longitude: 32.80479 / -117.24546
Elevation (feet):

County Summary:
San Diego, Pacific Ocean

Quad Summary:
La Jolla (3211772)

Sources:

GAN35S0036 GANDER, F. - GANDER #1183 SD #10249 1935-02-02
GAN35S0037 GANDER, F. - GANDER #14219 SD #10648 1935-03-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B4501	**EO Index:**	117432
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCHE02010
Occurrence Number:	77	**Occurrence Last Updated:**	2019-12-27

Scientific Name: *Aphanisma blitoides* **Common Name:** aphanisma

Listing Status: **Federal:** None **Rare Plant Rank:** 1B.2

State: None **Other Lists:** SB_SBBG-Santa Barbara Botanic Garden

CNDDB Element Ranks: **Global:** G3G4

State: S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:

ON BLUFFS AND SLOPES NEAR THE OCEAN IN SANDY OR CLAY SOILS. 3-305 M.

Last Date Observed:	2019-03-16	**Occurrence Type:**	Transplant Outside of Native Hab./Range
Last Survey Date:	2019-03-16	**Occurrence Rank:**	Unknown
Owner/Manager:	CALTRANS	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OCEAN VIEW HILLS, ABOUT 0.15 AIR MILE NNE OF THE JUNCTION OF SEAGLEN WAY AND HIDDEN TRAILS RD, SAN DIEGO.

Detailed Location:

IN VERNAL POOL RESTORATION SITE, APPROXIMATELY 40M EAST OF NORTHERN MOST FENCE CORNER (ALONG HOUSE LINE). MAPPED ACCORDING TO 2019 TAYLOR COORDINATES, IN THE SW 1/4 OF THE NW 1/4 OF SECTION 29.

Ecological:

CLAY-PAN VERNAL POOL, MARITIME SUCCULENT SCRUB, COASTAL SAGE SCRUB. GROWING WITHIN AN ADULT LYCIUM CALIFORNICUM. ASSOCIATED WITH LYCIUM CALIFORNICUM, DEINANDRA FASCICULATA, AND BAHIOPSIS LACINIATA.

Threats:

General:

APPROXIMATELY 50-100 INDIVIDUALS GROWING IN TIGHT CLUSTERS IN 2019. VERY LOCALIZED. SITE IS WITHIN A RESTORATION SITE SO THIS OCCURRENCE WAS MARKED AS A TRANSPLANT; CNDDB NEEDS VERIFICATION.

PLSS:	T18S, R01W, Sec. 29, NW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3604317 E498695	**Latitude/Longitude:**	32.5763 / -117.0139	**Elevation (feet):**	535

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

TAY19S0001 TAYLOR, A. & S. MCMILLAN - TAYLOR #3 SDSU #22503 2019-03-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B4506	**EO Index:**	117437
Key Quad:	Point Loma (3211762)	**Element Code:**	PDCHE02010
Occurrence Number:	78	**Occurrence Last Updated:**	2019-12-11

Scientific Name: *Aphanisma blitoides*

Common Name: aphanisma

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists: SB_SBBG-Santa Barbara Botanic Garden

CNDDB Element Ranks: **Global:** G3G4

State: S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:

ON BLUFFS AND SLOPES NEAR THE OCEAN IN SANDY OR CLAY SOILS. 3-305 M.

Last Date Observed:	2017-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

AT THE EXTREME SOUTHERN TIP OF THE POINT LOMA PENINSULA, NEAR THE MOUTH OF SAN DIEGO BAY.

Detailed Location:

JUST BELOW THE NAVY ANTENNA FIELD. 2 POLYGONS MAPPED ACCORDING TO 2015 REBMAN COORDINATES AND SDMMP DIGITAL DATA.

Ecological:

MARITIME COASTAL SAGE SCRUB. ASSOCIATED WITH ENCELIA CALIFORNICA, ARTEMISIA CALIFORNICA, EUPHORBIA MISERA, RHUS INTEGRIFOLIA, MARAH MACROCARPA, & MIRABILIS LAEVIS VAR. CRASSIFOLIA.

Threats:

General:

SOUTHWESTERN POLYGON: RARE WITH ABOUT 30 PLANTS SEEN IN 2015. NORTHEASTERN POLYGON: 500 PLANTS ESTIMATED IN 2017.

PLSS:	T17S, R03W, Sec. 30 (S)	**Accuracy:**	specific area	**Area (acres):**	4
UTM:	Zone-11 N3614444 E477633	**Latitude/Longitude:**	32.66742 / -117.23854	**Elevation (feet):**	200

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

REB15S0032	REBMAN, J. & A. PARKER - REBMAN #29338 SD #245026 2015-02-23
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 39945
EO Index: 843
Key Quad: Point Loma (3211762)
Element Code: PDCHE040E0
Occurrence Number: 26
Occurrence Last Updated: 2009-02-11

Scientific Name: *Atriplex coulteri*
Common Name: Coulter's saltbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S1S2

General Habitat:
COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OCEAN BLUFFS, RIDGETOPS, AS WELL AS ALKALINE LOW PLACES. ALKALINE OR CLAY SOILS. 2-460 M.

Last Date Observed: 1935-03-30
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1935-03-30
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SILVER STRAND.

Detailed Location:
EXACT LOCATION UNKNOWN, MAPPED BY CNDDB NON-SPECIFICALLY ALONG THE LENGTH OF SILVER STRAND.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1935 COLLECTION BY GANDER.

PLSS: T18S, R03W, Sec. 01 (S)
Accuracy: non-specific area
Area (acres): 1,584
UTM: Zone-11 N3611215 E486531
Latitude/Longitude: 32.63845 / -117.14360
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751), Point Loma (3211762)

Sources:
GAN35S0033 GANDER, F. - GANDER #15611 SD #10929 1935-03-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 85815
EO Index: 74567
Key Quad: Imperial Beach (3211751)
Element Code: PDCHE040E0
Occurrence Number: 37
Occurrence Last Updated: 2018-11-14

Scientific Name: *Atriplex coulteri*
Common Name: Coulter's saltbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G3
State: S1S2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OCEAN BLUFFS, RIDGETOPS, AS WELL AS ALKALINE LOW PLACES. ALKALINE OR CLAY SOILS. 2-460 M.

Last Date Observed: 2010-06-25
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2010-06-25
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

SW OTAY MESA; MESA-TOP S OF FINGER CANYON, ~1 MI S OF ROUTE 905/CALIENTE AVE INTERSECTION, ~1.5 MI SW OF BROWN FIELD.

Detailed Location:

AT THE INTERSECTION OF AN E-W DIRT ROAD WITH A N-S CROSS-MESA ROAD. EXACT LOCATION UNKNOWN, MAPPED AS BEST GUESS BY CNDDB IN VICINITY OF MESA SOUTH OF FINGER CANYON.

Ecological:

CLAY WITH COBBLES ON FLAT TO GENTLE-UNDULATING TERRAIN. IN AND AROUND GRASSLAND, ON ROADSIDES AND OPEN GROUND. ANNUAL GRASSLAND AND RUDERAL, DOMINATED BY EXOTIC ANNUAL GRASSES AND MUSTARD MIXED WITH SCATTERED ANNUAL HERBS AND LOW SHRUBS.

Threats:

DISTURBED BY OFF-HIGHWAY TRAFFIC AND ILLEGAL DUMPING.

General:

SITE BASED ON A 2004 EDWARDS COLLECTION. A 2010 NOLL COLLECTION FROM OTAY MESA IS ALSO ATTRIBUTED HERE. A 1936 A. COULTERI GANDER COLLECTION FROM VICINITY WAS ANNOTATED TO A. PACIFICA BY ROBERTS IN 2011; IDENTITY OF SITE NEEDS VERIFICATION.

PLSS: T19S, R01W, Sec. 05, NW (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3601592 E498825
Latitude/Longitude: 32.55172 / -117.01250
Elevation (feet): 440

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

EDW04S0001 EDWARDS, C. - EDWARDS #29 SD #196422 2004-03-26

NOL10S0002 NOLL, R. - NOLL SN UCR #275827 2010-06-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 73587
Key Quad: Point Loma (3211762)
Occurrence Number: 38
EO Index: 74572
Element Code: PDCHE040E0
Occurrence Last Updated: 2018-11-14

Scientific Name: *Atriplex coulteri*
Common Name: Coulter's saltbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S1S2
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OCEAN BLUFFS, RIDGETOPS, AS WELL AS ALKALINE LOW PLACES. ALKALINE OR CLAY SOILS. 2-460 M.

Last Date Observed: 2016-04-02
Last Survey Date: 2016-04-02
Owner/Manager: NPS-CABRILLO NM
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

POINT LOMA, CABRILLO NATIONAL MONUMENT, WEST SIDE OF THE POINT.

Detailed Location:

MAPPED AS 3 POLYGONS ACCORDING TO 2015 AND 2016 REBMAN COORDINATES. WESTERN POLYGONS ARE IN VICINITY OF THE TIDE POOL AREA.

Ecological:

MARITIME COASTAL SAGE SCRUB WITH ENCELIA CALIFORNICA, ISOCOMA MENZIESII, DISTICHLIS SPICATA, EXTRIPLEX CALIFORNICA, DEINANDRA FASCICULATA, RHUS INTEGRIFOLIA, AGAVE SHAWII, LYCIUM CALIFORNICUM, EUPHORBIA MISERA, ARTEMISIA CALIFORNICA, ETC.

Threats:

General:

MENTIONED AS "RARE" AND "UNCOMMON" IN 2015. "RARE" IN 2016. COLLECTIONS FROM 1984 AND 2000 ARE ALSO ATTRIBUTED TO THIS SITE.

PLSS: T17S, R04W, Sec. 25 (S)
Accuracy: specific area
Area (acres): 15
UTM: Zone-11 N3614858 E477053
Latitude/Longitude: 32.67115 / -117.24474
Elevation (feet): 65

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

ORC84S0011	ORCUTT, C. - ORCUTT #629A GH #376374 1884-05-27
REB15S0021	REBMAN, J. & A. TAYLOR - REBMAN #29834 SD #248631 2015-04-14
REB15S0022	REBMAN, J. & A. TAYLOR - REBMAN #29842 SD #246426 2015-04-14
REB16S0002	REBMAN, J. & J. LAGRANGE - REBMAN #31268 SD #254309 2016-04-02
RUS00S0001	RUSSELL, A. & D. BURTON - RUSSELL #205 SDSU #13409 & #13442 2000-06-17
RUS00S0002	RUSSELL, A. & D. BURTON - RUSSELL #196 SDSU #13423 2000-06-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03519
EO Index: 74573
Key Quad: La Jolla (3211772)
Element Code: PDCHE040E0
Occurrence Number: 39
Occurrence Last Updated: 2009-02-13

Scientific Name: *Atriplex coulteri*
Common Name: Coulter's saltbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S1S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OCEAN BLUFFS, RIDGETOPS, AS WELL AS ALKALINE LOW PLACES. ALKALINE OR CLAY SOILS. 2-460 M.

Last Date Observed: 1931-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1931-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

LA JOLLA.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB CENTERED ON THE CITY OF LA JOLLA.

Ecological:

Threats:

THERE HAS BEEN EXTENSTIVE DEVELOPMENT IN THIS AREA SINCE THE COLLECTION WAS MADE.

General:

ONLY SOURCES OF INFORMATION FOR THIS OCCURRENCE ARE TWO COLLECTIONS BY GRANT: ONE FROM 1931 AND THE OTHER ONE NOT DATED.

PLSS: T15S, R04W, Sec. 27 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3633342 E473790
Latitude/Longitude: 32.83782 / -117.28005
Elevation (feet):

County Summary:

San Diego, Pacific Ocean

Quad Summary:

La Jolla (3211772)

Sources:

GRA31S0001 GRANT, G. - GRANT #1547 RSA #478339 1931-XX-XX

GRANDS0013 GRANT, G. - GRANT SN UC #219364 XXXX-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 85825
EO Index: 86860
Key Quad: Imperial Beach (3211751)
Element Code: PDCHE040E0
Occurrence Number: 76
Occurrence Last Updated: 2012-05-01

Scientific Name: *Atriplex coulteri*
Common Name: Coulter's saltbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S1S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OCEAN BLUFFS, RIDGETOPS, AS WELL AS ALKALINE LOW PLACES. ALKALINE OR CLAY SOILS. 2-460 M.

Last Date Observed: 2012-01-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-01-11
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

LICHTY MESA, SOUTH AND EAST OF BORDER FIELD STATE PARK, JUST NORTH OF THE US/MEXICO BORDER.

Detailed Location:

MOSTLY RESTRICTED TO LOWER SLOPES OF THE MESA WHERE THE HABITAT TRANSITIONS TO COASTAL MARSH. EXACT LOCATION UNKNOWN. MAPPED BY CNDDB TO ENCOMPASS ENTIRE LICHTY MESA SURVEY AREA.

Ecological:

MESA AND COASTAL MARSH.

Threats:

General:

PLANTS NOTED AS "UNCOMMON ON THE PROPERTY" IN 2006. A 2012 SCHEUERMAN PHOTO FROM BORDER FIELD STATE PARK IS ATTRIBUTED TO THIS OCCURRENCE.

PLSS: T19S, R02W, Sec. 08, W (S)
Accuracy: non-specific area
Area (acres): 16
UTM: Zone-11 N3599822 E489046
Latitude/Longitude: 32.53569 / -117.11664
Elevation (feet):

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

SCH07R0001	SCHEIDT, V. - THE LICHTY MESA, A BIOLOGICAL RESOURCES SURVEY REPORT AND EVALUATION OF RESOURCE VALUE, APN 663-020-02, SAN DIEGO, CA 2007-08-XX
SCH12I0001	SCHEUERMAN, C. - PHOTO OF ATRIPLEX COULTERI, CALPHOTOS ID #0000 0000 0412 1792 2012-01-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 98994
EO Index: 100523
Key Quad: Imperial Beach (3211751)
Element Code: PDCHE040E0
Occurrence Number: 87
Occurrence Last Updated: 2016-01-28

Scientific Name: *Atriplex coulteri*
Common Name: Coulter's saltbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S1S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OCEAN BLUFFS, RIDGETOPS, AS WELL AS ALKALINE LOW PLACES. ALKALINE OR CLAY SOILS. 2-460 M.

Last Date Observed: 2011-04-28
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2011-04-28
Occurrence Rank: Unknown
Owner/Manager: USFWS-TIJUANA SLOUGH NWR
Trend: Unknown
Presence: Presumed Extant

Location:

TIJUANA ESTUARY; ABOUT 0.3 MILE SOUTH OF JUNCTION WITH 5TH AND IRIS, IMPERIAL BEACH.

Detailed Location:

EDGE OF WALKING PATH. MAPPED ACCORDING TO 2011 SIMPSON COORDINATES, IN THE SW 1/4 OF THE NE 1/4 OF SECTION 31.

Ecological:

EDGE OF SALT MARSH; DISTURBED. SANDY LOAM. ASSOCIATED WITH FESTUCA PERENNIS, BROMUS MADRITENSIS SSP. RUBENS, B. DIANDRUS, DISTICHLIS SPICATA, AND CRESSA TRUXILLENSIS.

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2011 SIMPSON COLLECTION.

PLSS: T18S, R02W, Sec. 31, NE (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3602960 E488429
Latitude/Longitude: 32.564 / -117.12326
Elevation (feet): 7

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

SIM11S0007 SIMPSON, M. ET AL. - SIMPSON #3418 SDSU #19767 2011-04-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 98995
Key Quad: La Jolla (3211772)
Occurrence Number: 88
EO Index: 100526
Element Code: PDCHE040E0
Occurrence Last Updated: 2018-11-09

Scientific Name: *Atriplex coulteri*
Common Name: Coulter's saltbush

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S1S2

Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
OCEAN BLUFFS, RIDGETOPS, AS WELL AS ALKALINE LOW PLACES. ALKALINE OR CLAY SOILS. 2-460 M.

Last Date Observed: 2012-07-29
Last Survey Date: 2012-07-29
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:
LOWER SANDROCK CANYON; SOUTH OF THE SOUTH END OF KOBE DRIVE, SERRA MESA.

Detailed Location:
MAPPED ACCORDING TO A 2013 ENVIRONMENTAL SCIENCE ASSOCIATES MAP, IN THE SE 1/4 OF THE SE 1/4 OF SECTION 12.

Ecological:
DISTURBED ALKALINE SOILS IN UNVEGETATED HABITATS ADJACENT TO RUDERAL EXOTIC VEGETATION.

Threats:
POTENTIAL UNINTENDED IMPACTS ASSOCIATED WITH EXOTIC PLANT REMOVAL OR TRAIL IMPROVEMENTS.

General:
FEWER THAN 25 PLANTS OBSERVED IN 2012; CLUSTERED IN PATCHES IN ALKALINE SOIL.

PLSS: T16S, R03W, Sec. 12, SE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3628393 E487097
Latitude/Longitude: 32.79341 / -117.1378
Elevation (feet): 365

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

CAD12R0002	CADRE ENVIRONMENTAL - SAN DIEGO RIVER TRIBUTARY CANYONS PROJECT FOCUSED SENSITIVE SPECIES SURVEYS. 2012-12-XX
ESA13R0001	ENVIRONMENTAL SCIENCE ASSOCIATES - SAN DIEGO RIVER, RUFFIN CANYON TRAIL AND URBAN WALK, INITIAL STUDY / MITIGATED NEGATIVE DECLARATION 2013-03-XX
RIE12F0001	RIEFNER, R. - FIELD SURVEY FORM FOR ATRIPLEX COULTERI 2012-XX-XX
RIE12S0003	RIEFNER, R. - RIEFNER #12-327 UCR #246470 2012-07-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1536
EO Index: 113442
Key Quad: National City (3211761)
Element Code: PDCHE040E0
Occurrence Number: 127
Occurrence Last Updated: 2018-12-05

Scientific Name: *Atriplex coulteri*
Common Name: Coulter's saltbush

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S1S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OCEAN BLUFFS, RIDGETOPS, AS WELL AS ALKALINE LOW PLACES. ALKALINE OR CLAY SOILS. 2-460 M.

Last Date Observed: 2001-04-30
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-04-30
Occurrence Rank: Unknown
Owner/Manager: USFWS-SAN DIEGO BAY NWR
Trend: Unknown
Presence: Presumed Extant

Location:

SWEETWATER MARSH NATIONAL WILDLIFE REFUGE; AT POND NEAR END OF GUNPOWDER POINT DRIVE, SAN DIEGO.

Detailed Location:

MAPPED ACCORDING TO 2001 ELVIN COORDINATES.

Ecological:

BACKDUNE COASTAL MARSH/ESTUARY. ASSOCIATED WITH ATRIPLEX WATSONII, A. SERENANA VAR. SERENANA, SPERGULARIA MARINA, ETC.

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2001 ELVIN COLLECTION; MENTIONED AS "SCARCE" IN 2001.

PLSS: T18S, R02W, Sec. 5 (S)
Accuracy: 1/10 mile
Area (acres): 18
UTM: Zone-11 N3611261 E489630
Latitude/Longitude: 32.63889 / -117.11056
Elevation (feet): 8

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

ELV01S0014 ELVIN, M. ET AL. - ELVIN #1621 ARIZ #430065, SEINET #13297597 2001-04-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	85918	**EO Index:**	6877
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCHE041C0
Occurrence Number:	1	**Occurrence Last Updated:**	2012-05-16

Scientific Name: *Atriplex pacifica*

Common Name: south coast saltscale

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4

State: S2

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:

ALKALI SOILS. 1-400 M.

Last Date Observed:	2009-06-05	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-06-05	**Occurrence Rank:**	Poor
Owner/Manager:	DPR-BORDER FIELD SP, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

LICHTY MESA NEXT TO BORDER FIELD STATE PARK, JUST NORTH OF US/MEXICO BORDER.

Detailed Location:

2 POLYGONS: WESTERN POLYGON IS BASED ON 2009 COORDINATES PROVIDED BY VEGCAMP, EASTERN POLYGON MAPPED TO ENCOMPASS STUDY AREA AT LICHTY MESA, UNKNOWN WHERE PLANTS SEEN WITHIN STUDY AREA.

Ecological:

COASTAL BLUFF SCRUB ON STABILIZED DUNE AND EXPOSED SANDY FLANKS OF MESA. ASSOC W/ RHUS INTEGRIFOLIA, ATRIPLEX POLYCARPA, ERIOGONUM FASCICULATUM VAR. FASCICULATUM, MESEMBRYANTHEMUM CRYSTALLINUM, DISTICHLIS SPICATA, ISOCOMA MENZIESII, ETC.

Threats:

BORDER PATROL ACTIVITY: ROADS, SURVEILLANCE, & FENCE CONSTRUCTION. CONSTRUCTION WILL LIKELY EXTIRPATE THE POPULATION.

General:

E POLY: UNK # OF PLANTS SEEN IN 2001, NOTED AS UNCOMMON IN 2006. W POLY: 1% COVER OF A. PACIFICA OVER 1-5 ACRE AREA IN 2009. UNDATED REISER OBS FROM "PERIPHERY OF SALT MARSH NEAR MOUTH OF TIJUANA RIVER" ATTRIB HERE. INCLUDES FORMER EO #32.

PLSS:	T19S, R02W, Sec. 08, W (S)	**Accuracy:**	non-specific area	**Area (acres):**	21
UTM:	Zone-11 N3599785 E488834	**Latitude/Longitude:**	32.53536 / -117.11890	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

REI94U0002	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX
SCH06I0006	SCHEIDT, V. - PHOTO OF ATRIPLEX PACIFICA, CALPHOTOS ID #0000 0000 0606 0403 2006-06-01
SCH07R0001	SCHEIDT, V. - THE LICHTY MESA, A BIOLOGICAL RESOURCES SURVEY REPORT AND EVALUATION OF RESOURCE VALUE, APN 663-020-02, SAN DIEGO, CA 2007-08-XX
SUT01F0041	SUTTLE, G. - FIELD SURVEY FORM FOR ATRIPLEX PACIFICA 2001-05-03
VEG09F0076	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR ATRIPLEX PACIFICA 2009-06-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 85912
EO Index: 20736
Key Quad: National City (3211761)
Element Code: PDCHE041C0
Occurrence Number: 2
Occurrence Last Updated: 2016-02-26

Scientific Name: *Atriplex pacifica*
Common Name: south coast saltscale

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4
State: S2

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:
ALKALI SOILS. 1-400 M.

Last Date Observed: 2003-11-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-11-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:
RICE CANYON; APPROXIMATELY 1 AIR MILE EAST OF THE INTERSECTION OF H STREET AND HIGHWAY 805, CHULA VISTA.

Detailed Location:
2 POLYGONS MAPPED BY CNDDB ACCORDING TO 2004 DIGITAL DATA PROVIDED BY RECON ENVIRONMENTAL.

Ecological:

Threats:

General:
4 PLANTS OBSERVED SOMETIME BETWEEN SEPTEMBER 2002 - NOVEMBER 2003.

PLSS: T18S, R02W, Sec. 01, NE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3611472 E496452
Latitude/Longitude: 32.64084 / -117.03782
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03858
Key Quad: Point Loma (3211762)
Occurrence Number: 18
EO Index: 309
Element Code: PDCHE041C0
Occurrence Last Updated: 1996-03-29

Scientific Name: *Atriplex pacifica*
Common Name: south coast saltscale

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4
State: S2
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:
ALKALI SOILS. 1-400 M.

Last Date Observed: 1897-10-24
Last Survey Date: 1897-10-24
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
CORONADO BEACH.

Detailed Location:
EXACT LOCATION UNKNOWN, MAPPED IN VICINITY OF CORONADO.

Ecological:

Threats:

General:
ORIGINAL LABEL: ATRIPLEX MICROCARPA. 1904 COLLECTION BY BERG IN "CORONADOS" ATTRIBUTED TO THIS SITE.

PLSS: T17S, R03W, Sec. 15 (S)
UTM: Zone-11 N3617001 E483723
Accuracy: 1 mile
Latitude/Longitude: 32.69060 / -117.17364
Area (acres): 0
Elevation (feet): 20

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

BER04S0002	BERG, N. - BERG SN UC #66696 1904-03-11
GRA97S0001	GRANT, G. - GRANT SN DS #92353, CAS-BOT-BC #180920 1897-10-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	53572	**EO Index:**	53572
Key Quad:	Otay Mesa (3211658)	**Element Code:**	PDCHE041C0
Occurrence Number:	37	**Occurrence Last Updated:**	2012-05-16

Scientific Name: *Atriplex pacifica*

Common Name: south coast saltscale

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4

State: S2

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:

ALKALI SOILS. 1-400 M.

Last Date Observed:	2003-07-09	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-07-09	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY RIVER VALLEY; IMMEDIATELY WEST OF EXISTING ROCKY QUARRY, EAST OF COORS AMPHITHEATER NEAR OTAY VALLEY ROAD.

Detailed Location:

FLAT MESA TOP AND EDGE OF STEEP BLUFF ABOVE THE OTAY RIVER. EXACT LOCATION UNKNOWN, MAPPED AS BEST GUESS BY CNDDB ALONG BLUFF EDGES AND MESA TOPS JUST WEST OF ROCK QUARRY.

Ecological:

SCATTERED INDIVIDUALS OBSERVED ALONG BLUFF EDGES IN MARITIME SUCCULENT SCRUB, DISTURBED FIELD DOMINATED BY LOLIUM MULTIFLORUM, AND EDGES OF A COMPACTED DIRT ROAD.

Threats:

General:

MAIN SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2003 COLLECTION BY ROCKS. A 1997 REISER COLLECTION FROM "OTAY VALLEY, S SIDE OF ROCK MOUNTAIN, ALONG UTILITY EASEMENT ROAD AND ~30 YDS N OF UNIMPROVED VALLEY ROAD" IS ALSO ATTRIBUTED HERE.

PLSS:	T18S, R01W, Sec. 20, E (S)	**Accuracy:**	2/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3606134 E500262	**Latitude/Longitude:**	32.59269 / -116.99720	**Elevation (feet):**	236

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

REI97S0008	REISER, C. - REISER #5 SD #140577 1997-05-15
ROC03S0001	ROCKS, J. - ROCKS #1 SD #196426 2003-07-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	53663	**EO Index:**	53663
Key Quad:	National City (3211761)	**Element Code:**	PDCHE041C0
Occurrence Number:	38	**Occurrence Last Updated:**	2016-02-26

Scientific Name: *Atriplex pacifica*

Common Name: south coast saltscale

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4

State: S2

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:

ALKALI SOILS. 1-400 M.

Last Date Observed:	2003-11-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-11-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH OF THE TERMINUS OF THE HILL ROAD IN BONITA, ~1.25 AIR MILES EAST OF THE INTERSECTION OF HIGHWAY 805 AND BONITA RD.

Detailed Location:

3 POLYGONS MAPPED IN THE NW 1/4 OF THE SE 1/4 OF SECTION 36 ACCORDING TO 2004 DIGITAL DATA FROM RECON ENVIRONMENTAL.

Ecological:

THE RARE HARPAGONELLA PALMERI AND CYLINDROPUNTIA CALIFORNICA OCCUR NEARBY.

Threats:

General:

UNKNOWN NUMBER OF PLANTS OBSERVED SOMETIME BETWEEN SEPTEMBER 2002 - NOVEMBER 2003.

PLSS:	T17S, R02W, Sec. 36, SE (S)	**Accuracy:**	specific area	**Area (acres):**	3
UTM:	Zone-11 N3612212 E496296	**Latitude/Longitude:**	32.64751 / -117.03948	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 85935
EO Index: 86967
Key Quad: Imperial Beach (3211751)
Element Code: PDCHE041C0
Occurrence Number: 47
Occurrence Last Updated: 2012-05-17

Scientific Name: *Atriplex pacifica*
Common Name: south coast saltscale

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4
State: S2

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:
ALKALI SOILS. 1-400 M.

Last Date Observed: 2004-10-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2004-10-22
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
NEXT TO RIVIERA DEL SOL SUBDIVISION, WEST SLOPE OF OTAY MESA.

Detailed Location:
DEINANDRA CONJUGENS REVEGETATION PLOTS. EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN GENERAL VICINITY OF OPEN SPACE NORTHEAST OF THE RIVIERA DEL SOL NEIGHBORHOOD IN VICINITY OF GIVEN ELEVATION OF 449 FT.

Ecological:
OLIVENHAIN COBBLY LOAM, 9-30% SLOPES. DEINANDRA CONJUGENS REVEGETATION AREA IN DISTURBED COASTAL SAGE AND/OR MARITIME SUCCULENT SCRUB.

Threats:
DEVELOPMENT.

General:
6 PLANTS OBSERVED IN 2003. A 1935 GANDER COLLECTION FROM "2 MI E OF SAN YSIDRO ON OTAY MESA" AND 2004 SCHEIDT PHOTOS FROM "MESA N HWY 905 & E OF 805, MANY DOZENS OF PLANTS OBSERVED" ARE ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS: T18S, R01W, Sec. 30, SW (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3603785 E497089
Latitude/Longitude: 32.57150 / -117.03100
Elevation (feet): 449

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

GAN35S0034	GANDER, F. - GANDER #21919 SD #11545 1935-06-12
MAC03S0002	MACGREGOR, C. - MACGREGOR #6 SD #154341 2003-06-27
SCH04I0006	SCHEIDT, V. - PHOTOS OF ATRIPLEX PACIFICA, CALPHOTOS ID #0000 0000 1104 0199, 0200 2004-10-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	85937	**EO Index:**	86969
Key Quad:	National City (3211761)	**Element Code:**	PDCHE041C0
Occurrence Number:	48	**Occurrence Last Updated:**	2016-02-26

Scientific Name: *Atriplex pacifica*

Common Name: south coast saltscale

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4

State: S2

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:

ALKALI SOILS. 1-400 M.

Last Date Observed:	2003-11-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-11-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

RICE CANYON, APPROXIMATELY 1.1 AIR MILES NORTHEAST OF HALECREST ELEMENTARY SCHOOL, SOUTH OF BONITA.

Detailed Location:

MAPPED IN THE SW 1/4 OF THE SW 1/4 OF SECTION 31 ACCORDING TO 2004 DIGITAL DATA FROM RECON ENVIRONMENTAL.

Ecological:

Threats:

General:

UNKNOWN NUMBER OF PLANTS OBSERVED SOMETIME BETWEEN SEPTEMBER 2002 - NOVEMBER 2003.

PLSS:	T17S, R01W, Sec. 31, SW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3611750 E497318	**Latitude/Longitude:**	32.64335 / -117.02859	**Elevation (feet):**	250

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 85939
EO Index: 86971
Key Quad: National City (3211761)
Element Code: PDCHE041C0
Occurrence Number: 49
Occurrence Last Updated: 2016-02-26

Scientific Name: *Atriplex pacifica*
Common Name: south coast saltscale

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4
State: S2

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:
ALKALI SOILS. 1-400 M.

Last Date Observed: 2003-11-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-11-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:
UNNAMED CANYON BETWEEN RICE CYN AND TELEGRAPH CYN, ~1.4 AIR MILES ENE OF INTERSECTION OF TELEGRAPH CYN RD AND HWY 805.

Detailed Location:
MAPPED IN THE NW 1/4 OF THE SE 1/4 OF SECTION 6 ACCORDING TO 2004 DIGITAL DATA FROM RECON ENVIRONMENTAL.

Ecological:
THE RARE FEROCACTUS VIRIDESCENS AND CYLINDROPUNTIA CALIFORNICA VAR. CALIFORNICA OCCUR NEARBY.

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED SOMETIME BETWEEN SEPTEMBER 2002 - NOVEMBER 2003.

PLSS: T18S, R01W, Sec. 06, SE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3610654 E498078
Latitude/Longitude: 32.63346 / -117.02048
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	85940	**EO Index:**	86972
Key Quad:	National City (3211761)	**Element Code:**	PDCHE041C0
Occurrence Number:	50	**Occurrence Last Updated:**	2016-02-26

Scientific Name: *Atriplex pacifica*

Common Name: south coast saltscale

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4

State: S2

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:

ALKALI SOILS. 1-400 M.

Last Date Observed:	2003-11-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-11-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH SIDE OF TELEGRAPH CANYON, ABOUT 1.8 AIR MILES EAST OF INTERSECTION OF TELEGRAPH CANYON ROAD AND HWY 805.

Detailed Location:

MAPPED IN THE NW 1/4 OF THE NW 1/4 OF SECTION 8 ACCORDING TO 2004 DIGITAL DATA FROM RECON ENVIRONMENTAL.

Ecological:

THE RARE FEROCACTUS VIRIDESCENS AND CHORIZANTHE POLYGONOIDES VAR. LONGISPINA OCCUR NEARBY.

Threats:

General:

9 PLANTS OBSERVED SOMETIME BETWEEN SEPTEMBER 2002 - NOVEMBER 2003.

PLSS:	T18S, R01W, Sec. 08, NW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3609837 E498879	**Latitude/Longitude:**	32.62609 / -117.01194	**Elevation (feet):**	450

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03968
EO Index: 86975
Key Quad: Point Loma (3211762)
Element Code: PDCHE041C0
Occurrence Number: 51
Occurrence Last Updated: 2012-05-17

Scientific Name: *Atriplex pacifica*
Common Name: south coast saltscale

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4
State: S2

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:
ALKALI SOILS. 1-400 M.

Last Date Observed: 1938-05-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1938-05-12
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO-BALBOA PARK
Trend: Unknown
Presence: Presumed Extant

Location:
BALBOA PARK.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN GENERAL VICINITY OF BALBOA PARK.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1938 COLLECTION BY GANDER. NEEDS FIELDWORK.

PLSS: T17S, R03W, Sec. 01 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3621430 E486333
Latitude/Longitude: 32.73059 / -117.14586
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
GAN38S0041 GANDER, F. - GANDER #5641 SD #21387 1938-05-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03519
EO Index: 86978
Key Quad: La Jolla (3211772)
Element Code: PDCHE041C0
Occurrence Number: 52
Occurrence Last Updated: 2016-02-25

Scientific Name: *Atriplex pacifica*
Common Name: south coast saltscale

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4
State: S2

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:
ALKALI SOILS. 1-400 M.

Last Date Observed: 1914-05-23
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1914-05-23
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
LA JOLLA.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN THE GENERAL VICINITY OF LA JOLLA.

Ecological:
DUNE STRAND; SANDY SOIL. ON FLATS NEAR SEA.

Threats:
MUCH DEVELOPMENT HAS OCCURRED IN THIS AREA SINCE COLLECTIONS WERE MADE.

General:
SITE BASED ON AN UNDATED GRANT COLLECTION, A 1904 CHANDLER COLLECTION, AND A 1914 CLEMENTS COLLECTION, ALL FROM "LA JOLLA." NEEDS FIELDWORK.

PLSS: T15S, R04W, Sec. 27 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3633342 E473790
Latitude/Longitude: 32.83782 / -117.28005
Elevation (feet):

County Summary:
San Diego, Pacific Ocean

Quad Summary:
La Jolla (3211772)

Sources:

CHA04S0015	CHANDLER, H. - CHANDLER #5126 DS #92024, CAS-BOT-BC #180918 1904-04-16
CLE14S0005	CLEMENTS, F. & E. CLEMENTS - CLEMENTS #59 UCSB #1650 & #1651, GH #376438 1914-05-23
GRANDS0017	GRANT, G. - GRANT SN DS #92342, CAS-BOT-BC #180919 XXXX-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 99286
Key Quad: Otay Mesa (3211658)
Occurrence Number: 90
EO Index: 100829
Element Code: PDCHE041C0
Occurrence Last Updated: 2016-02-25

Scientific Name: *Atriplex pacifica*
Common Name: south coast saltscale

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4
State: S2
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:
ALKALI SOILS. 1-400 M.

Last Date Observed: 2012-05-10
Last Survey Date: 2012-05-10
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SW OF HERITAGE ROAD AND BROWN FIELD AIRPORT, EAST OF I-805 AND SOUTH OF HWY 905, OTAY MESA.

Detailed Location:
OTAY MITIGATION SITE. MAPPED ACCORDING TO 2012 REBMAN COORDINATES, IN THE NE 1/4 OF NE 1/4 OF SECTION 5.

Ecological:
ON A VERNAL POOL MESA. VERNAL POOL VEGETATION WITH PSILOCARPHUS BREVISSIMUS, CALLITRICHE LONGIPEDUNCULATA, PILULARIA AMERICANA, ELATINE BRACHYSPERMA, AND CRASSULA SOLIERI.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2012 REBMAN COLLECTION; MENTIONED AS "RARE" IN 2012.

PLSS: T19S, R01W, Sec. 5, NE (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3601611 E499981
Latitude/Longitude: 32.55189 / -117.0002
Elevation (feet): 470

County Summary:
San Diego

Quad Summary:
Otay Mesa (3211658), Imperial Beach (3211751)

Sources:
REB12S0030 REBMAN, J. ET AL. - REBMAN #23842 SD #226063 2012-05-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 99290
EO Index: 100834
Key Quad: Imperial Beach (3211751)
Element Code: PDCHE041C0
Occurrence Number: 94
Occurrence Last Updated: 2018-11-28

Scientific Name: *Atriplex pacifica*
Common Name: south coast saltscale

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4
State: S2

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:
ALKALI SOILS. 1-400 M.

Last Date Observed: 2017-05-30
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2017-05-30
Occurrence Rank: Good
Owner/Manager: SDG COUNTY, CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
BOTH SIDES OF MOODY CANYON, OTAY VALLEY REGIONAL PARK AND BEYER COMMUNITY PARK.

Detailed Location:
MAPPED AS SEVERAL POLYGONS ACCORDING TO A 2012 ALBRIGHT MAP AND 2017 RECON DIGITAL DATA.

Ecological:
ALONG UNPAVED ROADS AND DISTURBED EDGES.

Threats:

General:
60 PLANTS OBSERVED IN NORTHERN PORTION OF OCCURRENCE IN 2011. 153 PLANTS OBSERVED IN SOUTHERN PORTION OF OCCURRENCE IN 2017.

PLSS: T18S, R02W, Sec. 36, E (S)
Accuracy: specific area
Area (acres): 11
UTM: Zone-11 N3602300 E496576
Latitude/Longitude: 32.5581 / -117.03647
Elevation (feet): 240

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

ALB12R0001	ALBRIGHT, B. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - RESOURCE MANAGEMENT PLAN FOR FURBY-NORTH PROPERTY: SAN DIEGO COUNTY 2012-06-29
BOH17D0007	BOHAC, S. (RECON ENVIRONMENTAL, INC.) - SHAPEFILES FOR SPECIES DETECTIONS ASSOCIATED WITH THE BEYER PARK BIOLOGICAL REPORT, 2017 2017-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	99291	**EO Index:**	100835
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCHE041C0
Occurrence Number:	95	**Occurrence Last Updated:**	2016-02-29

Scientific Name: *Atriplex pacifica*

Common Name: south coast saltscale

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4

State: S2

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:

ALKALI SOILS. 1-400 M.

Last Date Observed:	2008-08-01	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2008-08-01	**Occurrence Rank:**	None
Owner/Manager:	DPR-BORDER FIELD SP	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

BORDER FIELD STATE PARK; SOUTH MESA, FLAT AREA 50 YARDS N OF US/MEXICO BORDER FENCE, 0.9 MILE EAST OF PACIFIC OCEAN.

Detailed Location:

MAPPED ACCORDING TO 2008 ROULLARD COORDINATES.

Ecological:

SANDSTONE.

Threats:

SITE WILL BE DEMOLISHED DUE TO CONSTRUCTION OF BORDER FENCE.

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2008 ROULLARD COLLECTION.

PLSS:	T19S, R02W, Sec. 8 (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3599867 E489723	**Latitude/Longitude:**	32.53611 / -117.10944	**Elevation (feet):**	70

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

ROU08S0004 ROULLARD, P. - ROULLARD #215 SD #235974 2008-08-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	99308	**EO Index:**	100861
Key Quad:	National City (3211761)	**Element Code:**	PDCHE041C0
Occurrence Number:	107	**Occurrence Last Updated:**	2016-02-29

Scientific Name: *Atriplex pacifica*

Common Name: south coast saltscale

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4

State: S2

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:

ALKALI SOILS. 1-400 M.

Last Date Observed:	XXXX-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	XXXX-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MCCANDLISS PARK, NORTH OF EAST J STREET, EAST OF INTERSTATE 805, NORTH OF TELEGRAPH CANYON.

Detailed Location:

MAPPED ACCORDING TO A 2011 CALTRANS MAP, IN THE SW 1/4 OF THE NW 1/4 OF SECTION 1.

Ecological:

MARITIME SUCCULENT SCRUB AND DISTURBED HABITAT AREAS. CHORIZANTHE POLYGONOIDES VAR. LONGISPINA AND EUPHORBIA MISERA OCCUR NEARBY.

Threats:

General:

UNKNOWN NUMBER OF PLANTS OBSERVED SOMETIME PRIOR TO 2009.

PLSS:	T18S, R02W, Sec. 1, NW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3610936 E495576	**Latitude/Longitude:**	32.636 / -117.04717	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

CAL11R0002	CALIFORNIA DEPARTMENT OF TRANSPORTATION - INTERSTATE 805 MANAGED LANES SOUTH PROJECT, FINAL EIR/EA WITH FONSI 2011-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 99309
EO Index: 100862
Key Quad: National City (3211761)
Element Code: PDCHE041C0
Occurrence Number: 108
Occurrence Last Updated: 2016-02-29

Scientific Name: *Atriplex pacifica*
Common Name: south coast saltscale

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4
State: S2

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:
ALKALI SOILS. 1-400 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
JUST NORTH OF THE JUNCTION OF E H STREET AND I-805, EAST OF I-805, LYNWOOD HILLS.

Detailed Location:
MAPPED AS 2 POLYGONS ACCORDING TO A 2011 CALTRANS MAP, IN THE SW 1/4 OF THE SE 1/4 OF SECTION 35.

Ecological:
MARITIME SUCCULENT SCRUB AND COASTAL SAGE SCRUB/CHAPARRAL. CYLINDROPUNTIA CALIFORNICA VAR. CALIFORNICA OCCURS NEARBY.

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED SOMETIME PRIOR TO 2009.

PLSS: T17S, R02W, Sec. 35, SE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3611764 E494794
Latitude/Longitude: 32.64346 / -117.05551
Elevation (feet): 100

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

CAL11R0002	CALIFORNIA DEPARTMENT OF TRANSPORTATION - INTERSTATE 805 MANAGED LANES SOUTH PROJECT, FINAL EIR/EA WITH FONSI 2011-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1429	**EO Index:**	113336
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCHE041C0
Occurrence Number:	111	**Occurrence Last Updated:**	2018-11-19

Scientific Name: *Atriplex pacifica*

Common Name: south coast saltscale

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4

State: S2

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:

ALKALI SOILS. 1-400 M.

Last Date Observed:	1998-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1998-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT?	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BETWEEN MOODY CANYON AND DILLON CANYON, OTAY MESA.

Detailed Location:

MAPPED AS 2 POLYGONS ACCORDING TO A 1998 MERKEL & ASSOCIATES, INC MAP.

Ecological:

NEARBY RARE PLANT ASSOCIATES INCLUDE VIGUIERA LACINIATA, FEROCACTUS VIRIDESCENS, AND CHORIZANTHE PROCUMBENS.

Threats:

SITE WAS PROPOSED FOR RESIDENTIAL SUBDIVISION IN 1998.

General:

UNKNOWN NUMBER OF PLANTS OBSERVED AT THIS SITE, PRESUMABLY DURING 1998 GNATCATCHER SURVEYS.

PLSS:	T18S, R01W, Sec. 31 (S)	**Accuracy:**	specific area	**Area (acres):**	15
UTM:	Zone-11 N3602736 E497890	**Latitude/Longitude:**	32.56203 / -117.02248	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

MER98U0001	EMLET, D. (MERKEL AND ASSOCIATES, INC.) - CALIFORNIA GNATCATCHER SURVEY REPORT FOR THE CANDLELIGHT PROPERTY PROJECT 1998-09-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B1432	**EO Index:**	113338
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCHE041C0
Occurrence Number:	113	**Occurrence Last Updated:**	2018-11-15

Scientific Name: *Atriplex pacifica*

Common Name: south coast saltscale

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4

State: S2

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:

ALKALI SOILS. 1-400 M.

Last Date Observed:	2002-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2002-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT?	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH SIDE OF POGGI CANYON, APPROXIMATELY 1.2 AIR MILES WSW OF OTAY RANCH.

Detailed Location:

MAPPED ACCORDING TO A 2002 DUDEK MAP, IN THE SE 1/4 OF THE SW 1/4 OF SECTION 8.

Ecological:

COASTAL SAGE SCRUB.

Threats:

General:

5 PLANTS SEEN, PRESUMABLY IN 2002.

PLSS:	T18S, R01W, Sec. 8, SW (S)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3608398 E499423	**Latitude/Longitude:**	32.61311 / -117.00615	**Elevation (feet):**	480

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

DUD02U0004 DUDEK & ASSOCIATES, INC. - CALIFORNIA GNATCATCHER SURVEY FOR THE OTAY RANCH VILLAGE 2 PROJECT, CITY OF CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA 2002-05-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1433
Key Quad: Point Loma (3211762)
Occurrence Number: 114
EO Index: 113340
Element Code: PDCHE041C0
Occurrence Last Updated: 2018-11-15

Scientific Name: *Atriplex pacifica*
Common Name: south coast saltscale

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G4
State: S2
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:
ALKALI SOILS. 1-400 M.

Last Date Observed: 2016-05-21
Last Survey Date: 2016-05-21
Owner/Manager: NPS-CABRILLO NM
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
ALONG CABRILLO ROAD TO TIDAL POOLS, CABRILLO NATIONAL MONUMENT.

Detailed Location:
MAPPED ACCORDING TO 2016 SIMPSON COORDINATES.

Ecological:
COASTAL SAGE SCRUB. FLAT BANK AT TOP OF WEST-FACING SLOPE. ASSOCIATED WITH ENCELIA CALIFORNICA, ERIOGONUM FASCICULATUM, ARTEMISIA CALIFORNICA, ALL SHORT, WINDSWEPT.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2016 SIMPSON COLLECTION, MENTIONED AS "SCATTERED IN AREA" IN 2016.

PLSS: T17S, R03W, Sec. 30, NW (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3615104 E477198
Latitude/Longitude: 32.67337 / -117.2432
Elevation (feet): 255

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
SIM16S0001 SIMPSON, M. - SIMPSON #4022 SD #255703, SDSU #21763 2016-05-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1434
Key Quad: La Jolla (3211772)
Occurrence Number: 115

EO Index: 113341
Element Code: PDCHE041C0
Occurrence Last Updated: 2018-11-15

Scientific Name: *Atriplex pacifica*
Common Name: south coast saltscale

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G4
State: S2

Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, PLAYAS, COASTAL DUNES.

Micro Habitat:
ALKALI SOILS. 1-400 M.

Last Date Observed: 2017-07-07
Last Survey Date: 2017-07-07
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
TECOLOTE CANYON NATURAL PARK; JUST WEST OF MOUNT ALMAGOSA DRIVE, CLAIREMONT.

Detailed Location:
MAPPED ACCORDING TO 2017 DENSON COORDINATES, IN THE SW 1/4 OF THE SE 1/4 OF SECTION 4.

Ecological:
SUNNY, SOUTH-FACING SLOPE, ABOUT 15%. OPEN AREA IN COASTAL SAGE SCRUB, WITH DEINANDRA FASCICULATA AND CENTAUREA MELITENSIS.

Threats:

General:
FEWER THAN 10 PLANTS OBSERVED IN 2017.

PLSS: T16S, R03W, Sec. 4, SE (S)
UTM: Zone-11 N3630071 E481863

Accuracy: 80 meters
Latitude/Longitude: 32.80847 / -117.19374

Area (acres): 5
Elevation (feet): 230

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
DEN17U0001 DENSON, C. - OBSERVATION RECORD FOR ATRIPLEX PACIFICA, CALFLORA ID: PO43114 2017-07-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A2478
EO Index: 48836
Key Quad: Imperial Beach (3211751)
Element Code: PDCHE0P0D0
Occurrence Number: 1
Occurrence Last Updated: 2016-11-16

Scientific Name: *Suaeda esteroa*
Common Name: estuary seablite

Listing Status: **Federal:** None
Rare Plant Rank: 1B.2
State: None
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
MARSHES AND SWAMPS.

Micro Habitat:
COASTAL SALT MARSHES IN CLAY, SILT, AND SAND SUBSTRATES. 0-80 M.

Last Date Observed: 2001-05-08
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-05-08
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
OTAY RIVER CHANNEL ABOUT 500 M UPSTREAM FROM MOUTH AT SAN DIEGO BAY, IMPERIAL BEACH.

Detailed Location:
MAPPED ACCORDING TO 2001 ELVIN COORDINATES, IN THE SW 1/4 OF THE NW 1/4 OF SECTION 20.

Ecological:
BACKDUNE COASTAL MARSH WITH ATRIPLEX, SUAEDA TAXIFOLIA, ETC.

Threats:

General:
MAIN SOURCES OF INFO FOR THIS SITE ARE 2001 ELVIN COLLECTIONS; MENTIONED AS "SCARCE TO OCCASIONAL" IN 2001. VAGUE COLLECTIONS FROM "IMPERIAL BEACH" AND AN OBSERVATION FROM "SLOUGH N OF 10TH ST ON SDG BAY" ARE ALSO ATTRIBUTED TO THIS SITE.

PLSS: T18S, R02W, Sec. 20, NW (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3606304 E489261
Latitude/Longitude: 32.59417 / -117.11444
Elevation (feet): 0

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

BEA70S0006	BEAUCHAMP, R. & R. PIERCE - BEAUCHAMP #1327 SD #83472 1970-09-18
ELV01S0004	ELVIN, M. ET AL. - ELVIN #1628 UCR #263676 2001-05-08
ELV01S0005	ELVIN, M. ET AL. - ELVIN #1631 UCR #263678 2001-05-08
HEC68S0009	HECKARD, L. - HECKARD #2039 JEPS #86207 1968-07-15
PUR38S0003	PURER, E. - PURER #7889 SD #39571 & #39572 1938-10-28
REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A2479
EO Index: 48842
Key Quad: Imperial Beach (3211751)
Element Code: PDCHE0P0D0
Occurrence Number: 2
Occurrence Last Updated: 2016-11-10

Scientific Name: *Suaeda esteroa*
Common Name: estuary seablite

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
MARSHES AND SWAMPS.

Micro Habitat:
COASTAL SALT MARSHES IN CLAY, SILT, AND SAND SUBSTRATES. 0-80 M.

Last Date Observed: 2006-05-26
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-05-26
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
DUKE ENERGY SITE; VICINITY OF THE MOUTH OF TELEGRAPH CANYON, 1.2 AND 1.5 KM NW OF HARBORSIDE SCHOOL, CHULA VISTA.

Detailed Location:
MAPPED AS 2 POLYGONS ACCORDING TO 2006 ROBERTS COORDINATES.

Ecological:
ON FLAT BORDERING CHANNEL ON SILTY SOIL AND ON RIPRAP SLOPE BORDERING BAY. SOME PLANTS OCCUR WITHIN SMALL PATCHES OF COASTAL SALT MARSH.

Threats:

General:
IN 2006, NORTHERN POLYGON HAD 38 PLANTS AND SOUTHERN POLYGON HAD 10 PLANTS. 1937 GANDER COLLECTION FROM "1 MILE N OF SALT WORKS" AND 1938 KELLER COLLECTION FROM "SLOUGH NORTH OF SALT WORKS NEAR CHULA VISTA" ARE ATTRIBUTED TO THIS SITE.

PLSS: T18S, R02W, Sec. 9, SW (S)
Accuracy: specific area
Area (acres): 10
UTM: Zone-11 N3608864 E490883
Latitude/Longitude: 32.61728 / -117.09717
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

GAN37S0057	GANDER, F. - GANDER #4889 SD #20198 1937-12-22
KEL38S0001	KELLER, A. - KELLER SN POM #259486 1938-07-25
ROB06S0022	ROBERTS, F. ET AL. - ROBERTS #6318 SD #196456 2006-02-15
ROB06S0023	ROBERTS, F. - ROBERTS #6340 SD #196457 2006-05-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86428
EO Index: 48843
Key Quad: Point Loma (3211762)
Element Code: PDCHE0P0D0
Occurrence Number: 3
Occurrence Last Updated: 2016-11-14

Scientific Name: *Suaeda esteroa*
Common Name: estuary seablite

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
MARSHES AND SWAMPS.

Micro Habitat:
COASTAL SALT MARSHES IN CLAY, SILT, AND SAND SUBSTRATES. 0-80 M.

Last Date Observed: 1938-07-25
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1938-07-25
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SILVER STRAND NEAR TENT CITY.

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS AROUND THE HISTORIC TENT CITY ON THE SILVER STRAND IN CORONADO.

Ecological:
HISTORIC COLLECTIONS GIVE HABITAT DESCRIPTIONS OF: EDGE OF SALT MARSH, ALKALINE FLAT NEAR DUNES, AND SAND SPIT.

Threats:

General:
MAIN SOURCE OF INFORMATION FOR THIS SITE IS A 1938 GANDER COLLECTION. 1919, 1931, 1932, 1935, AND 1938 COLLECTIONS FROM "CORONADO" AND "SILVER STRAND" ARE ALSO ATTRIBUTED TO THIS SITE. INCLUDES FORMER OCCURRENCE #22.

PLSS: T17S, R03W, Sec. 22 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3615490 E483722
Latitude/Longitude: 32.67697 / -117.17362
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

COO19S0006	COOPER, W. - COOPER #306 JEPS #57539 1919-04-29
GAN38S0029	GANDER, F. - GANDER #5488 SD #21065 1938-05-07
GAN38S0072	GANDER, F. & KELLER - GANDER SN POM #259487 1938-07-25
GAN38S0073	GANDER, F. - GANDER #6180 SD #22041 1938-07-25
MUN31S0008	MUNZ, P. - MUNZ #12831 POM #183531 1931-05-17
PUR31S0009	PURER, E. - PURER #2295 RSA #38998 1931-09-01
PUR31S0010	PURER, E. & F. DETMERS - PURER #13860 RSA #758771 1931-09-01
PUR32S0026	PURER, E. - PURER #2709 SD #39530 1932-03-15
ROS35S0023	ROSE, L. - ROSE #35269 CAS #228012 1935-07-09
WOO32S0001	WOODCOCK, F. - WOODCOCK #45 UC #486357 1932-03-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 48845
EO Index: 48845
Key Quad: La Jolla (3211772)
Element Code: PDCHE0P0D0
Occurrence Number: 4
Occurrence Last Updated: 2002-10-01

Scientific Name: *Suaeda esteroa*
Common Name: estuary seablite

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
MARSHES AND SWAMPS.

Micro Habitat:
COASTAL SALT MARSHES IN CLAY, SILT, AND SAND SUBSTRATES. 0-80 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
FAMOSA SLOUGH NEAR SAN DIEGO RIVER.

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS IN VICINITY OF FAMOSA SLOUGH.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS SITE NAME PROVIDED BY REISER IN "RARE PLANTS OF SAN DIEGO COUNTY" (2001). NEEDS FIELDWORK.

PLSS: T16S, R03W, Sec. 30 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3623872 E478522
Latitude/Longitude: 32.75250 / -117.22927
Elevation (feet):

County Summary:
San Diego, Pacific Ocean

Quad Summary:
Point Loma (3211762), La Jolla (3211772)

Sources:
REI01B0001 REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A2480
EO Index: 48846
Key Quad: La Jolla (3211772)
Element Code: PDCHE0P0D0
Occurrence Number: 5
Occurrence Last Updated: 2016-11-04

Scientific Name: *Suaeda esteroa*
Common Name: estuary seablite

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
MARSHES AND SWAMPS.

Micro Habitat:
COASTAL SALT MARSHES IN CLAY, SILT, AND SAND SUBSTRATES. 0-80 M.

Last Date Observed: 2006-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
FIESTA ISLAND; JUST NORTH OF THE PARK'S ENTRANCE, MISSION BAY PARK.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO A 2007 REPORT ON THE FIESTA ISLAND PARK PRECISE PLAN.

Ecological:
ALONG MARGIN OF THE SALT MARSH AREA. ACMISPON PROSTRATUS ALSO OCCURS AT THIS SITE.

Threats:

General:
APPROXIMATELY 40 PLANTS OBSERVED IN 2006. SITE NAME OF "MISSION BAY" PROVIDED BY REISER IN "RARE PLANTS OF SAN DIEGO COUNTY" (2001) AND BY BEAUCHAMP IN "A FLORA OF SAN DIEGO COUNTY, CALIFORNIA" (1986) ARE ALSO ATTRIBUTED TO THIS SITE.

PLSS: T99X, R99X, Sec. UN (X)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3625829 E480507
Latitude/Longitude: 32.77019 / -117.20813
Elevation (feet): 5

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

BEA86B0001	BEAUCHAMP, R. - A FLORA OF SAN DIEGO COUNTY, CALIFORNIA 1986-XX-XX
KTU07R0001	KTU+A LAND PLANNING AND LANDSCAPE ARCHITECTURE - FIESTA ISLAND PARK PRECISE PLAN 2007-08-XX
REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A2511
Key Quad: La Jolla (3211772)
Occurrence Number: 23

EO Index: 48887
Element Code: PDCHE0P0D0
Occurrence Last Updated: 2016-11-10

Scientific Name: *Suaeda esteroa*
Common Name: estuary seablite

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.2
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:

MARSHES AND SWAMPS.

Micro Habitat:

COASTAL SALT MARSHES IN CLAY, SILT, AND SAND SUBSTRATES. 0-80 M.

Last Date Observed: 2001-10-03
Last Survey Date: 2001-10-03
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

MISSION VALLEY PRESERVE; ALONG THE SAN DIEGO RIVER FROM SEFTON PARK TO THE INTERSTATE 5 BRIDGE.

Detailed Location:

GROWING IN A MARSHY AREA NEAR THE I-5 BRIDGE. MAPPED ACCORDING TO 2010 REBMAN COORDINATES, IN THE NE 1/4 OF THE NE 1/4 OF SECTION 28.

Ecological:

MUDDY AND SANDY SUBSTRATES ALONG THE RIVER. RIPARIAN HABITAT WITH POPULUS FREMONTII, SALIX, BACCHARIS SALICIFOLIA, ARUNDO DONAX, PLATANUS RACEMOSA, RICINUS, SCIRPUS, AND JUNCUS ACUTUS.

Threats:

General:

SITE BASED ON A 2001 REBMAN COLLECTION. A 1938 KELLER COLLECTION FROM "NORTH OF LINDBERGH FIELD" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS: T16S, R03W, Sec. 28, NE (S)
UTM: Zone-11 N3624882 E482047

Accuracy: 80 meters
Latitude/Longitude: 32.76167 / -117.19167

Area (acres): 5
Elevation (feet): 15

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

KEL38S0003	KELLER, A. - KELLER SN POM #259485 1938-07-27
REB01S0010	REBMAN, J. & M. MAYER - REBMAN #7474 SD #155218, UCR #153932 2001-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A2515
EO Index: 104102
Key Quad: Imperial Beach (3211751)
Element Code: PDCHE0P0D0
Occurrence Number: 26
Occurrence Last Updated: 2017-01-30

Scientific Name: *Suaeda esteroa*
Common Name: estuary seablite

Listing Status: **Federal:** None
Rare Plant Rank: 1B.2
State: None
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
MARSHES AND SWAMPS.

Micro Habitat:
COASTAL SALT MARSHES IN CLAY, SILT, AND SAND SUBSTRATES. 0-80 M.

Last Date Observed: 2016-10-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2016-10-12
Occurrence Rank: Unknown
Owner/Manager: DPR-BORDER FIELD SP
Trend: Unknown
Presence: Presumed Extant

Location:
BORDER FIELD STATE PARK, APPROXIMATELY 0.8 AIR MILE NNE OF BORDER MOMUMENT 258.

Detailed Location:
MAPPED ACCORDING TO 2016 MORSE COORDINATES.

Ecological:

Threats:

General:
A SINGLE PLANT IN 2016; THERE LOOKED TO BE BETTER HABITAT ACROSS THE CREEK TO THE SOUTH. A 1936 GANDER COLLECTION FROM "NEAR BEACH 1 MILE N OF MONUMENT 258" IS ALSO ATTRIBUTED HERE.

PLSS: T19S, R02W, Sec. 6, SW (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3601001 E488687
Latitude/Longitude: 32.54633 / -117.12049
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

GAN36S0131	GANDER, F. - GANDER #513 SD #13261 1936-01-28
MOR15D0003	MORSE, K. - KMZ FILE WITH 2015 RARE PLANT OBSERVATIONS (JANUARY-JULY 2015 OBSERVATIONS) 2015-XX-XX
MOR16U0011	MORSE, K. - OBSERVATION RECORD FOR SUAEDA ESTEROA, CALFLORA ID: CBO55899 2016-10-12
MOR17U0001	MORSE, K. - EMAIL REGARDING CORRECTIONS TO SUAEDA ESTEROA OCCURRENCES 2017-01-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A2516
EO Index: 104103
Key Quad: Imperial Beach (3211751)
Element Code: PDCHE0P0D0
Occurrence Number: 27
Occurrence Last Updated: 2016-11-16

Scientific Name: *Suaeda esteroa*
Common Name: estuary seablite

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
MARSHES AND SWAMPS.

Micro Habitat:
COASTAL SALT MARSHES IN CLAY, SILT, AND SAND SUBSTRATES. 0-80 M.

Last Date Observed: 2009-10-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-10-22
Occurrence Rank: Unknown
Owner/Manager: USFWS-TIJUANA SLOUGH NWR?
Trend: Unknown
Presence: Presumed Extant

Location:
IMPERIAL BEACH, 2 MILES SOUTH OF THIRD AND PALM.

Detailed Location:
MAPPED AS BEST GUESS ABOUT 2 AIR MILES SOUTH OF THE JUNCTION OF THIRD STREET AND PALM AVENUE.

Ecological:
IN 2009, TRANSITIONAL BETWEEN LOWER AND WETTER JAUMEA CARNOSA DOMINATED AREA AND HIGHER AND DRIER DISTICHLIS SPICATA. LEVEL.

Threats:

General:
SITE BASED ON 1970 WITHAM COLLECTION. 1967 COLLECTION FROM "MOUTH OF TIJUANA RIVER," 2009 COLLECTION FROM "NEAR 'DUNE LEVEE' AT TIJUANA ESTUARY," AND OBSERVATION FROM "FEDERAL WILDLIFE REFUGE AT IMPERIAL BEACH" ARE ALSO ATTRIBUTED HERE.

PLSS: T18S, R02W, Sec. 31 (S)
Accuracy: 2/5 mile
Area (acres): 280
UTM: Zone-11 N3602072 E488301
Latitude/Longitude: 32.55598 / -117.12462
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

CLA67S0004	CLARKE, O. - CLARKE SN UCR #26613 1967-10-21
REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
WIT70S0004	WITHAM, H. - WITHAM #1159 SD #80832 1970-10-12
YAC09S0001	YACOUB, R. & T. KEELER-WOLF - YACOUB #RY04 CDA #34417 2009-10-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A2517
Key Quad: Imperial Beach (3211751)
Occurrence Number: 28
EO Index: 104104
Element Code: PDCHE0P0D0
Occurrence Last Updated: 2016-11-08

Scientific Name: *Suaeda esteroa*
Common Name: estuary seablite

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
MARSHES AND SWAMPS.

Micro Habitat:
COASTAL SALT MARSHES IN CLAY, SILT, AND SAND SUBSTRATES. 0-80 M.

Last Date Observed: 2004-08-24
Last Survey Date: 2004-08-24
Owner/Manager: SAN DIEGO UNIFIED PORT DIST
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
CHULA VISTA WILDLIFE RESERVE, IN SE SAN DIEGO BAY.

Detailed Location:
MAPPED ACCORDING TO 2004 BARTH COORDINATES.

Ecological:
LITTORAL ZONE IN SALT MARSH. CHULA VISTA WILDLIFE RES IS A SERIES OF ROADS, DIKES, AND INTERIOR FILL SURROUNDING 2 TIDAL MARSH BASINS. SOME OF THE INTERIOR FILL SAND IS FROM BAY DREDGING BUT SOME IS FROM MORE DISTANT SOURCES LIKE MEXICO.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2004 BARTH COLLECTION.

PLSS: T99X, R99X, Sec. UN (X)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3608544 E489808
Latitude/Longitude: 32.61438 / -117.10863
Elevation (feet): 0

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
BAR04S0004 BARTH, J. - BARTH #91 SD #187837 2004-08-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A2518
EO Index: 104105
Key Quad: National City (3211761)
Element Code: PDCHE0P0D0
Occurrence Number: 29
Occurrence Last Updated: 2016-11-14

Scientific Name: *Suaeda esteroa*
Common Name: estuary seablite

Listing Status: **Federal:** None
Rare Plant Rank: 1B.2
State: None
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:

MARSHES AND SWAMPS.

Micro Habitat:

COASTAL SALT MARSHES IN CLAY, SILT, AND SAND SUBSTRATES. 0-80 M.

Last Date Observed: 2000-09-25
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2000-09-25
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

AT THE F AND G STREET MARSHES, CHULA VISTA.

Detailed Location:

"ALONG MARINA PARKWAY JUST NORTH OF G STREET" AND "ON BOTH SIDES OF F STREET." MAPPED AS BEST GUESS BY CNDDB TO ENCOMPASS LOCATION DESCRIPTIONS ON COLLECTION LABELS.

Ecological:

MIDDLE COASTAL SALT MARSH DOMINATED BY PICKLEWEED AND SALTWORT (ROBERTS 2000). ALKALINE PERIPHERY OF SALT MARSH IN VESTIGIAL MARSHLANDS (REISER 2000).

Threats:

General:

SITE BASED ON ROBERTS AND REISER COLLECTIONS FROM 2000; REISER NOTES THAT THERE WERE ABOUT 1000 PLANTS AND THAT THIS WAS THE LARGEST POPULATION OF THIS PLANT HE IS AWARE OF.

PLSS: T18S, R02W, Sec. 5 (S)
Accuracy: 1/5 mile
Area (acres): 70
UTM: Zone-11 N3610647 E490248
Latitude/Longitude: 32.63336 / -117.10396
Elevation (feet): 5

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

REI00S0011 REISER, C. - REISER SN SD #145482 2000-08-22

ROB00S0009 ROBERTS, F. - ROBERTS #5347 SD #196455 2000-09-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 93338
EO Index: 104106
Key Quad: National City (3211761)
Element Code: PDCHE0P0D0
Occurrence Number: 30
Occurrence Last Updated: 2016-11-08

Scientific Name: *Suaeda esteroa*
Common Name: estuary seablite

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:
MARSHES AND SWAMPS.

Micro Habitat:
COASTAL SALT MARSHES IN CLAY, SILT, AND SAND SUBSTRATES. 0-80 M.

Last Date Observed: 2004-08-21
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2004-08-21
Occurrence Rank: Unknown
Owner/Manager: USFWS-SAN DIEGO BAY NWR
Trend: Unknown
Presence: Presumed Extant

Location:
THE D STREET FILL; BETWEEN THE CHULA VISTA NATURE CENTER AND PORT OF SAN DIEGO MARINE TERMINAL, SAN DIEGO BAY.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO COORDINATES FROM COLLECTION LABEL.

Ecological:
SAND AND MUDFLATS IN LITTORAL ZONE. ASSOCIATED WITH BATIS MARITIMA, LIMONIUM CALIFORNICUM, FRANKENIA PALMERI, F. SALINA, TAMARIX SP., BACCHARIS SAROTHROIDES, AND ACACIA CYCLOPS.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2004 GREGORY COLLECTION.

PLSS: T17S, R02W, Sec. 32, SE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3612393 E489842
Latitude/Longitude: 32.64910 / -117.10830
Elevation (feet): 3

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:
GRE04S0021 GREGORY, J. & J. BARTH - GREGORY #1142 SD #181005 2004-08-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04097	**EO Index:**	12830
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCRA04032
Occurrence Number:	1	**Occurrence Last Updated:**	2015-08-26

Scientific Name: *Dudleya attenuata ssp. attenuata*

Common Name: Orcutt's dudleya

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G4T1T2

State: S1

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB, CHAPARRAL.

Micro Habitat:

ROCKY MESAS, CANYONS, AND RIDGES. 3-50 M.

Last Date Observed:	2012-01-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-01-11	**Occurrence Rank:**	Poor
Owner/Manager:	PVT, DPR-BORDER FIELD SP, DOD?	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BORDER FIELD STATE PARK AND LICHTY MESA, NEAR THE US-MEXICO BORDER, 0.4 MILE EAST OF THE OCEAN.

Detailed Location:

ON MESA TOP AND CANYON SIDES. MAPPED BY CNDDB ACCORDING TO A 1987 BERG & STEWART MAP. COLLECTIONS FROM "INITIAL BOUNDARY MONUMENT", "EXTREME SW CORNER OF USA", AND "BEACH NEAR INTERNATIONAL BOUNDARY" ATTRIBUTED HERE.

Ecological:

LOOSE SOILS ON CLAY/SANDSTONE MESA. FOUND WITH ENCELIA CALIFORNICA, ERIOGONUM FASCICULATUM, HETEROTHECA SESSILIFLORA VAR. SESSILIFLORA, PHACELIA STELLARIS (RARE), LOTUS NUTTALLIANUS (RARE), CROTON CALIFORNICA, PLANTAGO ERECTA, AGAVE, ETC.

Threats:

HABITAT DESTROYED BY PICNIC AREA. BORDER PATROL ACTIVITY: ROADS, SURVEILLANCE, TRAMPLING & FENCE CONSTRUCTION THREATEN.

General:

HABITAT DESTROYED; PLANTS SALVAGED AND PLANTED ON NEARBY BLUFFS (OBERBAUER 1983). 200+ PLANTS OBSERVED IN 1987. SEVERAL HUNDRED PLANTS SEEN IN 2006. UNKNOWN NUMBER SEEN 1991, 2001-2003, 2012. INCLUDES FORMER OCCURRENCE #3.

PLSS:	T19S, R02W, Sec. 08, SW (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3599801 E488869	**Latitude/Longitude:**	32.53551 / -117.11853	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BER87F0014	BERG, K. & J. STEWART - FIELD SURVEY FORM FOR DUDLEYA ATTENUATA SSP. ORCUTTII 1987-06-17
DOD91U0003	DODERO, M. - NOTES REGARDING DUDLEYA SPP. IN LETTER TO MARK SKINNER 1991-07-10
HEC68S0023	HECKARD, L. ET AL. - HECKARD #2042 JEPS #57448 1968-07-15
HOW36S0020	HOWE, D. - HOWE #340 SD #114462 1936-05-24
MAR02F0001	MARDSEN, K. - FIELD SURVEY FORM FOR PHACELIA STELLARIS 2002-03-11
MCC96S0006	MCCLATCHIE, A. - MCCLATCHIE SN DS #97315 1896-06-23
OBE83U0004	OBERBAUER, T. - RECORD OF PHONE CONVERSATION REGARDING DUDLEYA ATTENUATA SSP. ORCUTTII (NOW SSP. ATTENUATA) 1983-08-10
ROU03I0001	ROULLARD, P. - PHOTO OF DUDLEYA ATTENUATA SSP. ORCUTTII, CALPHOTOS ID #0000 0000 1204 0898 2003-XX-XX
SCH06I0016	SCHEIDT, V. - PHOTOS OF DUDLEYA ATTENUATA SSP. ATTENUATA, CALPHOTOS ID: 0000 0000 0606 0206 & 0208 2006-05-16
SCH06I0017	SCHEIDT, V. - PHOTOS OF DUDLEYA ATTENUATA SSP. ATTENUATA, CALPHOTOS ID: 0000 0000 0606 0204 & 0205 2006-06-01
SCH07R0001	SCHEIDT, V. - THE LICHTY MESA, A BIOLOGICAL RESOURCES SURVEY REPORT AND EVALUATION OF RESOURCE VALUE, APN 663-020-02, SAN DIEGO, CA 2007-08-XX
SCH12I0008	SCHEUERMAN, C. - PHOTO OF DUDLEYA ATTENUATA SSP. ATTENUATA, CALPHOTOS ID: 0000 0000 0313 0570 2012-01-11
STO37S0003	STOVER, A. - STOVER SN SD #18277 1937-07-05
STO95S0010	STOKES, S. - STOKES SN DS #41476 1895-07-XX
SUT01F0008	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-03
WOL41S0007	WOLF, C. - WOLF #10910 UC #774552, CAS #379445, DS #339151, RSA #25616 1941-06-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17693
EO Index: 11634
Key Quad: Imperial Beach (3211751)
Element Code: PDCRA04051
Occurrence Number: 4
Occurrence Last Updated: 1991-10-30

Scientific Name: *Dudleya blochmaniae ssp. blochmaniae*
Common Name: Blochman's dudleya

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G3T2
State: S2

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB, CHAPARRAL, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OPEN, ROCKY SLOPES; OFTEN IN SHALLOW CLAYS OVER SERPENTINE OR IN ROCKY AREAS WITH LITTLE SOIL. 5-290 M.

Last Date Observed: 1938-05-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1938-05-07
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:

IMPERIAL BEACH.

Detailed Location:

Ecological:

Threats:

SITE PROBABLY EXTIRPATED BY DEVELOPMENT SINCE COLLECTION WAS MADE.

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1938 GANDER COLLECTION.

PLSS: T18S, R02W, Sec. 29 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3604660 E489427
Latitude/Longitude: 32.57934 / -117.11264
Elevation (feet): 30

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

GAN38S0018 GANDER, F. - GANDER #5494 SD #21071 1938-05-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	94864	**EO Index:**	95986
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCRA04051
Occurrence Number:	42	**Occurrence Last Updated:**	2018-08-31

Scientific Name: *Dudleya blochmaniae ssp. blochmaniae*

Common Name: Blochman's dudleya

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G3T2

State: S2

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB, CHAPARRAL, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OPEN, ROCKY SLOPES; OFTEN IN SHALLOW CLAYS OVER SERPENTINE OR IN ROCKY AREAS WITH LITTLE SOIL. 5-290 M.

Last Date Observed:	2017-05-23	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-05-23	**Occurrence Rank:**	Unknown
Owner/Manager:	DPR-BORDER FIELD SP	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BORDER FIELD STATE PARK. NEAR THE TOP OF BUNKER HILL, SOUTH OF MONUMENT ROAD, JUST NORTH OF THE US/MEXICO BORDER FENCE.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO 2012 REBMAN COORDINATES, 2017 STAFFORD COORDINATES, AND SDMMP DIGITAL DATA.

Ecological:

SOME CLAY SOILS. COASTAL SAGE SCRUB WITH ARTEMISIA CALIFORNICA, LOTUS SCOPARIUS VAR. SCOPARIUS, PERITOMA ARBOREA, RHUS INTEGRIFOLIA, ERIOGONUM FASCICULATUM AND STIPA LEPIDA.

Threats:

NON-NATIVES, TRASH DUMPING, TRAMPLING, ALTERED HYDROLOGY, EROSION, URBAN RUN-OFF.

General:

RARE WITH ONLY ABOUT 100 PLANTS IN A POPULATION NO MORE THAN 2.5 METERS BY 0.5 METER IN DIMENSIONS IN 2012. 230 PLANTS OBSERVED IN 2016. FEWER THAN 50 PLANTS OBSERVED ADJACENT TO GRAVEL PARKING AREA IN 2017.

PLSS:	T19S, R02W, Sec. 8, E (S)	**Accuracy:**	specific area	**Area (acres):**	2
UTM:	Zone-11 N3599936 E490126	**Latitude/Longitude:**	32.53673 / -117.10515	**Elevation (feet):**	330

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

REB12S0016	REBMAN, J. ET AL. - REBMAN #22502 SD #219464 2012-02-17
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
STA17U0001	STAFFORD, C. - OBSERVATION RECORD FOR DUDLEYA BLOCHMANIAE SSP. BLOCHMANIAE, CALFLORA ID: CBO73989 2017-05-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 94869
Key Quad: La Jolla (3211772)
Occurrence Number: 43
EO Index: 95991
Element Code: PDCRA04051
Occurrence Last Updated: 2015-01-23

Scientific Name: *Dudleya blochmaniae ssp. blochmaniae*
Common Name: Blochman's dudleya

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3T2
State: S2
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:

COASTAL SCRUB, COASTAL BLUFF SCRUB, CHAPARRAL, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

OPEN, ROCKY SLOPES; OFTEN IN SHALLOW CLAYS OVER SERPENTINE OR IN ROCKY AREAS WITH LITTLE SOIL. 5-290 M.

Last Date Observed: 1949-05-29
Last Survey Date: 1949-05-29
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

JUST NORTH OF LORING STREET, PACIFIC BEACH.

Detailed Location:

MAPPED BY CNDDB AROUND THE OCEAN BLUFF AREA JUST NORTH OF LORING STREET.

Ecological:

OCEAN BLUFF.

Threats:

THIS AREA HAS BEEN HIGHLY DEVELOPED SINCE COLLECTION WAS ORIGINALLY MADE; POSSIBLY EXTIRPATED.

General:

SITE BASED ON A 1949 MORAN COLLECTION; "LOCALLY ABUNDANT" IN 1949. AN 1890S SNYDER COLLECTION FROM "LA JOLLA" AND A 1941 GANDER COLLECTION FROM "PACIFIC BEACH" ARE ALSO ATTRIBUTED TO THIS SITE.

PLSS: T16S, R04W, Sec. 11 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3629822 E475546
Latitude/Longitude: 32.80610 / -117.26120
Elevation (feet):

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

GAN41S0003	GANDER, F. - GANDER #9579 SD #29142 1941-06-19
MOR49S0027	MORAN, R. - MORAN #3261 UC #792927, DS #327730, CAS-BOT-BC #109569 1949-05-29
SNY97S0001	SNYDER, M. - SNYDER #2070 SD 1897-05-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03570	**EO Index:**	62757
Key Quad:	La Jolla (3211772)	**Element Code:**	PDCRA04053
Occurrence Number:	7	**Occurrence Last Updated:**	2005-09-27

Scientific Name: *Dudleya brevifolia*

Common Name: short-leaved dudleya

Listing Status: **Federal:** None
State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

ON TORREY SANDSTONE SOILS; IN PEBBLY OPENINGS. 30-125 M.

Last Date Observed:	1949-04-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1949-04-10	**Occurrence Rank:**	None
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

MESA EAST OF LA JOLLA.

Detailed Location:

Ecological:

Threats:

General:

SITE BASED ON A 1949 MORAN COLLECTION. SITE DISTURBED AND APPARENTLY EXTIRPATED (FROM DEVELOPMENT) ACCORDING TO MORAN 1975 AND WIER 1983.

PLSS:	T15S, R04W, Sec. 35 (S)	**Accuracy:**	1 mile	**Area (acres):**	0
UTM:	Zone-11 N3631852 E475295	**Latitude/Longitude:**	32.82441 / -117.26393	**Elevation (feet):**	

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

MOR49S0004	MORAN, R. - MORAN #3212 CAS #384634, DS #356844, CAS-BOT-BC #109586 & #109587 1949-04-10
MOR75A0001	MORAN, R. - NEW NAMES AND COMBINATIONS IN CRASSULACEAE. BAILEYA 1975, VOL. 19, P. 146. 1975-XX-XX
WIE83U0002	WIER, H. - RECORD OF PHONE CONVERSATION WITH R. BITTMAN REGARDING DUDLEYA BREVIFOLIA 1983-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	22702	**EO Index:**	8223
Key Quad:	La Jolla (3211772)	**Element Code:**	PDCRA04053
Occurrence Number:	9	**Occurrence Last Updated:**	2018-08-29

Scientific Name: *Dudleya brevifolia*

Common Name: short-leaved dudleya

Listing Status: **Federal:** None

State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

ON TORREY SANDSTONE SOILS; IN PEBBLY OPENINGS. 30-125 M.

Last Date Observed:	2017-07-21	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-07-21	**Occurrence Rank:**	Fair
Owner/Manager:	UC-SAN DIEGO	**Trend:**	Fluctuating
Presence:	Presumed Extant		

Location:

SKELETON CANYON JUST SOUTH OF UNIVERSITY OF CALIFORNIA, SAN DIEGO.

Detailed Location:

JUST SW OF JUNCTION OF LA JOLLA VILLAGE DRIVE AND TORREY PINES ROAD. MAPPED BY CNDDB ACCORDING TO 2008 CITY OF SAN DIEGO MSCP DIGITAL DATA, IN THE NW 1/4 OF THE SE 1/4 OF SECTION 13.

Ecological:

FOUND IN OPENING IN COASTAL SAGE SCRUB ON LINDA VISTA FORMATION NEAR BLUFF EDGE. ASSOCIATES INCLUDE SELAGINELLA CINERASCENS, CRASSULA CONNATA, DUDLEYA EDULIS, AND ALLIUM SP.

Threats:

FOOT/BICYCLE TRAFFIC/TRAMPLING, EROSION, INVASIVES, DUMPING/TRASH, SOIL COMPACTION, RABBIT HERBIVORY.

General:

ABOUT 300 PLANTS IN 1992, 500 SEEN "THE PAST SEVERAL YEARS" IN 1996, 62 PLANTS IN 2001, SPECIES PRESENT IN 2002, 191 IN 2003, 1 IN 2004, PRESENT IN 2005, 10 IN 2006, 30 IN 2008, ~100 IN 2010, 0 IN 2016 (HERBIVORIZED?), 25 IN 2017.

PLSS:	T15S, R04W, Sec. 13, SE (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3636789 E477042	**Latitude/Longitude:**	32.86898 / -117.24539	**Elevation (feet):**	370

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

AND17F0017	ANDERSON, S. - FIELD SURVEY FORM FOR DUDLEYA BREVIFOLIA 2017-07-21
ELI92F0001	ELIASON, S. - FIELD SURVEY FORM FOR DUDLEYA BREVIFOLIA 1992-01-25
ELI92M0001	ELIASON, S. - MAP OF DUDLEYA BREVIFOLIA 1992-01-25
GRE06F0040	GREER, K. ET AL. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DUDLEYA BREVIFOLIA 2006-06-02
HEL04R0010	HELIX ENVIRONMENTAL PLANNING, INC. - BIOLOGICAL RESOURCES TECHNICAL REPORT, 2004 UCSD LONG RANGE DEVELOPMENT PLAN UPDATE 2004-09-XX
HIC96U0002	HICKSON, D. - RECOVERY WORKSHOP SUMMARY: SOUTHERN MARITIME CHAPARRAL PLANTS 1996-10-XX
MOR90S0007	MORAN, R. - MORAN #31031 SD #130030 1990-05-13
SDC05R0001	CITY OF SAN DIEGO, PLANNING DEPT., MSCP DIVISION - MSCP RARE PLANT MONITORING: FIELD MONITORING METHODS 2005 -09-XX
SDG01R0003	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR DUDLEYA BREVIFOLIA (DUDLEYA BLOCHMANIAE SSP. BREVIFOLIA) 2001-05-XX
SDG02R0002	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR DUDLEYA BREVIFOLIA (DUDLEYA BLOCHMANIAE SSP. BREVIFOLIA) 2002-05-XX
SDG03R0007	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR DUDLEYA BREVIFOLIA (DUDLEYA BLOCHMANIAE SSP. BREVIFOLIA) 2003-05-XX
SDG04R0004	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR DUDLEYA BREVIFOLIA (DUDLEYA BLOCHMANIAE SSP. BREVIFOLIA) 2004-05-XX
SDG05R0005	CITY OF SAN DIEGO - CITY OF SAN DIEGO, RARE PLANT MONITORING REPORT, 2005: DUDLEYA BREVIFOLIA 2005-XX-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
STE88U0001	STEWART, J. - INFORMATION ON SKELETON CANYON (NEAR LA JOLLA). 1988-07-20
SWA10F0100	SWARD, W. (HELIX ENVIRONMENTAL PLANNING, INC.) - FIELD SURVEY FORM FOR DUDLEYA BREVIFOLIA & SELAGINELLA CINERASCENS 2010-05-17
SWA10I0007	SWARD, L. - PHOTOS OF DUDLEYA BREVIFOLIA, CALPHOTOS ID #000 0000 0710 1648-1650 2010-05-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17504
EO Index: 11632
Key Quad: Imperial Beach (3211751)
Element Code: PDCRA040R0
Occurrence Number: 2
Occurrence Last Updated: 2014-02-03

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 1984-12-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1984-12-07
Occurrence Rank: None
Owner/Manager: PVT
Trend: Unknown
Presence: Extirpated

Location:

ABOUT 1/2 MILE SOUTH OF OTAY VALLEY ROAD, 3/4 MILE EAST OF I-805.

Detailed Location:

IN THE NE 1/4 OF THE SW 1/4 OF SECTION 19.

Ecological:

IN COBBLY MARINE SANDSTONE. COASTAL SAGE SCRUB.

Threats:

AREA WAS BEING STUDIED FOR DEVELOPMENT IN 1984, ORV USE. RIVER VALLEY PREVIOUSLY DISTURBED BY SAND AND GRAVEL MINING.

General:

ONLY 2 PLANTS SEEN IN 1984, BUT CONDITIONS WERE VERY DRY. AREA LOOKS TO HAVE BEEN DEVELOPED BASED ON 2010 AERIAL IMAGERY; PRESUMED EXTIRPATED.

PLSS: T18S, R01W, Sec. 19, SW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3605641 E497665
Latitude/Longitude: 32.58824 / -117.02488
Elevation (feet): 180

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

WIE84F0006 WIER, E. & H. WIER - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 1984-12-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17661
EO Index: 11630
Key Quad: Imperial Beach (3211751)
Element Code: PDCRA040R0
Occurrence Number: 3
Occurrence Last Updated: 2019-10-11

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 1980-04-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1980-04-12
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

1 MILE EAST OF THE JUNCTION OF HIGHWAY 75 AND HIGHWAY 117 (OTAY MESA ROAD), JUST NORTH OF SPRING CANYON.

Detailed Location:

SOUTH SIDE OF HWY 117.

Ecological:

IN CLAY SOILS WITHIN GRASSLAND WITH VERNAL POOLS CONTAINING SELAGINELLA CINERASCENS AND SPERGULARIA. GRASSLAND WITH STIPA AND COAST BARREL CACTUS.

Threats:

General:

FEWER THAN 10 PLANTS SEEN IN 1980. A 1955 VESTAL COLLECTION FROM "OTAY MESA, 0.6 MI WEST OF GATE TO BROWN AIRPORT (NAVY AVIATION), HEAVILY GRAZED PASTURE SOUTH OF ROAD, SLIGHT HOGWALLOW RELIEF" IS ALSO ATTRIBUTED HERE.

PLSS: T18S, R01W, Sec. 32, NE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3603391 E499592
Latitude/Longitude: 32.56795 / -117.00434
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

BRA80F0006 BRAMLET, D. - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 1980-04-12

VES55S0008 VESTAL, W. & A. VESTAL - VESTAL SN ILLS #150421.1-#150421.3, SEINET #6911855-#6911857 1955-04-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17660
EO Index: 11631
Key Quad: Imperial Beach (3211751)
Element Code: PDCRA040R0
Occurrence Number: 4
Occurrence Last Updated: 2014-02-03

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 1985-03-06
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1985-03-06
Occurrence Rank: None
Owner/Manager: PVT
Trend: Unknown
Presence: Possibly Extirpated

Location:

JUST EAST OF DENNERY CANYON, ABOUT 3/4 MILE NORTH OF OTAY MESA ROAD.

Detailed Location:

2008 CITY OF SAN DIEGO DIGITAL DATA INDICATES THAT 3 POPULATIONS WERE OBSERVED AT THIS SITE IN 2001; HOWEVER, BASED ON AERIAL IMAGERY, THIS AREA WAS ALREADY CLEARED FOR DEVELOPMENT IN 2000 (2001 DATE NOT USED FOR THIS SITE).

Ecological:

IN STONY SOIL ON NEARLY BARREN SLOPES AND FLATS AT CREST OF CANYONS ON OTAY MESA. ASSOCIATED WITH FEROCACTUS VIRIDESCENS, DICHONDRA, DUDLEYA EDULIS AND D. PULVERULENTA.

Threats:

PROPOSED FOR DEVELOPMENT (1985). BASED ON 2010 AERIAL IMAGERY, AREA HAS BEEN DEVELOPED; SITE IS LIKELY EXTIRPATED.

General:

OVER 10,000 PLANTS SEEN IN 1985. DEVELOPMENT HAS OCCURRED IN THIS AREA SINCE 1985 BUT THERE IS STILL SUITABLE HABITAT IN SURROUNDING AREA.

PLSS: T18S, R01W, Sec. 29, NW (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3604841 E499472
Latitude/Longitude: 32.58103 / -117.00561
Elevation (feet): 450

County Summary:	Quad Summary:
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

SCH85F0034	SCHEIDT, V. - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 1985-03-06
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	17662	**EO Index:**	11633
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCRA040R0
Occurrence Number:	5	**Occurrence Last Updated:**	2014-02-03

Scientific Name: *Dudleya variegata*

Common Name: variegated dudleya

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G2

State: S2

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed:	1994-04-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1994-04-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

JUST SOUTH OF OTAY MESA ROAD, NEAR MOODY CANYON.

Detailed Location:

MAPPED ACCORDING TO A 1981 SCHEIDT MAP. MAY ALSO OCCUR TO THE SOUTH OF MAPPED AREA BUT 1995 INFORMATION IS UNCLEAR ABOUT EXACT LOCATION OF DUDLEYA POPULATION.

Ecological:

ON STONY SLOPES IN SCRUB WITH OPUNTIA PROLIFERA, EUPHORBIA MISERA, AND ENCELIA CALIFORNICA.

Threats:

PROPOSED FOR DEVELOPMENT IN 1981.

General:

FEWER THAN 10,000 PLANTS SEEN IN 1981. "A LARGE POPULATION OF DUDLEYA VARIEGATA" WAS OBSERVED IN THE AREA IN 1994; EXACT LOCATION OF SITE UNKNOWN, ATTRIBUTED TO THIS OCCURRENCE.

PLSS:	T18S, R02W, Sec. 36, E (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3602627 E496507	**Latitude/Longitude:**	32.56105 / -117.03721	**Elevation (feet):**	350

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

EDW95U0001	EDWARDS, C. & A. KOLTZ (PACIFIC SOUTHWEST BIOLOGICAL SERVICES) - CALIFORNIA GNATCATCHER SURVEY RESULTS 1995-01-17
SCH81F0023	SCHEIDT, V. - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 1981-05-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17714
EO Index: 11605
Key Quad: La Mesa (3211771)
Element Code: PDCRA040R0
Occurrence Number: 18
Occurrence Last Updated: 2014-02-03

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 1936-04-26
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1936-04-26
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:
ABOUT 0.5 MILE WEST OF SAN DIEGO STATE UNIVERSITY.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS ABOUT 0.5 MILE WEST OF SAN DIEGO STATE UNIVERSITY.

Ecological:
ON MESA.

Threats:
AREA HIGHLY DEVELOPED SINCE COLLECTION WAS MADE; POSSIBLY EXTIRPATED.

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1936 GANDER COLLECTION. NEEDS FIELDWORK.

PLSS: T16S, R02W (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3626557 E492332
Latitude/Longitude: 32.77690 / -117.08188
Elevation (feet):

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:
GAN36S0094 GANDER, F. - GANDER #1621 SD #15955 1936-04-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17717
Key Quad: La Mesa (3211771)
Occurrence Number: 19
EO Index: 10130
Element Code: PDCRA040R0
Occurrence Last Updated: 2019-09-23

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 2017-05-16
Last Survey Date: 2017-05-16
Owner/Manager: PVT, CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

VICINITY OF SYCAMORE COUNTY LANDFILL; FROM OAK CANYON EXTENDING EAST TO QUAIL CANYON.

Detailed Location:

PORTIONS OF OCCURRENCE ARE WITHIN MISSION TRAILS REGIONAL PARK AND EAST ELLIOTT PRESERVE. MAPPED BY CNDDB AS MANY POLYGONS ACCORDING TO VARIOUS SOURCES OF INFORMATION.

Ecological:

NON-NATIVE GRASSLAND ON DISTURBED DRY HILLS AND ALLUVIAL SLOPES WITH OCCASIONAL PATCHES OF COASTAL SAGE SCRUB. ASSOCIATED WITH LOTUS SCOPARIUS VAR. SCOPARIUS, BRACHYPODIUM DISTACHYON, STIPA LEPIDA, MUILLA CLEVELANDII, CALOCHORTUS, ETC.

Threats:

PORTIONS OF SITE HAVE BEEN EXTIRPATED BY LANDFILL EXPANSION. THREATENED BY QUAIL BRUSH GEN PROJECT & OTHER DEVELOPMENT.

General:

POPULATION NUMBERS FOR PORTIONS OF SITE: 1000+ PLANTS IN 1984, 100S IN 2000, SEEN IN 2001, 15 PLANTS IN 2003, SEEN IN 2008 AND 2010, 10+ INDIVIDUALS IN 2011, 75 PLANTS IN 2017. INCLUDES FORMER OCCURRENCES #20-22, 59.

PLSS: T15S, R02W, Sec. 13 (S)
Accuracy: specific area
Area (acres): 166
UTM: Zone-11 N3636256 E496951
Latitude/Longitude: 32.86441 / -117.03259
Elevation (feet): 700

County Summary:

San Diego

Quad Summary:

La Mesa (3211771), Poway (3211781)

Sources:

DOS00S0008	DOSSEY, R. - DOSSEY #DUVA 1019 SD #160933 2000-06-01
DOS00S0009	DOSSEY, R. - DOSSEY #DUVA 1018 SD #160934 2000-06-01
DOS00S0010	DOSSEY, R. - DOSSEY #DUVA 1017 SD #160935 2000-06-01
DOS00S0011	DOSSEY, R. - DOSSEY #DUVA 1021 SD #160936 2000-06-01
DOS00S0012	DOSSEY, R. - DOSSEY #DUVA 1019 SD #160938 2000-06-01
DOS00S0013	DOSSEY, R. - DOSSEY #DUVA 2013 SD #160937 2000-06-02
DOS00S0014	DOSSEY, R. - DOSSEY #DUVA 2012 SD #160941 2000-06-02
DOS00S0015	DOSSEY, R. - DOSSEY #DUVA 2007 SD #160942 2000-06-02
DOS00S0016	DOSSEY, R. - DOSSEY #DUVA 2014 SD #160932 2000-06-03
DOS00S0017	DOSSEY, R. - DOSSEY #DUVA 2019 L SD #160940 2000-06-03
DOS00S0018	DOSSEY, R. - DOSSEY #DUVA 2039 SD #160931 2000-06-04
DOS00S0019	DOSSEY, R. - DOSSEY #DUVA 2032 SD #160943 2000-06-04
DOS00S0020	DOSSEY, R. - DOSSEY #DUVA 2003 SD #160944 2000-06-04
DOS99S0004	DOSSEY, R. - DOSSEY #DUVA 1001 SD #160939 1999-05-16
KIM03F0037	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2003-04-23
KLE01R0002	KLEIN, M. & C. EDWARDS (KLEIN-EDWARDS PROFESSIONAL SERVICES) - RESULTS OF PROTOCOL SURVEYS PERFORMED FOR COASTAL CALIFORNIA GNATCATCHER AT THE EAST ELLIOTT SITE, CITY OF SAN DIEGO, SAN DIEGO COUNTY, CALIFORNIA. 2001-08-25
LOY82F0007	LOY, M. - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 1982-05-02
LOY84F0005	LOY, M. - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 1984-05-XX
MUL17S0001	MULLIGAN, M. - MULLIGAN #3583 SD #267805 2017-05-16
MUL18D0001	MULLIGAN, M. - 2017 COLLECTIONS FROM MARGIE MULLIGAN. 2018-02-06
REB00S0022	REBMAN, J. - REBMAN #6670 UCR #147484, HCIB #19503, SEINET #7995005 2000-05-10
REC13R0001	RECON ENVIRONMENTAL, INC. - NATURAL RESOURCE MANAGEMENT PLAN FOR MISSION TRAILS REGIONAL PARK, SAN DIEGO, CALIFORNIA 2013-10-31
SAL08S0002	SALVATO, T. & E. KLEIN - SALVATO #3413 UCR #191591 2008-05-02
SAL08S0003	SALVATO, T. - SALVATO #3466 UCR #192543 2008-05-05
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG13R0001	CITY OF SAN DIEGO - FINAL ENVIRONMENTAL IMPACT REPORT FOR THE CASTLEROCK PROJECT 2013-06-20
SIM10S0003	SIMPSON, M. - SIMPSON #3180 SDSU #19532 2010-05-06
TET11R0003	TETRA TECH, INC. - COGENTRIX QUAIL BRUSH GENERATION PROJECT, APPLICATION FOR CERTIFICATION, SECTION 4.12 BIOLOGICAL RESOURCES 2011-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71033
Key Quad: La Jolla (3211772)
Occurrence Number: 32
EO Index: 10129
Element Code: PDCRA040R0
Occurrence Last Updated: 2014-02-03

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 1936-06-09
Last Survey Date: 1936-06-09
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

KEARNEY MESA, JUNCTION OF 6TH STREET AND US 395 (NOW HIGHWAY 163), SAN DIEGO.

Detailed Location:

Ecological:

HILLS.

Threats:

MUCH DEVELOPMENT HAS OCCURRED IN THIS AREA SINCE THE 1930S.

General:

MAIN SOURCE OF INFORMATION FOR THIS SITE IS A 1936 COLLECTION BY GANDER. VAGUE COLLECTIONS FROM "UNIVERSITY HEIGHTS," "MISSION HILLS," AND "ON HILLS AT MOUTH OF MISSION GORGE" ARE ALSO ATTRIBUTED TO THIS SITE.

PLSS: T16S, R03W, Sec. 26 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3623913 E485210
Latitude/Longitude: 32.75297 / -117.15788
Elevation (feet): 100

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

ABR03S0011 ABRAMS, L. - ABRAMS #3393 NY 1903-05-05
BRA02S0031 BRANDEGEE, T. - BRANDEGEE #1627 CAS #136357, CAS-BOT-BC #109702, GH #376726, UC #75033 1902-06-25
GAN36S0029 GANDER, F. - GANDER #1617 SD #15954 1936-04-26
GAN36S0095 GANDER, F. - GANDER #2594 SD #16031 & #129824 1936-06-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21910
EO Index: 24221
Key Quad: Imperial Beach (3211751)
Element Code: PDCRA040R0
Occurrence Number: 56
Occurrence Last Updated: 2019-09-30

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 2018-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2018-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVY
Trend: Unknown
Presence: Presumed Extant

Location:

US NAVAL RADIO STATION AT IMPERIAL BEACH.

Detailed Location:

APPROXIMATELY 0.6 AIR MILE NORTH OF CORONADO CORP BOUNDARY. MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO 2018 SDMMP DIGITAL DATA. A 1938 PURER COLLECTION FROM "SOUTH END OF SILVER STRAND" IS ALSO ATTRIBUTED TO THIS SITE.

Ecological:

HABITAT DESCRIBED AS UNIQUE SALT FLAT AREA DOMINATED BY SALICORNIA VIRGINICA. OTHER ASSOCIATED SPECIES INCLUDE AMBLYOPAPPUS PUSILLUS, GASOUL NODIFLORUM, PSILOCARPHUS TENELLUS, OPUNTIA PROLIFERA, AND FEROCACTUS VIRIDESCENS.

Threats:

ORV ACTIVITY IN SALT FLAT AREAS POSES POTENTIAL THREAT TO THE POPULATION. EROSION AND INVASIVES MAY ALSO THREATEN.

General:

THE POPULATION IS CONSIDERED SIGNIFICANT DUE TO SPECIES DENSITY, EXTENT OF AREA, AND RELATIVE SECURITY OF SITE FROM IMPACTS (DEVELOPMENT ETC.). OBSERVED IN 1987 AND 2001. 100+ PLANTS IN 2016, ~28,000 PLANTS IN 2018.

PLSS: T18S, R02W, Sec. 19, N (S)
Accuracy: specific area
Area (acres): 12
UTM: Zone-11 N3606530 E488281
Latitude/Longitude: 32.5962 / -117.12489
Elevation (feet): 8

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

DON11R0002	DEPARTMENT OF THE NAVY - SILVER STRAND TRAINING COMPLEX, ENVIRONMENTAL IMPACT STATEMENT. SECTION 3.11: TERRESTRIAL BIOLOCIAL RESOURCES 2011-01-XX
DON15U0001	DEPARTMENT OF THE NAVY - REVISED FINDINGS ON CONSISTENCY DETERMINATION FOR THE NAVAL BASE CORONADO COASTAL CAMPUS PROJECT 2015-02-06
LEA16U0001	LEATHERMAN, S. - OBSERVATION RECORD FOR DUDLEYA VARIEGATA, CALFLORA ID: PO33466 2016-04-27
PUR38S0005	PURER, E. - PURER #7466 RSA #397836 & #397837, SD #38415 1938-05-07
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
WAG89R0002	WAGONER, R. - NATURAL RESOURCE MANAGEMENT PLAN, NAVAL RECEIVING FACILITY. 1989-XX-XX
WIE82S0001	WIER, H. - WIER SN HNT #5156 1982-04-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 61651
EO Index: 61687
Key Quad: Otay Mesa (3211658)
Element Code: PDCRA040R0
Occurrence Number: 57
Occurrence Last Updated: 2019-10-23

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 2018-05-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2018-05-14
Occurrence Rank: Good
Owner/Manager: CITY OF SAN DIEGO, PVT
Trend: Unknown
Presence: Presumed Extant

Location:

VICINITY OF SPRING CANYON AND WRUCK CANYON, OTAY MESA.

Detailed Location:

GOAT MESA/SPRING CYN SITES. MAPPED BY CNDDB AS 4 POLYGONS. THREE NORTHERN POLYGONS BASED ON DIGITAL DATA FROM THE CITY OF SAN DIEGO AND 2012 REBMAN COORDINATES; S POLYGON BASED ON A 1995 RIGGAN MAP.

Ecological:

SITE IN XERIC SOILS, DOMINATED BY DISTURBED MARITIME SUCCULENT SCRUB. IN ASSOCIATION WITH HEMIZONIA FASCICULATA AND SELAGINELLA CINERASCENS; ALSO FOUND WITH SIMMONDSIA CHINENSIS, AMBROSIA CHENOPODIIFOLIA, RHUS INTEGRIFOLIA, ETC.

Threats:

VEHICULAR TRAFFIC, GOAT GRAZING, AGRICULTURE USE TO THE NORTH, NON-NATIVE GRASSES, BRUSH MGMT.

General:

S POLY SEEN IN 1995. W POLY SEEN IN 2001. N POLY: ~100 IN 2012. MIDDLE POLY: 1000+ IN 2001, NONE IN 2002, 3004 IN 2003, 2024 IN 2004, 2996 IN 2005, 500 IN 2006, 0 IN 2008 OR 2009, 21 IN '14, 68 IN '15, 1411 IN '16, 5363 IN '17, 85 IN '18.

PLSS: T19S, R01W, Sec. 5, N (S)
Accuracy: specific area
Area (acres): 19
UTM: Zone-11 N3601800 E499934
Latitude/Longitude: 32.55359 / -117.0007
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

BAL09F0026	BALO, K. & J. GAUDETTE (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2009-05-15
CPR19U0001	CALIFORNIA PLANT RESCUE - SEED BANK DATA FOR THE CALIFORNIA PLANT RESCUE PROJECT 2019-07-24
PRO10S0001	PROVANCE, M. - PROVANCE #17237 UCR #277546 2010-05-28
REB12S0005	REBMAN, J. ET AL. - REBMAN #23852 SD #225549 2012-05-10
RIG95F0003	RIGGAN, R. - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 1995-05-17
ROC06F0008	ROCKS, M. ET AL. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA & DUDLEYA VARIEGATA 2006-05-16
SDG03R0008	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR DUDLEYA VARIEGATA 2003-06-XX
SDG04R0005	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR DUDLEYA VARIEGATA 2004-06-XX
SDG05R0006	CITY OF SAN DIEGO - CITY OF SAN DIEGO, RARE PLANT MONITORING REPORT, 2005: DUDLEYA VARIEGATA 2005-XX-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	91404	**EO Index:**	92394
Key Quad:	El Cajon (3211678)	**Element Code:**	PDCRA040R0
Occurrence Number:	82	**Occurrence Last Updated:**	2019-10-11

Scientific Name: *Dudleya variegata*

Common Name: variegated dudleya

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G2

State: S2

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed:	1935-05-27	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1935-05-27	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

FLETCHER HILLS.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS AROUND THE FLETCHER HILLS NEAR EL CAJON.

Ecological:

Threats:

AREA HAS BEEN HIGHLY DEVELOPED SINCE 1935 COLLECTION WAS MADE.

General:

SITE BASED ON A 1935 GANDER COLLECTION. 1878 CLEVELAND COLLECTIONS FROM EL CAJON AND EL CAJON VALLEY ARE ALSO ATTRIBUTED TO THIS SITE. NEEDS FIELDWORK.

PLSS:	T16S, R01W, Sec. 04 (S)	**Accuracy:**	4/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3630206 E500860	**Latitude/Longitude:**	32.80984 / -116.99080	**Elevation (feet):**	

County Summary:	**Quad Summary:**
San Diego	El Cajon (3211678), La Mesa (3211771)

Sources:

CLE78S0006	CLEVELAND, D. - CLEVELAND SN SD #8326 1878-05-XX
CLE78S0008	CLEVELAND, D. - CLEVELAND SN MO #1814671, SEINET #10862767 1878-05-15
GAN35S0067	GANDER, F. - GANDER #5925 SD #21695 1935-05-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 91405
Key Quad: Imperial Beach (3211751)
Occurrence Number: 83
EO Index: 92395
Element Code: PDCRA040R0
Occurrence Last Updated: 2014-02-04

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 2001-XX-XX
Last Survey Date: 2008-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

HEAD OF DENNERY CANYON, OTAY MESA.

Detailed Location:

MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO DIGITAL DATA FROM THE CITY OF SAN DIEGO.

Ecological:

Threats:

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN 2001 ACCORDING TO CITY OF SAN DIEGO DIGITAL DATA. NONE IN 2008 AT OCEAN VIEW HILLS SITE. A 1969 MORAN COLLECTION FROM "OTAY MESA ROAD, 1 MILE WEST OF BROWN FIELD, 492 FT" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS: T18S, R01W, Sec. 29, SW (S)
Accuracy: specific area
Area (acres): 6
UTM: Zone-11 N3603745 E499042
Latitude/Longitude: 32.57114 / -117.01020
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

MOR69S0007	MORAN, R. & H. WITHAM - MORAN #16038 RSA #207359, SD #71702 1969-06-06
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	91406	**EO Index:**	92396
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDCRA040R0
Occurrence Number:	84	**Occurrence Last Updated:**	2014-02-04

Scientific Name: *Dudleya variegata*

Common Name: variegated dudleya

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

WEST OF DENNERY CANYON; APPROXIMATELY 0.5-0.8 AIR MILE NORTH OF OTAY MESA ROAD, OTAY MESA.

Detailed Location:

MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO A 1998 AFFINIS MAP AND CITY OF SAN DIEGO DIGITAL DATA.

Ecological:

OCCURS WITH DUDLEYA EDULIS, FEROCACTUS VIRIDESCENS, AND AMBROSIA CHENOPODIIFOLIA.

Threats:

SOME POPS TO BE IMPACTED BY DEVELOPMENT; PLANTS TO BE TRANSPLANTED NEARBY (1998). NW POLY EXTIRPATED BY DEVELOPMENT.

General:

5000+ INDIVIDUALS OBSERVED IN 1998. UNKNOWN NUMBER OBSERVED IN 2001 ACCORDING TO CITY OF SAN DIEGO DIGITAL DATA.

PLSS:	T18S, R01W, Sec. 30, NE (S)	**Accuracy:**	specific area	**Area (acres):**	10
UTM:	Zone-11 N3604528 E498394	**Latitude/Longitude:**	32.57820 / -117.01710	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

AFF98U0007	AFFINIS - SERIES OF DOCUMENTS RELATING TO THE CONCEPTUAL REVEGETATION PLAN, HIDDEN TRAILS PROPERTY, OTAY MESA 1998-10-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 91407
EO Index: 92397
Key Quad: Imperial Beach (3211751)
Element Code: PDCRA040R0
Occurrence Number: 85
Occurrence Last Updated: 2014-02-04

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: None
Owner/Manager: PVT
Trend: Unknown
Presence: Extirpated

Location:

JUST NE OF THE JUNCTION OF PALM AVENUE WITH I-805, OTAY RIVER VALLEY.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS IN THE SE 1/4 OF THE SE 1/4 OF SECTION 24 ACCORDING TO CITY OF SAN DIEGO DIGITAL DATA.

Ecological:

Threats:

BASED ON 2010 AERIAL IMAGERY, THIS AREA LOOKS TO HAVE BEEN DEVELOPED.

General:

ONLY SOURCE OF INFO IS CITY OF SAN DIEGO DIGITAL DATA WITH MINIMAL ATTRIBUTE TABLE INFO (YEAR: 2001 AND LOCATION: OTAY R VALLEY). ACCORDING TO AERIAL IMAGERY, SITE ALREADY DEVELOPED IN 2001; PLANTS LIKELY OBSERVED PRE-2001.

PLSS: T18S, R02W, Sec. 24, SE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3605389 E496827
Latitude/Longitude: 32.58597 / -117.03380
Elevation (feet): 250

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 91408
EO Index: 92398
Key Quad: Imperial Beach (3211751)
Element Code: PDCRA040R0
Occurrence Number: 86
Occurrence Last Updated: 2014-02-04

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 2010-02-09
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2010-02-09
Occurrence Rank: Good
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:

JUST NE OF FINNEY ELEMENTARY SCHOOL, OTAY VALLEY.

Detailed Location:

ALONG EDGE OF MESA BORDERING OTAY VALLEY REGIONAL PARK. IN THE SW 1/4 SW 1/4 OF SECTION 24.

Ecological:

Threats:

TRAMPLING BY HIKERS AND VAGRANTS. POPULATION BORDERED BY OFFICIAL TRAIL.

General:

1000S OF INDIVIDUALS OBSERVED IN 2010.

PLSS: T18S, R02W, Sec. 24, SW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3605391 E495549
Latitude/Longitude: 32.58598 / -117.04742
Elevation (feet): 218

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

BEN10D0001 BENNETT, A. (RECON ENVIRONMENTAL, INC.) - SHAPEFILE OF DUDLEYA VARIEGATA OCCURRENCE 2010-02-02

BEN10F0001 BENNETT, A. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2010-02-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 91409
Key Quad: Imperial Beach (3211751)
Occurrence Number: 87
EO Index: 92399
Element Code: PDCRA040R0
Occurrence Last Updated: 2014-02-04

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 2001-XX-XX
Last Survey Date: 2001-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

APPROXIMATELY 0.4 AIR MILE ENE OF THE PORT OF ENTRY, BETWEEN SOUTH RIM AND THE MEXICAN BORDER.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO CITY OF SAN DIEGO DIGITAL DATA IN THE NE 1/4 OF THE SW 1/4 OF SECTION 6.

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS CITY OF SAN DIEGO DIGITAL DATA WITH MINIMAL ATTRIBUTE TABLE INFORMATION (YEAR: 2001). NEED ADDITIONAL INFORMATION ABOUT THIS SITE.

PLSS: T19S, R01W, Sec. 06, SW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3600886 E497781
Latitude/Longitude: 32.54535 / -117.02362
Elevation (feet): 350

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

SDG08D0001 CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	91410	**EO Index:**	92400
Key Quad:	National City (3211761)	**Element Code:**	PDCRA040R0
Occurrence Number:	88	**Occurrence Last Updated:**	2017-07-18

Scientific Name: *Dudleya variegata*

Common Name: variegated dudleya

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G2

State: S2

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed:	2014-05-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2014-05-XX	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Increasing
Presence:	Presumed Extant		

Location:

RICE CANYON; APPROXIMATELY 0.2 TO 0.6 AIR MILE WEST OF THE EASTERN JUNCTION OF RANCHO DEL REY PARKWAY AND RICE CANYON.

Detailed Location:

PMA SUBUNIT 1-2B. MAPPED ACCORDING TO 2004 RECON DIGITAL DATA AND A 2014 RECON MAP IN THE SOUTH 1/2 OF THE SE 1/4 OF SECTION 31 AND THE SW 1/4 OF THE SW 1/4 OF SECTION 32. INCLUDES FORMER OCCURRENCE #89.

Ecological:

NATIVE GRASSLAND ASSOCIATED WITH HARPAGONELLA PALMERI, DEINANDRA CONJUGENS, CONVOLVULUS SIMULANS, AND ACANTHOMINTHA ILICIFOLIA.

Threats:

General:

220 PLANTS OBSERVED DURING 2002/2003 SURVEYS. 15 PLANTS IN 2011, 75 IN 2012, 1127 IN 2013, AND 2192 IN 2014. A 1985 THORNE COLLECTION FROM "S SIDE RICE CYN, 1/4 MI W OF MAIN POWERLINE CROSSING, 330 FT" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS:	T17S, R01W, Sec. 31, SE (S)	**Accuracy:**	specific area	**Area (acres):**	5
UTM:	Zone-11 N3611783 E498383	**Latitude/Longitude:**	32.64365 / -117.01724	**Elevation (feet):**	330

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05
REC14R0001	RECON ENVIRONMENTAL, INC. - YEAR 3 FINAL ANNUAL REPORT FOR THE CENTRAL CITY PRESERVE OTAY TARPLANT AND SAN DIEGO THORNMINT RESTORATION AND ENHANCEMENT PROGRAM 2014-09-30
THO85S0004	THORNE, R. - THORNE #58455 RSA #339076 1985-01-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	91412	**EO Index:**	92402
Key Quad:	National City (3211761)	**Element Code:**	PDCRA040R0
Occurrence Number:	90	**Occurrence Last Updated:**	2017-07-28

Scientific Name: *Dudleya variegata*

Common Name: variegated dudleya

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.2

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed:	2014-05-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2014-05-XX	**Occurrence Rank:**	Poor
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH SIDE OF OTAY LAKES ROAD, APPROXIMATELY 1.2 ROAD MILES SE OF ITS JUNCTION WITH BONITA ROAD, SOUTH OF LONG CANYON.

Detailed Location:

PMA SUBUNIT 1-1C. MAPPED ACCORDING TO 2004 RECON DIGITAL DATA AND A 2014 RECON MAP IN THE SE 1/4 OF THE NE 1/4 OF SECTION 31.

Ecological:

COASTAL SAGE SCRUB. NEAR A POPULATION OF DEINANDRA CONJUGENS.

Threats:

General:

30 PLANTS OBSERVED DURING 2002/2003 SURVEYS. 0 PLANTS REPORTED FROM VICINITY IN 2011, 2012, AND 2013. 5 PLANTS OBSERVED IN 2014.

PLSS:	T17S, R01W, Sec. 31, NE (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3612671 E498515	**Latitude/Longitude:**	32.65166 / -117.01584	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05
REC14R0001	RECON ENVIRONMENTAL, INC. - YEAR 3 FINAL ANNUAL REPORT FOR THE CENTRAL CITY PRESERVE OTAY TARPLANT AND SAN DIEGO THORNMINT RESTORATION AND ENHANCEMENT PROGRAM 2014-09-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 91413
Key Quad: National City (3211761)
Occurrence Number: 91
EO Index: 92403
Element Code: PDCRA040R0
Occurrence Last Updated: 2014-02-04

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 2003-XX-XX
Last Survey Date: 2003-XX-XX
Owner/Manager: CITY OF CHULA VISTA
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SOUTH SIDE OF LONG CANYON APPROXIMATELY 0.2 AIR MILE SE OF THE EAST END OF ACACIA AVENUE.

Detailed Location:
PMA SUBUNIT 4-2A. MAPPED ACCORDING TO 2004 RECON DIGITAL DATA IN THE NE 1/4 OF THE NW 1/4 OF SECTION 32.

Ecological:
COASTAL SAGE SCRUB. CO-OCCURS WITH HARPAGONELLA PALMERI.

Threats:

General:
APPROXIMATELY 50 INDIVIDUALS OBSERVED DURING 2002/2003 SURVEYS.

PLSS: T17S, R01W, Sec. 32, NW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3612924 E499363
Latitude/Longitude: 32.65394 / -117.00678
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 91414
EO Index: 92404
Key Quad: National City (3211761)
Element Code: PDCRA040R0
Occurrence Number: 92
Occurrence Last Updated: 2014-02-18

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 1969-05-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1969-05-16
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
1/2 MILE EAST OF BONITA AND ACACIA ROADS, SOUTH OF SUNNYSIDE.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS ABOUT 0.5 AIR MILE EAST OF THE JUNCTION OF BONITA ROAD AND ACACIA ROAD. ELEVATION ON LABEL SAYS 186 METERS BUT ELEVATION IN AREA IS CLOSER TO 186 FEET.

Ecological:

Threats:
BASED ON AERIAL PHOTOS, THIS AREA HAS BEEN SIGNIFICANTLY DEVELOPED SINCE 1969 COLLECTION.

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1969 BARKOVIC COLLECTION. NEEDS FIELDWORK.

PLSS: T17S, R01W, Sec. 30 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3614155 E498556
Latitude/Longitude: 32.66505 / -117.01539
Elevation (feet): 186

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
BAR69S0003 BARKOVIC, J. - BARKOVIC SN SDSU #5760 1969-05-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 91415
EO Index: 92406
Key Quad: National City (3211761)
Element Code: PDCRA040R0
Occurrence Number: 93
Occurrence Last Updated: 2014-02-04

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 1995-04-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1995-04-XX
Occurrence Rank: Unknown
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:

NW OF THE JUNCTION OF SAN MIGUEL ROAD AND PROCTOR VALLEY ROAD, SW END OF SWEETWATER RESERVOIR.

Detailed Location:

IN THE SW 1/4 OF THE NE 1/4 OF SECTION 20.

Ecological:

DEINANDRA CONJUGENS OCCURS NEARBY.

Threats:

General:

UNCOMMON IN 1995.

PLSS: T17S, R01W, Sec. 20, NE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3615902 E499625
Latitude/Longitude: 32.68081 / -117.00399
Elevation (feet): 250

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

REC95R0002 RECON - ADDENDUM, BIOLOGICAL RESOURCES TECHNICAL REPORT FOR STATE ROUTE 125 SOUTH, CITIZENS ADVISORY COMMITTEE VARIATION ALTERNATIVE 1995-06-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 91416
EO Index: 92409
Key Quad: National City (3211761)
Element Code: PDCRA040R0
Occurrence Number: 94
Occurrence Last Updated: 2014-02-04

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 1968-02-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1968-02-16
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:
0.3 MILE EAST OF MEADOWBROOK DRIVE, BETWEEN BAY FREEWAY AND PARADISE VALLEY ROAD, WEST OF SWEETWATER RESERVOIR.

Detailed Location:
ON EAST SIDE OF CANYON. EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS BASED ON ABOVE LOCATION DESCRIPTION.

Ecological:

Threats:
BASED ON 2010 AERIAL IMAGERY, THIS AREA HAS BEEN FULLY DEVELOPED; SITE PRESUMED EXTIRPATED.

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1968 BEAUCHAMP COLLECTION.

PLSS: T17S, R01W, Sec. 18 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3617375 E498104
Latitude/Longitude: 32.69409 / -117.02022
Elevation (feet):

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:
BEA68S0001 BEAUCHAMP, R. - BEAUCHAMP #765 SDSU #5754 1968-02-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	91417	**EO Index:**	92410
Key Quad:	National City (3211761)	**Element Code:**	PDCRA040R0
Occurrence Number:	95	**Occurrence Last Updated:**	2019-09-23

Scientific Name: *Dudleya variegata*

Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G2
State: S2

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed:	2018-05-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2018-05-15	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

PARADISE HILLS COMMUNITY PARK, EASTERN NATIONAL CITY.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO CITY OF SAN DIEGO AND SDMMP DIGITAL DATA, IN THE SOUTH 1/2 OF THE SE 1/4 OF SECTION 14.

Ecological:

RHUS INTEGRIFOLIA ALLIANCE AND ASSOCIATION.

Threats:

NON-NATIVES

General:

UNKNOWN NUMBER IN 2001 ACCORDING TO CITY OF SAN DIEGO DIGITAL DATA. 100 AT "PARADISE HILLS" IN 2008. 15 IN 2018. 1967 BEAUCHAMP COLLECTION FROM "WEST SLOPE OPPOSITE OLD DUMP SITE ON PARADISE MESA BEHIND NATIONAL CITY" ATTRIBUTED HERE.

PLSS:	T17S, R02W, Sec. 14, SE (S)	**Accuracy:**	specific area	**Area (acres):**	3
UTM:	Zone-11 N3616654 E494954	**Latitude/Longitude:**	32.68758 / -117.05382	**Elevation (feet):**	285

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

BEA67S0052	BEAUCHAMP, R. - BEAUCHAMP SN SDSU #5766 1967-03-01
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 91418
Key Quad: La Mesa (3211771)
Occurrence Number: 96
EO Index: 92412
Element Code: PDCRA040R0
Occurrence Last Updated: 2014-02-07

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 2001-XX-XX
Last Survey Date: 2009-05-22
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SW END OF LAKE MURRAY WITHIN MISSION TRAILS REGIONAL PARK.

Detailed Location:

MAPPED BY CNDDB IN THE FAR NW 1/4 OF THE SW 1/4 OF SECTION 13.

Ecological:

Threats:

POSSIBLY THREATENED BY NON-NATIVE GRASSES.

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN 2001 ACCORDING TO CITY OF SAN DIEGO DIGITAL DATA. NO PLANTS OBSERVED IN 2008 AND 2009 BUT SURVEY COORDINATES ARE FROM JUST NE OF MAPPED SITE.

PLSS: T16S, R02W, Sec. 13, SW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3627026 E495423
Latitude/Longitude: 32.78115 / -117.04886
Elevation (feet): 450

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

MIL09F0085	MILLER, B. & J. GAUDETTE - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2009-05-22
REC13R0001	RECON ENVIRONMENTAL, INC. - NATURAL RESOURCE MANAGEMENT PLAN FOR MISSION TRAILS REGIONAL PARK, SAN DIEGO, CALIFORNIA 2013-10-31
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 91419
EO Index: 92413
Key Quad: La Mesa (3211771)
Element Code: PDCRA040R0
Occurrence Number: 97
Occurrence Last Updated: 2019-09-16

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G2
State: S2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 2018-05-02
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2018-05-02
Occurrence Rank: Fair
Owner/Manager: CITY OF SAN DIEGO
Trend: Fluctuating
Presence: Presumed Extant

Location:

RANCHO MISSION PARK; APPROX 0.65 AIR MILE NE OF THE JUNCTION OF MARGERUM AVENUE AND NAVAJO ROAD, NORTH OF LAKE MURRAY.

Detailed Location:

WITHIN RANCHO MISSION CANYON PARK AND OPEN SPACE. MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO DIGITAL DATA FROM THE CITY OF SAN DIEGO, IN THE SE 1/4 OF THE SW 1/4 OF SECTION 2.

Ecological:

CHAPARRAL. ASSOCIATED WITH BRACHYPODIUM DISTACHYON, ERIOGONUM FASCICULATUM, ISOCOMA MENZIESII, BRASSICA NIGRA, ERODIUM SP., BACCHARIS SAROTHROIDES, RHUS INTEGRIFOLIA, HETEROMELES ARBUTIFOLIA, NASSELLA, ETC.

Threats:

HIGH COVER OF BRACHYPODIUM AND BRASSICA.

General:

215 PLANTS OBSERVED IN 2001, 0 IN 2002, 3,209 IN 2003, 566 IN 2004, 400 ESTIMATED IN 2007, 500 IN 2008, 1500 IN 2009, 552 IN 2014, 1007 IN 2015, 847 IN 2016, 786 IN 2017, 176 IN 2018.

PLSS: T16S, R02W, Sec. 02, SW (S)
Accuracy: specific area
Area (acres): 3
UTM: Zone-11 N3629653 E494465
Latitude/Longitude: 32.80484 / -117.05911
Elevation (feet): 450

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

MIL09F0040	MILLER, B. & M. LOGAN (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2009-05-21
SDG03R0008	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR DUDLEYA VARIEGATA 2003-06-XX
SDG04R0005	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR DUDLEYA VARIEGATA 2004-06-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	91420	**EO Index:**	92420
Key Quad:	La Mesa (3211771)	**Element Code:**	PDCRA040R0
Occurrence Number:	98	**Occurrence Last Updated:**	2019-09-30

Scientific Name: *Dudleya variegata*

Common Name: variegated dudleya

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G2

State: S2

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed:	2018-05-22	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2018-05-22	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

APPROXIMATELY 0.7 TO 1.8 AIR MILES SSW OF FORTUNA MOUNTAIN SUMMIT, NORTH OF MISSION GORGE, MISSION TRAILS REGIONAL PARK.

Detailed Location:

MISSION TRAILS REGIONAL PARK SITE. MAPPED BY CNDDB AS 16 POLYGONS IN THE SW 1/4 SW 1/4 SECTION 26, SE 1/4 SECTION 27, EAST 1/2 SECTION 34 AND NW 1/4 NW 1/4 SECTION 35. PORTION OF OCCURRENCE IS A TRANSPLANT.

Ecological:

SPARSE COASTAL SAGE SCRUB AND NON-NATIVE GRASSLAND. ASSOCIATED WITH BRACHYPODIUM DISTACHYON, NASSELLA LEPIDA, AVENA BARBATA, BROMUS MADRITENSIS SSP. RUBENS, DEINANDRA FASCICULATA, VULPIA, ERODIUM SP., LOTUS SCOPARIUS, MALOSMA LAURINA, ETC.

Threats:

NON-NATIVES, DUMPING/TRASH, TRAIL USE.

General:

316 PLANTS IN 2001. 0 IN 2002. 2368 IN 2003, 1129 IN 2004, 2878 IN 2005, 1400 ESTIMATED IN 2006, 120 IN 2008. 67 IN SMALL PORTION IN 2010. 3 S-MOST POLYS: 200 IN 2009, 180 IN 2014, 450 IN 2015, 3786 IN 2016, 3137 IN 2017, 549 IN 2018.

PLSS:	T15S, R02W, Sec. 34, NW (S)	**Accuracy:**	specific area	**Area (acres):**	18
UTM:	Zone-11 N3632360 E493679	**Latitude/Longitude:**	32.82925 / -117.06754	**Elevation (feet):**	600

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

ALF05F0012	ALFARO, E. - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2005-05-01
CPR19U0001	CALIFORNIA PLANT RESCUE - SEED BANK DATA FOR THE CALIFORNIA PLANT RESCUE PROJECT 2019-07-24
HEL10R0024	HELIX ENVIRONMENTAL PLANNING, INC. - R0274 RELINING PIPELINE 4 STATE ROUTE 52 TO LAKE MURRAY & PIPELINE 3 30-INCH INTERCONNECT TO LAKE MURRAY CONTROL VALVE, BIOLOGICAL TECHNICAL REPORT 2010-10-08
JOH06F0011	JOHNSON, M. ET AL. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2006-05-26
JOH06F0012	JOHNSON, M. ET AL. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2006-05-26
JOH06F0013	JOHNSON, M. ET AL. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2006-05-26
MIL09F0032	MILLER, B. & M. LOGAN (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2009-05-19
MIL09F0033	MILLER, B. & M. LOGAN (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2009-05-19
MIL09F0034	MILLER, B. & M. LOGAN (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2009-05-19
REC13R0001	RECON ENVIRONMENTAL, INC. - NATURAL RESOURCE MANAGEMENT PLAN FOR MISSION TRAILS REGIONAL PARK, SAN DIEGO, CALIFORNIA 2013-10-31
SDG04R0005	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR DUDLEYA VARIEGATA 2004-06-XX
SDG05R0006	CITY OF SAN DIEGO - CITY OF SAN DIEGO, RARE PLANT MONITORING REPORT, 2005: DUDLEYA VARIEGATA 2005-XX-XX
SDG07D0001	CITY OF SAN DIEGO - SHAPEFILE OF DUDLEYA VARIEGATA TRANSLOCATION POINTS AT MISSION TRAILS REGIONAL PARK 2007-XX-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 91421
EO Index: 92422
Key Quad: La Mesa (3211771)
Element Code: PDCRA040R0
Occurrence Number: 99
Occurrence Last Updated: 2014-02-04

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G2
State: S2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 2001-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

APPROXIMATELY 1.1 AIR MILES SW OF FORTUNA MOUNTAIN SUMMIT, MISSION TRAILS REGIONAL PARK.

Detailed Location:

MAPPED BY CNDDB IN THE NE 1/4 OF THE SW 1/4 OF SECTION 27 ACCORDING TO DIGITAL DATA FROM THE CITY OF SAN DIEGO.

Ecological:

Threats:

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN 2001.

PLSS: T15S, R02W, Sec. 27, SW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3633557 E492728
Latitude/Longitude: 32.84004 / -117.07770
Elevation (feet): 700

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

REC13R0001	RECON ENVIRONMENTAL, INC. - NATURAL RESOURCE MANAGEMENT PLAN FOR MISSION TRAILS REGIONAL PARK, SAN DIEGO, CALIFORNIA 2013-10-31
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	91422	**EO Index:**	92427
Key Quad:	La Mesa (3211771)	**Element Code:**	PDCRA040R0
Occurrence Number:	100	**Occurrence Last Updated:**	2019-09-23

Scientific Name: *Dudleya variegata*

Common Name: variegated dudleya

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G2

State: S2

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed:	2018-07-27	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2018-07-27	**Occurrence Rank:**	Good
Owner/Manager:	DOD-MCAS MIRAMAR, OTHERS	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

OAK CANYON; APPROXIMATELY 1.5 AIR MILES NNE OF FORTUNA MOUNTAIN SUMMIT, NORTH OF MISSION TRAILS REGIONAL PARK.

Detailed Location:

INCLUDES EAST ELLIOTT SITES. MAPPED BY CNDDB AS 11 POLYGONS ACCORDING TO DIGITAL DATA FROM THE CITY OF SAN DIEGO AND RECON ENVIRONMENTAL INC. 2013 RECON REPORT INDICATES THAT POPULATIONS IN THIS AREA HAVE DECREASED SIGNIFICANTLY.

Ecological:

NATIVE AND NON-NATIVE GRASSLAND, POST-FIRE COASTAL SAGE SCRUB, AND CHAMISE CHAPARRAL. ASSOCIATED WITH NASSELLA PUCHRA, HEMIZONIA FASCICULATA, ERIOGONUM FASCICULATUM, SELAGINELLA CINERASCENS, ADENOSTOMA FASCICULATUM, AVENA BARBATA, ETC.

Threats:

THREATS INCLUDE HIGH NON-NATIVE GRASS COVER, ILLEGAL TRAILS, AND TOO FREQUENT FIRE.

General:

WEST HALF OF SITE: 4819 INDIVIDUALS IN 2003, 923 IN 2004. EAST HALF OF SITE: UNKNOWN NUMBER IN 2001, 400-500 INDIVIDUALS IN 2006, 520 IN 2008, 142 IN 2009. MIDDLE PORTION: 1 IN 2014, 44 IN 2015, 161 IN 2016, 63 IN 2017, 33 IN 2018.

PLSS:	T15S, R02W, Sec. 14 (S)	**Accuracy:**	specific area	**Area (acres):**	29
UTM:	Zone-11 N3636701 E494868	**Latitude/Longitude:**	32.86841 / -117.05485	**Elevation (feet):**	600

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

GRE06F0041	GREER, K. ET AL. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2006-05-26
JOH06F0008	JOHNSON, M. & J. GARCIA (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2006-06-01
JOH06F0009	JOHNSON, M. & J. GARCIA (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2006-06-01
MIL09F0035	MILLER, B. & M. JENNINGS (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2009-05-21
MIL09F0036	MILLER, B. & M. JENNINGS (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2009-05-21
MIL09F0037	MILLER, B. & M. JENNINGS (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2009-05-21
REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05
REC13R0001	RECON ENVIRONMENTAL, INC. - NATURAL RESOURCE MANAGEMENT PLAN FOR MISSION TRAILS REGIONAL PARK, SAN DIEGO, CALIFORNIA 2013-10-31
SCH03F0032	SCHEID, G. - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2003-05-29
SCH04F0035	SCHEID, G. - FIELD SURVEY FORM FOR DUDLEYA VARIEGATA 2004-04-29
SDG04R0005	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR DUDLEYA VARIEGATA 2004-06-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 91441
Key Quad: La Jolla (3211772)
Occurrence Number: 116
EO Index: 92510
Element Code: PDCRA040R0
Occurrence Last Updated: 2014-02-05

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 1971-XX-XX
Last Survey Date: 1982-07-20
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

MIRAMAR MOUNDS NATIONAL NATURAL LANDMARK.

Detailed Location:

Ecological:

Threats:

General:

A 1982 BEAUCHAMP REPORT MENTIONS THAT DUDLEYA VARIEGATA WAS OBSERVED IN "THE LANDMARK ABOUT 1971" BUT WAS NOT SEEN DURING THE 1982 STUDY. ALSO MENTIONED BY REISER AS OCCURRING AT "MIRAMAR MOUNDS."

PLSS: T15S, R03W, Sec. 25 (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3633965 E486789
Latitude/Longitude: 32.84367 / -117.14116
Elevation (feet):

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30
REI89R0002	REISER, C. - THE RARE PLANTS OF SAN DIEGO COUNTY 1989-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	91442	**EO Index:**	92511
Key Quad:	La Mesa (3211771)	**Element Code:**	PDCRA040R0
Occurrence Number:	117	**Occurrence Last Updated:**	2017-07-20

Scientific Name: *Dudleya variegata*

Common Name: variegated dudleya

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G2

State: S2

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed:	2010-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2010-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BETWEEN THE MOUTH OF QUAIL CANYON AND WEST SYCAMORE CANYON, NW SANTEE.

Detailed Location:

MAPPED BY CNDDB AS 8 POLYGONS ACCORDING TO CITY OF SAN DIEGO DIGITAL DATA AND A 2013 CITY OF SAN DIEGO MAP. IN THE WEST 1/2 OF SECTION 17 EXTENDING SLIGHTLY INTO THE EAST 1/2 OF SECTION 18.

Ecological:

Threats:

General:

SITE BASED ON CITY OF SDG DIGITAL DATA WITH MINIMAL ATTRIBUTE TABLE INFO (YEAR: 2001) AND A 2013 CITY OF SDG REPORT WHICH MENTIONS 500 PLANTS WERE OBSERVED BTWN THIS EO & EO #19 SOMETIME BTWN 2001 & 2010. NEED ADDITIONAL INFO ABOUT SITE.

PLSS:	T15S, R01W, Sec. 17, W (S)	**Accuracy:**	specific area	**Area (acres):**	7
UTM:	Zone-11 N3636767 E498894	**Latitude/Longitude:**	32.86902 / -117.01181	**Elevation (feet):**	600

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

KLE01R0002	KLEIN, M. & C. EDWARDS (KLEIN-EDWARDS PROFESSIONAL SERVICES) - RESULTS OF PROTOCOL SURVEYS PERFORMED FOR COASTAL CALIFORNIA GNATCATCHER AT THE EAST ELLIOTT SITE, CITY OF SAN DIEGO, SAN DIEGO COUNTY, CALIFORNIA. 2001-08-25
REC13R0001	RECON ENVIRONMENTAL, INC. - NATURAL RESOURCE MANAGEMENT PLAN FOR MISSION TRAILS REGIONAL PARK, SAN DIEGO, CALIFORNIA 2013-10-31
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG13R0001	CITY OF SAN DIEGO - FINAL ENVIRONMENTAL IMPACT REPORT FOR THE CASTLEROCK PROJECT 2013-06-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 93968
EO Index: 95095
Key Quad: National City (3211761)
Element Code: PDCRA040R0
Occurrence Number: 118
Occurrence Last Updated: 2014-09-26

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 1998-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1998-XX-XX
Occurrence Rank: None
Owner/Manager: CALTRANS
Trend: Unknown
Presence: Possibly Extirpated

Location:
SR 125, ABOUT 0.45 AIR MILE SE OF JUNCTION OF HWY 54 AND SWEETWATER RD, WEST OF SWEETWATER RESERVOIR.

Detailed Location:
MAPPED ACCORDING TO A MAP PROVIDED IN A 1998 RECON ENVIRONMENTAL, INC REPORT, IN THE SW 1/4 OF THE SW 1/4 OF SECTION 17.

Ecological:
MARITIME SUCCULENT SCRUB. IN ROCKS ON SW-FACING SLOPE.

Threats:
CONSTRUCTION OF SR-125 MAY HAVE DIRECTLY IMPACTED THIS POPULATION.

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN MARCH OR APRIL OF 1998.

PLSS: T17S, R01W, Sec. 17, SW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3616558 E498958
Latitude/Longitude: 32.68672 / -117.01110
Elevation (feet): 200

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

DOD98R0001 DODERO, M. ET AL. (RECON ENVIRONMENTAL, INC.) - STATE ROUTE 125 SOUTH 1998 QUINO CHECKERSPOT HABITAT ANALYSIS AND SURVEY RESULTS. 1998-07-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03519
EO Index: 95096
Key Quad: La Jolla (3211772)
Element Code: PDCRA040R0
Occurrence Number: 119
Occurrence Last Updated: 2014-09-26

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G2
State: S2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 1914-05-23
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1914-05-23
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

LA JOLLA.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS IN THE VICINITY OF LA JOLLA.

Ecological:

SANDY SOIL; DUNE STRAND.

Threats:

THERE HAS BEEN EXTENSTIVE DEVELOPMENT IN THIS AREA SINCE THE COLLECTION WAS MADE.

General:

ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1914 CLEMENTS & CLEMENTS COLLECTION. NEEDS FIELDWORK.

PLSS: T15S, R04W, Sec. 27 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3633342 E473790
Latitude/Longitude: 32.83782 / -117.28005
Elevation (feet):

County Summary:

San Diego, Pacific Ocean

Quad Summary:

La Jolla (3211772)

Sources:

CLE14S0009 CLEMENTS, F. & E. CLEMENTS - CLEMENTS #169 UCSB #2529 1914-05-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A5417
Key Quad: Imperial Beach (3211751)
Occurrence Number: 125

EO Index: 107148
Element Code: PDCRA040R0
Occurrence Last Updated: 2017-07-19

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2
State: S2

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 2000-XX-XX
Last Survey Date: 2000-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SOUTH SIDE OF POGGI CANYON, ABOUT 0.6 AIR MILE SOUTHWEST OF THE INTERSECTION OF HERITAGE RD AND OLYMPIC PARKWAY.

Detailed Location:
MAPPED IN THE NORTH 1/2 OF THE NW 1/4 OF SECTION 17 ACCORDING TO A 2002 MAP BY DUDEK & ASSOCIATES.

Ecological:
COASTAL SAGE SCRUB. THE RARE DEINANDRA CONJUGENS ALSO OCCURS IN THIS VICINITY.

Threats:

General:
100 PLANTS OBSERVED, PRESUMABLY DURING A 2000 SURVEY.

PLSS: T18S, R01W, Sec. 17, NW (S)
UTM: Zone-11 N3608060 E499103

Accuracy: specific area
Latitude/Longitude: 32.61007 / -117.00956

Area (acres): 1
Elevation (feet): 430

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

DUD02U0004 DUDEK & ASSOCIATES, INC. - CALIFORNIA GNATCATCHER SURVEY FOR THE OTAY RANCH VILLAGE 2 PROJECT, CITY OF CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA 2002-05-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B3963
Key Quad: National City (3211761)
Occurrence Number: 132
EO Index: 116877
Element Code: PDCRA040R0
Occurrence Last Updated: 2019-10-08

Scientific Name: *Dudleya variegata*
Common Name: variegated dudleya

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN ROCKY OR CLAY SOILS; SOMETIMES ASSOCIATED WITH VERNAL POOL MARGINS. 3-550 M.

Last Date Observed: 2018-05-15
Last Survey Date: 2018-05-15
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:

JUST SOUTH OF THE JUNCTION OF CAREFREE DRIVE AND PLAZA BLVD, PARADISE CANYON PARK.

Detailed Location:

MAPPED ACCORDING TO 2018 SDMMP DIGITAL DATA, IN THE SOUTH 1/2 OF THE NE 1/4 OF SECTION 14.

Ecological:

ARTEMISIA CALIFORNICA-ERIOGONUM FASCICULATUM ALLIANCE/ARTEMISIA CALIFORNICA-ERIOGONUM FASCICULATUM-MALOSMA LAURINA ASSOCIATION

Threats:

NON-NATIVES.

General:

1 INDIVIDUAL OBSERVED IN 2018.

PLSS: T17S, R02W, Sec. 14, NE (S)
UTM: Zone-11 N3617468 E494947
Accuracy: specific area
Latitude/Longitude: 32.69492 / -117.05391
Area (acres): 1
Elevation (feet): 255

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

SDM18D0001 SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47531
Key Quad: Point Loma (3211762)
Occurrence Number: 27
EO Index: 49465
Element Code: PDCRA040T0
Occurrence Last Updated: 2002-11-22

Scientific Name: *Dudleya viscida*
Common Name: sticky dudleya

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:
COASTAL SCRUB, COASTAL BLUFF SCRUB, CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:
ON NORTH AND SOUTH-FACING CLIFFS AND BANKS. 20-870 M.

Last Date Observed: 1902-05-XX
Last Survey Date: 1902-05-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
CLIFFS NEAR OCEAN BEACH.

Detailed Location:
EXACT LOCATION UNKNOWN, MAPPED IN THE VICINITY OF OCEAN BEACH.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1902 COLLECTION BY BRANDEGEE. NEEDS FIELDWORK.

PLSS: T16S, R04W, Sec. 36 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3623129 E476802
Latitude/Longitude: 32.74576 / -117.24761
Elevation (feet):

County Summary:
San Diego, Pacific Ocean

Quad Summary:
Point Loma (3211762), La Jolla (3211772)

Sources:
BRA02S0019 BRANDEGEE, T. - BRANDEGEE SN UC #147293 1902-05-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	63182	**EO Index:**	63274
Key Quad:	La Mesa (3211771)	**Element Code:**	PDERI040E8
Occurrence Number:	46	**Occurrence Last Updated:**	2014-01-07

Scientific Name: *Arctostaphylos glandulosa ssp. crassifolia*

Common Name: Del Mar manzanita

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank: 1B.1

Other Lists:

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

CHAPARRAL.

Micro Habitat:

SANDY COASTAL MESAS AND OCEAN BLUFFS; IN CHAPARRAL OR TORREY PINE FOREST. 30-365 M.

Last Date Observed:	2010-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2010-XX-XX	**Occurrence Rank:**	Good
Owner/Manager:	PVT-SDGE	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALONG SDG&E TRANSMISSION LINES, APPROXIMATELY 0.4 AIR MILE SOUTHEAST OF FORTUNA MOUNTAIN.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO 2004 KIM COORDINATES AND A 2008 ASPEN ENVIRONMENTAL GROUP MAP.

Ecological:

WEST-FACING SLOPE ON A RIDGETOP. HABITAT BURNED IN OCT 2003.

Threats:

ALTERED FIRE REGIME.

General:

200 INDIVIDUALS OBSERVED IN THE NE POLYGON IN 2004. 10 PLANTS OBSERVED IN THE SW POLYGON SOME TIME PRIOR TO 2008. EXTANT IN 2010 ACCORDING TO USFWS.

PLSS:	T15S, R02W, Sec. 26, NE (S)	**Accuracy:**	specific area	**Area (acres):**	10
UTM:	Zone-11 N3634000 E494938	**Latitude/Longitude:**	32.84405 / -117.05409	**Elevation (feet):**	800

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

ASP08R0002	ASPEN ENVIRONMENTAL GROUP - FINAL ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT AND PROPOSED LAND USE AMENDMENT, SAN DIEGO GAS & ELECTRIC CO APPLICATION FOR THE SUNRISE POWERLINK PROJECT, SEC D.2 2008-10-XX
FWS10U0002	U.S. FISH AND WILDLIFE SERVICE - ARCTOSTAPHYLOS GLANDULOSA SSP. CRASSIFOLIA 5-YEAR REVIEW: SUMMARY AND EVALUATION 2010-08-13
KIM04F0009	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR ARCTOSTAPHYLOS GLANDULOSA SSP. CRASSIFOLIA 2004-04-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	63183	**EO Index:**	63275
Key Quad:	Poway (3211781)	**Element Code:**	PDERI040E8
Occurrence Number:	47	**Occurrence Last Updated:**	2020-09-30

Scientific Name: *Arctostaphylos glandulosa ssp. crassifolia*

Common Name: Del Mar manzanita

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank: 1B.1

Other Lists:

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

CHAPARRAL.

Micro Habitat:

SANDY COASTAL MESAS AND OCEAN BLUFFS; IN CHAPARRAL OR TORREY PINE FOREST. 30-365 M.

Last Date Observed:	2016-02-21	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-02-21	**Occurrence Rank:**	Good
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BETWEEN SAN CLEMENTE CANYON AND OAK CANYON, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

IN 2003, PLANTS WERE GROWING IN A MIXED STAND WITH A. G. ZACAENSIS AND APPEAR TO BE HYBRIDIZING; A. G. CRASSIFOLIA AND TWO INTEGRADED FORMS CLOSER TO IT WERE MAPPED BY CNDDB. NO MENTION OF POSSIBLE HYBRIDS IN 2004.

Ecological:

SOUTHERN MIXED CHAPARRAL; ADENOSTOMA FASCICULATUM, XYLOCOCCUS BICOLOR, QUERCUS SP., CNEORIDIUM DUMOSUM, YUCCA SHIDIGERA, CORAGALLUM SP. REDDING SOILS. SAN DIEGO BARREL CACTUS AND SAN DIEGO GOLDENSTAR ALSO SEEN HERE.

Threats:

MAINTENANCE OF FIREBREAK. MILITARY OPERATIONS. POSSIBLE HYBRIDIZATION WITH A. G. ZACAENSIS. FIRE MAY ALSO THREATEN.

General:

68 A. G. CRASSIFOLIA INDIVIDUALS OBSERVED IN 2003 IN 2 W-MOST POLYGONS AND 1 N-MOST POLYGON. 518 PLANTS SEEN IN 2004 IN REMAINING POLYGONS. SMALL PORTIONS OF EO HAD 1000 PLANTS IN 2015, 200 IN 2016. INCLUDES FORMER OCCURRENCE #48 AND #53.

PLSS:	T15S, R02W, Sec. 11 (S)	**Accuracy:**	specific area	**Area (acres):**	123
UTM:	Zone-11 N3639045 E494532	**Latitude/Longitude:**	32.88956 / -117.05847	**Elevation (feet):**	850

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), Poway (3211781)

Sources:

BUR15F0007	BURGE, D. - FIELD SURVEY FORM FOR ARCTOSTAPHYLOS GLANDULOSA SSP. CRASSIFOLIA 2015-04-04
BUR15F0008	BURGE, D. - FIELD SURVEY FORM FOR ARCTOSTAPHYLOS GLANDULOSA SSP. CRASSIFOLIA 2015-04-04
BUR16F0001	BURGE, D. - FIELD SURVEY FORM FOR ARCTOSTAPHYLOS GLANDULOSA SSP. CRASSIFOLIA 2016-02-21
BUR16F0002	BURGE, D. - FIELD SURVEY FORM FOR ARCTOSTAPHYLOS GLANDULOSA SSP. CRASSIFOLIA 2016-02-21
FWS07D0001	U.S. FISH AND WILDLIFE SERVICE-CARLSBAD - USFWS CARLSBAD SPECIAL STATUS SPECIES DATABASE, AUGUST 2007 VERSION 2007-08-09
GEN06R0001	GENE STOUT AND ASSOCIATES & GEOMORPH INFORMATION SYSTEMS - INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN FOR MARINE CORPS AIR STATION MIRAMAR, CALIFORNIA 2006-2010. BIOLOGICAL RESOURCES. 2006-10-XX
KEL04U0001	KELLOGG, E. - RESULTS OF RARE PLANT SURVEYS PERFORMED ON MARINE CORPS AIR STATION MIRAMAR IN 2001 AND 2003. 2004-08-06
REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05
ROE03F0005	ROESCH, K. - FIELD SURVEY FORM FOR ARCTOSTAPHYLOS GLANDULOSA SSP. CRASSIFOLIA 2003-09-20
ROE03F0006	ROESCH, K. - FIELD SURVEY FORM FOR ARCTOSTAPHYLOS GLANDULOSA SSP. CRASSIFOLIA 2003-09-20
ROE03F0008	ROESCH, K. - FIELD SURVEY FORM FOR ARCTOSTAPHYLOS GLANDULOSA SSP. CRASSIFOLIA 2003-09-20
ROE04M0001	ROESCH, K. - MAP OF POINT DATA OF ARCTOSTAPHYLOS GLANDULOSA CRASSIFOLIA IN SAN CLEMENTE CANYON (TIERRA DATA, FROM TIE04D0001). 2004-04-19
SCH03F0036	SCHEID, G. - FIELD SURVEY FORM FOR ARCTOSTAPHYLOS GLANDULOSA SSP. CRASSIFOLIA 2003-06-10
SCH04F0046	SCHEID, G. - FIELD SURVEY FORM FOR ARCTOSTAPHYLOS GLANDULOSA SSP. CRASSIFOLIA 2004-09-14
TIE04D0001	TIERRA DATA, INC. - SHAPEFILES FOR RARE PLANT SURVEYS AT MCAS MIRAMAR IN 2001 AND 2003. 2004-06-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71082
EO Index: 71972
Key Quad: La Mesa (3211771)
Element Code: PDERI040E8
Occurrence Number: 50
Occurrence Last Updated: 2014-01-08

Scientific Name: *Arctostaphylos glandulosa ssp. crassifolia*
Common Name: Del Mar manzanita

Listing Status: **Federal:** Endangered
Rare Plant Rank: 1B.1
State: None
Other Lists:

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:
CHAPARRAL.

Micro Habitat:
SANDY COASTAL MESAS AND OCEAN BLUFFS; IN CHAPARRAL OR TORREY PINE FOREST. 30-365 M.

Last Date Observed: 2003-06-05
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-06-05
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
APPROXIMATELY 0.75 AIR MI NNE OF FORTUNA MTN, ON THE N SIDE OF STATE HWY 52.

Detailed Location:
MAPPED ACCORDING TO DIGITAL DATA SUBMITTED BY RECON (ORTIZ & SCHEID) FROM FIELDWORK CONDUCTED IN 2003.

Ecological:
RIDGETOP.

Threats:
REPORTEDLY TO BE IMPACTED BY THE MILITARY FAMILY HOUSING PROJECT (USFWS 2010).

General:
1 PLANT SEEN IN 2003 IN SEEDLING STAGE. NEED HABITAT INFORMATION FOR THIS SITE.

PLSS: T15S, R02W, Sec. 23, NE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3635507 E494714
Latitude/Longitude: 32.85765 / -117.05649
Elevation (feet): 750

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

FWS10U0002	U.S. FISH AND WILDLIFE SERVICE - ARCTOSTAPHYLOS GLANDULOSA SSP. CRASSIFOLIA 5-YEAR REVIEW: SUMMARY AND EVALUATION 2010-08-13
REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	71083	**EO Index:**	71973
Key Quad:	La Mesa (3211771)	**Element Code:**	PDERI040E8
Occurrence Number:	51	**Occurrence Last Updated:**	2014-01-08

Scientific Name: *Arctostaphylos glandulosa ssp. crassifolia*

Common Name: Del Mar manzanita

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank: 1B.1

Other Lists:

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

CHAPARRAL.

Micro Habitat:

SANDY COASTAL MESAS AND OCEAN BLUFFS; IN CHAPARRAL OR TORREY PINE FOREST. 30-365 M.

Last Date Observed:	2003-06-05	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-06-05	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

TRIBUTARY OF OAK CANYON; APPROXIMATELY 1.1 AIR MILES NORTH OF FORTUNA MTN, NORTH SIDE OF STATE HWY 52.

Detailed Location:

MAPPED ACCORDING TO DIGITAL DATA SUBMITTED BY RECON (ORTIZ & SCHEID) FROM FIELDWORK CONDUCTED IN 2003 AND ACCORDING TO A 2006 GENE STOUT AND ASSOCIATES MAP.

Ecological:

RIDGETOP.

Threats:

REPORTEDLY TO BE IMPACTED BY THE MILITARY FAMILY HOUSING PROJECT (USFWS 2010).

General:

SE POLYGON: 3 INDIVIDUALS SEEN IN SEEDLING STAGE IN 2003. MAP DETAIL IS ONLY SOURCE OF INFORMATION FOR NW POLYGON.

PLSS:	T15S, R02W, Sec. 14, SW (S)	**Accuracy:**	specific area	**Area (acres):**	21
UTM:	Zone-11 N3636188 E494206	**Latitude/Longitude:**	32.86378 / -117.06191	**Elevation (feet):**	825

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

FWS10U0002	U.S. FISH AND WILDLIFE SERVICE - ARCTOSTAPHYLOS GLANDULOSA SSP. CRASSIFOLIA 5-YEAR REVIEW: SUMMARY AND EVALUATION 2010-08-13
GEN06R0001	GENE STOUT AND ASSOCIATES & GEOMORPH INFORMATION SYSTEMS - INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN FOR MARINE CORPS AIR STATION MIRAMAR, CALIFORNIA 2006-2010. BIOLOGICAL RESOURCES. 2006-10-XX
REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	71084	**EO Index:**	71974
Key Quad:	La Mesa (3211771)	**Element Code:**	PDERI040E8
Occurrence Number:	52	**Occurrence Last Updated:**	2016-11-29

Scientific Name: *Arctostaphylos glandulosa ssp. crassifolia*

Common Name: Del Mar manzanita

Listing Status: **Federal:** Endangered

State: None

Rare Plant Rank: 1B.1

Other Lists:

CNDDB Element Ranks: **Global:** G5T2

State: S2

General Habitat:

CHAPARRAL.

Micro Habitat:

SANDY COASTAL MESAS AND OCEAN BLUFFS; IN CHAPARRAL OR TORREY PINE FOREST. 30-365 M.

Last Date Observed:	2015-04-04	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-04-04	**Occurrence Rank:**	Good
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

APPROXIMATELY 1.3-1.6 AIR MILES NNW OF FORTUNA MTN AND BETWEEN 2.5-3 AIR MILES ESE OF MISSION SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS MULTIPLE POLYGONS ACCORDING TO DIGITAL DATA AND FIELD SURVEY FORMS SUBMITTED BY RECON.

Ecological:

SOUTHERN MIXED CHAPARRAL, RECENTLY BURNED (2003); ADENOSTOMA FASCICULATUM, XYLOCOCCUS BICOLOR, YUCCA SHIDIGERA, CORAGALLUM SP; REDDING SOILS; HILLSIDE, WEST AND NW-FACING SLOPES. THE RARE SAN DIEGO BARREL CACTUS ALSO PRESENT AT THIS SITE.

Threats:

FIRE.

General:

3 PLANTS SEEN IN THE W-MOST POLY IN 2003. 191 VEGETATIVE PLANTS SEEN IN THE REST OF THE OCCURRENCE IN 2004. PLANTS ARE RE-SPROUTING FROM BURLS AFTER "CEDAR FIRE." 500 PLANTS OBSERVED IN SOUTH-MOST POLYGON IN 2015.

PLSS:	T15S, R02W, Sec. 15, SE (S)	**Accuracy:**	specific area	**Area (acres):**	12
UTM:	Zone-11 N3636550 E493447	**Latitude/Longitude:**	32.86704 / -117.07004	**Elevation (feet):**	800

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BUR15F0009	BURGE, D. - FIELD SURVEY FORM FOR ARCTOSTAPHYLOS GLANDULOSA SSP. CRASSIFOLIA 2015-04-04
REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05
SCH03F0031	SCHEID, G. - FIELD SURVEY FORM FOR ARCTOSTAPHYLOS GLANDULOSA SSP. CRASSIFOLIA 2003-03-13
SCH04F0032	SCHEID, G. - FIELD SURVEY FORM FOR ARCTOSTAPHYLOS GLANDULOSA SSP. CRASSIFOLIA 2004-04-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04167
Key Quad: La Mesa (3211771)
Occurrence Number: 7
EO Index: 20105
Element Code: PDERI0B011
Occurrence Last Updated: 2009-12-12

Scientific Name: *Comarostaphylis diversifolia ssp. diversifolia*
Common Name: summer holly

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3T2
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:
OFTEN IN MIXED CHAPARRAL IN CALIFORNIA, SOMETIMES POST-BURN. 30-855 M.

Last Date Observed: 1963-10-18
Last Survey Date: 1963-10-18
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:
SAN DIEGO, ALDINE DRIVE BETWEEN FAIRMONT AVE AND EL CAJON BLVD, WEST OF SDSU.

Detailed Location:
ALDINE DRIVE DOES NOT INTERSECT EL CAJON BLVD. MAPPED AS BEST GUESS BY CNDDB ALONG ALDINE DRIVE BETWEEN FAIRMONT AVE. AND MONROE AVE.

Ecological:
"IN HEAVY CHAPARRAL WITH MANY DIFFERENT SPECIES" ON HERBARIUM LABEL.

Threats:

General:
ONLY 3 OR 4 PLANTS SEEN IN 1963 AFTER CONSTRUCTION OF FREEWAY.

PLSS: T16S, R02W, Sec. 28 (S)
Accuracy: non-specific area
Area (acres): 20
UTM: Zone-11 N3624759 E491017
Latitude/Longitude: 32.76066 / -117.09589
Elevation (feet): 150

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

CRO63S0002 CROW, E. - CROW #11766 RSA #171052 1963-10-18
NOR63S0001 NORLAND, E. - NORLAND SN RSA 1963-10-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 77625
EO Index: 1344
Key Quad: La Jolla (3211772)
Element Code: PDERI0B011
Occurrence Number: 9
Occurrence Last Updated: 2009-12-12

Scientific Name: *Comarostaphylis diversifolia ssp. diversifolia*
Common Name: summer holly

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G3T2
State: S2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:
OFTEN IN MIXED CHAPARRAL IN CALIFORNIA, SOMETIMES POST-BURN. 30-855 M.

Last Date Observed: 1963-09-26
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1963-09-26
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
NEAR CROSS ON SOLEDAD MOUNTAIN, ELEV. 800 FT.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN THE VICINITY OF THE "EASTER CROSS" ON USGS TOPO MAP.

Ecological:
IN CHAPARRAL WITH RHUS INTEGRIFOLIA, XYLOCOCCUS BICOLOR, ETC.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS 1963 EVERETT COLLECTION.

PLSS: T15S, R04W, Sec. 25, SE (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3633545 E477101
Latitude/Longitude: 32.83972 / -117.24468
Elevation (feet): 800

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
EVE63S0006 EVERETT, P. - EVERETT #33237 RSA #175118 1963-09-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03885	**EO Index:**	20097
Key Quad:	La Jolla (3211772)	**Element Code:**	PDERI0B011
Occurrence Number:	14	**Occurrence Last Updated:**	2012-03-16

Scientific Name: *Comarostaphylis diversifolia ssp. diversifolia*

Common Name: summer holly

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G3T2

State: S2

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:

OFTEN IN MIXED CHAPARRAL IN CALIFORNIA, SOMETIMES POST-BURN. 30-855 M.

Last Date Observed:	2010-04-14	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2010-04-14	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SIDE CANYONS ON SOUTH SIDE OF SAN CLEMENTE CANYON, JUST EAST OF INTERSECTION OF I-805 AND SR 52, SAN DIEGO.

Detailed Location:

2 POLYGONS. E POLY IS SPECIFIC, MAPPED ACCORDING TO AN ANONYMOUS MAP FROM 1982. W POLY IS NON-SPECIFIC, MAPPED TO ENCOMPASS PHOTO OBSERVATION FROM "CANYON S OF THE 52 FWY, E OF THE 805, IN BACK OF XO COMMUNICATIONS."

Ecological:

IN CHAPARRAL ON NORTH AND EAST-FACING SLOPES.

Threats:

FREEWAY CONSTRUCTED THROUGH THE MIDDLE OF THE OCCURRENCE.

General:

APPROXIMATELY 50 PLANTS OBSERVED IN VICINITY IN THE 1980'S. WESTERN POLYGON IS BASED ON 2010 PHOTOS BY JONES IN CALPHOTOS. INCLUDES FORMER OCCURRENCE #16. NEED MAP DETAIL FOR WESTERN POLYGON.

PLSS:	T15S, R03W, Sec. 26, NW (S)	**Accuracy:**	non-specific area	**Area (acres):**	75
UTM:	Zone-11 N3633993 E484221	**Latitude/Longitude:**	32.84389 / -117.16860	**Elevation (feet):**	380

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

ANO82M0001	ANONYMOUS - AERIAL PHOTO OF KEARNY MESA VICINITY WITH RARE PLANT LOCATIONS 1982-05-25
JON10I0001	JONES, S. - PHOTOS OF COMAROSTAPHYLIS DIVERSIFOLIA SSP. DIVERSIFOLIA, CALPHOTOS ID #0000 0000 0410 1249, 1250 2010-04-14
WES87R0002	WESTEC SERVICES, INC. - ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED LAND SALES AND EXCHANGES SOUTH OF CALIFORNIA STATE ROUTE 52, NAVAL AIR STATION, MIRAMAR, SAN DIEGO COUNTY, CA 1987-04-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04213	**EO Index:**	20095
Key Quad:	La Mesa (3211771)	**Element Code:**	PDERI0B011
Occurrence Number:	17	**Occurrence Last Updated:**	2015-06-12

Scientific Name: *Comarostaphylis diversifolia ssp. diversifolia*

Common Name: summer holly

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G3T2

State: S2

Rare Plant Rank: 1B.2

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:

OFTEN IN MIXED CHAPARRAL IN CALIFORNIA, SOMETIMES POST-BURN. 30-855 M.

Last Date Observed:	2007-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2007-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ABOUT 0.8 MILE NORTH OF MISSION GORGE MOUTH NEAR EAST END OF CLAREMONT MESA BLVD, MISSION TRAILS REGIONAL PARK.

Detailed Location:

MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO A 1980 PACIFIC SOUTHWEST BIOLOGICAL SERVICES INC MAP.

Ecological:

IN OAK CHAPARRAL VEGETATION.

Threats:

AREA PROPOSED FOR HOUSING DEVELOPMENT BY USN IN 1980.

General:

ABOUT 40 PLANTS ON SIDE OF A CANYON IN 1980. 2 PLANTS OBSERVED IN WEST-MOST POLYGON IN 2007; OBSERVED DURING SURVEYS FOR THE SUNRISE POWERLINK PROJECT.

PLSS:	T15S, R02W, Sec. 34 (S)	**Accuracy:**	specific area	**Area (acres):**	23
UTM:	Zone-11 N3631887 E493098	**Latitude/Longitude:**	32.82498 / -117.07373	**Elevation (feet):**	600

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

ASP08R0002	ASPEN ENVIRONMENTAL GROUP - FINAL ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT AND PROPOSED LAND USE AMENDMENT, SAN DIEGO GAS & ELECTRIC CO APPLICATION FOR THE SUNRISE POWERLINK PROJECT, SEC D.2 2008-10-XX
PSB80R0001	PSBS - PACIFIC SOUTHWEST BIOLOGICAL SERVICES, INC. - BIOLOGICAL ASSESSMENT FOR MURPHY CANYON HEIGHTS, TIERRASANTA, AND CAMP ELLIOT SITES, SAN DIEGO 1980-10-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	38022	**EO Index:**	33029
Key Quad:	La Mesa (3211771)	**Element Code:**	PDERI0B011
Occurrence Number:	52	**Occurrence Last Updated:**	2012-03-14

Scientific Name: *Comarostaphylis diversifolia ssp. diversifolia*

Common Name: summer holly

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G3T2

State: S2

Rare Plant Rank: 1B.2

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:

OFTEN IN MIXED CHAPARRAL IN CALIFORNIA, SOMETIMES POST-BURN. 30-855 M.

Last Date Observed:	2008-05-07	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2008-05-07	**Occurrence Rank:**	Unknown
Owner/Manager:	MISSION TRAILS RP	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MISSION TRAILS REGIONAL PARK; ABOUT 0.25 MILE EAST OF THE NORTHERN TERMINUS OF CORTE PLAYA CATALINA IN TIERRASANTA.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN VICINITY 0.25 AIR MILE EAST OF NORTHERN END OF CORTE PLAYA CATALINA.

Ecological:

THIN LAYER OF SOIL OVER SANDSTONE BASE. MIX OF CHAPARRAL AND COASTAL SAGE SCRUB.

Threats:

General:

OCCURRENCE PRIMARILY BASED ON A 2008 COLLECTION BY SCHWENKMEYER. 1995 TURKLE & KOOIMAN COLLECTIONS FROM "MISSION TRAILS REGIONAL PARK, WESTERN AREA, W SIDE OF DIRT RD JUST N AND SLIGHTLY E OF THE FLOW REGULATORY STRUCTURE" ATTRIBUTED HERE.

PLSS:	T15S, R02W, Sec. 27, SE (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3633265 E493186	**Latitude/Longitude:**	32.83741 / -117.07280	**Elevation (feet):**	800

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

KOO95S0001	KOOIMAN, N. ET AL. - KOOIMAN #28IV95C SDSU #12058 1995-04-28
SCH08S0004	SCHWENKMEYER, D. - SCHWENKMEYER #369 SD #205754 2008-05-07
TUR95S0001	TURKLE, M. & N. KOOIMAN - TURKLE #28IV95D SDSU #9991 1995-04-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 77540
Key Quad: La Mesa (3211771)
Occurrence Number: 68

EO Index: 78460
Element Code: PDERI0B011
Occurrence Last Updated: 2009-12-07

Scientific Name: *Comarostaphylis diversifolia ssp. diversifolia*
Common Name: summer holly

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3T2
State: S2

Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:
OFTEN IN MIXED CHAPARRAL IN CALIFORNIA, SOMETIMES POST-BURN. 30-855 M.

Last Date Observed: 2006-06-11
Last Survey Date: 2006-06-11
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NORFOLK CANYON, JUST WEST OF FAIRMONT AVE, NORTH OF ALDER DR, SOUTH OF HILLDALE RD.

Detailed Location:

Ecological:
COASTAL SAGE SCRUB/CHAPARRAL.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS 2006 SCHNEIDER & LAYMON COLLECTION.

PLSS: T16S, R02W, Sec. 21, W (S)
UTM: Zone-11 N3625670 E490631

Accuracy: 1/5 mile
Latitude/Longitude: 32.76889 / -117.10002

Area (acres): 0
Elevation (feet): 151

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
SCH06S0002 SCHNEIDER, C. & R. LAYMON - SCHNEIDER #138 SD #182142 2006-06-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 77589
Key Quad: Del Mar (3211782)
Occurrence Number: 72
EO Index: 78464
Element Code: PDERI0B011
Occurrence Last Updated: 2009-12-08

Scientific Name: *Comarostaphylis diversifolia ssp. diversifolia*
Common Name: summer holly

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3T2
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:
OFTEN IN MIXED CHAPARRAL IN CALIFORNIA, SOMETIMES POST-BURN. 30-855 M.

Last Date Observed: 2006-06-23
Last Survey Date: 2006-06-23
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
MARINE CORPS AIR STATION (MIRAMAR), JUST WEST OF THE RAILROAD, NORTH OF ROSE CANYON.

Detailed Location:
LOCATED IN A TRIBUTARY CANYON WEST OF THE ABANDONED RAILROAD JUNCTION. MAPPED AS BEST GUESS BY CNDDB APPROX. 0.19 AIR MILE SW OF BM 374.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS 2006 DOSSEY COLLECTION.

PLSS: T15S, R03W, Sec. 10, SE (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3637548 E483509
Latitude/Longitude: 32.87594 / -117.17628
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
La Jolla (3211772), Del Mar (3211782)

Sources:
DOS06S0001 DOSSEY, R. - DOSSEY #1212 SD #171791 2006-06-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 77590
Key Quad: La Jolla (3211772)
Occurrence Number: 73
EO Index: 78465
Element Code: PDERI0B011
Occurrence Last Updated: 2009-12-08

Scientific Name: *Comarostaphylis diversifolia ssp. diversifolia*
Common Name: summer holly

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3T2
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:
OFTEN IN MIXED CHAPARRAL IN CALIFORNIA, SOMETIMES POST-BURN. 30-855 M.

Last Date Observed: 2006-06-23
Last Survey Date: 2006-06-23
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
MARINE CORPS AIR STATION (MIRAMAR), APPROXIMATELY 200 FEET SW OF THE MIRAMAR FISH POND.

Detailed Location:
EXACT LOCATION MIRAMAR FISH POND UNKNOWN. MAPPED AS BEST GUESS BY CNDDB SW OF THE POND LOCATED NW OF THE RUNWAY.

Ecological:
NORTH AND EAST-FACING SLOPES.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS 2006 DOSSEY COLLECTION. NEEDS FIELDWORK.

PLSS: T15S, R03W, Sec. 14, NW (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3637025 E484592
Latitude/Longitude: 32.87124 / -117.16469
Elevation (feet): 400

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:
DOS06S0002 DOSSEY, R. - DOSSEY #275 SD #171811 2006-06-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 96445
EO Index: 86471
Key Quad: La Mesa (3211771)
Element Code: PDERI0B011
Occurrence Number: 91
Occurrence Last Updated: 2015-06-23

Scientific Name: *Comarostaphylis diversifolia ssp. diversifolia*
Common Name: summer holly

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G3T2
State: S2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:
OFTEN IN MIXED CHAPARRAL IN CALIFORNIA, SOMETIMES POST-BURN. 30-855 M.

Last Date Observed: 2012-08-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-08-22
Occurrence Rank: Fair
Owner/Manager: DOD-NAVY, CALTRANS
Trend: Unknown
Presence: Presumed Extant

Location:
MURPHY CANYON NAVAL HOUSING COMPLEX; JUST EAST OF I-15 BETWEEN BALBOA AVE AND AERO DR, EAST SIDE OF MURPHY CANYON.

Detailed Location:
NORTHERN POLYGON GROWING INTO FENCELINE BETWEEN CALTRANS RIGHT-OF-WAY AND MURPHY CANYON HOUSING AREA (US NAVY). SOUTHERN POLYGON N OF EPPERSON WAY BEYOND BACKYARD FENCE. MAPPED ACCORDING TO 2009 AND 2012 COORDINATES PROVIDED BY CLARK.

Ecological:
ON EDGE OF SMALL ARROYO AT BASE OF SLOPE. ROCKY LOAM SOIL. N BANK OF A W-FACING DRAINAGE. MIX OF COASTAL SAGE SCRUB AND CHAPARRAL WITH SALVIA MELLIFERA, QUERCUS DUMOSA, ADENOSTOMA FASCICULATUM, BACCHARIS SAROTHROIDES, B. SALICIFOLIA, ETC.

Threats:
REPAIRING FENCE OR CLEARING HIGHWAY RIGHT-OF-WAY WOULD REMOVE SHRUB. FIRES, FUEL BREAK CLEARING.

General:
1 PLANT OBSERVED IN NORTHERN POLYGON IN 2009. 1 PLANT OBSERVED IN SOUTHERN POLYGON IN 2012.

PLSS: T16S, R02W, Sec. 05, W (S)
Accuracy: specific area
Area (acres): 13
UTM: Zone-11 N3630963 E489308
Latitude/Longitude: 32.81662 / -117.11421
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

CLA09F0012	CLARK, K. (CLARK BIOLOGICAL SERVICES) - FIELD SURVEY FORM FOR COMAROSTAPHYLIS DIVERSIFOLIA SSP. DIVERSIFOLIA 2009-06-17
CLA12F0029	CLARK, K. (SAN DIEGO NATURAL HISTORY MUSEUM) - FIELD SURVEY FORM FOR COMAROSTAPHYLIS DIVERSIFOLIA SSP. DIVERSIFOLIA 2012-08-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 96383
EO Index: 97542
Key Quad: La Jolla (3211772)
Element Code: PDERI0B011
Occurrence Number: 101
Occurrence Last Updated: 2018-09-21

Scientific Name: *Comarostaphylis diversifolia ssp. diversifolia*
Common Name: summer holly

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G3T2
State: S2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:
OFTEN IN MIXED CHAPARRAL IN CALIFORNIA, SOMETIMES POST-BURN. 30-855 M.

Last Date Observed: 2006-06-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-06-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
ROSE CANYON OPEN SPACE; JUST SOUTH OF THE JUNCTION OF INTERSTATE 805 AND ROSE CANYON, EAST OF UNIVERSITY CITY.

Detailed Location:
WEST SIDE OF INTERSTATE 805. MAPPED BY CNDDB ACCORDING TO 2006 COORDINATES AND A 2010 MAP. IN THE NE 1/4 OF THE NE 1/4 OF SECTION 21.

Ecological:

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 2006.

PLSS: T15S, R03W, Sec. 21, NE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3636046 E482280
Latitude/Longitude: 32.86237 / -117.18939
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

ANO10R0001	ANONYMOUS - EXHIBIT J: KNOWN BIOLOGICAL RESOURCES ON THE NOBEL DR. SITE AND NEARBY PROPERTIES 2010-XX-XX
BAI06U0001	BAILEY, E. - INTERSTATE 805 AT GOVERNOR DRIVE AND TEASDALE AVENUE - CALIFORNIA GNATCATCHER SURVEY 45 DAY FOLLOW UP REPORT. 2006-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 06999
EO Index: 20094
Key Quad: Imperial Beach (3211751)
Element Code: PDERI0W010
Occurrence Number: 1
Occurrence Last Updated: 2005-10-20

Scientific Name: *Ornithostaphylos oppositifolia*
Common Name: Baja California birdbush

Listing Status: **Federal:** None
State: Endangered
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G3
State: S1

General Habitat:

CHAPARRAL.

Micro Habitat:

ASSOCIATED WITH CEANOTHUS VERRUCOSUS AND SALVIA MELLIFERA IN CALIFORNIA. 55-800 M.

Last Date Observed: 2005-05-20
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-05-20
Occurrence Rank: Good
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:

BOUNDARY MONUMENT 256 ALONG THE US-MEXICO BORDER, ABOUT 2 MILES SSW OF SAN YSIDRO.

Detailed Location:

LOCALLY KNOWN AS SPOONERS MESA, THIS SITE IS EAST OF SMUGGLER GULCH ON THE IMPERIAL BEACH TOPO. 14 COLONIES MAPPED WITHIN 2 POLYGONS, MOSTLY WITHIN THE N 1/2 NW 1/4 SECTION 10.

Ecological:

CHAPARRAL WITH CEANOTHUS VERRUCOSUS AND SALVIA MELLIFERA. OTHER RARE PLANTS FOUND ON MESA INCLUDE COREOPSIS MARITIMA, BERGEROCACTUS EMORYI, EUPHORBIA MISERA, OPUNTIA PARRYI SERPENTINA, FEROCACTUS VIRIDESCENS, AND SELAGINELLA CINERASCENS.

Threats:

BRUSH CLEARING FOR ROAD, LITTER, TRAILS, FREQUENT FIRES, SCRAPING OF MESA TOP TO FILL ADJACENT CANYON.

General:

103 PLANTS OBSERVED IN 1999. SEEDLINGS WERE NOT LOCATED IN 1998, 1999. THIS IS THE ONLY KNOWN US OCCURRENCE FOR THIS SPECIES. PROPOSAL BY BORDER PATROL WOULD SCRAPE THE TOP OF THIS MESA TO FILL SMUGGLER GULCH TO IMPROVE BORDER MONITORING.

PLSS: T19S, R02W, Sec. 10, W (S)
Accuracy: specific area
Area (acres): 12
UTM: Zone-11 N3600268 E492588
Latitude/Longitude: 32.53975 / -117.07893
Elevation (feet): 180

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

BUR99U0001	BURRASCANO, C. - PETITION TO THE FISH AND GAME COMMISSION TO LIST ORNITHOSTAPHYLOS OPPOSITIFOLIA. 1999-03-25
MOR70S0006	MORAN, R. - MORAN #16722 SD 1970-02-07
MOR73S0002	MORAN, R. - MORAN #20351 SD, LA 1973-04-02
NOL00S0002	NOLL, R. - NOLL SN UCR #116390 2000-07-05
OBE83U0014	OBERBAUER, T. - RECORD OF PHONE CONVERSATION WITH S. COCHRANE 1983-08-10
REI87R0001	REISER, C. - CNPS LISTED SPECIES FOR SAN DIEGO COUNTY 1987-XX-XX
ROU05U0001	ROULLARD, P. - ORNITHOSTAPHYLOS OPPOSITIFOLIA RECORD IN CALPHOTOS. 2005-05-20
WAL74S0009	WALLACE, G. - WALLACE #1384 UC #1424956 1974-01-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36742
EO Index: 31739
Key Quad: Imperial Beach (3211751)
Element Code: PDEUP0Q1B0
Occurrence Number: 1
Occurrence Last Updated: 2016-07-29

Scientific Name: *Euphorbia misera*
Common Name: cliff spurge

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL SCRUB, MOJAVEAN DESERT SCRUB.

Micro Habitat:

ROCKY SITES. 3-430 M.

Last Date Observed: 2015-02-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2015-02-11
Occurrence Rank: Good
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:

SPOONERS MESA ABOVE GOAT CANYON, NEAR MEXICO BORDER, TIJUANA RIVER VALLEY REGIONAL PARK.

Detailed Location:

MAPPED AS 5 POLYGONS BY CNDDB NEAR COMMON CORNER OF SECTIONS 4, 5, 8 & 9. 1971 BEAUCHAMP & WITHAM COLLECTIONS, 1990 LEVIN COLLECTION, AND 2004 ROULLARD COLLECTION ATTRIBUTED HERE.

Ecological:

MARITIME SUCCULENT SCRUB. ASSOCIATED WITH VIGUIERA LACINIATA, FEROCACTUS, BERGEROCACTUS, MAMMILLARIA, SIMMONDSIA, CNEORIDIUM, ARTEMISIA CALIFORNICA, RHUS LAURINA, ERIOGONUM FASCICULATUM, SELAGINELLA CINERASCENS, LEPIDIUM NITIDUM, ETC.

Threats:

DISTURBED BY DEVELOPMENT, TRAILS, GRAVEL MINING, AND BORDER PATROL ACTIVITIES.

General:

<1000 PLANTS IN 1980 BETWEEN THIS SITE AND OCC #6. DOMINANT SPECIES IN 1984. ABOUT 4900 PLANTS SEEN BETWEEN THIS SITE AND OCC #45 IN 2007. NOTED AS "UNIFORMLY SCATTERED" IN 2009. UNKNOWN NUMBER SEEN IN 2015.

PLSS: T19S, R02W, Sec. 4, SW (S)
Accuracy: specific area
Area (acres): 27
UTM: Zone-11 N3600466 E490550
Latitude/Longitude: 32.54152 / -117.10065
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

BEA71S0015	BEAUCHAMP, R.M. - BEAUCHAMP #1640 SD #83629 1971-02-21
COX84U0002	COX, R. - TRIP MEMO. 1984-03-12
LEV90S0002	LEVIN, G. & M. HOWE - LEVIN #2057 SD #128780, DAV #142435 1990-04-09
MOR15D0003	MORSE, K. - KMZ FILE WITH 2015 RARE PLANT OBSERVATIONS (JANUARY-JULY 2015 OBSERVATIONS) 2015-XX-XX
OBE80F0006	OBERBAUER, T. - FIELD SURVEY FORM FOR EUPHORBIA MISERA 1980-05-XX
ROB09U0001	ROBERTS, F. - EMAIL TO P. DE ANGELIS REGARDING EUPHORBIA MISERA OCCURRENCES 2009-03-21
ROU04S0001	ROULLARD, P. - ROULLARD #12 SD #170805 2004-12-17
SDG07R0001	SAN DIEGO COUNTY - TIJUANA RIVER VALLEY REGIONAL PARK, AREA SPECIFIC MANAGEMENT DIRECTIVES 2007-06-22
SDG10D0001	SAN DIEGO COUNTY - SPECIES POINT OBSERVATIONS BY COUNTY OF SAN DIEGO (SANBIOS DATABASE). 2010-06-23
VEG09F0192	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR EUPHORBIA MISERA 2009-06-05
VEG09F0196	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR EUPHORBIA MISERA 2009-06-05
WIT71S0006	WITHAM, H. - WITHAM #1208 SD #79872 1971-02-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	36743	**EO Index:**	31740
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDEUP0Q1B0
Occurrence Number:	2	**Occurrence Last Updated:**	2013-04-04

Scientific Name: *Euphorbia misera*

Common Name: cliff spurge

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G5

State: S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL SCRUB, MOJAVEAN DESERT SCRUB.

Micro Habitat:

ROCKY SITES. 3-430 M.

Last Date Observed:	2011-07-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2011-07-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	SDG COUNTY, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH AND SOUTH OF LOWER END OF MOODY CANYON, WEST END OF OTAY MESA, JUST EAST OF SAN YSIDRO.

Detailed Location:

5 POLYGONS MAPPED PRIMARILY IN THE EASTERN HALF OF SECTION 36 AND THE NE 1/4 OF SECTION 1. 4 NORTHERN POLYGONS MAPPED ACCORDING TO A 2012 ALBRIGHT REPORT, SOUTHERN POLYGON MAPPED TO ENCOMPASS A 1995 PROJECT SITE, UNKNOWN WHERE PLANTS SEEN.

Ecological:

ROCKY/GRAVELLY SLOPES ABOVE CANYON. MARITIME DESERT SCRUB. MODERATELY FINE SANDY CLAY LOAM. ASSOCIATED WITH ENCELIA CALIFORNICA, CYLINDROPUNTIA PROLIFERA, C. CALIFORNICA, AMBROSIA CHENOPODIIFOLIA, SIMMONDSIA CHINENSIS, LYCIUM CALIFORNICUM.

Threats:

DEVELOPMENT NEARBY.

General:

MORE THAN 1000 PLANTS OBSERVED IN 1981. UNKNOWN NUMBER OF PLANTS SEEN IN 1994 AND 1998. 6% COVER OF EUPHORBIA OVER A >5 ACRE SITE IN 2009. "FAIRLY WIDESPREAD" IN 2011. 1938 GANDER COLLECTION FROM "OTAY MESA NEAR SAN YSIDRO" ATTRIBUTED HERE.

PLSS:	T18S, R02W, Sec. 36, E (S)	**Accuracy:**	specific area	**Area (acres):**	76
UTM:	Zone-11 N3602339 E496601	**Latitude/Longitude:**	32.55845 / -117.03619	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

ALB12R0001	ALBRIGHT, B. (CALIFORNIA DEPARTMENT OF PARKS AND RECREATION) - RESOURCE MANAGEMENT PLAN FOR FURBY-NORTH PROPERTY: SAN DIEGO COUNTY 2012-06-29
EDW95U0001	EDWARDS, C. & A. KOLTZ (PACIFIC SOUTHWEST BIOLOGICAL SERVICES) - CALIFORNIA GNATCATCHER SURVEY RESULTS 1995-01-17
GAN38S0022	GANDER, F. - GANDER #4898 SD #20225, UC #930910, RSA #31221, SBBG #80921, OBI #14369, SDSU #7666, #7667, #7672, #7673, #7674, #7677, #7678, #7679 1938-01-07
REC98R0002	RECON - BIOLOGICAL TECHNICAL REPORT FOR THE BEYER HILLS PROJECT 1998-08-24
SCH81F0029	SCHEIDT, V. - FIELD SURVEY FORM FOR EUPHORBIA MISERA 1981-05-04
VEG09F0193	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR EUPHORBIA MISERA 2009-06-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	36745	**EO Index:**	31742
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDEUP0Q1B0
Occurrence Number:	3	**Occurrence Last Updated:**	2016-08-12

Scientific Name: *Euphorbia misera*

Common Name: cliff spurge

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G5

State: S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL SCRUB, MOJAVEAN DESERT SCRUB.

Micro Habitat:

ROCKY SITES. 3-430 M.

Last Date Observed:	2009-06-12	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-06-12	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SLOPES ABOVE DENNERY CANYON, NORTHWEST END OF OTAY MESA.

Detailed Location:

MAPPED BY CNDDB AS 4 POLYGONS. NORTHERN 3 POLYGONS ARE SPECIFIC. SOUTH POLYGON IS NONSPECIFIC, BASED ON 1968 BAKER COLLECTION FROM "200 FT N OF OTAY MESA RD, 1 MI W OF HERITAGE RD".

Ecological:

MARITIME DESERT SCRUB ON STONY SOILS, EXPOSED SLOPES. STOCKPEN GRAVELLY CLAY. ASSOCIATES INCLUDE DEINANDRA FASCICULATA, DUDLEYA PULVERULENTA, NASSELLA SP.

Threats:

PROPOSED FOR DEVELOPMENT.

General:

50+ PLANTS OBSERVED IN NORTH POLYGON IN 1984. UNKNOWN NUMBER SEEN IN SOUTHERN MIDDLE POLYGON SOMETIME BETWEEN 1980-1992. HUNDREDS OF PLANTS IN NORTHERN MIDDLE POLYGON IN 2009. INCLUDES FORMER OCCURRENCE #39.

PLSS:	T18S, R01W, Sec. 29, W (S)	**Accuracy:**	specific area	**Area (acres):**	27
UTM:	Zone-11 N3603843 E498705	**Latitude/Longitude:**	32.57202 / -117.0138	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BAK68S0002	BAKER, R. & B. JOHNSON - BAKER SN CDA #35304 1968-08-07
KED09S0005	KEDZIORA, M. & K. BUSH - KEDZIORA #38 SD #247857, UCR #255316 2009-06-12
SCH84F0041	SCHEIDT, V.N. - FIELD SURVEY FORM FOR EUPHORBIA MISERA 1984-10-01
SDG92R0001	CITY OF SAN DIEGO - PORTIONS OF AN ENVIRONMENTAL IMPACT REPORT FOR THE CALIFORNIA TERRACES PRECISE PLAN 1992-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 81818
EO Index: 31743
Key Quad: Imperial Beach (3211751)
Element Code: PDEUP0Q1B0
Occurrence Number: 4
Occurrence Last Updated: 2016-08-08

Scientific Name: *Euphorbia misera*
Common Name: cliff spurge

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL SCRUB, MOJAVEAN DESERT SCRUB.

Micro Habitat:

ROCKY SITES. 3-430 M.

Last Date Observed: 2009-05-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-05-15
Occurrence Rank: Excellent
Owner/Manager: PVT, CITY OF SAN DIEGO, OTHERS
Trend: Unknown
Presence: Presumed Extant

Location:

SOUTH RIM OF OTAY MESA AND SPRING CANYON.

Detailed Location:

POPULATION ALSO EXTENDS THROUGH TO WRUCK CANYON, DILLON CANYON, FINGER CANYON, AND TWO SMALL UNNAMED CANYONS JUST NORTH OF DILLON CANYON. MAPPED BY CNDDB AS 10 POLYGONS IN SECTION 6, THE NW 1/4 OF SECTION 5, AND THE WEST HALF OF SECTION 32.

Ecological:

COASTAL SCRUB ON OLIVEHAIN SERIES SOILS. ASSOCIATED WITH VIGUIERA LACINIATA, SIMMONDSIA CHINENSIS, FEROCACTUS VIRIDESCENS, OPUNTIA PARRYI, DICHELOSTEMMA PULCHELLUM, MIRABILIS CALIFORNICA, ENCELIA CALIFORNICA, AND AMBROSIA CHENOPODIFOLIA.

Threats:

NUMEROUS ROADS THROUGH THIS AREA. DEVELOPMENT NEARBY. ORVS AND NON-NATIVE PLANTS MAY ALSO BE THREATS.

General:

S POLY: MORE THAN 1000 PLANTS SEEN IN 1986. 8 N POLYS: UNKNOWN NUMBER OF PLANTS OBSERVED IN ~1995 AND 1998/1999. COMMON IN 2008. SEEN IN 2009. 1935 GANDER COLLECTION FROM "2 MILES EAST OF SAN YSIDRO ON OTAY MESA" ATTRIBUTED HERE.

PLSS: T19S, R01W, Sec. 5, N (S)
Accuracy: specific area
Area (acres): 164
UTM: Zone-11 N3601413 E499106
Latitude/Longitude: 32.5501 / -117.00952
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

BAL09F0024	BALO, K. & J. GAUDETTE (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA & OPUNTIA CALIFORNICA VAR. CALIFORNICA 2009-05-15
BAL09F0025	BALO, K. & J. GAUDETTE (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR CYLINDROPUNTIA CALIFORNICA VAR. CALIFORNICA 2009-05-15
CAL01M0002	CALTRANS - MAPS SHOWING SENSITIVE PLANT SPECIES IMPACT FOOTPRINT FOR ROUTE 905, REVISED 2001 2001-06-XX
GAN35S0051	GANDER, F. - GANDER #21927 SD #11503 1935-06-12
HEL99R0001	HELIX ENVIRONMENTAL PLANNING, INC. - 1999 ANNUAL REPORT FOR PROTOCOL LEVEL WET SEASON SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP 1999-07-28
JAM01U0001	JAMES, R. - MAP AND LETTER REGARDING DEINANDRA CONJUGENS ON OTAY MESA 2001-02-27
SAL08S0001	SALVATO, T. & E. KLEIN - SALVATO #3474 UCR #192786 2008-05-07
VAN86F0007	VANDERWIER, J. - FIELD SURVEY FORM FOR EUPHORBIA MISERA 1986-02-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17504
EO Index: 31744
Key Quad: Imperial Beach (3211751)
Element Code: PDEUP0Q1B0
Occurrence Number: 5
Occurrence Last Updated: 2014-02-06

Scientific Name: *Euphorbia misera*
Common Name: cliff spurge

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL SCRUB, MOJAVEAN DESERT SCRUB.

Micro Habitat:

ROCKY SITES. 3-430 M.

Last Date Observed: 1984-12-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1984-12-07
Occurrence Rank: None
Owner/Manager: PVT
Trend: Unknown
Presence: Extirpated

Location:

RIDGE SOUTH OF OTAY RIVER VALLEY ABOUT 0.25 MILE WEST OF MOUTH OF DENNERY CANYON, NW END OF OTAY MESA.

Detailed Location:

ABOUT 0.75 MILE EAST OF I-805 AND 0.5 MILE SOUTH OF OTAY VALLEY ROAD.

Ecological:

MARITIME COASTAL SCRUB ON COBBLY SANDSTONE. ASSOCIATED WITH ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, FEROCACTUS VIRIDESCENS, AND AMBROSIA CHENOPODIFOLIA.

Threats:

PROPOSED FOR DEVELOPMENT, HEAVY ORV USE IN THE AREA, PREVIOUS SAND AND GRAVEL MINING.

General:

ABOUT 150 PLANTS OBSERVED BY WIER IN 1984. AREA LOOKS TO HAVE BEEN DEVELOPED BASED ON 2010 AERIAL IMAGERY; PRESUMED EXTIRPATED.

PLSS: T18S, R01W, Sec. 19, SW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3605641 E497665
Latitude/Longitude: 32.58824 / -117.02488
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

WIE84F0015 WIER, E. - FIELD SURVEY FORM FOR EUPHORBIA MISERA 1984-12-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	36748	**EO Index:**	31745
Key Quad:	Point Loma (3211762)	**Element Code:**	PDEUP0Q1B0
Occurrence Number:	6	**Occurrence Last Updated:**	2016-08-03

Scientific Name: *Euphorbia misera*

Common Name: cliff spurge

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G5

State: S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL SCRUB, MOJAVEAN DESERT SCRUB.

Micro Habitat:

ROCKY SITES. 3-430 M.

Last Date Observed:	2015-03-27	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-03-27	**Occurrence Rank:**	Excellent
Owner/Manager:	NPS-CABRILLO NM, DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

POINT LOMA, FROM SOUTHERNMOST POINT TO ABOUT 3.5 AIR MILES NORTH, SAN DIEGO.

Detailed Location:

MAPPED AS MANY POLYGONS BY CNDDB BASED PRIMARILY ON 1993 & 1999 MAPS. NORTHERNMOST POLYGON IS NONSPECIFIC; BASED ON A PLANT CHECKLIST FOR SUNSET CLIFFS NATURAL PARK.

Ecological:

OCEAN BLUFFS, FLAT, OPEN GROUND, ETC. MIXED MARITIME SUCCULENT SCRUB WITH ENCELIA CALIFORNICA, BERGEROCACTUS EMORYI, AGAVE SHAWII, OPUNTIA PARRYI SERPENTINA, MAMMILLARIA DIOICA, ERIOGONUM FASCICULATUM, ARTEMISIA CALIFORNICA, ETC.

Threats:

THREATENED BY DEVELOPMENT, TRAILS, AND GRAVEL MINING.

General:

<1000 PLANTS IN 1980 BETWEEN THIS OCCURRENCE AND OCC #1. DOMINANT SPECIES IN 1981 & 1985. WIDESPREAD IN 1993. 75 PLANTS PLANTED IN RESTORATION EFFORT IN 1996/1997. UNK # OF PLANTS SEEN IN 2008. COMMON IN 2015. INCLUDES FORMER OCCS #7-9.

PLSS:	T17S, R04W, Sec. 13 (S)	**Accuracy:**	specific area	**Area (acres):**	721
UTM:	Zone-11 N3617153 E476872	**Latitude/Longitude:**	32.69185 / -117.24673	**Elevation (feet):**	200

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

ABR03S0037	ABRAMS, L. - ABRAMS #3458 UC #153893, POM #156444, A #347533, GH #347524 1903-05-11
ANO12U0002	ANONYMOUS - NATIVE PLANTS AT SUNSET CLIFF NATURAL PARK 2012-06-22
ASI93R0001	ADVANCED SCIENCES, INC. - TERRESTRIAL BIOLOGICAL SURVEY AND INVENTORY OF NAVY PROPERTY ON POINT LOMA, SAN DIEGO, CALIFORNIA 1993-05-XX
BAC62S0011	BACIGALUPI, R. ET AL. - BACIGALUPI #8257 JEPS #89274, SEINET #6426785, USU #109543 1962-03-16
BER04S0006	BERG, N. - BERG SN UC #66722 1904-03-12
BER33S0003	BERG, F. - BERG #1169 SDSU #7668 1933-03-19
BRA90S0039	BRANDEGEE, K. - BRANDEGEE SN UC #447255 1890-03-23
BUR96S0002	BURTON, D. - BURTON #5III96A SDSU #12562 1996-03-05
CLE78S0002	CLEVELAND - CLEVELAND SN SD #38698 1878-02-20
CLO08I0001	CLOUD-HUGHES, M. - PHOTOS OF EUPHORBIA MISERA, CALPHOTOS ID #0000 0000 0308 0925-0926 2008-03-12
EAS13S0025	EASTWOOD, A. - EASTWOOD #2564 UC #869031, GH #347522 1913-04-06
FRO31S0001	FROSBERG, F. - FROSBERG #7349 RSA #432424 1931-08-16
GRO13S0009	GROSS, L. ET AL. - GROSS #5956 RSA #805444 2013-04-03
HIG50S0004	HIGGINS, E. & C. HARBISON - HIGGINS SN SD #43981 1950-06-09
HOL85F0010	HOLLAND, R. - FIELD SURVEY FORM FOR DIEGAN COASTAL SAGE SCRUB 1985-XX-XX
HOW50S0019	HOWE, D. - HOWE #1998 SD #113550 1950-03-19
KEE13U0001	KEELAN, B. - EXPORT OF DATA FROM BRIAN KEELAN'S PLANT DATABASE 2013-07-26
KEN28S0008	KENNEDY, P. - KENNEDY SN DAV #142434 1928-04-06
KIR02S0001	KIRKER, J. & R. LAURI - KIRKER #38 SBBG #117657, SD #158475, SDSU #15713 2002-05-02
MAS25S0007	MASON, L. - MASON SN UC #635595 1925-04-08
MCE93S0002	MCEACHERN, K. - MCEACHERN #29B SBBG #106376 1993-05-24
MOR15D0003	MORSE, K. - KMZ FILE WITH 2015 RARE PLANT OBSERVATIONS (JANUARY-JULY 2015 OBSERVATIONS) 2015-XX-XX
OBE80F0006	OBERBAUER, T. - FIELD SURVEY FORM FOR EUPHORBIA MISERA 1980-05-XX
REB15S0002	REBMAN, J. & A. PARKER - REBMAN #29329 SD #245039 2015-02-23
ROS50S0005	ROSE, L. - ROSE #50010 UC #942933 1950-02-21
SER01R0001	SDSU SOIL ECOLOGY AND RESTORATION GROUP - POINT LOMA SUBMARINE BASE RESTORATION REPORT 2001-05-08
SPE23S0001	SPENCER, M. - SPENCER #2341 GH #347523 1923-06-XX
STO37S0002	STOVER, A. - STOVER SN SD #17534 1937-05-15
TIE06R0001	TIERRA DATA INC. & FIREWISE 2000, INC. - NAVAL BASE POINT LOMA AND CABRILLO NATIONAL MONUMENT JOINT WILDLAND FIRE MANAGEMENT PLAN 2006-06-XX
WOO20S0002	WOODCOCK, F. - WOODCOCK #278 A #347534 1920-04-XX
WOO81R0001	WOODWARD & CLYDE - TERRESTRIAL BIOSURVEY AND INVENTORY OF NAVAL PROPERTY ON POINT LOMA 1981-11-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 41529
EO Index: 54741
Key Quad: Imperial Beach (3211751)
Element Code: PDEUP0Q1B0
Occurrence Number: 24
Occurrence Last Updated: 2004-03-18

Scientific Name: *Euphorbia misera*
Common Name: cliff spurge

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL SCRUB, MOJAVEAN DESERT SCRUB.

Micro Habitat:

ROCKY SITES. 3-430 M.

Last Date Observed: 1998-04-24
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1998-04-24
Occurrence Rank: Fair
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

JUST NORTHEAST OF JUNCTION OF I-805 AND I-905, ABOUT 1 MILE NORTHEAST OF SAN YSIDRO, EAST OF IMPERIAL BEACH.

Detailed Location:

NO SPECIFIC MAP DETAIL GIVEN FOR FEROCACTUS VIRIDESCENS; MAPPED USING PROJECT LOCATION AS BOUNDARY. SITE BORDERED BY FREEWAYS TO SOUTH AND WEST, BY DEL SOL BLVD TO THE NORTH, AND DEVELOPMENT TO THE EAST.

Ecological:

MARITIME SUCCULENT SCRUB ON HILLS, NON-NATIVE GRASSLAND AT HILL BASE, SOME DISTURBED COASTAL SAGE SCRUB ON THE HILLS, SMALL NORTH-SOUTH DRAINAGE WITH SELAGINELLA CINERASCENS.

Threats:

OFF-ROAD VEHICLE USE BY TRESPASSERS, DUMPING. SINCE THIS IS A "PROJECT" SITE, PRESUME DEVELOPMENT IS A THREAT TOO.

General:

UNK # OF PLANTS IN 1998. HABITAT ON HILLS IS HIGH QUALITY, REST OF SITE IS DISTURBED. RARE PLANTS PRESENT: ADOLPHIA CALIFORNICA, AMBROSIA CHENOPODIIFOLIA, CALANDRINIA MARITIMA & FEROCACTUS VIRIDESCENS.

PLSS: T18S, R02W, Sec. 25, SE (S)
Accuracy: non-specific area
Area (acres): 63
UTM: Zone-11 N3603765 E496647
Latitude/Longitude: 32.57132 / -117.03571
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

BOE98F0001 BOESSOCO, H. - FIELD SURVEY FORM FOR AMBROSIA CHENOPODIIFOLIA & FEROCACTUS VIRIDESCENS & EUPHORBIA MISERA & ADOLPHIA CALIFORNICA 1998-04-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 88637
EO Index: 83003
Key Quad: Otay Mesa (3211658)
Element Code: PDEUP0Q1B0
Occurrence Number: 27
Occurrence Last Updated: 2016-07-26

Scientific Name: *Euphorbia misera*
Common Name: cliff spurge

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL SCRUB, MOJAVEAN DESERT SCRUB.

Micro Habitat:

ROCKY SITES. 3-430 M.

Last Date Observed: 2012-05-10
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-05-10
Occurrence Rank: Unknown
Owner/Manager: PVT, CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

SPRING CANYON, SOUTH OF BROWN FIELD NAVAL AUXILIARY AIR STATION, ABOUT 1.5 AIR MILES WSW OF ALTA SCHOOL.

Detailed Location:

MAPPED AS 4 POLYGONS BY CNDDB. WESTERNMOST POLYGON MAPPED BASED ON 2012 REBMAN COORDINATES; EASTERN 3 POLYGONS MAPPED ACCORDING TO A 2001 MAP BY CALTRANS.

Ecological:

MARITIME SUCCULENT SCRUB. SOUTH AND SW-FACING SLOPES. ASSOCIATED WITH MALOSMA LAURINA, ARTEMISIA CALIFORNICA, RHUS INTEGRIFOLIA, AMBROSIA CHENOPODIIFOLIA, SIMMONDSIA, ETC. THE RARE FEROCACTUS VIRIDESCENS ALSO OBSERVED AT THIS SITE.

Threats:

COMMERCIAL PADS LOCATED ON ADJOINING PART OF LOTS, TO BE BUILT OUT WITH INDUSTRIAL BUILDINGS.

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN EASTERN 3 POLYGONS IN 1995 AND 1997. "UNCOMMON" IN WEST POLYGON IN 2012.

PLSS: T18S, R01W, Sec. 32 (S)
Accuracy: specific area
Area (acres): 3
UTM: Zone-11 N3602657 E500110
Latitude/Longitude: 32.56132 / -116.99883
Elevation (feet): 450

County Summary:

San Diego

Quad Summary:

Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

CAL01M0002	CALTRANS - MAPS SHOWING SENSITIVE PLANT SPECIES IMPACT FOOTPRINT FOR ROUTE 905, REVISED 2001 2001-06-XX
JAM01U0001	JAMES, R. - MAP AND LETTER REGARDING DEINANDRA CONJUGENS ON OTAY MESA 2001-02-27
REB12S0033	REBMAN, J. ET AL. - REBMAN #23808 SD #226078 2012-05-10
SCH97F0046	SCHEIDT, V. - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA 1997-08-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82024
EO Index: 83004
Key Quad: Imperial Beach (3211751)
Element Code: PDEUP0Q1B0
Occurrence Number: 28
Occurrence Last Updated: 2013-04-05

Scientific Name: *Euphorbia misera*
Common Name: cliff spurge

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:
COASTAL BLUFF SCRUB, COASTAL SCRUB, MOJAVEAN DESERT SCRUB.

Micro Habitat:
ROCKY SITES. 3-430 M.

Last Date Observed: 2008-03-08
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2008-03-08
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
WESTERN EDGE OF OTAY MESA, UPPER END OF SMALL CANYON ABOUT 20 M SOUTH OF HWY 905 AND ABOUT 2 KM EAST OF HWY 805.

Detailed Location:
SITE ACCESS AT OTAY MESA RD, ABOUT 40 M EAST. 2 POLYGONS MAPPED ACCORDING TO A 2001 MAP BY CALTRANS.

Ecological:
CANYON BOTTOM WITH EUCALYPTUS SP., BUT SOUTH-FACING, SHADED SLOPE SUPPORTING HIGH-QUALITY SAGE SCRUB. DOMINANT SPECIES INCLUDE ARTEMISIA CALIFORNICA, SIMMONDSIA CHINENSIS, AND BAHIOPSIS LACINIATA.

Threats:
SITE IS SURROUNDED BY ROADS AND DEVELOPMENT.

General:
UNKNOWN NUMBER OF PLANTS OBSERVED CIRCA 1995. A 2008 COLLECTION BY GUILLIAMS IS ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS: T18S, R01W, Sec. 31, NE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3603384 E498064
Latitude/Longitude: 32.56788 / -117.02061
Elevation (feet): 500

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

CAL01M0002	CALTRANS - MAPS SHOWING SENSITIVE PLANT SPECIES IMPACT FOOTPRINT FOR ROUTE 905, REVISED 2001 2001-06-XX
GUI08S0007	GUILLIAMS, M. & J. GUILLIAMS - GUILLIAMS #503 SDSU #18733 2008-03-08
JAM01U0001	JAMES, R. - MAP AND LETTER REGARDING DEINANDRA CONJUGENS ON OTAY MESA 2001-02-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	82025	**EO Index:**	83005
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDEUP0Q1B0
Occurrence Number:	29	**Occurrence Last Updated:**	2016-08-03

Scientific Name: *Euphorbia misera* **Common Name:** cliff spurge

Listing Status: **Federal:** None **Rare Plant Rank:** 2B.2

State: None **Other Lists:** SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G5

State: S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL SCRUB, MOJAVEAN DESERT SCRUB.

Micro Habitat:

ROCKY SITES. 3-430 M.

Last Date Observed:	2009-06-25	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-06-25	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EAST SIDE OF MOODY CANYON, ABOUT 1 AIR MILE ENE OF BEYER ELEMENTARY SCHOOL.

Detailed Location:

MAPPED AS 3 POLYGONS BY CNDDB IN CENTER OF SEC 31. WESTERN 2 POLYGONS BASED ON 2009 COORDINATES; STAND OCCURS FROM TOE TO TOP OF SLOPE AND CONTINUES IN BOTH DIRECTIONS FOR HUNDREDS OF METERS. EASTERN COLONY BASED ON 2008 COORDINATES.

Ecological:

OPEN CANOPY SHRUBLAND. CONSPICUOUS LACK OF CACTI. SOIL PALE TAN/GRAY. LACK OF ANNUAL SPP. ASSOCIATED WITH AMBROSIA CHENOPODIIFOLIA, SIMMONDSIA CHINENSIS, CYLINDROPUNTIA PROLIFERA, ERIOGONUM FASCICULATUM, VIGUIERA LACINIATA, ETC.

Threats:

General:

EASTERN POLYGON: "COMMON" IN 2008. TWO WESTERN POLYGONS: ~3% COVER OF EUPHORBIA OVER >5 ACRES IN 2009.

PLSS:	T18S, R01W, Sec. 31 (S)	**Accuracy:**	specific area	**Area (acres):**	15
UTM:	Zone-11 N3602541 E498096	**Latitude/Longitude:**	32.56027 / -117.02028	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

SAL08S0008	SALVATO, T. & E. KLLEIN - SALVATO #3509 UCR #230911 2008-05-23
VEG09F0191	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR EUPHORBIA MISERA 2009-06-25
VEG09F0195	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR EUPHORBIA MISERA 2009-06-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82026
EO Index: 83006
Key Quad: National City (3211761)
Element Code: PDEUP0Q1B0
Occurrence Number: 30
Occurrence Last Updated: 2011-03-14

Scientific Name: *Euphorbia misera*
Common Name: cliff spurge

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL SCRUB, MOJAVEAN DESERT SCRUB.

Micro Habitat:

ROCKY SITES. 3-430 M.

Last Date Observed: 2009-12-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-12-14
Occurrence Rank: Fair
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

NORTH SIDE OF HIGHWAY 54, NORTH OF PLAZA BONITA WESTFIELD SHOPPING CENTER AND JUST SOUTHEAST OF LA VISTA CEMETERY.

Detailed Location:

GROWING ON A SLOPE BETWEEN MOBILE HOME PARKS, ALSO BORDERED BY VALLEY ROAD.

Ecological:

MOSTLY UNDISTURBED MARITIME SUCCULENT SCRUB. ASSOCIATED WITH SIMMONDSIA CHINENSIS, ERIOGONUM FASCICULATUM, OPUNTIA PROLIFERA, AND MAMMILLARIA DIOICA.

Threats:

THREATENED BY EDGE EFFECTS FROM ADJOINING DEVELOPMENT.

General:

AT LEAST 3 PLANTS OBSERVED IN 2009.

PLSS: T17S, R02W, Sec. 27, SE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3613823 E493557
Latitude/Longitude: 32.66203 / -117.06870
Elevation (feet): 100

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

SCH09F0036 SCHEIDT, V. - FIELD SURVEY FORM FOR EUPHORBIA MISERA 2009-12-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	82029	**EO Index:**	83009
Key Quad:	National City (3211761)	**Element Code:**	PDEUP0Q1B0
Occurrence Number:	31	**Occurrence Last Updated:**	2016-07-26

Scientific Name: *Euphorbia misera*

Common Name: cliff spurge

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G5

State: S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL SCRUB, MOJAVEAN DESERT SCRUB.

Micro Habitat:

ROCKY SITES. 3-430 M.

Last Date Observed:	2003-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EAST SIDE OF HIGHWAY 805, SOUTH OF LYNWOOD HILLS, JUST NORTHWEST OF HALECREST ELEMENTARY SCHOOL.

Detailed Location:

MAPPED IN THE SW 1/4 OF THE NW 1/4 OF SECTION 1 ACCORDING TO 2004 DIGITAL DATA FROM RECON ENVIRONMENTAL, INC AND A 2011 CALTRANS REPORT.

Ecological:

DIEGAN COASTAL SAGE SCRUB.

Threats:

General:

15 PLANTS OBSERVED IN 2003. PLANTS ALSO OBSERVED AT THIS SITE AT UNKNOWN DATE IN 2000S, ACCORDING TO A 2011 CALTRANS REPORT.

PLSS:	T18S, R02W, Sec. 1, NW (S)	**Accuracy:**	specific area	**Area (acres):**	2
UTM:	Zone-11 N3610928 E495597	**Latitude/Longitude:**	32.63593 / -117.04694	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

CAL11R0002	CALIFORNIA DEPARTMENT OF TRANSPORTATION - INTERSTATE 805 MANAGED LANES SOUTH PROJECT, FINAL EIR/EA WITH FONSI 2011-06-XX
REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82030
EO Index: 83010
Key Quad: La Jolla (3211772)
Element Code: PDEUP0Q1B0
Occurrence Number: 32
Occurrence Last Updated: 2011-03-15

Scientific Name: *Euphorbia misera*
Common Name: cliff spurge

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL SCRUB, MOJAVEAN DESERT SCRUB.

Micro Habitat:

ROCKY SITES. 3-430 M.

Last Date Observed: 197X-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 197X-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

CLIFFS OF LA JOLLA BAY, ADJACENT TO THE SAN DIEGO-LA JOLLA ECOLOGICAL RESERVE AREA OF SPECIAL BIOLOGICAL SIGNIFICANCE.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB ALONG THE COAST WITHIN THE GIVEN SURVEY AREA.

Ecological:

FOUND ON THE FACE OF CLIFFS.

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1979 ASBS RECONNAISSANCE SURVEY REPORT FOR THE SAN DIEGO-LA JOLLA ECOLOGICAL RESERVE. NEEDS FIELDWORK.

PLSS: T99X, R99X, Sec. UN (X)
Accuracy: non-specific area
Area (acres): 108
UTM: Zone-11 N3635122 E475728
Latitude/Longitude: 32.85391 / -117.25939
Elevation (feet): 30

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

WRC79R0007 WATER RESOURCES CONTROL BOARD - CALIFORNIA MARINE WATERS ASBS RECONNAISSANCE SURVEY REPORT: SAN DIEGO - LA JOLLA ECOLOGICAL RESERVE. DIVISION OF PLANNING & RESEARCH, WATER QUALITY MONITORING REPORT #79-1 1979-02-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	88640	**EO Index:**	89654
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDEUP0Q1B0
Occurrence Number:	38	**Occurrence Last Updated:**	2013-04-05

Scientific Name: *Euphorbia misera*

Common Name: cliff spurge

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G5

State: S2

General Habitat:

COASTAL BLUFF SCRUB, COASTAL SCRUB, MOJAVEAN DESERT SCRUB.

Micro Habitat:

ROCKY SITES. 3-430 M.

Last Date Observed:	19XX-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	19XX-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO, UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

WEST EDGE OF OTAY MESA, APPROXIMATELY 0.5 AIR MILE SOUTHEAST OF THE INTERSECTION OF PALM AVE AND I-805.

Detailed Location:

3 POLYGONS MAPPED IN THE SW 1/4 OF THE NW 1/4 OF SECTION 30 ACCORDING TO A 1992 MAP FROM THE CITY OF SAN DIEGO.

Ecological:

Threats:

General:

UNKNOWN NUMBER OF PLANTS OBSERVED SOMETIME BETWEEN 1980 AND 1992.

PLSS:	T18S, R01W, Sec. 30, NW (S)	**Accuracy:**	specific area	**Area (acres):**	2
UTM:	Zone-11 N3604522 E497064	**Latitude/Longitude:**	32.57815 / -117.03127	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

SDG92R0001	CITY OF SAN DIEGO - PORTIONS OF AN ENVIRONMENTAL IMPACT REPORT FOR THE CALIFORNIA TERRACES PRECISE PLAN 1992-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1347
EO Index: 102878
Key Quad: Imperial Beach (3211751)
Element Code: PDEUP0Q1B0
Occurrence Number: 45
Occurrence Last Updated: 2016-07-29

Scientific Name: *Euphorbia misera*
Common Name: cliff spurge

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:
COASTAL BLUFF SCRUB, COASTAL SCRUB, MOJAVEAN DESERT SCRUB.

Micro Habitat:
ROCKY SITES. 3-430 M.

Last Date Observed: 2007-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2007-XX-XX
Occurrence Rank: Unknown
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:
EAST OF SMUGGLERS GULCH NEAR MEXICO BORDER, 0.3 AIR MILE SOUTH OF INTERSECTION OF HOLLISTER ST AND MONUMENT RD.

Detailed Location:
MAPPED BY CNDDB ON SECTION LINE BETWEEN SECTION 9 & SECTION 10, BASED ON A 2007 MAP.

Ecological:
SOUTHERN MARITIME CHAPARRAL.

Threats:

General:
APPROXIMATELY 4900 PLANTS OBSERVED BETWEEN THIS OCCURRENCE AND OCCURRENCE #1 IN 2007; MAJORITY OF PLANTS ARE AT OCCURRENCE #1.

PLSS: T19S, R02W, Sec. 9, E (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3600202 E492067
Latitude/Longitude: 32.53915 / -117.08449
Elevation (feet): 250

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:
SDG07R0001 SAN DIEGO COUNTY - TIJUANA RIVER VALLEY REGIONAL PARK, AREA SPECIFIC MANAGEMENT DIRECTIVES 2007-06-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 39267
Key Quad: Otay Mesa (3211658)
Occurrence Number: 3

EO Index: 34269
Element Code: PDEUP1C010
Occurrence Last Updated: 1998-08-03

Scientific Name: *Tetracoccus dioicus*
Common Name: Parry's tetracoccus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2G3
State: S2

Rare Plant Rank: 1B.2

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:
CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
STONY, DECOMPOSED GABBRO SOIL. 135-705 M.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
OTAY MESA, SAN YSIDRO MOUNTAINS.

Detailed Location:
EXACT LOCATION NOT KNOWN; MAPPED IN GENERAL VICINITY OF OTAY MESA AND THE SAN YSIDRO MOUNTAINS.

Ecological:

Threats:

General:
FROM LIST OF SENSITIVE SPECIES IN THIS AREA. SPECIFICS OF WHEN SPECIES SIGHTED AND BY WHOM ARE NOT KNOWN.

PLSS: T18S, R01W, Sec. 11 (S)
UTM: Zone-11 N3609656 E504963

Accuracy: 5 miles
Latitude/Longitude: 32.62445 / -116.94709

Area (acres): 0
Elevation (feet): 500

County Summary:
San Diego

Quad Summary:
Otay Mountain (3211657), Otay Mesa (3211658), Dulzura (3211667), Jamul Mountains (3211668), Imperial Beach (3211751), National City (3211761)

Sources:

ROW84R0001 ROWLANDS, P. - MEMO REGARDING VEGETATION AND SENSITIVE PLANT INVENTORY OF SAN DIEGO R&PP AND LAND EXCHANGE PARCELS 1984-12-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 41790
EO Index: 41790
Key Quad: National City (3211761)
Element Code: PDFAB0F2R0
Occurrence Number: 1
Occurrence Last Updated: 1999-10-26

Scientific Name: *Astragalus deanei*
Common Name: Dean's milk-vetch

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND, COASTAL SCRUB, RIPARIAN FOREST.

Micro Habitat:

OPEN, BRUSHY SOUTH-FACING SLOPES IN DIEGAN COASTAL SAGE, SOMETIMES ON RECENTLY BURNED-OVER HILLSIDES. 70-795 M.

Last Date Observed: 1963-04-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1963-04-11
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

HILLS ABOVE BONITA, UPPER SWEETWATER VALLEY.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS A BEST GUESS.

Ecological:

VERY LOCAL, SOMETIMES ON BURNS.

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1963 COLLECTION BY HARTMAN.

PLSS: T18S, R01W, Sec. 06 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3611601 E497012
Latitude/Longitude: 32.64201 / -117.03185
Elevation (feet): 230

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

HAR63S0001 HARTMAN, M. - HARTMAN #17 HSC #14557 1963-04-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03910
EO Index: 842
Key Quad: Point Loma (3211762)
Element Code: PDFAB0F8R2
Occurrence Number: 1
Occurrence Last Updated: 2017-02-22

Scientific Name: *Astragalus tener var. titi*
Common Name: coastal dunes milk-vetch

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G2T1
State: S1

General Habitat:
COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL PRAIRIE.

Micro Habitat:
MOIST, SANDY DEPRESSIONS OF BLUFFS OR DUNES ALONG AND NEAR THE PACIFIC OCEAN; ONE SITE ON A CLAY TERRACE. 1-45 M.

Last Date Observed: 1938-05-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1983-08-04
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:
SILVER STRAND NEAR CORONADO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB AT THE NORTHERN END OF SILVER STRAND NEAR CORONADO.

Ecological:
DEPRESSION.

Threats:
PROBABLY EXTIRPATED BY NAVAL AMPHIBIOUS BASE EXERCISES OR BY CONSTRUCTION ON THE BASE.

General:
SITE IS BASED ON 1938 PURER COLLECTIONS. SEARCHED FOR BUT NOT FOUND IN 1980 AND 1983.

PLSS: T17S, R03W, Sec. 26 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3614433 E484685
Latitude/Longitude: 32.66745 / -117.16333
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

BAR50A0001	BARNEBY, R. - PUGILLUS ASTRAGALORUM XII: SOME PROBLEMS IN CALIFORNIA. EL ALISO 2(3):203-215. 1950-XX-XX
GRA83F0001	GRAY, K. - FIELD SURVEY FORM FOR ASTRAGALUS TENER VAR. TITI 1983-08-04
OBE80U0001	OBERBAUER, T. - LETTER TO STEPHEN RAE 1980-12-19
PUR38S0009	PURER, E. - PURER #7479 SD (CITED IN BAR50A0001) 1938-XX-XX
PUR38S0010	PURER, E. - PURER #7467 SD #37513 1938-05-07
REI89R0002	REISER, C. - THE RARE PLANTS OF SAN DIEGO COUNTY 1989-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 22296
EO Index: 22096
Key Quad: Imperial Beach (3211751)
Element Code: PDFAB2A0V0
Occurrence Number: 1
Occurrence Last Updated: 2017-08-31

Scientific Name: *Acmispon prostratus*
Common Name: Nuttall's acmispon

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G1G2
State: S1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:
COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON SAND DUNES. 0-20 M.

Last Date Observed: 2015-04-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2015-04-XX
Occurrence Rank: Good
Owner/Manager: DOD, DPR-BORDER FIELD SP, PVT
Trend: Unknown
Presence: Presumed Extant

Location:
BORDER FIELD STATE PARK; INCLUDING LICHTY MESA, BORDER MONUMENT 258, EXTENDING ~0.9 AIR MILE NORTH OF MEXICAN BORDER.

Detailed Location:
MAPPED BY CNDDB AS 7 POLYGONS ACCORDING TO A 1936 GANDER COLLECTION FROM BORDER MONUMENT 258 (SW POLYGON, NON-SPECIFIC), A 2007 SCHEIDT REPORT, AND CDFW DIGITAL DATA. ALSO THREATENED IN 2006 BY CONSTRUCTION OF THE TRIPLE BORDER FENCE.

Ecological:
SANDY MESA, ABOVE SALT FLAT. COASTAL AND SUCCULENT SAGE SCRUB. ASSOCIATED WITH RHUS INTEGRIFOLIA, LYCIUM CALIFORNICUM, ENCELIA CALIFORNICA, ARTEMISIA CALIFORNICA, CORETHROGYNE FILAGINIFOLIA, HETEROTHECA SESSILIFLORA, SOLANUM XANTI, ETC.

Threats:
SW COLONY: NO NATIVE HABITAT REMAINS. BORDER PATROL ACTIVITY/ROADS, CARPOBROTUS & SALTGRASS ENCROACHMENT, WASHOVER.

General:
SW COLONY COLLECTED BY GANDER IN 1936, NOT SEEN BY SUTTLE IN 2001 (HABITAT DESTRUCTION). REMAINING COLONIES HAD SEVERAL HUNDRED PLANTS IN 2001, UNK # IN 2015. LICHTY MESA: TENS OF THOUSANDS IN 2006, UNK NUMBER IN 2013. INCLUDES EO #15.

PLSS: T19S, R02W, Sec. 6, S (S)
Accuracy: specific area
Area (acres): 40
UTM: Zone-11 N3600314 E488430
Latitude/Longitude: 32.54013 / -117.12322
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

DFW17D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 5 - COASTAL PLANT DATA FOR REGION 5 OF THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 2017-02-07
GAN36S0036	GANDER, F. - GANDER #1669 SD #15079 1936-04-28
GRO13S0002	GROSS, L. ET AL. - GROSS #5902 RSA #799703 2013-03-13
SCH06I0012	SCHEIDT, V. - PHOTO OF ACMISPON PROSTRATUS, CALPHOTOS ID #0000 0000 0606 0399 2006-05-16
SCH07R0001	SCHEIDT, V. - THE LICHTY MESA, A BIOLOGICAL RESOURCES SURVEY REPORT AND EVALUATION OF RESOURCE VALUE, APN 663-020-02, SAN DIEGO, CA 2007-08-XX
SUT01F0007	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-03
SUT01F0008	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-03
SUT01F0009	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A6079
EO Index: 9229
Key Quad: Imperial Beach (3211751)
Element Code: PDFAB2A0V0
Occurrence Number: 2
Occurrence Last Updated: 2017-08-24

Scientific Name: *Acmispon prostratus*
Common Name: Nuttall's acmispon

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G1G2
State: S1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:
COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON SAND DUNES. 0-20 M.

Last Date Observed: 1936-05-24
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-05-03
Occurrence Rank: None
Owner/Manager: USFWS-TIJUANA SLOUGH NWR, PVT
Trend: Unknown
Presence: Extirpated

Location:
MOUTH OF TIJUANA RIVER, SOUTHWEST OF IMPERIAL BEACH NAVAL AIR STATION.

Detailed Location:

Ecological:
LOW LYING DUNES AND SANDY FLATS.

Threats:
RIVER MOUTH RECONFIGURED, SITE PERIODICALLY UNDERWATER.

General:
SITE BASED ON HISTORIC COLLECTIONS FROM AREA. IN 2001, SUTTLE SURVEYED 0.5 MILE NORTH AND SOUTH OF MOUTH OF TIJUANA RIVER AND DID NOT FIND PLANTS; BEACH HAS RETREATED 100 FT IN RECENT YEARS AND RIVERMOUTH IS RECONFIGURED. LIKELY EXTIRPATED.

PLSS: T18S, R02W, Sec. 31, S (S)
Accuracy: 2/5 mile
Area (acres): 280
UTM: Zone-11 N3602146 E488041
Latitude/Longitude: 32.55665 / -117.12738
Elevation (feet): 0

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

ABR04S0002	ABRAMS, L. - ABRAMS #3486 DS #35579, POM #156395, SEINET #3145198, CAS-BOT-BC #395547 1904-05-14
ANO31S0007	ANONYMOUS - ANONYMOUS #1030 SDSU #4312 1931-07-01
HAL03S0003	HALL, H. - HALL #3958 UC #56223 1903-04-14
HOW36S0018	HOWE, D. - HOWE #342 SD #113764 1936-05-24
SUT01F0001	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	20545	**EO Index:**	24264
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDFAB2A0V0
Occurrence Number:	3	**Occurrence Last Updated:**	2017-09-05

Scientific Name: *Acmispon prostratus*

Common Name: Nuttall's acmispon

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G1G2

State: S1

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:

COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:

ON SAND DUNES. 0-20 M.

Last Date Observed:	2015-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-XX-XX	**Occurrence Rank:**	Good
Owner/Manager:	PVT, DOD, DPR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SILVER STRAND BEACH, FROM NAVAL AMPHIBIOUS BASE SOUTH OF CORONADO TO NAVAL RADIO STATION JUST NORTH OF IMPERIAL BEACH.

Detailed Location:

MANY SCATTERED LOCATIONS AT US NAVAL RADIO FACILITY, ALONG SILVER STRAND BLVD (HWY 75), SILVER STRAND STATE BEACH, & US NAVAL AMPHIBIOUS BASE. VAGUE COLLECTIONS FROM SILVER STRAND ARE ALSO ATTRIBUTED TO THIS SITE.

Ecological:

PLANTS FOUND ABOVE THE SALT FLATS IN DISTURBED COASTAL SAND DUNES, IN SANDY OPENINGS IN BACKDUNES, IN SANDY FLATS, AND IN RESTORATION AREA ALONG BAYSHORE WITH ABRONIA, CRYPTANTHA, CAMISSONIA, ETC. PLANTS AT ONE SITE MAY BE SOWED.

Threats:

ORV ACTIVITY, HUMAN TRAMPLING, WEED INVASION, DEVELOPMENT, MILITARY OPS, SOIL ENRICHMENT, EROSION, TRASH.

General:

>12,250 PLANTS ESTIMATED IN 1991. FEWER THAN 34,000 PLANTS ESTIMATED IN 2001. DETAILED POPULATION DATA AT CNDDB. POP #S FOR PORTIONS OF SITE: 34,700+ IN 2011; 934,400+ ESTIMATED IN 2012; UNK # IN 2013 & 2015. INCLUDES FORMER EO #4.

PLSS:	T18S, R03W, Sec. 12 (S)	**Accuracy:**	specific area	**Area (acres):**	555
UTM:	Zone-11 N3609693 E487074	**Latitude/Longitude:**	32.62472 / -117.13779	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751), Point Loma (3211762)

Sources:

BEA71S0019	BEAUCHAMP, R. - BEAUCHAMP #2309 SD #85562 1971-05-02
CNP11D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2011 SURVEYS FOR SAN DIEGO DUNE PLANTS 2011-XX-XX
CNP11U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2011 SURVEYS FOR SAN DIEGO DUNE PLANTS 2011-XX-XX
CNP12D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
CNP12U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
COV36S0004	COVEL, P. - COVEL SN SD #18640 1936-06-06
DEM33S0001	DEMAREE, D. - DEMAREE #10270 DS #335934, GH #366529, SEINET #12154236, CAS-BOT-BC #200882 1933-04-17
DFW17D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 5 - COASTAL PLANT DATA FOR REGION 5 OF THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 2017-02-07
DIC91S0001	DICE, J. & M. WILLIAMS - DICE #1450 SD #132712 1991-05-28
DON15U0001	DEPARTMENT OF THE NAVY - REVISED FINDINGS ON CONSISTENCY DETERMINATION FOR THE NAVAL BASE CORONADO COASTAL CAMPUS PROJECT 2015-02-06
GAN35S0069	GANDER, F. - GANDER #15624 SD #10905 1935-03-30
GIB92U0001	GIBBONS, B. - LETTER TO J. GARCIA REGARDING SILVER STRAND SITE. 1992-12-23
GRO13S0003	GROSS, L. ET AL. - GROSS #5942 RSA #799795 2013-03-13
HIG54S0001	HIGGINS, E. - HIGGINS SN UC #1015847 1954-04-26
HOW93S0001	HOWE, M. & P. BEARE - HOWE #260 SD #135224 1993-06-25
MOR91U0001	MOREY, S. - TRIP REPORT FOR LOTUS NUTTALLIANUS (ACMISPON PROSTRATUS) IN SAN DIEGO COUNTY. 1991-08-07
PUR32S0006	PURER, E. - PURER #2746 SD #39817, RSA #817823 1932-03-15
PUR32S0007	PURER, E. - PURER #2765 SD #39815 1932-04-19
REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
SIM10S0004	SIMPSON, M. & T. SHEPERD - SIMPSON #3303 SD #220346 2010-06-03
SUT01F0030	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-14
SUT01F0031	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-14
SUT01F0032	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-10
SUT01F0033	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-10
SUT01F0034	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-03
SUT01F0035	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-14
SUT01F0036	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-03
SUT01F0037	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-03
TIP91U0001	TIPPETS, W. - LETTER TO ROY WOODWARD REGARDING LOTUS NUTTALLIANUS (ACMISPON PROSTRATUS) AT SILVER STRAND STATE BEACH. 1991-XX-XX
WAG89R0002	WAGONER, R. - NATURAL RESOURCE MANAGEMENT PLAN, NAVAL RECEIVING FACILITY. 1989-XX-XX
YOU35S0007	YOUNGBERG, F. - YOUNGBERG #34 POM #210076 1935-04-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 20549
Key Quad: Point Loma (3211762)
Occurrence Number: 5
EO Index: 9827
Element Code: PDFAB2A0V0
Occurrence Last Updated: 2014-07-31

Scientific Name: *Acmispon prostratus*
Common Name: Nuttall's acmispon

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G1G2
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:
COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON SAND DUNES. 0-20 M.

Last Date Observed: 1942-08-15
Last Survey Date: 2001-04-25
Owner/Manager: UNKNOWN
Presence: Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
SUNSET CLIFFS.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS FROM POINT LOMA BLVD SOUTH THROUGH SUNSET CLIFFS NATURAL PARK. POSSIBLY REFERRING TO OTHER PORTIONS OF SUNSET CLIFFS BLVD.

Ecological:

Threats:
DEVELOPMENT, BEACH & CLIFF EROSION, & HEAVY ALIEN PLANT COVER.

General:
SITE BASED ON A 1942 CROSS COLLECTION. SUTTLE VISITED AREA IN 2001 AND DID NOT FIND ANY PLANTS. SITE HAS EXTENSIVE RESIDENTIAL DEVELOPMENT, EROSION, AND HEAVY ALIEN PLANT COVER.

PLSS: T17S, R04W, Sec. 01, W (S)
Accuracy: non-specific area
Area (acres): 113
UTM: Zone-11 N3620984 E475978
Latitude/Longitude: 32.72638 / -117.25635
Elevation (feet): 20

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

CRO42S0001	CROSS, E. - CROSS SN SD #117498 1942-08-15
SUT01F0005	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-04-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	20579	**EO Index:**	21579
Key Quad:	La Jolla (3211772)	**Element Code:**	PDFAB2A0V0
Occurrence Number:	6	**Occurrence Last Updated:**	2017-08-31

Scientific Name: *Acmispon prostratus*

Common Name: Nuttall's acmispon

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G1G2

State: S1

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:

COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:

ON SAND DUNES. 0-20 M.

Last Date Observed:	2016-05-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-05-24	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

FROM JCT OF I-5 & FRIARS RD EXTENDING NW TOWARD SEA WORLD & N TO ISLAND IN ENCHANTED COVE, ALSO S END OF FIESTA ISLAND.

Detailed Location:

INCLUDES SITE NAMES: DUNE TRIANGLE, NO MAN'S LAND, AND SOUTH SHORES. MAPPED AS 7 POLYGONS BASED MOSTLY ON 2001 MAPS, AS WELL AS 2008, 2011, 2012, 2014-2017 DIGITAL DATA. MORE DETAILED POPULATION INFO AVAILABLE AT CNDDB. INCLUDES EO #37.

Ecological:

COASTAL SAGE SCRUB/COASTAL DUNE MATRIX. BEACH SAND DUNES. ASSOCIATED WITH BRASSICA, CAMISSONIA CHEIRANTHIFOLIA, ERODIUM, BROMUS DIANDRUS, CHRYSANTHEMUM CORONARIUM, HELIOTROPIUM CURASSAVICUM, BROMUS MADRITENSIS SSP. RUBENS, ETC.

Threats:

HIGH COVER INVASIVES, ORV USE, DUMPING, RECREATION USE, TRAMPLING, ALTERED HYDROLOGY, TRAILS. LARGE SCALE WEED CLEARING.

General:

SE-MOST POLY: 1000S IN 1998, 276 JUVENILES IN 2000, 416 IN 2001, 57 IN '02, 4766 IN '03, 174 IN '04, 14557 IN '05, 1-200 IN '06, 1550 IN '09, 433 IN '15, 10 IN '16. FIESTA ISLAND: 950+ IN 2006 (EO #6 & #36), 1200+ IN 2011, 2371 IN 2012.

PLSS:	T16S, R03W, Sec. 20 (S)	**Accuracy:**	specific area	**Area (acres):**	99
UTM:	Zone-11 N3625601 E480100	**Latitude/Longitude:**	32.76811 / -117.21248	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

CNP02U0002	CNPS - SAN DIEGO CHAPTER - CNPS SAN DIEGO CHAPTER NEWSLETTER 2002-11-XX
CNP11D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2011 SURVEYS FOR SAN DIEGO DUNE PLANTS 2011-XX-XX
CNP11U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2011 SURVEYS FOR SAN DIEGO DUNE PLANTS 2011-XX-XX
CNP12D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
CNP12U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
DFW17D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 5 - COASTAL PLANT DATA FOR REGION 5 OF THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 2017-02-07
JOH06F0016	JOHNSON, M. & J. GARCIA (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2006-06-01
JOH06F0018	JOHNSON, M. & J. GARCIA (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2006-06-01
JOH06F0019	JOHNSON, M. & J. GARCIA (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2006-06-01
KTU07R0001	KTU+A LAND PLANNING AND LANDSCAPE ARCHITECTURE - FIESTA ISLAND PARK PRECISE PLAN 2007-08-XX
MIL09F0047	MILLER, B. & J. GAUDETTE (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2009-05-27
MIL09F0050	MILLER, B. & J. GAUDETTE (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2009-05-27
MIL09F0052	MILLER, B. & J. GAUDETTE (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2009-05-27
REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
SAN00R0001	CITY OF SAN DIEGO - SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS (ACMISPON PROSTRATUS). 2000-04-XX
SDG01R0004	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS 2001-04-XX
SDG02R0003	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS 2002-04-XX
SDG03R0010	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS 2003-05-XX
SDG04R0006	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS 2004-06-XX
SDG05R0008	CITY OF SAN DIEGO - CITY OF SAN DIEGO, RARE PLANT MONITORING REPORT, 2005: LOTUS NUTTALLIANUS 2005-XX-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SUT01F0017	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-04-25
SUT01F0018	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-04-25
SUT01F0019	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-11
SUT01U0002	SUTTLE, G. - REPORT OF LOTUS NUTTALLIANUS COLONY OBSERVED BY HENRY MENDIBLES. 2001-05-10
SUT98M0001	SUTTLE, G. - MAP SHOWING LOTUS NUTTALLIANUS (ACMISPON PROSTRATUS) SITES FOUND IN SOUTH MISSION BAY AS OF MAY 1998. 1998-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 20578
Key Quad: La Jolla (3211772)
Occurrence Number: 7
EO Index: 9637
Element Code: PDFAB2A0V0
Occurrence Last Updated: 2014-07-23

Scientific Name: *Acmispon prostratus*
Common Name: Nuttall's acmispon

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G1G2
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:
COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON SAND DUNES. 0-20 M.

Last Date Observed: 1895-04-02
Last Survey Date: 2001-04-22
Owner/Manager: PVT
Presence: Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
PACIFIC BEACH.

Detailed Location:
SUTTLE FIELD CHECKED AREA FROM TOURMALINE SURFING PARK IN THE NORTH TO PACIFC BEACH DRIVE IN THE SOUTH IN 2001 AND FOUND NO PLANTS.

Ecological:

Threats:
HABITAT LOST TO HIGH DENSITY DEVELOPMENT AND MANICURED, HEAVILY-USED BEACHES.

General:
SITE BASED ON AN 1895 SNYDER COLLECTION. SUTTLE FIELD CHECKED AREA IN 2001 AND FOUND SUITABLE HABITAT ENTIRELY LOST TO HIGH DENSITY DEVELOPMENT AND MANICURED, HEAVILY-USED BEACHES.

PLSS: T16S, R04W (S)
Accuracy: non-specific area
Area (acres): 97
UTM: Zone-11 N3628919 E475917
Latitude/Longitude: 32.79797 / -117.25721
Elevation (feet):

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

SNY95S0001	SNYDER, M. - SNYDER SN SD #2548 1895-04-02
SUT01F0014	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-04-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 45653
EO Index: 45653
Key Quad: National City (3211761)
Element Code: PDFAB2A0V0
Occurrence Number: 16
Occurrence Last Updated: 2017-09-05

Scientific Name: *Acmispon prostratus*
Common Name: Nuttall's acmispon

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G1G2
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:
COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON SAND DUNES. 0-20 M.

Last Date Observed: 2001-05-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-05-14
Occurrence Rank: Fair
Owner/Manager: USFWS-SAN DIEGO BAY NWR
Trend: Unknown
Presence: Presumed Extant

Location:
USFWS "HABITAT RESTORATION" AREA, WEST OF INTERSTATE 5, NORTH OF CHULA VISTA NATURE CENTER, CHULA VISTA.

Detailed Location:
USFWS FENCED "HAIBTAT RESTORATION AREA, CALIFORNIA LEAST TERN AND SNOWY PLOVER NESTING AREA." AREA IS ALSO REFERRED TO AS "D STREET FILL." MAPPED TO INCLUDE 2001 SUTTLE MAP AND 2001 ELVIN COORDINATES.

Ecological:
SANDY FLAT AND MARSHLAND. BACKDUNE SCRUB ADJACENT TO BACKDUNE MARSH; SAND SOILS. ASSOCIATED WITH ATRIPLEX, LEPIDIUM LASIOCARPUM, ETC.

Threats:
EXOTICS INCLUDING CHRYSANTHEMUM. SITE IS PERIODICALLY GRADED TO ENHANCE LEAST TERN HABITAT.

General:
"SCARCE TO OCCASIONAL" IN APRIL 2001. SEVERAL HUNDRED PLANTS OBSERVED THROUGH BINOCULARS BY SUTTLE IN MAY 2001. PRESENCE OF PLANTS CONFIRMED BY LEAST TERN CENSUS TAKER AND CRAIG REISER.

PLSS: T99X, R99X, Sec. UN (X)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3611939 E489098
Latitude/Longitude: 32.64501 / -117.11624
Elevation (feet): 5

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

ELV01S0008	ELVIN, M. ET AL. - ELVIN #1615 UCR #267448 2001-04-30
REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
SUT01F0010	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	45776	**EO Index:**	45776
Key Quad:	Point Loma (3211762)	**Element Code:**	PDFAB2A0V0
Occurrence Number:	17	**Occurrence Last Updated:**	2014-08-04

Scientific Name: *Acmispon prostratus*

Common Name: Nuttall's acmispon

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G1G2
State: S1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:

COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:

ON SAND DUNES. 0-20 M.

Last Date Observed:	2005-05-01	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2005-05-01	**Occurrence Rank:**	Excellent
Owner/Manager:	DOD-NORTH ISLAND NAS	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH ISLAND NAVAL AIR STATION, WEST OF CORONADO, SAN DIEGO.

Detailed Location:

PLANTS FOUND AT NAVAL STATION IN SPOT OCCURRENCES IN UNDEVELOPED PLOTS BETWEEN BUILDINGS, ALONG CURBSIDES, UNDER STAIRWAYS & LARGE STANDS IN SANDY OPEN AREAS UNDER RUNWAY FLIGHT PATH, AROUND EDGE OF LEAST TERN NESTING SITE & GOLF COURSE.

Ecological:

HABITATS INCLUDE: RUDERAL, URBAN/DEVELOPED HABITAT, EUCALYPTUS WOODLAND, SAND VERBENA-BEACH BURSAGE SERIES, AND GOLF COURSE. PORTIONS WITHIN CA LEAST TERN MAT SITE.

Threats:

CONSTRUCTION, LANDSCAPING, CARPOBROTUS.

General:

GREATER THAN 5000 PLANTS OBSERVED AT OVER A DOZEN SITES BY SUTTLE IN 2001. 1 TO 95% COVER OF ACMISPON OBSERVED ACROSS OCCURRENCE IN 2005. INCLUDES FORMER OCCURRENCES #18, 20-22.

PLSS:	T17S, R03W, Sec. 17 (S)	**Accuracy:**	specific area	**Area (acres):**	489
UTM:	Zone-11 N3617301 E479977	**Latitude/Longitude:**	32.69324 / -117.21360	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

CHA04S0005	CHANDLER, H. - CHANDLER #5170 DS #105294, CAS-BOT-BC #200885 1904-05-07
REC05D0001	RECON ENVIRONMENTAL, INC. - DIGITAL DATA FROM SURVEYS FOR MULTIPLE TAXA ON NORTH ISLAND NAVAL AIR STATION, SAN DIEGO 2005-XX-XX
SUT01F0006	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	45840	**EO Index:**	45840
Key Quad:	Point Loma (3211762)	**Element Code:**	PDFAB2A0V0
Occurrence Number:	19	**Occurrence Last Updated:**	2014-08-05

Scientific Name: *Acmispon prostratus*

Common Name: Nuttall's acmispon

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G1G2

State: S1

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:

COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:

ON SAND DUNES. 0-20 M.

Last Date Observed:	2005-05-01	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2005-05-01	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NORTH ISLAND NAS	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH ISLAND NAVAL AIR STATION, NORTHEAST OF RUNWAYS, BETWEEN WRIGHT AVENUE AND UTGOFF AVENUE, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO A 2001 SUTTLE MAP (NON-SPECIFIC SOUTHERN POLYGON) AND 2005 DIGITAL DATA (SPECIFIC NORTHERN POLYGON).

Ecological:

URBAN/DEVELOPED.

Threats:

CONSTRUCTION, LANDSCAPING, CARPOBROTUS.

General:

GREATER THAN 5000 PLANTS OBSERVED AT OVER A DOZEN SITES (BETWEEN OCCURRENCES 17 AND 19) BY SUTTLE IN 2001. 10 PLANTS OBSERVED IN NORTHERN POLYGON IN 2005.

PLSS:	T17S, R03W, Sec. 09, NE (S)	**Accuracy:**	non-specific area	**Area (acres):**	18
UTM:	Zone-11 N3619435 E481968	**Latitude/Longitude:**	32.71253 / -117.19240	**Elevation (feet):**	20

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

REC05D0001	RECON ENVIRONMENTAL, INC. - DIGITAL DATA FROM SURVEYS FOR MULTIPLE TAXA ON NORTH ISLAND NAVAL AIR STATION, SAN DIEGO 2005-XX-XX
SUT01F0006	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 45844
Key Quad: Point Loma (3211762)
Occurrence Number: 23

EO Index: 45844
Element Code: PDFAB2A0V0
Occurrence Last Updated: 2001-09-07

Scientific Name: *Acmispon prostratus*
Common Name: Nuttall's acmispon

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G1G2
State: S1

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:
COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON SAND DUNES. 0-20 M.

Last Date Observed: 2001-05-14
Last Survey Date: 2001-05-14
Owner/Manager: PVT
Presence: Presumed Extant

Occurrence Type: Introduced Back into Native Hab./Range
Occurrence Rank: Poor
Trend: Unknown

Location:
LOEWS CORONADO BAY RESORT, EAST OF SILVER STRAND STATE BEACH BETWEEN CROWN COVE AND THE CORONADO KEYS, SAN DIEGO.

Detailed Location:
PLANTS SCATTERED ON EAST END OF PENINSULA AT RESTORATION/MITIGATION SITE, A SLIVER OF LAND BETWEEN BAY FRONT RIPRAP AND HOTEL PARKING ACCESS ROAD.

Ecological:
PLANTS THINLY DISTRIBUTED, VERDANT BY SPRINKLER HEADS, CRAWLING OVER AUSTRALIAN TEA PLANT ALONGSIDE ROCKROSE AND PAMPAS GRASS.

Threats:
CONVENTIONAL LANDSCAPE PLANTS ARE CROWDING OUT LOTUS NUTTALLIANUS (ACMISPON PROSTRATUS).

General:
ABOUT 20 PLANTS OBSERVED IN 2001. PLANTS WERE SOWED AND SUTTLE BELIEVES THEY ARE UNLIKELY TO PERSIST.

PLSS: T99X, R99X, Sec. UN (X)
Accuracy: specific area
Area (acres): 6
UTM: Zone-11 N3610519 E487536
Latitude/Longitude: 32.63218 / -117.13287
Elevation (feet): 0

County Summary:
San Diego, Pacific Ocean

Quad Summary:
Point Loma (3211762)

Sources:
SUT01F0004 SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	45854	**EO Index:**	45854
Key Quad:	La Jolla (3211772)	**Element Code:**	PDFAB2A0V0
Occurrence Number:	24	**Occurrence Last Updated:**	2001-09-12

Scientific Name: *Acmispon prostratus*

Common Name: Nuttall's acmispon

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G1G2

State: S1

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:

COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:

ON SAND DUNES. 0-20 M.

Last Date Observed:	XXXX-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	XXXX-XX-XX	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Extirpated		

Location:

NORTH SAIL BAY, WEST EDGE OF SANTA CLARA COVE, MISSION BAY, SAN DIEGO.

Detailed Location:

SMALL POPULATION ALONG RESIDENTIAL FENCELINE.

Ecological:

Threats:

General:

SMALL POPULATION NOW EXTIRPATED ACCORDING TO SUTTLE (1998). ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1998 MAP OF LOTUS NUTTALLIANUS (ACMISPON PROSTRATUS) SITES AT SOUTH MISSION BAY (SUTTLE 1998).

PLSS:	T16S, R04W, Sec. 13 (S)	**Accuracy:**	specific area	**Area (acres):**	2
UTM:	Zone-11 N3627321 E476394	**Latitude/Longitude:**	32.78356 / -117.25208	**Elevation (feet):**	5

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

SUT98M0001	SUTTLE, G. - MAP SHOWING LOTUS NUTTALLIANUS (ACMISPON PROSTRATUS) SITES FOUND IN SOUTH MISSION BAY AS OF MAY 1998. 1998-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	45855	**EO Index:**	45855
Key Quad:	La Jolla (3211772)	**Element Code:**	PDFAB2A0V0
Occurrence Number:	25	**Occurrence Last Updated:**	2001-09-13

Scientific Name: *Acmispon prostratus*

Common Name: Nuttall's acmispon

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G1G2

State: S1

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:

COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:

ON SAND DUNES. 0-20 M.

Last Date Observed:	2001-05-01	**Occurrence Type:**	Introduced Back into Native Hab./Range
Last Survey Date:	2001-05-01	**Occurrence Rank:**	Unknown
Owner/Manager:	UCNR-KENDALL FROST RES	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

KENDALL-FROST MISSION BAY MARSH RESERVE, CROWN POINT, 1.3 MILES NORTH OF STONY POINT, SAN DIEGO.

Detailed Location:

SOUTHWEST CORNER OF KENDALL-FROST MISSION BAY MARSH RESERVE (UCSD NATURAL RESERVE SYSTEM) TO EAST OF PARKING LOT AT "CROWN POINT SHORES" BAYSIDE PARK, NEAR INTERSECTION OF CROWN POINT DRIVE AND CORONA ORIENTE ROAD.

Ecological:

PLANTS ON A SANDY BERM APPROX 12 YARDS WIDE AND 150 YARDS LONG, FLANKED BY HIGHTIDE LINE TO SOUTH AND MUDFLATS/SALT PAN TO THE NORTH. GROWING WITH CAMISSONIA CHEIRANTHIFOLIA, AMBROSIA CHAMISSONIS, ABRONIA, AND ATRIPLEX SEMIBACCATA.

Threats:

EXOTICS INCLUDING CHRYSANTHEMUM CORONARIUM & MELILOTUS ADVANCING ON BERM. HIGH TIDE EROSION AT BASE OF BERM.

General:

ABOUT 100 PLANTS (SEEDLINGS, JUVENILES, MATURE AND SENESCENT ADULTS) OBSERVED IN 2001. SITE IS A SAND DUNE RESTORATION AREA; LOTUS NUTTALLIANUS (ACMISPON PROSTRATUS) WAS SEEDED AT SITE.

PLSS:	T16S, R03W, Sec. 18 (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3627945 E478299	**Latitude/Longitude:**	32.78923 / -117.23175	**Elevation (feet):**	2

County Summary:	**Quad Summary:**
San Diego, Pacific Ocean	La Jolla (3211772)

Sources:

REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
SUT01F0003	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	45856	**EO Index:**	45856
Key Quad:	La Jolla (3211772)	**Element Code:**	PDFAB2A0V0
Occurrence Number:	26	**Occurrence Last Updated:**	2014-07-31

Scientific Name: *Acmispon prostratus*

Common Name: Nuttall's acmispon

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G1G2

State: S1

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:

COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:

ON SAND DUNES. 0-20 M.

Last Date Observed:	2002-07-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2002-07-XX	**Occurrence Rank:**	Poor
Owner/Manager:	UNKNOWN	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

MISSION BAY FROM EL CARMEL POINT SOUTH TO MISSION BEACH SCHOOL, SAN DIEGO.

Detailed Location:

SEVERAL COLONIES MAPPED ALONG MISSION BLVD AND BEACH BAYWALK FROM EL CARMEL PLACE TO NORTH OF SAN FERNANDO PLACE. MOST COLONIES KNOWN FROM THE 1970S AND 1980S, NOW EXTIRPATED DUE TO DEVELOPMENT, HERBICIDES, BEACH CLEANING EQUIPMENT, ETC.

Ecological:

ONLY PLANTS FOUND IN 2000 WERE GROWING IN A CRACK BETWEEN PARKING LOT AND SIDEWALK, UNDERNEATH AN OLEANDER BUSH. FORMER COLONIES WERE IN SANDLOTS, WEEDY AREAS, BENEATH ROLLER COASTER, AND BEACH/BAYWALK AREAS.

Threats:

DEVELOPMENT (ROWING CLUB, SCHOOL PARKING LOT); BEACH CLEANING MACHINES, TRAMPLING, COMPETITION FROM EXOTICS, HERBICIDES.

General:

MISSION BEACH SCHOOL: 4 FLOWERING PLANTS IN 2000 IN A CRACK BETWEEN NORTH PARKING LOT & ADJACENT SIDEWALK, SITE CLEARED IN 2001, 1 PLANT REMAINED IN 2002. PLANTS AT EL CARMEL PLACE BETWEEN YACHT & ROWING CLUBS SEEN IN 1998 BUT NOT IN 2000.

PLSS:	T16S, R04W, Sec. 24 (S)	**Accuracy:**	specific area	**Area (acres):**	18
UTM:	Zone-11 N3626269 E476527	**Latitude/Longitude:**	32.77408 / -117.25063	**Elevation (feet):**	2

County Summary:	**Quad Summary:**
San Diego, Pacific Ocean	La Jolla (3211772)

Sources:

REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
SAN00R0001	CITY OF SAN DIEGO - SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS (ACMISPON PROSTRATUS). 2000-04-XX
SDG01R0004	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS 2001-04-XX
SDG02R0003	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS 2002-04-XX
SDG03R0010	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS 2003-05-XX
SUT98M0001	SUTTLE, G. - MAP SHOWING LOTUS NUTTALLIANUS (ACMISPON PROSTRATUS) SITES FOUND IN SOUTH MISSION BAY AS OF MAY 1998. 1998-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 45877
Key Quad: La Jolla (3211772)
Occurrence Number: 27

EO Index: 45877
Element Code: PDFAB2A0V0
Occurrence Last Updated: 2017-08-31

Scientific Name: *Acmispon prostratus*
Common Name: Nuttall's acmispon

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G1G2
State: S1

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:

COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:

ON SAND DUNES. 0-20 M.

Last Date Observed: 2016-05-24
Last Survey Date: 2016-05-24
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

MARINERS BASIN, MISSION BAY, SAN DIEGO.

Detailed Location:

WITHIN MISSION BAY PARK. MAPPED BY CNDDB AS 3 POLYGONS BASED ON 1998 SUTTLE MAP, 2005 BREISCH COORDINATES FROM COLLECTION LABEL, AND 2009 MILLER COORDINATES. INCLUDES FORMER OCCURRENCES #28 AND 29.

Ecological:

SAND WITH MANY MOLLUSK SHELLS. PROBABLY FILL FROM WHEN MISSION BAY WAS DREDGED. AMBROSIA CHAMISSONIS-ABRONIA MARITIMA ALLIANCE. ASSOCIATED WITH BUR-CLOVER AND FILAREE.

Threats:

LOW COVER OF INVASIVES. NE SITE APPEARS TO BE FENCED AND PROTECTED FROM TRAMPLING/WEEDING. BRUSH MANAGMENT.

General:

TWO W POLYS: LAST SEEN IN 1970S/1980S; EXTIRPATED ACC TO SUTTLE (1998). NE POLYGON: SEEN IN 1998; 1269 FLOWERING ADULTS EST IN 2000; 1582 FLOWERING ADULTS IN 2001; 2473 FLOWERING ADULTS IN 2002; OBS IN 2005, 2009, 2014, 2015; 1054 IN 2016.

PLSS: T16S, R04W, Sec. 24 (S)
Accuracy: specific area
Area (acres): 17

UTM: Zone-11 N3625155 E476916
Latitude/Longitude: 32.76403 / -117.24646
Elevation (feet): 10

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

BRE05S0002	BREISCH, R. - BREISCH #38 SD #169779 2005-04-09
CNP02U0002	CNPS - SAN DIEGO CHAPTER - CNPS SAN DIEGO CHAPTER NEWSLETTER 2002-11-XX
DFW17D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 5 - COASTAL PLANT DATA FOR REGION 5 OF THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 2017-02-07
MIL09F0049	MILLER, B. & J. GAUDETTE (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2009-05-27
SAN00R0001	CITY OF SAN DIEGO - SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS (ACMISPON PROSTRATUS). 2000-04-XX
SDG01R0004	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS 2001-04-XX
SDG02R0003	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS 2002-04-XX
SDG03R0010	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS 2003-05-XX
SDG04R0006	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS 2004-06-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SUT01F0002	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-04-25
SUT98M0001	SUTTLE, G. - MAP SHOWING LOTUS NUTTALLIANUS (ACMISPON PROSTRATUS) SITES FOUND IN SOUTH MISSION BAY AS OF MAY 1998. 1998-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 45880
Key Quad: La Jolla (3211772)
Occurrence Number: 30

EO Index: 45880
Element Code: PDFAB2A0V0
Occurrence Last Updated: 2017-08-30

Scientific Name: *Acmispon prostratus*
Common Name: Nuttall's acmispon

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G1G2
State: S1

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:
COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON SAND DUNES. 0-20 M.

Last Date Observed: 2014-02-18
Last Survey Date: 2014-02-18
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:
SOUTH SIDE OF SAN DIEGO RIVER FLOOD CONTROL CHANNEL MOUTH, NORTH OCEAN BEACH.

Detailed Location:
WITHIN MISSION BAY PARK. PLANTS FOUND 16 YARDS NORTH OF BIKE PATH, EAST AND WEST OF TRAIL IN 2001. MAPPED BY CNDDB ACCORDING TO DFW DIGITAL DATA.

Ecological:
IN SANDY AREA WITH CAMISSONIA CHEIRANTHIFOLIA AND WEEDY GRASSES, AMBROSIA CHAMISSONIS, AND CARPOBROTUS.

Threats:
TRAMPLING, DOG USE, INVASION BY EXOTICS INCLUDING CARPOBROTUS AND CHRYSANTHEMUM CORONARIUM.

General:
45 TOTAL PLANTS SEEN IN 2001, 30 PLANTS IN 2 STANDS EAST OF TRAIL AND 15 PLANTS WEST OF TRAIL; SMALL UNPROTECTED POPULATION ADJACENT TO LARGE AREA OF SUITABLE-APPEARING UNOCCUPIED SAND DUNE HABITAT. ALSO OBSERVED IN 2013 & 2014.

PLSS: T16S, R04W, Sec. 25, NW (S)
Accuracy: specific area
Area (acres): 3

UTM: Zone-11 N3624130 E476632
Latitude/Longitude: 32.75478 / -117.24946
Elevation (feet): 5

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

DFW17D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 5 - COASTAL PLANT DATA FOR REGION 5 OF THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 2017-02-07
SUT01F0011	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-04-24
VAR14U0008	VARNER, D. - OBSERVATION OF ACMISPON PROSTRATUS, CALFLORA ID #CBO20454 2014-02-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	45895	**EO Index:**	45895
Key Quad:	La Jolla (3211772)	**Element Code:**	PDFAB2A0V0
Occurrence Number:	31	**Occurrence Last Updated:**	2017-09-05

Scientific Name: *Acmispon prostratus*

Common Name: Nuttall's acmispon

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G1G2

State: S1

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:

COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:

ON SAND DUNES. 0-20 M.

Last Date Observed:	2016-06-21	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-06-21	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

HOSPITALITY POINT & NORTH SIDE OF SAN DIEGO FLOOD CONTROL CHANNEL, MISSION BAY PARK, SAN DIEGO.

Detailed Location:

3 POLYS: HOSPITALITY PT, N OF FLOOD CONTROL CHANNEL IN RIPRAP, & JUST E OF SUNSET CLIFFS BLVD. HOSPITALITY PT COLONIES NEAR PARK HEADQUARTERS & VOLLEYBALL COURT, IN OPEN SANDY FLAT AREA BOUNDED BY QUIVIRA CT. ADDITIONAL POP INFO AT CNDDB.

Ecological:

HOSPITALITY POINT COLONY GROWING WITH CAMISSIONIA CHEIRANTHIFOLIA, ABRONIA, MEDICAGO, ALIEN GRASSES, AND DOTTED WITH PALM TREES. PLANTS PROSPERING IN PALM TREE WATERING MOUNDS WITH IRRIGATION.

Threats:

TRAMPLING FROM PICNIC/RECREATION AREA; HEAVY INVASIVES ALONG FLOOD CHANNEL, ALTERED HYDROLOGY, TRAILS, TRASH.

General:

HOSPITALITY POINT (NW POLY): >200 IN 1998, 40 IN 2000, 224 IN '01, 45 IN '02, 130 IN '03, 300 IN '06, 500 IN '09, 2026 IN '15, 283 IN '16. RIPRAP COLONY (MID POLY): 64 IN 2000, 43 IN '01, 21 IN '02, 497 IN '03, 64 IN '04, ~100 IN '09.

PLSS:	T16S, R03W, Sec. 30, NW (S)	**Accuracy:**	specific area	**Area (acres):**	24
UTM:	Zone-11 N3624540 E477664	**Latitude/Longitude:**	32.75851 / -117.23845	**Elevation (feet):**	15

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

DFW17D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 5 - COASTAL PLANT DATA FOR REGION 5 OF THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 2017-02-07
JOH06F0017	JOHNSON, M. ET AL. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2006-05-18
MIL09F0048	MILLER, B. & J. GAUDETTE (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2009-05-27
MIL09F0051	MILLER, B. & J. GAUDETTE (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2009-05-27
REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
SAN00R0001	CITY OF SAN DIEGO - SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS (ACMISPON PROSTRATUS). 2000-04-XX
SDC05R0001	CITY OF SAN DIEGO, PLANNING DEPT., MSCP DIVISION - MSCP RARE PLANT MONITORING: FIELD MONITORING METHODS 2005-09-XX
SDG01R0004	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS 2001-04-XX
SDG02R0003	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS 2002-04-XX
SDG03R0010	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS 2003-05-XX
SDG04R0006	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR LOTUS NUTTALLIANUS 2004-06-XX
SDG05R0008	CITY OF SAN DIEGO - CITY OF SAN DIEGO, RARE PLANT MONITORING REPORT, 2005: LOTUS NUTTALLIANUS 2005-XX-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SUT01F0015	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-04-21
SUT01F0016	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-04-24
SUT98M0001	SUTTLE, G. - MAP SHOWING LOTUS NUTTALLIANUS (ACMISPON PROSTRATUS) SITES FOUND IN SOUTH MISSION BAY AS OF MAY 1998. 1998-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	45901	**EO Index:**	45901
Key Quad:	La Jolla (3211772)	**Element Code:**	PDFAB2A0V0
Occurrence Number:	32	**Occurrence Last Updated:**	2001-09-13

Scientific Name: *Acmispon prostratus*

Common Name: Nuttall's acmispon

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G1G2

State: S1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:

COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:

ON SAND DUNES. 0-20 M.

Last Date Observed:	2001-05-01	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-05-01	**Occurrence Rank:**	Poor
Owner/Manager:	CITY OF SAN DIEGO, UNKNOWN	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

DUSTY RHODES PARK, JUNCTION OF SUNSET CLIFFS BOULEVARD & INTERSTATE 8, OCEAN BEACH, SAN DIEGO.

Detailed Location:

2 COLONIES; N COLONY NORTH OF SUNSET CLIFFS BOULEVARD FROM THE JUNCTION WITH I-8. S COLONY SOUTH OF SUNSET CLIFFS BOULEVARD IN DUSTY RHODES PARK, IN ONE OF TWO CURB-ENCLOSED SANDY AREAS ALONG SOUTH EDGE OF PARK.

Ecological:

N COLONY IN FORMERLY LANDSCAPED SANDY SOIL AREA CONTAINING REMNANTS OF NATIVE VEGETATION E.G. CAMISSONIA CHEIRANTHIFOLIA, ABRONIA UMBELLATA, AMBROSIA BIPINNATIFIDA, & NEMACAULIS DENDATA. S COLONY IN SANDY SPARSELY VEGETATED AREA.

Threats:

LIGHT PEDESTRIAN TRAFFIC, WEEDS, CITY LANDSCAPING; TRAMPLING, DOG FECES, & WEED ABATEMENT.

General:

ABOUT 50 PLANTS AT NORTH COLONY IN 2001, SITE IS NOW A NATIVE PLANT RESTORATION AREA SUPPORTED BY SAN DIEGO CNPS. 7 PLANTS AT SOUTHERN COLONY IN 2001, TINY REMNANT POPULATION UNLIKELY TO PERSIST.

PLSS:	T16S, R03W, Sec. 30 (S)	**Accuracy:**	specific area	**Area (acres):**	3
UTM:	Zone-11 N3623895 E477406	**Latitude/Longitude:**	32.75268 / -117.24119	**Elevation (feet):**	2

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

SUT01F0020	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-04-21
SUT01F0021	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 45915
EO Index: 45915
Key Quad: La Jolla (3211772)
Element Code: PDFAB2A0V0
Occurrence Number: 33
Occurrence Last Updated: 2002-01-28

Scientific Name: *Acmispon prostratus*
Common Name: Nuttall's acmispon

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G1G2
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:
COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON SAND DUNES. 0-20 M.

Last Date Observed: 2001-06-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-06-14
Occurrence Rank: Poor
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
CHANNEL FOR FAMOSA SLOUGH, WEST POINT LOMA BLVD.

Detailed Location:
MAPPED AS TWO COLONIES. S COLONY ORIGINAL COLLECTION FROM SLIGHT DEPRESSION IN SANDY UNDULATING FLAT (FILL), ELEVATION 3 METERS. NORTHERN COLONY ALONG WEST SIDE OF TRAIL APPROXIMATELY 0.2 MILE NORTH OF TRAILHEAD AND WEST POINT LOMA BLVD.

Ecological:
SOUTH COLONY WAS WITH CAMISSONIA AND HETEROTHECA. NORTH COLONY IS IN UPLAND FLAT ADJACENT TO FAMOSA SLOUGH CHANNEL.

Threats:
AT SOUTH COLONY HABITAT DESTROYED BY DREDGING AND FLOODING. NORTH COLONY IS THREATENED BY THICK WEED GROWTH.

General:
SOUTH COLONY COLLECTED IN 1981 BY CASS, CONFIRMED BY FAMOSA SLOUGH AUTHORITY JIM PEUGH. HABITAT DESTROYED BY DREDGING AND FLOODING (SUTTLE 2001). 2 PLANTS AT NORTH COLONY IN JUNE 2001. SITE IS VERY VULNERABLE AND PRECARIOUS.

PLSS: T16S, R03W, Sec. 30 (S)
Accuracy: specific area
Area (acres): 4
UTM: Zone-11 N3624070 E478544
Latitude/Longitude: 32.75428 / -117.22904
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

CAS81S0001	CASS, T. - CASS SN SD #132794 1981-07-15
SUT01F0012	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-04-25
SUT01F0040	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-06-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47092
EO Index: 47092
Key Quad: Imperial Beach (3211751)
Element Code: PDFAB2A0V0
Occurrence Number: 34
Occurrence Last Updated: 2011-09-02

Scientific Name: *Acmispon prostratus*
Common Name: Nuttall's acmispon

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G1G2
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:
COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON SAND DUNES. 0-20 M.

Last Date Observed: 2000-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2000-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SANDY AREA NEAR CHULA VISTA POWERPLANT, EAST OF SAN DIEGO FREEWAY JUST NORTH OF SOUTH BAY SALTWORKS.

Detailed Location:

Ecological:
SANDY FLAT BY SAN DIEGO BAY.

Threats:

General:
OBSERVED IN 2000 BY R. PATTON AS REPORTED BY SUTTLE.

PLSS: T18S, R02W, Sec. 16 (S)
Accuracy: non-specific area
Area (acres): 135
UTM: Zone-11 N3608224 E490856
Latitude/Longitude: 32.61151 / -117.09745
Elevation (feet): 5

County Summary:
San Diego, Pacific Ocean

Quad Summary:
Imperial Beach (3211751)

Sources:
SUT00U0002 SUTTLE, G. - REPORT OF LOTUS NUTTALLIANUS COLONY OBSERVED BY ROBERT PATTON. 2000-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47094
EO Index: 47094
Key Quad: La Jolla (3211772)
Element Code: PDFAB2A0V0
Occurrence Number: 36
Occurrence Last Updated: 2014-08-05

Scientific Name: *Acmispon prostratus*
Common Name: Nuttall's acmispon

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G1G2
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:
COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON SAND DUNES. 0-20 M.

Last Date Observed: 2012-04-05
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-04-05
Occurrence Rank: Fair
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
NORTH END OF FIESTA ISLAND AND "PARADISE ISLE" IN THE PACIFIC PASSAGE, MISSION BAY PARK.

Detailed Location:
MAPPED BY CNDDB AS 7 POLYGONS.

Ecological:
SEMI DISTURBED AREA, OPEN, <25% COVER. SOIL SANDY WITH A FEW SHELLS, AREA FLAT, HIGHER THAN SURROUNDING DUNES. SURROUNDING PLANTS INCLUDE CAMISSONIOPSIS CHEIRANTHIFOLIA, A FEW GLEBIONIS CORONARIA, ERODIUM CICUTARIUM, BROMUS DIANDRUS, ETC.

Threats:
LIMITED REC USE BY BOATERS AND SWIMMERS, TRAMPLING, WEEDS, TRAILS, SOME VEHICLE USE, OVER-ENTHUSIASTIC WEED REMOVAL.

General:
A SMALL POPULATION OBSERVED IN 2001 BY HENRY MENDIBLES AS REPORTED BY G. SUTTLE ON "PARADISE ISLE." FIESTA ISLAND: 950+ PLANTS OBSERVED ACROSS FIESTA ISLAND IN 2006 (EO #6 & 36), 18-20 PLANTS OBSERVED IN 2011, 370 PLANTS IN 2012.

PLSS: T16S, R03W, Sec. 17 (S)
Accuracy: specific area
Area (acres): 41
UTM: Zone-11 N3627289 E479586
Latitude/Longitude: 32.78333 / -117.21799
Elevation (feet): 5

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

CNP11D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2011 SURVEYS FOR SAN DIEGO DUNE PLANTS 2011-XX-XX
CNP11U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2011 SURVEYS FOR SAN DIEGO DUNE PLANTS 2011-XX-XX
CNP12D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
CNP12U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
KTU07R0001	KTU+A LAND PLANNING AND LANDSCAPE ARCHITECTURE - FIESTA ISLAND PARK PRECISE PLAN 2007-08-XX
SUT01U0003	SUTTLE, G. - REPORT OF LOTUS NUTTALLIANUS COLONY OBSERVED BY HENRY MENDIBLES. 2001-05-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 93337
EO Index: 94457
Key Quad: Imperial Beach (3211751)
Element Code: PDFAB2A0V0
Occurrence Number: 38
Occurrence Last Updated: 2014-07-31

Scientific Name: *Acmispon prostratus*
Common Name: Nuttall's acmispon

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G1G2
State: S1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:
COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON SAND DUNES. 0-20 M.

Last Date Observed: 2005-03-08
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-03-08
Occurrence Rank: Unknown
Owner/Manager: SAN DIEGO UNIFIED PORT DIST
Trend: Unknown
Presence: Presumed Extant

Location:
CHULA VISTA WILDLIFE RESERVE, SAN DIEGO BAY.

Detailed Location:
ACCESSED VIA ELECTRICAL POWER PLANT AND IS A HUMAN MADE SITE CONSTRUCTED AS MITIGATION FOR THE ADJACENT J STREET MARINA CONSTRUCTION. MAPPED BY CNDDB ACCORDING TO COORDINATES ON COLLECTION LABEL.

Ecological:
IMPORTED SAND ABOVE LITTORAL ZONE. ASSOCIATED WITH MELILOTUS INDICA, CAMISSONIA CHEIRANTHIFOLIA, CAKILE MARITIMA, MEDICAGO POLYMORPHA, CHRYSANTHEMUM CORONARIUM, ERODIUM CICUTARIUM, AND RAPHANUS SATIVUS.

Threats:
VEGETATION FROM THIS SITE IS PERIODICALLY REMOVED BY MECHANICAL AND CHEMICAL MEANS.

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2005 BARTH COLLECTION. UNCLEAR IF THIS SITE WAS INTENTIONALLY PLANTED OR IF THE SEED WAS ALREADY PRESENT IN IMPORTED SAND.

PLSS: T99X, R99X, Sec. UN (X)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3608485 E489629
Latitude/Longitude: 32.61385 / -117.11053
Elevation (feet): 3

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
BAR05S0011 BARTH, J. & J. GREGORY - BARTH #365 SD #170792, RSA #710651 2005-03-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A6180
EO Index: 94460
Key Quad: National City (3211761)
Element Code: PDFAB2A0V0
Occurrence Number: 39
Occurrence Last Updated: 2017-09-05

Scientific Name: *Acmispon prostratus*
Common Name: Nuttall's acmispon

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G1G2
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:
COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON SAND DUNES. 0-20 M.

Last Date Observed: 2011-07-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2011-07-15
Occurrence Rank: Poor
Owner/Manager: USFWS-SAN DIEGO BAY NWR
Trend: Unknown
Presence: Presumed Extant

Location:
WEST SIDE OF INTERSTATE-5, BOTH SIDES OF SWEETWATER RIVER, SAN DIEGO BAY.

Detailed Location:
PORTION IS WITHIN THE D STREET FILL. MAPPED AS 4 POLYGONS BY CNDDB ACCORDING TO COORDINATES FROM 2001 & 2004 COLLECTION LABELS AND COORDINATES FROM 2011 SCHEIDT FIELD SURVEY FORM.

Ecological:
SAND AND MUDFLATS IN LITTORAL ZONE, COASTAL SAGE SCRUB, DISTURBED VEG. SOME PLANTS GROWING ALONG RAILROAD TRACKS. ASSOCIATED WITH BATIS MARITIMA, LIMONIUM CALIFORNICUM, FRANKENIA PALMERI, F. SALINA, TAMARIX SP., BACCHARIS SAROTHROIDES, ETC.

Threats:
TRAMPLING, POSSIBLE FUTURE TRAIL IMPROVEMENTS.

General:
SOUTHERN THREE POLYGONS BASED ON 2001 AND 2004 COLLECTIONS; 250+ PLANTS OBSERVED IN 2001. NORTHERN POLYGON HAD 5+ PLANTS IN 2011. INCLUDES FORMER OCCURRENCE #40.

PLSS: T17S, R02W, Sec. 32 (S)
Accuracy: specific area
Area (acres): 23
UTM: Zone-11 N3612432 E489844
Latitude/Longitude: 32.64945 / -117.1083
Elevation (feet): 0

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

ELV01S0009	ELVIN, M. ET AL. - ELVIN #1599 UCR #263687 2001-04-30
ELV01S0010	ELVIN, M. ET AL. - ELVIN #1609 UCR #265154 2001-04-30
GRE04S0015	GREGORY, J. & J. BARTH - GREGORY #1147 SD #160315 2004-08-21
SCH11F0008	SCHEIDT, V. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2011-07-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	93360	**EO Index:**	94463
Key Quad:	Point Loma (3211762)	**Element Code:**	PDFAB2A0V0
Occurrence Number:	41	**Occurrence Last Updated:**	2014-08-04

Scientific Name: *Acmispon prostratus*

Common Name: Nuttall's acmispon

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G1G2
State: S1

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:

COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:

ON SAND DUNES. 0-20 M.

Last Date Observed:	2013-04-03	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2013-04-03	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

POINT LOMA; EAST SIDE OF ROSECRANS STREET BETWEEN MCCLELLAND RD AND DOCK STREET.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO A 2006 MAP OF THE SENSITIVE PLANTS ON POINT LOMA AND ACCORDING TO 2013 GROSS COORDINATES FROM COLLECTION LABEL.

Ecological:

BENCH JUST ABOVE SAN DIEGO BAY. VERY SHELLY SANDY SOIL WITH A LOT OF BIRD BONES. NATIVE AND WEEDY HABITAT OF PLANTS WITH MOSS AND LICHENS. ASSOCIATED WITH RHUS INTEGRIFOLIA, ACACIA CYCLOPS, PHACELIA RAMOSISSIMA, ENCELIA CALIFORNICA, ETC.

Threats:

SITE WAS REPORTEDLY EXTIRPATED IN 2003 BUT SEED WAS COLLECTED AND SPREAD BACK ONTO SITE.

General:

OBSERVED ON POINT LOMA, PRESUMABLY AROUND 1999. UNKNOWN NUMBER OBSERVED IN 2013. A 2003 WALKER COLLECTION NOTES THAT THIS IS A "HAZMAT SITE- SITE IS GOING TO BE REMEDIATED (EXTIRPATED) BUT SEED WILL BE COLLECTED AND SPREAD BACK ONTO SITE."

PLSS:	T17S, R03W, Sec. 18, N (S)	**Accuracy:**	specific area	**Area (acres):**	13
UTM:	Zone-11 N3617847 E477545	**Latitude/Longitude:**	32.69812 / -117.23955	**Elevation (feet):**	60

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

EST03S0011	ESTRELLA, D. & R. LAURI - ESTRELLA #138 SD #158464 2003-05-05
GRO13S0004	GROSS, L. ET AL. - GROSS #5972 RSA #804100 2013-04-03
KIR02S0002	KIRKER, J. & R. LAURI - KIRKER #97 SDSU #16050, #17450, #17451 2002-06-04
TIE06R0001	TIERRA DATA INC. & FIREWISE 2000, INC. - NAVAL BASE POINT LOMA AND CABRILLO NATIONAL MONUMENT JOINT WILDLAND FIRE MANAGEMENT PLAN 2006-06-XX
WAL03S0004	WALKER, J. - WALKER SN SD #154082 2003-04-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 93365
Key Quad: Point Loma (3211762)
Occurrence Number: 46
EO Index: 94468
Element Code: PDFAB2A0V0
Occurrence Last Updated: 2014-08-04

Scientific Name: *Acmispon prostratus*
Common Name: Nuttall's acmispon

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G1G2
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:
COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON SAND DUNES. 0-20 M.

Last Date Observed: 2005-05-01
Last Survey Date: 2005-05-01
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NORTH SIDE OF CORONADO AVENUE BETWEEN 6TH STREET AND 8TH STREET, CORONADO.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO 2005 RECON ENVIRONMENTAL INC DIGITAL DATA.

Ecological:
URBAN/DEVELOPED.

Threats:

General:
1 TO 5 PERCENT COVER IN THIS AREA IN 2005.

PLSS: T17S, R03W, Sec. 16, E (S)
Accuracy: specific area
Area (acres): 4
UTM: Zone-11 N3617501 E482140
Latitude/Longitude: 32.69509 / -117.19052
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

REC05D0001	RECON ENVIRONMENTAL, INC. - DIGITAL DATA FROM SURVEYS FOR MULTIPLE TAXA ON NORTH ISLAND NAVAL AIR STATION, SAN DIEGO 2005-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 93366
EO Index: 94502
Key Quad: La Jolla (3211772)
Element Code: PDFAB2A0V0
Occurrence Number: 47
Occurrence Last Updated: 2014-08-11

Scientific Name: *Acmispon prostratus*
Common Name: Nuttall's acmispon

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G1G2
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_USDA-US Dept of Agriculture

General Habitat:
COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:
ON SAND DUNES. 0-20 M.

Last Date Observed: 2001-05-01
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-05-01
Occurrence Rank: Poor
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
JUST SE OF THE JUNCTION OF SEA WORLD DRIVE AND SEA WORLD WAY, NORTH SIDE OF THE SAN DIEGO RIVER.

Detailed Location:
5 TO 6 YARD WIDE STRIP BETWEEN PLANTED ROW OF TORREY PINES AND NORTH SIDE FENCE OF A LEAST TERN NESTING SITE FENCE. 100-235 YARDS E OF GIVEN INTERSECTION. MAPPED BY CNDDB AS BEST GUESS BASED ON 2001 SUTTLE LOCATION DESCRIPTION AND MAP.

Ecological:
SANDY OPENINGS AMID PINE NEEDLES. ALMOST ALL PLANTS VERY SMALL AND VEGETATIVE WITH YELLOW SWEET CLOVER, SMALL-FLOWERED PRIMROSE AND ICEPLANT.

Threats:
SHADE FROM GROWING TREES, PROLIFIC PINE NEEDLES, PERIODIC WEED REMOVAL ACTIVITIES.

General:
APPROXIMATELY 85 PLANTS OBSERVED IN 2001. A 1991 MOREY OBSERVATION ALSO ATTRIBUTED HERE BUT IT IS UNCLEAR EXACTLY WHERE HER OBSERVATION WAS MADE; ~100 PLANTS OBSERVED IN 1991.

PLSS: T16S, R03W, Sec. 29 (S)
Accuracy: specific area
Area (acres): 8
UTM: Zone-11 N3624786 E479108
Latitude/Longitude: 32.76075 / -117.22303
Elevation (feet): 20

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

MOR91U0001	MOREY, S. - TRIP REPORT FOR LOTUS NUTTALLIANUS (ACMISPON PROSTRATUS) IN SAN DIEGO COUNTY. 1991-08-07
SUT01F0013	SUTTLE, G. - FIELD SURVEY FORM FOR LOTUS NUTTALLIANUS 2001-05-01
SUT98M0001	SUTTLE, G. - MAP SHOWING LOTUS NUTTALLIANUS (ACMISPON PROSTRATUS) SITES FOUND IN SOUTH MISSION BAY AS OF MAY 1998. 1998-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03604	**EO Index:**	1343
Key Quad:	La Jolla (3211772)	**Element Code:**	PDFAG050D0
Occurrence Number:	17	**Occurrence Last Updated:**	2016-11-02

Scientific Name: *Quercus dumosa*

Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S3

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed:	2010-05-07	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2010-05-07	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOLEDAD MOUNTAIN, JUST EAST AND WEST OF EASTER CROSS, SOUTHEAST OF LA JOLLA BAY.

Detailed Location:

3 COLONIES: W COLONY IS NEAR W PARKING LOT OF SOLEDAD MTN, E COLONY IS OFF OF SPUR RIDGE SE OF TOP OF SOLEDAD MTN, MIDDLE COLONY IS ON NE BANK OF CROSS. MAPPED ACCORDING TO COORDINATE DATA FROM SANDERS, VEGCAMP, AND WALTHER.

Ecological:

NE-FACING SLOPE WITH MODERATELY FINE CLAY LOAM. ASSOCIATED WITH ADENOSTOMA FASCICULATUM, RHUS INTEGRIFOLIA, HETEROMELES ARBUTIFOLIA, XYLOCOCCUS BICOLOR, MIMULUS AURANTIACUS, CEANOTHUS VERRUCOSUS, ERIODICTYON CRASSIFOLIUM, ETC.

Threats:

General:

COMMON IN BRUSH NW OF PARKING LOT IN 2008. 18% COVER OF QUERCUS DUMOSA OVER A STAND SIZE OF ~1-5 ACRES IN 2009. UNKNOWN NUMBER SEEN IN MIDDLE POLYGON IN 2010.

PLSS:	T15S, R04W, Sec. 25, SE (S)	**Accuracy:**	specific area	**Area (acres):**	20
UTM:	Zone-11 N3633580 E477012	**Latitude/Longitude:**	32.84003 / -117.24564	**Elevation (feet):**	700

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

SAN08S0023	SANDERS, A. ET AL. - SANDERS #36052 UCR #197673, SD #236302 2008-09-14
VEG09F0371	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR QUERCUS DUMOSA 2009-07-06
VEG09F0388	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR QUERCUS DUMOSA 2009-07-06
WAL10S0007	WALTHER, M. & A. ARTZ - WALTHER #24 SD #245803 2010-05-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 31950
EO Index: 4632
Key Quad: La Jolla (3211772)
Element Code: PDFAG050D0
Occurrence Number: 18
Occurrence Last Updated: 2011-04-22

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive
CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2004-06-30
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2004-06-30
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
CANYON JUST WEST OF SAN DIEGO MESA COLLEGE, ABOUT 0.5 AIR MILE SSE OF RILEY ELEMENTARY SCHOOL.

Detailed Location:
TWO COLONIES MAPPED IN THE N 1/2 OF THE NE 1/4 OF SECTION 10 ACCORDING TO 2004 DIGITAL DATA FROM THE CITY OF SAN DIEGO.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS DIGITAL DATA. NEEDS POPULATION INFORMATION.

PLSS: T16S, R03W, Sec. 10, NE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3629467 E483621
Latitude/Longitude: 32.80305 / -117.17494
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
SDG04D0001 CITY OF SAN DIEGO - SHAPEFILE OF BASELINE SURVEY DATA FOR TECOLOTE CANYON 2004-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82370
EO Index: 317
Key Quad: Point Loma (3211762)
Element Code: PDFAG050D0
Occurrence Number: 19
Occurrence Last Updated: 2016-11-07

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive
CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:

CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2015-04-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2015-04-14
Occurrence Rank: Unknown
Owner/Manager: DOD, NPS-CABRILLO NM
Trend: Unknown
Presence: Presumed Extant

Location:

POINT LOMA; VICINITY OF FORT ROSECRANS, EXTENDING SOUTH INTO CABRILLO NATIONAL MONUMENT.

Detailed Location:

5 POLYGONS MAPPED ACCORDING TO A 2006 TIERRA DATA INC MAP. 1908 DUDLEY COLLECTION FROM "S OF FORT ROSECRANS, POINT LOMA" & 1993 MCEACHERN COLLECTIONS FROM "CABRILLO NM, SE CORNER OF MAINTENANCE YARD" AND "NEAR BAYSIDE TRAIL" ATTRIB HERE.

Ecological:

SANDY COMPACTED SOIL. ASSOCIATED WITH ISOMERIS ARBOREA, ELYMUS, RHUS INTEGRIFOLIA, AND ENCELIA CALIFORNICA. THE RARE CEANOTHUS VERRUCOSUS, EUPHORBIA MISERA, AND FEROCACTUS VIRIDESCENS ALSO OCCUR IN THIS VICINITY.

Threats:

General:

UNKNOWN NUMBER OF PLANTS SEEN, MOST LIKELY DURING 1999 SURVEYS. 15 PLANTS OBSERVED AT SOUTHERN END OF OCCURRENCE IN 2015. COLLECTIONS FROM 1908 AND 1993 ALSO ATTRIBUTED HERE.

PLSS: T17S, R03W, Sec. 19 (S)
Accuracy: specific area
Area (acres): 41
UTM: Zone-11 N3616199 E477297
Latitude/Longitude: 32.68325 / -117.24217
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

DUD08S0002	DUDLEY, W. - DUDLEY SN DS #48720, CAS-BOT-BC #79199 1908-01-01
MCE93S0003	MCEACHERN, K. - MCEACHERN #174 SBBG #106425, SD #194384 1993-04-29
MCE93S0004	MCEACHERN, K. - MCEACHERN #142 SBBG #106436, SD #194385 1993-04-28
REB15S0007	REBMAN, J. & D. SMITH - REBMAN #29870B SD #246484 2015-04-14
TIE06R0001	TIERRA DATA INC. & FIREWISE 2000, INC. - NAVAL BASE POINT LOMA AND CABRILLO NATIONAL MONUMENT JOINT WILDLAND FIRE MANAGEMENT PLAN 2006-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 50457
EO Index: 4415
Key Quad: Imperial Beach (3211751)
Element Code: PDFAG050D0
Occurrence Number: 20
Occurrence Last Updated: 2018-12-07

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 1987-03-25
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1987-03-25
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
NW SIDE OF OTAY MESA, ~1/2 MILE NORTH OF OTAY MESA ROAD AT HEAD OF A TRIBUTARY OF DENNERY CANYON.

Detailed Location:
MAPPED BY CNDDB TO ENCOMPASS GIVEN TRS: T18S R1W SECTION 29.

Ecological:
VICINITY OF MUDDY POND ON GRASSY MESA TOP AND IN BRUSHY CANYON NEARBY.

Threats:
WITHIN POTENTIAL DEVELOPMENT ENVELOPE.

General:
ID IS QUESTIONABLE. MAIN SOURCE FOR THIS SITE IS A 1987 MORGAN COLLECTION. COLLECTION DETERMINED AS Q. DUMOSA BY SANDERS IN 1987, BUT A NEARBY 1987 SANDERS COLLECTION THAT WAS ORIGINALLY Q. DUMOSA HAS SINCE BEEN CHANGED TO Q. X ACUTIDENS.

PLSS: T18S, R01W, Sec. 29 (S)
Accuracy: non-specific area
Area (acres): 702
UTM: Zone-11 N3604280 E499490
Latitude/Longitude: 32.57597 / -117.00543
Elevation (feet): 500

County Summary:
San Diego

Quad Summary:
Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

MOR87S0018 MORGAN, S. & D. KUCERA - MORGAN SN SEINET #2066420, DES #31665, OBI #45200 1987-03-25

ROB91U0004 ROBERTS, F. - NOTES FROM ORANGE COUNTY CHAPTER TO CNPS ON SEVERAL TAXA FOR INVENTORY 5. 1991-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 39675
EO Index: 34677
Key Quad: La Mesa (3211771)
Element Code: PDFAG050D0
Occurrence Number: 26
Occurrence Last Updated: 1998-09-09

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive
CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 1998-02-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1998-02-11
Occurrence Rank: Fair
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
WEST OF SAN DIEGO STATE UNIVERSITY, ABOUT 0.9 MILE ESE OF JUNCTION OF I-15 AND I-8 ALONG FAIRMONT AVENUE, SAN DIEGO.

Detailed Location:
MAPPED ALONG SOUTH SIDE OF MINOR DRAINAGE ABOUT 0.2 MILE NORTH OF JUNCTION OF FAIRMONT AVENUE AND MONTEZUMA ROAD.

Ecological:
GROWING IN CHAPARRAL DOMINATED BY CEANOTHUS VERRUCOSUS (RARE) WITH MALACOTHAMNUS FASCICULATUS, HETERMELES ARBUTIFOLIA, AND XYLOCOCCUS BICOLOR. RARE PLANTS GROWING NEARBY INCLUDE ADOPHIA CALIFORNICA AND FEROCACTUS VIRIDESCENS.

Threats:
SITE PROPOSED FOR PARTIAL DEVELOPMENT.

General:
SINGLE SPECIMEN REGROWING FROM A STUMP SPROUT OBSERVED IN 1998. OTHER SPECIMENS LIKELY PRESENT BUT NOT OBSERVED.

PLSS: T16S, R02W, Sec. 16 (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3626459 E490893
Latitude/Longitude: 32.77600 / -117.09724
Elevation (feet): 260

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
SCH98F0016 SCHEIDT, V. - FIELD SURVEY FORM FOR QUERCUS DUMOSA 1998-02-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	82388	**EO Index:**	83399
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDFAG050D0
Occurrence Number:	39	**Occurrence Last Updated:**	2011-04-28

Scientific Name: *Quercus dumosa*

Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed:	1999-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1999-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY MESA; UNNAMED CANYON JUST NORTHEAST OF DILLON CANYON, ABOUT 0.65 AIR MILE SSW OF PACIFIC GATEWAY PARK.

Detailed Location:

MAPPED IN THE NE 1/4 OF THE SW 1/4 OF SECTION 32.

Ecological:

Threats:

General:

ONE INDIVIDUAL OBSERVED DURING SURVEYS FOR THE SAN DIEGO FAIRY SHRIMP IN THE 1998/99 WET SEASON.

PLSS:	T18S, R01W, Sec. 32, SW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3602280 E499173	**Latitude/Longitude:**	32.55793 / -117.00880	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

HEL99R0001 HELIX ENVIRONMENTAL PLANNING, INC. - 1999 ANNUAL REPORT FOR PROTOCOL LEVEL WET SEASON SURVEY FOR SAN DIEGO AND RIVERSIDE FAIRY SHRIMP 1999-07-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	82389	**EO Index:**	83400
Key Quad:	National City (3211761)	**Element Code:**	PDFAG050D0
Occurrence Number:	40	**Occurrence Last Updated:**	2018-11-29

Scientific Name: *Quercus dumosa*

Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed:	2017-06-02	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-06-02	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EAST SAN DIEGO; UNNAMED URBAN CANYON ALONG THE NW SIDE OF MANZANITA DR, ~0.35 & 0.5 AIR MI WNW OF HAMILTON SCHOOL.

Detailed Location:

2 POLYGONS MAPPED ACCORDING TO 2009 VEGETATION SURVEY COORDINATES AND 2017 SWARD COORDINATES, IN THE NW 1/4 OF THE SE 1/4 OF SECTION 32.

Ecological:

HIGH LITTER AND COBBLEY. URBAN CANYON WITH FOOT TRAFFIC. ASSOC W/ CEANOTHUS VERRUCOSUS, C. TOMENTOSUS, ADENOSTOMA FASCICULATUM, RHUS INTEGRIFOLIA, ERIOGONUM FASCICULATUM, QUERCUS BERBERIDIFOLIA, ACACIA LONGIFOLIA, BROMUS MADRITENSIS, ETC.

Threats:

General:

14% COVER OF QUERCUS DUMOSA OBSERVED IN EASTERN POLYGON IN 2009. UNKNOWN NUMBER OF PLANTS SEEN IN WESTERN POLYGON IN 2017.

PLSS:	T16S, R02W, Sec. 32, SE (S)	**Accuracy:**	specific area	**Area (acres):**	10
UTM:	Zone-11 N3622152 E489943	**Latitude/Longitude:**	32.73714 / -117.10735	**Elevation (feet):**	280

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

SWA17U0001	SWARD, L. - OBSERVATION RECORD FOR QUERCUS DUMOSA, CALFLORA ID: CBO74494 2017-06-02
VEG09F0373	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR QUERCUS DUMOSA 2009-06-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82391
EO Index: 83402
Key Quad: National City (3211761)
Element Code: PDFAG050D0
Occurrence Number: 41
Occurrence Last Updated: 2011-04-28

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive
CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 1999-09-10
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1999-09-10
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
NORTH PARK AREA OF THE CITY OF SAN DIEGO; CANYON JUST SOUTH OF JUNIPER ST BETWEEN 33RD ST AND COMMONWEALTH AVE.

Detailed Location:
MAPPED AS BEST GUESS BY CNDDB IN THE E 1/2 OF THE NE 1/4 OF SECTION 6.

Ecological:
COASTAL SAGE SCRUB/COASTAL CHAPARRAL.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1999 COLLECTION BY REBMAN. NEEDS POPULATION INFORMATION.

PLSS: T17S, R02W, Sec. 06, NE (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3621168 E488637
Latitude/Longitude: 32.72825 / -117.12126
Elevation (feet): 459

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
REB99S0007 REBMAN, J. ET AL. - REBMAN #5986 SD #146344, UCR #120131, HCIB #13985, SEINET #8000388 1999-09-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A2501	**EO Index:**	83403
Key Quad:	Point Loma (3211762)	**Element Code:**	PDFAG050D0
Occurrence Number:	42	**Occurrence Last Updated:**	2016-11-08

Scientific Name: *Quercus dumosa*

Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G3

State: S3

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed:	2008-05-03	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2008-05-03	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO-BALBOA PARK	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BALBOA PARK; FLORIDA CANYON, E OF FLORIDA DR AND W OF PERSHING DRIVE, IN THE MORLEY FIELD AREA, SW OF THE VELODROME.

Detailed Location:

MAPPED ACCORDING TO 2008 REBMAN COORDINATES, IN THE SW 1/4 OF THE SE 1/4 OF SECTION 36.

Ecological:

CHAPARRAL/COASTAL SAGE SCRUB WITH ADENOSTOMA FASCICULATUM, XYLOCOCCUS BICOLOR, ARTEMISIA CALIFORNICA, SALVIA MELLIFERA, AND FEROCACTUS VIRIDESCENS.

Threats:

General:

NOTED AS UNCOMMON IN 2008. MAIN SOURCES OF INFORMATION ARE TWO REBMAN COLLECTIONS FROM 2008; COLLECTED DURING BIOBLITZ 2008. 1921 COLLECTION BY KENDALL FROM "BALBOA PARK, 200 FT" ATTRIBUTED TO THIS OCCURRENCE.

PLSS:	T16S, R03W, Sec. 36, SE (S)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3621765 E486648	**Latitude/Longitude:**	32.73361 / -117.1425	**Elevation (feet):**	223

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

KEN21S0003	KENDALL, M. - KENDALL #XX2 POM #18610 1921-03-27
REB08S0016	REBMAN, J. - REBMAN #14972 SD #186909 2008-05-03
REB08S0017	REBMAN, J. - REBMAN #14977 SD #186910, RSA #733002 2008-05-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 58541
EO Index: 83404
Key Quad: Point Loma (3211762)
Element Code: PDFAG050D0
Occurrence Number: 43
Occurrence Last Updated: 2011-04-28

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive
CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2003-09-20
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-09-20
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
SWITZER CANYON JUST WEST OF 30TH ST BETWEEN NUTMEG ST AND LAUREL ST, EAST OF BALBOA PARK, SAN DIEGO.

Detailed Location:
MAPPED AS BEST GUESS BY CNDDB IN THE S 1/2 OF THE SW 1/4 OF SECTION 31.

Ecological:
COASTAL SAGE SCRUB/COASTAL CHAPARRAL.

Threats:

General:
MAIN SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1999 COLLECTION BY REBMAN. 2003 COLLECTION BY SCHNEIDER FROM "WEST SWITZER CANYON AREA NER THE BORDER OF NORTH PARK AND GOLDEN HILL" ATTRIBUTED TO THIS OCCURRENCE.

PLSS: T16S, R02W, Sec. 31, SW (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3621687 E487720
Latitude/Longitude: 32.73293 / -117.13105
Elevation (feet): 200

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

REB99S0008	REBMAN, J. ET AL. - REBMAN #6014 SD #146345, UCR #120127 1999-09-10
SCH03S0007	SCHNEIDER, C. & T. SCHAUWECKER - SCHNEIDER #4 SD #154309 2003-09-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82392
Key Quad: Point Loma (3211762)
Occurrence Number: 44
EO Index: 83406
Element Code: PDFAG050D0
Occurrence Last Updated: 2011-05-23

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S3
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2006-06-01
Last Survey Date: 2006-06-01
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Decreasing

Location:
GOLDEN HILLS AREA OF SAN DIEGO, BETWEEN B ST AND C ST WEST OF THE EXTENSION OF 29TH STREET.

Detailed Location:
MAPPED ON THE BORDER OF THE SW 1/4 OF SECTION 6 AND THE NW 1/4 OF SECTION 7.

Ecological:
SMALL URBAN CANYON SUPPORTING A TINY FRAGMENT OF DISTURBED COASTAL SCRUB VEGETATION. WEED-WHIPPED VEGETATION WITH SINGLE SPECIMEN AT THE EDGE OF A TINY PATCH OF DISTURBED SCRUB.

Threats:
DEVELOPMENT WILL ELIMINATE THIS SPECIMEN.

General:
ONE INDIVIDUAL OBSERVED IN 2006.

PLSS: T17S, R02W, Sec. 06, SW (S)
UTM: Zone-11 N3619967 E487649
Accuracy: 80 meters
Latitude/Longitude: 32.71741 / -117.13179
Area (acres): 0
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
SCH06F0006 SCHEIDT, V. - FIELD SURVEY FORM FOR QUERCUS DUMOSA 2006-06-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82396
EO Index: 83438
Key Quad: La Mesa (3211771)
Element Code: PDFAG050D0
Occurrence Number: 47
Occurrence Last Updated: 2018-11-29

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:

CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2007-02-24
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2007-02-24
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

MISSION TRAILS REGIONAL PARK, ABOUT 0.7 AIR MILE NORTHEAST OF THE JUNCTION OF CLAIREMONT MESA BLVD AND VIA VALARTA.

Detailed Location:

MAPPED ACCORDING TO 2007 VEGETATION SURVEY COORDINATES, ON THE BORDER BETWEEN THE SW 1/4 OF THE SE 1/4 OF SECTION 27 AND THE NW 1/4 OF THE NE 1/4 OF SECTION 34.

Ecological:

ASSOCIATED WITH XYLOCOCCUS BICOLOR, LOTUS SCOPARIUS, ADENOSTOMA FASCICULATUM, SALVIA MELLIFERA, RHUS INTEGRIFOLIA, HELIANTHEMUM SCOPARIUM, BRACHYPODIUM DISTACHYON, BROMUS MADRITENSIS, SOLANUM PARISHII, MALOSMA LAURINA, ETC.

Threats:

General:

3% COVER OF QUERCUS DUMOSA OBSERVED IN 2007.

PLSS: T15S, R02W, Sec. 34, NE (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3632801 E493139
Latitude/Longitude: 32.83323 / -117.07331
Elevation (feet): 725

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

VEG16U0001 VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82404
EO Index: 83439
Key Quad: La Mesa (3211771)
Element Code: PDFAG050D0
Occurrence Number: 48
Occurrence Last Updated: 2011-04-29

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2004-09-08
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2004-09-08
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
GREENBELT SECTION OF SHEPARD (SHEPHERD) CANYON, JUST EAST OF SANTO ROAD IN TIERRASANTA.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB WITHIN SHEPHERD CANYON JUST EAST OF SANTO ROAD.

Ecological:
COASTAL TERRACE CANYON CUT THROUGH PLEISTOCENE AND EOCENE DEPOSITS; PERENNIAL WATER IN SMALL STREAM. ASSOC WITH TYPICAL COASTAL TERRACE CANYON RIPARIAN, INCLUDING WILLOWS AND SYCAMORES. NOTE BY J. REBMAN: MAY BE WITH SOME Q. BERBERIDIFOLIA.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2004 COLLECTION BY SCHWENKMEYER. ANNOTATED AS QUERCUS DUMOSA BY JON REBMAN.

PLSS: T15S, R02W, Sec. 28, S (S)
Accuracy: non-specific area
Area (acres): 60
UTM: Zone-11 N3633357 E491138
Latitude/Longitude: 32.83823 / -117.09469
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
SCH04S0003 SCHWENKMEYER, D. - SCHWENKMEYER #56 SD #165609 2004-09-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82422
EO Index: 83440
Key Quad: La Mesa (3211771)
Element Code: PDFAG050D0
Occurrence Number: 49
Occurrence Last Updated: 2011-04-29

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:

CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 1978-04-01
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1978-04-01
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

EAST OF COWLES MOUNTAIN IN THE GROSSMONT COLLEGE WILDLIFE SANCTUARY ON THE WEST SIDE OF THE CAMPUS.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN GENERAL VICINITY OF THE WEST SIDE OF CAMPUS.

Ecological:

NORTH FACING SLOPE. TRANSITION BETWEEN COASTAL SAGE SHRUB AND CHAPARRAL. ASSOCIATED WITH SALVIA MELLIFERA, ERIOGONUM FASCICULATUM, ADENOSTOMA FASCICULATUM, AND HETEROMELES ARBUTIFOLIA.

Threats:

General:

MAIN SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1978 COLLECTION BY HENRY. 1965 HANSHAW COLLECTION FROM "E OF COWLES MTN, 4 MILES NORTH OF BRIDGE ON HWY 80, THEN 1.3 MILES WEST OF MISSION GORGE RD" ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS: T16S, R01W, Sec. 05, NW (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3631108 E499056
Latitude/Longitude: 32.81797 / -117.01008
Elevation (feet): 650

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

HAN65S0001 HANSHAW, P. - HANSHAW SN SDSU #6724 1965-04-14

HEN78S0011 HENRY, J. - HENRY #20 SDSU #64 1978-04-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82430
EO Index: 83443
Key Quad: La Mesa (3211771)
Element Code: PDFAG050D0
Occurrence Number: 50
Occurrence Last Updated: 2011-04-29

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2009-04-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-04-17
Occurrence Rank: Fair
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SAN DIEGO URBAN CANYON BETWEEN ALDER DRIVE AND ALDINE DRIVE, ABOUT 0.35 AIR MI ENE OF KENSINGTON PARK.

Detailed Location:
MAPPED ON THE NORTH SIDE OF THE CANYON IN THE NW 1/4 OF THE SW 1/4 OF SECTION 21.

Ecological:
DIEGAN COASTAL SAGE SCRUB AND SOUTHERN WILLOW SCRUB ON SOUTH-FACING HILLSIDE AND ADJACENT TO DRAINAGE AT BOTTOM. THE RARE VIGIUIERA LACINIATA AND ADOLPHIA CALIFORNICA ALSO OCCURR AT THIS LOCATION.

Threats:
DISTURBED BY RECENT BRUSHING. THREATENED BY LANDSCAPING IRRIGATION RUNOFF.

General:
2 PLANTS OBSERVED IN 2009.

PLSS: T16S, R02W, Sec. 21, SW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3625255 E490543
Latitude/Longitude: 32.76514 / -117.10096
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
THO09F0002 THOMPSON, T. - FIELD SURVEY FORM FOR QUERCUS DUMOSA 2009-04-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82431
EO Index: 83444
Key Quad: La Jolla (3211772)
Element Code: PDFAG050D0
Occurrence Number: 51
Occurrence Last Updated: 2016-12-09

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2009-06-25
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-06-25
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR, CITY OF SDG
Trend: Unknown
Presence: Presumed Extant

Location:
ALONG EITHER SIDE OF I-805 FROM JUST NORTH OF MIRAMAR ROAD JUNCTION TO JUST SOUTH OF ROSE CANYON.

Detailed Location:
24 POLYGONS MAPPED BY CNDDB. S-MOST POLYGON BASED ON 2009 VEGETATION SURVEY COORDINATES, REMAINING POLYGONS ARE BASED ON A 2010 MAP. COLLECTIONS FROM MCAS MIRAMAR "NURSERY WEST" AND "E OF NOBEL DR, JUST N OF POWER LINES" ATTRIBUTED HERE.

Ecological:
ON SLOPE IN SOUTHERN MIXED CHAPARRAL. ASSOCIATED WITH QUERCUS BERBERIDIFOLIA, TOXICODENDRON DIVERSILOBUM, ARTEMISIA CALIFORNICA, A. PALMERI, RHUS INTEGRIFOLIA, ERIOGONUM FASCICULATUM VAR. FASCICULATUM, HETEROMELES ARBUTIFOLIA, ETC.

Threats:
2 SOUTHERNMOST POLYGONS: LOTS OF UNAUTHORIZED HIKING AND MOUNTAIN BIKING TRAILS THROUGH STAND.

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN VICINITY IN 1998, 2003, 2006, AND 2009. MAJORITY OF OCCURRENCE IS BASED ON 2010 MAP; PLANTS OBSERVED SOMETIME PRIOR TO 2010. INCLUDES FORMER OCCURRENCE #52.

PLSS: T15S, R03W, Sec. 16 (S)
Accuracy: specific area
Area (acres): 51
UTM: Zone-11 N3636840 E481853
Latitude/Longitude: 32.86953 / -117.19396
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
La Jolla (3211772), Del Mar (3211782)

Sources:

ANO10R0001	ANONYMOUS - EXHIBIT J: KNOWN BIOLOGICAL RESOURCES ON THE NOBEL DR. SITE AND NEARBY PROPERTIES 2010-XX-XX
BAI06U0001	BAILEY, E. - INTERSTATE 805 AT GOVERNOR DRIVE AND TEASDALE AVENUE - CALIFORNIA GNATCATCHER SURVEY 45 DAY FOLLOW UP REPORT. 2006-XX-XX
DOS03S0002	DOSSEY, R. ET AL. - DOSSEY #795 SD #171785 2003-04-19
DOS06S0003	DOSSEY, R. - DOSSEY #1205 SD #171812 2006-09-19
DOS06S0004	DOSSEY, R. - DOSSEY #1207 SD #171786 & 171794 2006-09-19
MAY98U0001	MAYER, D. (MERKEL AND ASSOCIATES, INC.) - CALIFORNIA GNATCATCHER SURVEYS FOR THE MIRAMAR TRUNK SEWER PROJECT, ROSE CANYON AREA. 1998-08-14
VEG09F0367	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR QUERCUS DUMOSA 2009-06-25
VEG09F0372	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR QUERCUS DUMOSA 2009-07-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82433
Key Quad: La Jolla (3211772)
Occurrence Number: 53
EO Index: 83446
Element Code: PDFAG050D0
Occurrence Last Updated: 2011-04-29

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S3
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2009-07-22
Last Survey Date: 2009-07-22
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
ROSE CANYON, JUST SOUTHWEST OF INTERSECTION OF GENESSE AVE AND CENTURION SQUARE, SOUTHWEST OF UNIVERSITY CITY HS.

Detailed Location:
AROUND TRAIL NETWORK NEAR STREAM BED. EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN ROSE CANYON JUST SOUTHWEST OF UNIVERSITY CITY HIGH SCHOOL, ON THE SOUTHWEST SIDE OF GENESSE AVE.

Ecological:
COASTAL FOREST WITH QUERCUS AGRIFOLIA, RHUS INTEGRIFOLIA, AND ERIOGONUM FASCICULATUM.

Threats:

General:
50 PLANTS OBSERVED IN AREA IN 2009.

PLSS: T15S, R03W, Sec. 20, NE (S)
UTM: Zone-11 N3635821 E480251
Accuracy: 1/10 mile
Latitude/Longitude: 32.86031 / -117.21107
Area (acres): 0
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
CAI09S0001 CAIN, I. & E. CLAYTON - CAIN #1235 SDSU #19324 2009-07-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82434
EO Index: 83447
Key Quad: La Jolla (3211772)
Element Code: PDFAG050D0
Occurrence Number: 54
Occurrence Last Updated: 2011-05-23

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2009-07-06
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-07-06
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
NORTHWEST END OF SOLEDAD MOUNTAIN, ABOUT 0.65 AIR MILE NORTHEAST OF LA JOLLA COUNTRY CLUB, LA JOLLA HEIGHTS PARK.

Detailed Location:
MAPPED IN THE APPROXIMATE SE 1/4 OF THE NE 1/4 OF SECTION 26 ACCORDING TO 2009 VEGCAMP COORDINATES.

Ecological:
ADENOSTOMA FASCICULATUM AND MIXED OTHER SHRUB STAND. SOIL HAS DEEP CRACKS. ASSOCIATED WITH RHUS INTEGRIFOLIA, DEINANDRA FASCICULATA, HETEROMELES ARBUTIFOLIA, NASSELLA LEPIDA, XYLOCOCCUS BICOLOR, DUDLEYA EDULIS, HAZARDIA SQUARROSA, ETC.

Threats:
STAND IS CRISS-CROSSED BY FOOT TRAILS; THERE IS A LOT OF LITTER PRESENT.

General:
2% COVER OF QUERCUS DUMOSA OBSERVED IN >5 ACRES IN 2009.

PLSS: T15S, R04W, Sec. 26, NE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3633977 E475677
Latitude/Longitude: 32.84359 / -117.25991
Elevation (feet): 600

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

VEG09F0385 VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR QUERCUS DUMOSA 2009-07-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82435
Key Quad: La Jolla (3211772)
Occurrence Number: 55
EO Index: 83448
Element Code: PDFAG050D0
Occurrence Last Updated: 2011-04-29

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S3
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2004-11-18
Last Survey Date: 2004-11-18
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
ISOLATED URBAN CANYON BEHIND BOYS CLUB ON CLAREMONT MESA BLVD, 1.5 BLOCKS EAST OF GENESEE AVE, ABOVE TECOLOTE CANYON.

Detailed Location:
NORTH-FACING SLOPE OF E-W LEG OF SMALL ISOLATED URBAN CANYON ABUTTING TO CLAIREMONT MESA BLVD. MAPPED AS BEST GUESS BY CNDDB TO ENCOMPASS SMALL E-W RUNNING CANYON BEHIND BOYS & GIRLS CLUB OF AMERICA ON CLAIREMONT MESA BLVD.

Ecological:
ASSOCIATED WITH BUCKWHEAT, LEMONADE BERRY, CARPOBROTUS CHILENSIS, MARAH MACROCARPUS, AND INVADING GRASSES.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2004 COLLECTION BY DORIUS.

PLSS: T15S, R03W, Sec. 33, NE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3632806 E482168
Latitude/Longitude: 32.83315 / -117.19052
Elevation (feet): 351

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
DOR04S0001 DORIUS, G. - DORIUS #121 SD #165610 2004-11-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82436
EO Index: 83449
Key Quad: La Jolla (3211772)
Element Code: PDFAG050D0
Occurrence Number: 56
Occurrence Last Updated: 2011-04-29

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2004-05-04
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2004-05-04
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
TECOLOTE CANYON, JUST NORTHEAST OF THE INTERSECTION OF CLAIREMONT DRIVE AND BALBOA AVE.

Detailed Location:
5 COLONIES MAPPED BY CNDDB AS 2 POLYGONS IN THE E 1/2 OF THE NW 1/4 OF SECTION 4.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS 2004 DIGITAL DATA FROM THE CITY OF SAN DIEGO. NEEDS POPULATION INFORMATION.

PLSS: T16S, R03W, Sec. 04, NW (S)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3630805 E481450
Latitude/Longitude: 32.81509 / -117.19815
Elevation (feet): 200

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

SDG04D0001 CITY OF SAN DIEGO - SHAPEFILE OF BASELINE SURVEY DATA FOR TECOLOTE CANYON 2004-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	82437	**EO Index:**	83450
Key Quad:	La Jolla (3211772)	**Element Code:**	PDFAG050D0
Occurrence Number:	57	**Occurrence Last Updated:**	2018-11-29

Scientific Name: *Quercus dumosa*

Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S3

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed:	2017-03-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-03-15	**Occurrence Rank:**	Excellent
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

TECOLOTE CANYON NATURAL PARK, NORTH OF HOLMES ELEMENTARY SCHOOL ON MOUNT ARARAT DRIVE, WEST OF MOUNT BRUNDAGE AVENUE.

Detailed Location:

MAPPED ACCORDING TO 2008 BREISCH COORDINATES, IN THE NE 1/4 OF THE SE 1/4 OF SECTION 4.

Ecological:

WEST-FACING SLOPE. MARINE SEDIMENTARY DEPOSITS. ASSOCIATED WITH BLACK SAGE AND OAK SHRUBS. SCRUB OAK CHAPARRAL.

Threats:

PEDESTRIANS/TRAILS.

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN 2008. 30-50 INDIVIDUALS OBSERVED IN 2017.

PLSS:	T16S, R03W, Sec. 4, SE (S)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3630578 E482391	**Latitude/Longitude:**	32.81305 / -117.18811	**Elevation (feet):**	262

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BRE08S0001	BREISCH, R. - BREISCH #423 SD #201725 2008-04-21
HAR17F0004	HARVEY, C. - FIELD SURVEY FORM FOR QUERCUS DUMOSA 2017-03-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82438
Key Quad: La Jolla (3211772)
Occurrence Number: 58
EO Index: 83451
Element Code: PDFAG050D0
Occurrence Last Updated: 2011-04-29

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S3
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2004-05-04
Last Survey Date: 2004-05-04
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
TECOLOTE CANYON, JUST NORTHEAST OF MARSTON JR HIGH SCHOOL.

Detailed Location:
MAPPED IN THE NW 1/4 OF THE SE 1/4 OF SECTION 4.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS 2004 DIGITAL DATA FROM THE CITY OF SAN DIEGO.

PLSS: T16S, R03W, Sec. 04, SE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3630257 E481685
Latitude/Longitude: 32.81015 / -117.19564
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
SDG04D0001 CITY OF SAN DIEGO - SHAPEFILE OF BASELINE SURVEY DATA FOR TECOLOTE CANYON 2004-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	82439	**EO Index:**	83452
Key Quad:	La Jolla (3211772)	**Element Code:**	PDFAG050D0
Occurrence Number:	59	**Occurrence Last Updated:**	2011-05-02

Scientific Name: *Quercus dumosa*

Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G3

State: S3

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed:	2004-06-30	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2004-06-30	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SMALL URBAN CANYON BETWEEN VIA CARANCHO AND VIA BELLO, TECOLOTE CANYON NATURAL PARK.

Detailed Location:

MAPPED IN THE SE 1/4 OF THE NE 1/4 OF SECTION 9.

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS 2004 DIGITAL DATA FROM THE CITY OF SAN DIEGO.

PLSS:	T16S, R03W, Sec. 09, NE (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3629356 E482387	**Latitude/Longitude:**	32.80203 / -117.18811	**Elevation (feet):**	250

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

SDG04D0001 CITY OF SAN DIEGO - SHAPEFILE OF BASELINE SURVEY DATA FOR TECOLOTE CANYON 2004-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82440
EO Index: 83453
Key Quad: La Jolla (3211772)
Element Code: PDFAG050D0
Occurrence Number: 60
Occurrence Last Updated: 2011-05-02

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G3
State: S3
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2004-06-30
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2004-06-30
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
ABOUT 0.3 AIR MI N OF LINDA VISTA ELEMENTARY SCHOOL AND 0.35 AIR MI S OF SAN DIEGO MESA COLLEGE, TECOLOTE CANYON NP.

Detailed Location:
TWO COLONIES MAPPED BY CNDDB AS ONE POLYGON IN THE SE 1/4 OF THE NE 1/4 OF SECTION 10.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS 2004 DIGITAL DATA FROM THE CITY OF SAN DIEGO.

PLSS: T16S, R03W, Sec. 10, NE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3628918 E483818
Latitude/Longitude: 32.79810 / -117.17282
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
SDG04D0001 CITY OF SAN DIEGO - SHAPEFILE OF BASELINE SURVEY DATA FOR TECOLOTE CANYON 2004-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03806
Key Quad: La Jolla (3211772)
Occurrence Number: 61
EO Index: 83454
Element Code: PDFAG050D0
Occurrence Last Updated: 2011-05-02

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S3

Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 1903-08-09
Last Survey Date: 1903-08-09
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
MISSION HILLS, SAN DIEGO COUNTY.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN GENERAL VICINITY OF MISSION HILLS.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1903 COLLECTION BY ABRAMS. NEEDS FIELDWORK.

PLSS: T16S, R03W, Sec. 27 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3623900 E482432
Latitude/Longitude: 32.75282 / -117.18753
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Point Loma (3211762), La Jolla (3211772)

Sources:
ABR03S0038 ABRAMS, L. - ABRAMS #4014 POM #158033 1903-08-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92930	**EO Index:**	94089
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDFAG050D0
Occurrence Number:	102	**Occurrence Last Updated:**	2014-06-27

Scientific Name: *Quercus dumosa*

Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed:	2007-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2007-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	SDG COUNTY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SPOONERS MESA; SMALL DRAINAGE APPROXIMATELY 0.9 AIR MILE WSW OF THE INTERSECTION OF HOLLISTER ST AND MONUMENT RD.

Detailed Location:

WITHIN TIJUANA RIVER VALLEY REGIONAL PARK. MAPPED IN THE SW 1/4 OF THE SW 1/4 OF SECTION 4 ACCORDING TO A 2007 SAN DIEGO COUNTY MAP.

Ecological:

NORTH FACING SLOPE OF A SMALL DRAINAGE. SOUTHERN MIXED CHAPARRAL HABITAT. ASSOCIATED WITH RHUS INTEGRIFOLIA, MALOSMA LAURINA, ADENOSTOMA FASCICULATUM, ENCELIA CALIFORNICA, AND ERIOGONUM FASCICULATUM.

Threats:

General:

11 PLANTS OBSERVED IN 2007.

PLSS:	T19S, R02W, Sec. 04, SW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3600395 E490707	**Latitude/Longitude:**	32.54088 / -117.09896	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

SDG07R0001 SAN DIEGO COUNTY - TIJUANA RIVER VALLEY REGIONAL PARK, AREA SPECIFIC MANAGEMENT DIRECTIVES 2007-06-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92933
EO Index: 94093
Key Quad: National City (3211761)
Element Code: PDFAG050D0
Occurrence Number: 103
Occurrence Last Updated: 2014-06-27

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive
CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
WEST OF THE I-805 AND SR 15 MERGE, JUST EAST OF MCKINLEY ELEMENTARY SCHOOL, SAN DIEGO.

Detailed Location:
PORTIONS OF SITE APPEAR TO BE WITHIN MONTCLAIR PARK. 3 POLYGONS MAPPED IN THE WEST 1/2 OF THE SW 1/4 OF SECTION 32 ACCORDING TO A 2011 CALTRANS MAP.

Ecological:

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED SOMETIME PRIOR TO 2009.

PLSS: T16S, R02W, Sec. 32, SW (S)
Accuracy: specific area
Area (acres): 7
UTM: Zone-11 N3621943 E489004
Latitude/Longitude: 32.73525 / -117.11736
Elevation (feet): 250

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

CAL11R0002	CALIFORNIA DEPARTMENT OF TRANSPORTATION - INTERSTATE 805 MANAGED LANES SOUTH PROJECT, FINAL EIR/EA WITH FONSI 2011-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92935	**EO Index:**	94095
Key Quad:	Point Loma (3211762)	**Element Code:**	PDFAG050D0
Occurrence Number:	104	**Occurrence Last Updated:**	2018-12-03

Scientific Name: *Quercus dumosa*

Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G3

State: S3

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed:	2014-03-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2014-03-26	**Occurrence Rank:**	Poor
Owner/Manager:	PVT, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

URBAN CANYON WEST OF GRANADA AVE, AND ~0.2 MI ENE OF GOLF COURSE DR/PERSHING DR INTERSECTION, VICINITY OF BALBOA PARK.

Detailed Location:

2 POLYGONS MAPPED ACCORDING TO 2011 NENOW COORDINATES AND 2014 SCHEIDT COORDINATES. WESTERN POLYGON IS JUST NORTH OF GOLF COURSE PARKING LOT. EASTERN POLYGON IS ON WEST SIDE OF GRANADA AVE BETWEEN GRAPE ST AND DATE ST, JUST EAST OF PARK.

Ecological:

URBAN CANYON. SURROUNDING VEGETATION MOSTLY NON-NATIVE VEGETATION WITH DISTURBED REMNANT OF SOUTHERN MARITIME CHAPARRAL. FAIRLY FLAT ALONG BOTTOM OF CANYON, WITH STEEP SLOPES ABOVE TO EAST AND WEST. THE RARE CEANOTHUS VERRUCOSUS ALSO HERE.

Threats:

EASTERN POLYGON TO BE GRADED FOR A 5-UNIT RESIDENTIAL DEVELOPMENT.

General:

SEEN IN WESTERN POLYGON IN 2011. EASTERN POLYGON: 4 LARGE PLANTS OBSERVED IN 2014; REMNANT SPECIMENS; MORE COMMON IN NEARBY BALBOA PARK.

PLSS:	T17S, R02W, Sec. 6, NW (S)	**Accuracy:**	specific area	**Area (acres):**	10
UTM:	Zone-11 N3620792 E487409	**Latitude/Longitude:**	32.72485 / -117.13437	**Elevation (feet):**	200

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

NEN11S0007	NENOW, N. - NENOW #1747 SD #253798 2011-04-03
SCH14F0004	SCHEIDT, V. - FIELD SURVEY FORM FOR QUERCUS DUMOSA & CEANOTHUS VERRUCOSUS 2014-03-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92644
EO Index: 94097
Key Quad: Point Loma (3211762)
Element Code: PDFAG050D0
Occurrence Number: 105
Occurrence Last Updated: 2014-06-27

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
SUNSET CLIFFS NATURAL PARK.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB TO ENCOMPASS THE PARK.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2012 NATIVE PLANT CHECKLIST FOR THE PARK, UNKNOWN WHEN PLANTS SEEN.

PLSS: T17S, R04W, Sec. 12, NW (S)
Accuracy: non-specific area
Area (acres): 59
UTM: Zone-11 N3619952 E476189
Latitude/Longitude: 32.71708 / -117.25407
Elevation (feet): 100

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
ANO12U0002 ANONYMOUS - NATIVE PLANTS AT SUNSET CLIFF NATURAL PARK 2012-06-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92942	**EO Index:**	94098
Key Quad:	Point Loma (3211762)	**Element Code:**	PDFAG050D0
Occurrence Number:	106	**Occurrence Last Updated:**	2014-06-27

Scientific Name: *Quercus dumosa*

Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed:	1999-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1999-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

POINT LOMA; BOTH SIDES OF CABRILLO MEMORIAL DRIVE, FROM 0.3 TO 1.2 AIR MILES NORTH OF BENNINGTON MONUMENT.

Detailed Location:

6 POLYGONS MAPPED ACCORDING TO A 2006 TIERRA DATA INC MAP.

Ecological:

Threats:

General:

UNKNOWN NUMBER OF PLANTS SEEN, MOST LIKELY DURING 1999 SURVEYS.

PLSS:	T17S, R04W, Sec. 13, E (S)	**Accuracy:**	specific area	**Area (acres):**	34
UTM:	Zone-11 N3618142 E477158	**Latitude/Longitude:**	32.70077 / -117.24369	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

TIE06R0001	TIERRA DATA INC. & FIREWISE 2000, INC. - NAVAL BASE POINT LOMA AND CABRILLO NATIONAL MONUMENT JOINT WILDLAND FIRE MANAGEMENT PLAN 2006-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92966
Key Quad: La Mesa (3211771)
Occurrence Number: 107
EO Index: 94120
Element Code: PDFAG050D0
Occurrence Last Updated: 2014-06-30

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S3
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2007-XX-XX
Last Survey Date: 2007-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
WEST OF SPRING CANYON, APPROXIMATELY 1.5 AIR MILES NORTHEAST OF THE SUMMIT OF FORTUNA MOUNTAIN.

Detailed Location:
MAPPED NEAR THE CENTER OF THE SW 1/4 OF SECTION 13.

Ecological:
DISTURBED SOUTHERN MIXED CHAPARRAL.

Threats:

General:
1 PLANT OBSERVED IN 2007.

PLSS: T15S, R02W, Sec. 13, SW (S)
UTM: Zone-11 N3636357 E495826
Accuracy: 80 meters
Latitude/Longitude: 32.86531 / -117.04460
Area (acres): 0
Elevation (feet): 700

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

ASP08R0002	ASPEN ENVIRONMENTAL GROUP - FINAL ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT AND PROPOSED LAND USE AMENDMENT, SAN DIEGO GAS & ELECTRIC CO APPLICATION FOR THE SUNRISE POWERLINK PROJECT, SEC D.2 2008-10-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92967
EO Index: 94121
Key Quad: La Mesa (3211771)
Element Code: PDFAG050D0
Occurrence Number: 108
Occurrence Last Updated: 2014-06-30

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2007-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2007-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
WEST OF OAK CANYON, APPROXIMATELY 0.4 AIR MILE SOUTHEAST OF THE SUMMIT OF FORTUNA MOUNTAIN.

Detailed Location:
MAPPED IN THE SW 1/4 OF THE NE 1/4 OF SECTION 26.

Ecological:
SOUTHERN MIXED CHAPARRAL. THE RARE ARCTOSTAPHYLOS GLANDULOSA VAR. CRASSIFOLIA ALSO OCCURS IN THIS AREA.

Threats:

General:
2 PLANTS OBSERVED IN 2007.

PLSS: T15S, R02W, Sec. 26, NE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3633906 E494852
Latitude/Longitude: 32.84320 / -117.05500
Elevation (feet): 850

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

ASP08R0002 ASPEN ENVIRONMENTAL GROUP - FINAL ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT AND PROPOSED LAND USE AMENDMENT, SAN DIEGO GAS & ELECTRIC CO APPLICATION FOR THE SUNRISE POWERLINK PROJECT, SEC D.2 2008-10-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92969	**EO Index:**	94123
Key Quad:	La Mesa (3211771)	**Element Code:**	PDFAG050D0
Occurrence Number:	109	**Occurrence Last Updated:**	2014-06-30

Scientific Name: *Quercus dumosa*

Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G3

State: S3

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed:	2009-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BETWEEN TAMBOR CT AND VIA TEMPRANO, SOUTH OF RUEDA DR, ABOUT 2.3 AIR MILES SOUTHWEST OF SUMMIT OF FORTUNA MOUNTAIN.

Detailed Location:

2 POLYGONS MAPPED IN THE SE 1/4 OF THE SE 1/4 OF SECTION 33.

Ecological:

COASTAL SAGE-CHAPARRAL SCRUB HABITAT.

Threats:

General:

50 PLANTS OBSERVED IN SOUTHWESTERN POLYGON AND 20 PLANTS OBSERVED IN NORTHEASTERN POLYGON IN 2009.

PLSS:	T15S, R02W, Sec. 33, SE (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3631421 E491944	**Latitude/Longitude:**	32.82077 / -117.08606	**Elevation (feet):**	450

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

HEL09R0013 HELIX ENVIRONMENTAL PLANNING, INC. - FINAL FUEL REDUCTION PLAN FOR THE SCRIPPS RANCH AREA OF THE CITY OF SAN DIEGO'S BRUSH MANAGEMENT PROJECT 2009-05-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 85456
Key Quad: La Mesa (3211771)
Occurrence Number: 110
EO Index: 94124
Element Code: PDFAG050D0
Occurrence Last Updated: 2014-06-30

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S3
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2009-06-17
Last Survey Date: 2009-06-17
Owner/Manager: DOD-NAVY, CALTRANS
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SMALL DRAINAGE JUST EAST OF I-15 AND SOUTH OF BALBOA AVE, EAST SIDE OF MURPHY CANYON.

Detailed Location:
GROWING INTO FENCELINE BETWEEN CALTRANS RIGHT-OF-WAY AND MURPHY CANYON HOUSING AREA (US NAVY). MAPPED IN NW 1/4 OF NW 1/4 OF SEC 5 ACCORDING TO 2009 COORDINATES REPORTED FOR A COMAROSTAPHYLIS SURVEY; Q. DUMOSA MENTIONED AS ASSOCIATE.

Ecological:
ON EDGE OF SMALL ARROYO AT BASE OF SLOPE. ROCKY LOAM SOIL. N BANK OF A W-FACING DRAINAGE. MIX OF COASTAL SAGE SCRUB AND CHAPARRAL WITH SALVIA MELLIFERA, ADENOSTOMA FASCICULATUM, BACCHARIS SAROTHROIDES, B. SALICIFOLIA, ETC.

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 2009.

PLSS: T16S, R02W, Sec. 05, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3630997 E489295
Latitude/Longitude: 32.81693 / -117.11435
Elevation (feet): 243

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

CLA09F0012 CLARK, K. (CLARK BIOLOGICAL SERVICES) - FIELD SURVEY FORM FOR COMAROSTAPHYLIS DIVERSIFOLIA SSP. DIVERSIFOLIA 2009-06-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92971	**EO Index:**	94126
Key Quad:	La Jolla (3211772)	**Element Code:**	PDFAG050D0
Occurrence Number:	111	**Occurrence Last Updated:**	2014-06-30

Scientific Name: *Quercus dumosa*

Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S3

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UC-SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

E OF SCRIPPS INSTITUTION OF OCEANOGRAPHY, ~0.25 AIR MI SW OF INTERSECTION OF TORREY PINES RD AND LA JOLLA VILLAGE DR.

Detailed Location:

ECOLOGICAL RESERVE. 3 POLYGONS MAPPED IN THE NW 1/4 OF THE SE 1/4 OF SECTION 13.

Ecological:

SOUTHERN MARITIME CHAPARRAL.

Threats:

General:

UNKNOWN NUMBER OF PLANTS SEEN IN 2001.

PLSS:	T15S, R04W, Sec. 13, SE (S)	**Accuracy:**	specific area	**Area (acres):**	3
UTM:	Zone-11 N3636610 E477016	**Latitude/Longitude:**	32.86736 / -117.24566	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

HEL04R0010 HELIX ENVIRONMENTAL PLANNING, INC. - BIOLOGICAL RESOURCES TECHNICAL REPORT, 2004 UCSD LONG RANGE DEVELOPMENT PLAN UPDATE 2004-09-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92972	**EO Index:**	94127
Key Quad:	La Jolla (3211772)	**Element Code:**	PDFAG050D0
Occurrence Number:	112	**Occurrence Last Updated:**	2014-07-01

Scientific Name: *Quercus dumosa*

Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:

GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed:	19XX-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	19XX-XX-XX	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Extirpated		

Location:

KEARNEY MESA; NORTH OF CLAIREMONT MESA BLVD BETWEEN I-805 AND SR 163, SOUTH OF SAN CLEMENTE CANYON.

Detailed Location:

MAPPED BY CNDDB AT THE EASTERN END OF GIVEN PARCEL AS PER MAP AND DESCRIPTION PROVIDED IN A 1987 WESTEC SERVICES MAP.

Ecological:

CHAMISE CHAPARRAL. ASSOCIATED WITH TRICHOSTEMA LANATUM, SALVIA MELLIFERA, AND ERIPOPHYLLUM CONFERTIFLORUM. A NUMBER OF SMALL NATIVE AND NONNATIVE HERBS OCCUR IN THE UNDERSTORY.

Threats:

BASED ON 2012 AERIAL IMAGERY, THIS SITE HAS BEEN DEVELOPED.

General:

UNKNOWN NUMBER OF PLANTS OBSERVED DURING SURVEYS CONDUCTED IN THE 1970S AND 1980S. THIS POPULATION IS MOST LIKELY EXTIRPATED DUE TO DEVELOPMENT.

PLSS:	T15S, R03W, Sec. 26, SE (S)	**Accuracy:**	1/10 mile	**Area (acres):**	0
UTM:	Zone-11 N3633173 E485596	**Latitude/Longitude:**	32.83651 / -117.15390	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

WES87R0002 WESTEC SERVICES, INC. - ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED LAND SALES AND EXCHANGES SOUTH OF CALIFORNIA STATE ROUTE 52, NAVAL AIR STATION, MIRAMAR, SAN DIEGO COUNTY, CA 1987-04-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92973
EO Index: 94128
Key Quad: La Jolla (3211772)
Element Code: PDFAG050D0
Occurrence Number: 113
Occurrence Last Updated: 2016-11-08

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2012-10-28
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-10-28
Occurrence Rank: Fair
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
SERRA MESA; IN CANYON JUST SOUTH OF THE END OF SANDROCK RD, ~0.2 AIR MILE SSE OF ITS INTERSECTION WITH GRAMERCY DR.

Detailed Location:
MAPPED IN THE SE 1/4 OF THE NE 1/4 OF SECTION 12.

Ecological:
DISTURBED EDGE OF CHAMISE CHAPARRAL.

Threats:
DISTURBED BY BIKE JUMPS AND TRAILS. THREATENED BY EXPANDING NON-NATIVE PLANTS AND RECREATIONAL ACTIVITIES.

General:
6 CLUMPS OF PLANTS OBSERVED IN 2012.

PLSS: T16S, R03W, Sec. 12, NE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3629167 E487151
Latitude/Longitude: 32.80039 / -117.13723
Elevation (feet): 375

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

ESA13R0001	ENVIRONMENTAL SCIENCE ASSOCIATES - SAN DIEGO RIVER, RUFFIN CANYON TRAIL AND URBAN WALK, INITIAL STUDY / MITIGATED NEGATIVE DECLARATION 2013-03-XX
RIE12F0005	RIEFNER, R. - FIELD SURVEY FORM FOR QUERCUS DUMOSA 2012-10-28
RIE12S0008	RIEFNER, R. - RIEFNER #12-530 CAS #1160582, CAS-BOT-BC #354345 2012-10-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92974
EO Index: 94129
Key Quad: La Jolla (3211772)
Element Code: PDFAG050D0
Occurrence Number: 114
Occurrence Last Updated: 2014-07-01

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 1928-04-26
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1928-04-26
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
MISSION CLIFF GARDENS AND NORMAL SCHOOL, UNIVERSITY HEIGHTS.

Detailed Location:
EXACT LOCATIONS UNKNOWN. MAPPED BY CNDDB TO ENCOMPASS HISTORIC LOCATIONS OF MISSION CLIFF GARDENS AND NORMAL SCHOOL.

Ecological:
DRY HILLS.

Threats:
AREA HAS BEEN SIGNIFICANTLY DEVELOPED SINCE ORIGINAL COLLECTION DATES.

General:
OCCURRENCE IS BASED ON A 1902 GRANT COLLECTION, 1904 ABRAMS COLLECTION, AND A 1928 EASTWOOD COLLECTION. NEEDS FIELDWORK.

PLSS: T16S, R03W, Sec. 25 (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3624449 E486201
Latitude/Longitude: 32.75782 / -117.14730
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Point Loma (3211762), La Jolla (3211772)

Sources:

ABR04S0005	ABRAMS, L. - ABRAMS #4014 DS #48724, CAS-BOT-BC #79202 1904-08-09
EAS28S0011	EASTWOOD, A. - EASTWOOD SN CAS #83571, CAS-BOT-BC #79156 1928-04-26
GRA02S0012	GRANT, G. - GRANT SN DS #92334, CAS-BOT-BC #79188 1902-04-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A2527
Key Quad: La Jolla (3211772)
Occurrence Number: 155

EO Index: 104115
Element Code: PDFAG050D0
Occurrence Last Updated: 2016-11-08

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S3

Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2015-01-07
Last Survey Date: 2015-01-07
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SMALL E/W LEG OF TECOLOTE CANYON, BETWEEN MT ASHMUN DRIVE AND MT EVEREST BLVD, SAN DIEGO.

Detailed Location:
MAPPED IN THE SE 1/4 OF THE SE 1/4 OF SECTION 4.

Ecological:
NORTH-FACING SLOPE.

Threats:

General:
MORE THAN 50 PLANTS OBSERVED IN 2015.

PLSS: T16S, R03W, Sec. 4, SE (S)
UTM: Zone-11 N3629928 E482370

Accuracy: specific area
Latitude/Longitude: 32.80719 / -117.18832

Area (acres): 1
Elevation (feet): 265

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
COO15U0002 COOPER, T. - OBSERVATION RECORD FOR QUERCUS DUMOSA, CALFLORA ID: PO786 2015-01-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1508
Key Quad: National City (3211761)
Occurrence Number: 175
EO Index: 113412
Element Code: PDFAG050D0
Occurrence Last Updated: 2018-12-03

Scientific Name: *Quercus dumosa*
Common Name: Nuttall's scrub oak

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S3
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB.

Micro Habitat:
GENERALLY ON SANDY SOILS NEAR THE COAST; SOMETIMES ON CLAY LOAM. 15-640 M.

Last Date Observed: 2018-07-02
Last Survey Date: 2018-07-02
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:
JUST EAST OF THE INTERSECTION OF HOME AVE AND FAIRMOUNT AVE, SAN DIEGO.

Detailed Location:
MAPPED ACCORDING TO 2018 MACGREGOR COORDINATES, IN THE NW 1/4 OF THE NW 1/4 OF SECTION 4.

Ecological:
COASTAL SAGE - CHAPARRAL MIX. NW ASPECT, 25% SLOPE.

Threats:
NONE KNOWN.

General:
SEVERAL INDIVIDUALS OBSERVED IN 2018. STRIP OF NATIVE HABITAT WITHIN CITY OF SD HARDLINE PRESERVE.

PLSS: T17S, R02W, Sec. 4, NW (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3621204 E490782
Latitude/Longitude: 32.7286 / -117.09838
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
MAC18F0021 MACGREGOR, C. - FIELD SURVEY FORM FOR QUERCUS DUMOSA 2018-07-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A4255	**EO Index:**	31794
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDFRA01040
Occurrence Number:	1	**Occurrence Last Updated:**	2017-05-16

Scientific Name: *Frankenia palmeri* **Common Name:** Palmer's frankenia

Listing Status: **Federal:** None **Rare Plant Rank:** 2B.1

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G3?

State: S1

General Habitat:

COASTAL DUNES, MARSHES (COASTAL SALT), PLAYAS.

Micro Habitat:

3-10 M.

Last Date Observed:	2015-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DPR-BORDER FIELD SP	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BORDER FIELD STATE PARK, ABOUT 0.4 MILE NORTH OF THE MEXICAN BORDER, TIJUANA RIVER ESTUARY.

Detailed Location:

MAPPED ACCORDING TO DIGITAL DATA PROVIDED BY CDFW.

Ecological:

HIGH VEGETATED DUNE, BEHIND THE BEACH. DUNE PIONEER VEGETATION. ASSOCIATED WITH ISOCOMA MENZIESII, ABRONIA MARITIMA, ENCELIA CALIFORNICA, DISTICHLIS SPICATA, ERIOGONUM PARVIFOLIUM, IVA HAYESIANA, ATRIPLEX SEMIBACCATA, LYCIUM, ETC.

Threats:

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN 2006, 2008, AND 2015. A 1902 HERRE COLLECTION FROM "TIA JUANA RIV" AND A 2003 NOLL COLLECTION FROM "TIJUANA RIVER ESTUARY" ARE ALSO ATTRIBUTED HERE; "SEVERAL LARGE CLUMPS" OBSERVED IN 2003.

PLSS:	T19S, R02W, Sec. 6, S (S)	**Accuracy:**	specific area	**Area (acres):**	2
UTM:	Zone-11 N3600385 E488373	**Latitude/Longitude:**	32.54077 / -117.12383	**Elevation (feet):**	20

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

DFW17D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 5 - COASTAL PLANT DATA FOR REGION 5 OF THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 2017-02-07
HER02S0001	HERRE, A. - HERRE SN DS #31445 1902-08-XX
NOL03S0001	NOLL, R. - NOLL SN UCR #130263 2003-11-19
ROU08S0005	ROULLARD, P. - ROULLARD #204 SD #204358 2008-03-21
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04139	**EO Index:**	31795
Key Quad:	National City (3211761)	**Element Code:**	PDFRA01040
Occurrence Number:	2	**Occurrence Last Updated:**	2017-05-17

Scientific Name: *Frankenia palmeri* **Common Name:** Palmer's frankenia

Listing Status: **Federal:** None **Rare Plant Rank:** 2B.1

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G3?

State: S1

General Habitat:

COASTAL DUNES, MARSHES (COASTAL SALT), PLAYAS.

Micro Habitat:

3-10 M.

Last Date Observed:	2015-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	USFWS-SAN DIEGO BAY NWR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SWEETWATER RIVER MARSH NEAR GUNPOWDER POINT, CHULA VISTA.

Detailed Location:

3 POLYGONS MAPPED ACCORDING TO 2001 ELVIN COORDINATES AND DIGITAL DATA PROVIDED BY CDFW. COLLECTIONS FROM NATIONAL CITY, "SALEM FLATS, NATIONAL CITY," "NATIONAL RANCH/RANCHO," AND CHULA VISTA ARE ALSO ATTRIBUTED TO THIS SITE.

Ecological:

COASTAL MARSH SCRUB WITH SALICORNIA VIRGINICA, BATIS MARITIMA, LIMONIUM CALIFORNICUM, FRANKENIA SALINA, CAMISSONIA CHEIRANTHIFOLIA, AMBROSIA CHAMISSONIS, SALSOLA TRAGUS, HETEROTHECA GRANDIFLORA, ETC.

Threats:

MARINA DEVELOPMENT.

General:

TWO SMALL COLONIES AT THIS SITE REPORTED IN "RARE PLANTS OF SAN DIEGO COUNTY" BY REISER (1994). "LOCALLY COMMON" IN 2001. UNKNOWN NUMBER OF PLANTS SEEN IN 2009 AND 2015. SEVERAL COLLECTIONS FROM 1880 THROUGH 2004 ATTRIBUTED HERE.

PLSS:	T18S, R02W, Sec. 5 (S)	**Accuracy:**	specific area	**Area (acres):**	8
UTM:	Zone-11 N3611256 E489632	**Latitude/Longitude:**	32.63885 / -117.11054	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

BAR04S0005	BARTH, J. & J. GREGORY - BARTH #71 SD #161178 2004-08-14
CLE80S0001	CLEVELAND, D. - CLEVELAND SN HERBARIUM UNKNOWN 1880-05-11
CLE82S0002	CLEVELAND, D. - CLEVELAND SN SD #7541, GH #376543 1882-05-17
CLE84S0004	CLEVELAND, D. - CLEVELAND SN DS #137909 1884-05-XX
CLE85S0002	CLEVELAND, D. - CLEVELAND SN HERBARIUM UNKNOWN (SD?) 1885-04-29
COL15S0001	COLLINS, G. & J. KEMPTON - COLLINS SN HERBARIUM UNKNOWN (SD?) 1915-07-27
DFW17D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 5 - COASTAL PLANT DATA FOR REGION 5 OF THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 2017-02-07
ELV01S0007	ELVIN, M. ET AL. - ELVIN #1643 UCR #264510 2001-05-08
HOW38S0032	HOWE, D. - HOWE #686 SD #113454 1938-06-06
OBE83U0015	OBERBAUER, T. - RECORD OF PHONE CONVERSATION WITH S. COCHRANE 1983-08-10
ORC83S0002	ORCUTT, C. - ORCUTT SN HERBARIUM UNKNOWN 1883-05-28
PAR16S0017	PARISH, S. - PARISH #10766 DS #137908, A #376185 1916-04-09
PAR82S0042	PARRY, C. - PARRY SN GH #376546 1882-03-XX
PAR82S0043	PARRY, C. - PARRY SN GH #376545 1882-05-XX
PRI82S0001	PRINGLE, C. - PRINGLE SN CAS #494172, GH #376544 1882-05-03
PRI82S0002	PRINGLE, C.G. - PRINGLE SN SEINET #3151929, NMC #40666 1882-04-29
REI94U0002	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX
WOO20S0001	WOODCOCK, F. - WOODCOCK #266 GH #376184 1920-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	39945	**EO Index:**	31796
Key Quad:	Point Loma (3211762)	**Element Code:**	PDFRA01040
Occurrence Number:	3	**Occurrence Last Updated:**	2017-05-16

Scientific Name: *Frankenia palmeri* **Common Name:** Palmer's frankenia

Listing Status: **Federal:** None **Rare Plant Rank:** 2B.1

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G3?

State: S1

General Habitat:

COASTAL DUNES, MARSHES (COASTAL SALT), PLAYAS.

Micro Habitat:

3-10 M.

Last Date Observed:	1935-03-30	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1935-03-30	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

BAY SIDE OF SILVER STRAND BEACH STATE PARK.

Detailed Location:

EXACT LOCATION UNKNOWN, MAPPED BY CNDDB AS A BEST GUESS.

Ecological:

GROWING ON FLAT NEAR BAY.

Threats:

DEVELOPMENT.

General:

SITE IS BASED ON TWO 1934 PURER COLLECTIONS AND A 1935 GANDER COLLECTION. REISER REPORTS THAT THIS SITE IS PROBABLY EXTIRPATED IN "RARE PLANTS OF SAN DIEGO COUNTY" (1994), PRESUMABLY EXTIRPATED BY DEVELOPMENT.

PLSS:	T18S, R03W, Sec. 01 (S)	**Accuracy:**	non-specific area	**Area (acres):**	1,584
UTM:	Zone-11 N3611215 E486531	**Latitude/Longitude:**	32.63845 / -117.14360	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751), Point Loma (3211762)

Sources:

GAN35S0014	GANDER, F. - GANDER #156.2 SD #10884 1935-03-30
PUR34S0001	PURER, E. - PURER #5628 SD #39972 1934-03-05
PUR34S0002	PURER, E. - PURER #5613 RSA #392334, SD #39971 1934-01-09
REI94U0002	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	58154	**EO Index:**	58190
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDGRO021P0
Occurrence Number:	1	**Occurrence Last Updated:**	2013-04-25

Scientific Name: *Ribes viburnifolium* **Common Name:** Santa Catalina Island currant

Listing Status: **Federal:** None **Rare Plant Rank:** 1B.2

State: None **Other Lists:** SB_USDA-US Dept of Agriculture

CNDDB Element Ranks: **Global:** G2?

State: S2?

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:

AMONG SHRUBS IN CANYONS. 15-490 M.

Last Date Observed:	1996-04-04	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1996-04-04	**Occurrence Rank:**	Fair
Owner/Manager:	SDG COUNTY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SIDE CANYON OFF GOAT CANYON, WEST END OF SPOONERS MESA.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN VICINITY OF GIVEN TRS: T19S R2W NW1/4 OF NW1/4 OF NW1/4 OF SECTION 9.

Ecological:

STEEP NORTH-FACING SLOPE OF SMALL SIDE CANYON. ASSOCIATED WITH RHUS INTEGRIFOLIA, ARTEMISIA CALIFORNICA, DUDLEYA EDULIS, ERIOGONUM FASCICULATUM, MIRABILIS CALIFORNICA, ISOMERIS ARBOREA, AND HETEROMELES ARBUTIFOLIA.

Threats:

IN 1996, SITE WAS IN FAIR CONDITION DUE TO EROSION.

General:

APPROXIMATELY 50 PLANTS OBSERVED IN 1996. OCCURRENCE IS BASED ON A 1989 SCHEIDT COLLECTION, 1990 LEVIN COLLECTION, AND A 1996 ELVIN COLLECTION.

PLSS:	T19S, R02W, Sec. 09, NW (S)	**Accuracy:**	1/10 mile	**Area (acres):**	0
UTM:	Zone-11 N3600234 E490616	**Latitude/Longitude:**	32.53942 / -117.09993	**Elevation (feet):**	245

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

ELV96S0030	ELVIN, M. ET AL. - ELVIN #144 RSA #678893 1996-04-04
LEV90S0001	LEVIN, G. - LEVIN #2053 RSA #534194, SD #128778, UC #1593829 1990-04-09
SCH89S0009	SCHEIDT, V. - SCHEIDT SN SD #128777 1989-03-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 27991
Key Quad: National City (3211761)
Occurrence Number: 8
EO Index: 29226
Element Code: PDHYD0A0H0
Occurrence Last Updated: 1996-07-12

Scientific Name: *Nama stenocarpa*
Common Name: mud nama

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists:

CNDDB Element Ranks: **Global:** G4G5
State: S1S2

General Habitat:
MARSHES AND SWAMPS.

Micro Habitat:
LAKE SHORES, RIVER BANKS, INTERMITTENTLY WET AREAS. 15-815 M.

Last Date Observed: 1885-06-13
Last Survey Date: 1885-06-13
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SWEETWATER VALLEY.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS A BEST GUESS IN THE GENERAL VICINITY OF SWEETWATER VALLEY.

Ecological:
BORDER OF POND.

Threats:

General:
MAIN SOURCE OF INFORMATION FOR THIS SITE IS A CLEVELAND COLLECTION FROM 1885. NEEDS FIELDWORK.

PLSS: T17S, R02W (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3613141 E495489
Latitude/Longitude: 32.65589 / -117.04810
Elevation (feet):

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

BEA86B0001	BEAUCHAMP, R. - A FLORA OF SAN DIEGO COUNTY, CALIFORNIA 1986-XX-XX
CLE85S0005	CLEVELAND, D. - CLEVELAND #352 UC #107183, JEPS #1397, SD #6687 (ALSO CITED IN HIT33A0001) 1885-06-13
HIT33A0001	HITCHCOCK, C. - AMERICAN JOURNAL OF BOTANY 20(6)415-430 1933-06-XX
JEP36B0001	JEPSON, W. - A FLORA OF CALIFORNIA - VOLUME 2 1936-XX-XX
SAN99U0005	SANDERS, A. - EMAIL CC'ED TO D. TIBOR REGARDING NAMA STENOCARPUM & COLLECTION #352 BY CLEVELAND. 1999-10-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 73582
EO Index: 81339
Key Quad: Imperial Beach (3211751)
Element Code: PDHYD0A0H0
Occurrence Number: 24
Occurrence Last Updated: 2010-10-11

Scientific Name: *Nama stenocarpa*
Common Name: mud nama

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists:

CNDDB Element Ranks: **Global:** G4G5
State: S1S2

General Habitat:
MARSHES AND SWAMPS.

Micro Habitat:
LAKE SHORES, RIVER BANKS, INTERMITTENTLY WET AREAS. 15-815 M.

Last Date Observed: 2005-04-23
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-04-23
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
OTAY MESA.

Detailed Location:
EXACT LOCATION WITHIN OTAY MESA IS UNKNOWN. MAPPED BY CNDDB AS BEST GUESS AROUND THE WEST PORTION OF OTAY MESA BUT OCCURRENCE MAY ACTUALLY BE FURTHER EAST ON OTHER PARTS OF OTAY MESA.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2005 GREENHOUSE OBSERVATION. NEEDS FIELDWORK.

PLSS: T18S, R01W, Sec. 32 (S)
Accuracy: 4/5 mile
Area (acres): 0
UTM: Zone-11 N3603263 E498817
Latitude/Longitude: 32.56679 / -117.01260
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Otay Mesa (3211658), Imperial Beach (3211751)

Sources:
GRE05U0005 GREENHOUSE, J. - CALFLORA OBSERVATION RECORD OF NAMA STENOCARPUM FROM OTAY MESA 2005-04-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 31949
Key Quad: La Jolla (3211772)
Occurrence Number: 6
EO Index: 4633
Element Code: PDHYD0C510
Occurrence Last Updated: 2013-09-18

Scientific Name: *Phacelia stellaris*
Common Name: Brand's star phacelia

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G1
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
COASTAL SCRUB, COASTAL DUNES.

Micro Habitat:
OPEN AREAS. 3-370 M.

Last Date Observed: 1935-04-13
Last Survey Date: 1935-04-13
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
CROWN POINT, SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN VICINITY OF CROWN POINT AT MISSION BAY.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1935 COLLECTION BY GANDER. REISER SUGGESTS THAT THIS SITE MAY NO LONGER BE EXTANT (1994).

PLSS: T16S, R03W (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3627519 E477859
Latitude/Longitude: 32.78538 / -117.23644
Elevation (feet):

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

GAN35S0065	GANDER, F. - GANDER #1691 SD #11088 1935-04-13
REI94U0002	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86417
Key Quad: La Jolla (3211772)
Occurrence Number: 7
EO Index: 15022
Element Code: PDHYD0C510
Occurrence Last Updated: 2013-09-18

Scientific Name: *Phacelia stellaris*
Common Name: Brand's star phacelia

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G1
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
COASTAL SCRUB, COASTAL DUNES.

Micro Habitat:
OPEN AREAS. 3-370 M.

Last Date Observed: 1882-04-10
Last Survey Date: 1882-04-10
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
SAN DIEGO RIVER BED, OLD TOWN SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB ALONG BED OF SAN DIEGO RIVER IN THE VICINITY OF OLD TOWN SAN DIEGO.

Ecological:

Threats:

General:
OCCURRENCE IS BASED ON THREE CLEVELAND COLLECTIONS FROM 1881 AND 1882. REISER SUGGESTS THAT THIS SITE MAY NO LONGER BE EXTANT (1994).

PLSS: T16S, R03W, Sec. 28, N (S)
Accuracy: non-specific area
Area (acres): 177
UTM: Zone-11 N3624845 E481130
Latitude/Longitude: 32.76132 / -117.20145
Elevation (feet):

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

CLE81S0001	CLEVELAND, D. - CLEVELAND SN SD #6854 & #6830 1881-04-XX
CLE82S0018	CLEVELAND, D. - CLEVELAND SN SD #7197 1882-03-18
CLE82S0019	CLEVELAND, D. - CLEVELAND SN SD #7198, RSA #14261 1882-04-10
REI94U0002	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 90356
Key Quad: Point Loma (3211762)
Occurrence Number: 8
EO Index: 7440
Element Code: PDHYD0C510
Occurrence Last Updated: 2013-09-18

Scientific Name: *Phacelia stellaris*
Common Name: Brand's star phacelia

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G1
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
COASTAL SCRUB, COASTAL DUNES.

Micro Habitat:
OPEN AREAS. 3-370 M.

Last Date Observed: 2007-04-06
Last Survey Date: 2007-04-06
Owner/Manager: DOD-NAVY
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NAVAL AIR STATION NORTH ISLAND, SOUTH OF THE RUNWAY, BETWEEN 0.4 AND 1.2 AIR MILES EAST OF BALLAST POINT.

Detailed Location:
5 POLYGONS MAPPED BY CNDDB ACCORDING TO 2005 DIGITAL DATA FROM RECON ENVIRONMENTAL.

Ecological:
SANDY DUNE VEGETATION, RUDERAL HABITAT.

Threats:

General:
1175 PLANTS OBSERVED IN 2005. AN 1891 COLLECTION BY EASTWOOD FROM "N CORONADO" AND A 2007 COLLECTION BY MUNSON ARE ALSO ATTRIBUTED TO THIS OCCURRENCE. MENTIONED AS "LOCALLY ABUNDANT" IN 2007.

PLSS: T17S, R03W, Sec. 20 (S)
Accuracy: specific area
Area (acres): 31
UTM: Zone-11 N3616817 E479327
Latitude/Longitude: 32.68887 / -117.22052
Elevation (feet): 16

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

EAS91S0001	EASTWOOD - EASTWOOD SN UC #131473 1891-03-XX
MUN07S0001	MUNSON, B. & K. O'CONNOR - MUNSON #1 SD #188005 2007-04-06
REC05D0001	RECON ENVIRONMENTAL, INC. - DIGITAL DATA FROM SURVEYS FOR MULTIPLE TAXA ON NORTH ISLAND NAVAL AIR STATION, SAN DIEGO 2005-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 47755
EO Index: 47755
Key Quad: Imperial Beach (3211751)
Element Code: PDHYD0C510
Occurrence Number: 10
Occurrence Last Updated: 2013-09-18

Scientific Name: *Phacelia stellaris*
Common Name: Brand's star phacelia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
COASTAL SCRUB, COASTAL DUNES.

Micro Habitat:
OPEN AREAS. 3-370 M.

Last Date Observed: 2012-01-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-01-11
Occurrence Rank: Good
Owner/Manager: DPR-BORDER FIELD SP, PVT
Trend: Decreasing
Presence: Presumed Extant

Location:
LICHTY MESA AND BORDER FIELD STATE PARK, JUST NORTH OF US/MEXICO BORDER, 0.3 MILE EAST OF THE OCEAN.

Detailed Location:
2 POLYGONS MAPPED ON EITHER SIDE OF THE BORDER FIELD STATE PARK BOUNDARY ON LICHTY MESA, JUST NORTH OF THE US/MEXICO BORDER FENCE. IN THE SE 1/4 SE 1/4 OF SECTION 7 AND THE SW 1/4 SW 1/4 OF SECTION 8.

Ecological:
IN MARITIME SUCCULENT SAGE SCRUB/DIEGAN COASTAL SAGE SCRUB LOCALLY DOMINATED BY ENCELIA CALIFORNICA AND HETEROTHECA SESSIFLORA VAR. SESSIFLORA. ASSOCIATED WITH CROTON CALIFORNICA, PLANTAGO ERECTA, LASTHENIA CORONARIA, ETC.

Threats:
FOOT TRAFFIC ASSOCIATED WITH BORDER PATROL ACTIVITIES. DIRECTLY IN A WELL-TRAVELED FOOT PATH/ATV TRAIL.

General:
E POLYGON: 40 PLANTS OBSERVED ON 3/11/02, SEVERAL PLANTS NOT RELOCATED ON 3/24/02. ABOUT 1300 TOTAL PLANTS SEEN IN BOTH POLYGONS IN 2003. DOZENS OF PLANTS OBSERVED IN 2006. ALSO SEEN HERE IN 1985, 2008, AND 2012. INCLUDES FORMER EO #9.

PLSS: T19S, R02W, Sec. 08, SW (S)
Accuracy: specific area
Area (acres): 3
UTM: Zone-11 N3599836 E488894
Latitude/Longitude: 32.53582 / -117.11827
Elevation (feet): 55

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

CLE85S0015	CLEMONS, D. & E. JONSSON - CLEMONS #904 SD #118359 1985-02-16
ELV02S0008	ELVIN, M. ET AL. - ELVIN #1887 SD #146473 2002-03-11
MAR02F0001	MARDSEN, K. - FIELD SURVEY FORM FOR PHACELIA STELLARIS 2002-03-11
MAR03F0002	MARSDEN, K. - FIELD SURVEY FORM FOR PHACELIA STELLARIS 2003-03-15
MAR03S0005	MARSDEN, K. - MARSDEN #176 SD #198521, UCR #202979 2003-03-22
MOR12I0002	MORSE, K. - PHOTOS OF PHACELIA STELLARIS, CALPHOTOS ID: 0000 0000 0413 0078-0080 2012-01-11
ROU08S0002	ROULLARD, P. - ROULLARD #187 SD #201779, UCR #202777 2008-02-29
SCH07R0001	SCHEIDT, V. - THE LICHTY MESA, A BIOLOGICAL RESOURCES SURVEY REPORT AND EVALUATION OF RESOURCE VALUE, APN 663-020-02, SAN DIEGO, CA 2007-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	62073	**EO Index:**	62109
Key Quad:	Point Loma (3211762)	**Element Code:**	PDHYD0C510
Occurrence Number:	11	**Occurrence Last Updated:**	2013-09-26

Scientific Name: *Phacelia stellaris*

Common Name: Brand's star phacelia

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

COASTAL SCRUB, COASTAL DUNES.

Micro Habitat:

OPEN AREAS. 3-370 M.

Last Date Observed:	2012-03-16	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-03-16	**Occurrence Rank:**	Good
Owner/Manager:	DPR-SILVER STRAND SB, DOD	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SILVER STRAND; FROM BEACH JUST EAST OF SILVER STRAND ELEMENTARY SCHOOL SOUTH TO CORONADO CAYS.

Detailed Location:

6 POLYGONS MAPPED BY CNDDB ACCORDING TO 2011 AND 2012 DIGITAL DATA FROM CNPS. INCLUDES LAND OWNED BY THE US NAVY AND PORTIONS OF SILVER STRAND STATE BEACH ON BOTH SIDES OF HIGHWAY 75.

Ecological:

SANDY AREAS AND BACKDUNES NEAR HIGHWAY, FOOTPATHS, PICNIC AREAS, ETC. ASSOCIATED WITH HETEROTHECA, NEMACAULIS DENUDATA, LEPIDIUM, CRASSULA CONNATA, LOEFLINGIA SQUARROSA, CARPOBROTUS SP., LOTUS NUTTALLIANUS, MELILOTUS INDICUS, ETC.

Threats:

TRAMPLING, EROSION, NON-NATIVES, ADDITION OF TOO MUCH MULCH/FERTILIZER, MILITARY USE, ORVS, RECREATION.

General:

POPULATION NUMBERS ARE FOR PARTS OF OCCURRENCE: 150 PLANTS SEEN IN 2005, ~4364 PLANTS SEEN IN 2011, AND ~936,170 PLANTS ESTIMATED IN 2012. A 1935 COLLECTION BY GANDER FROM SILVER STRAND IS ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS:	T18S, R03W, Sec. 01 (S)	**Accuracy:**	specific area	**Area (acres):**	47
UTM:	Zone-11 N3611386 E486597	**Latitude/Longitude:**	32.63999 / -117.14289	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

BUR11U0003	BURRASCANO, C. ET AL. - OBSERVATION RECORD FOR PHACELIA STELLARIS (CITED IN CNP11U0002) 2011-03-20
CLA05S0001	CLARK, K. - CLARK SN RSA #703273 2005-03-04
CNP11D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2011 SURVEYS FOR SAN DIEGO DUNE PLANTS 2011-XX-XX
CNP11U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2011 SURVEYS FOR SAN DIEGO DUNE PLANTS 2011-XX-XX
CNP12D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
CNP12U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
GAN35S0066	GANDER, F. - GANDER #15620 SD #10906 1935-03-30
LAN11U0010	LANDIS, F. - OBSERVATION RECORD FOR PHACELIA STELLARIS (CITED IN CNP11U0002) 2011-03-18
LAN11U0011	LANDIS, F. - OBSERVATION RECORD FOR PHACELIA STELLARIS (CITED IN CNP11U0002) 2011-03-20
LAN12U0004	LANDIS, F. & J. ROBERTS - OBSERVATION RECORDS FOR PHACELIA STELLARIS (CITED IN CNP12U0002) 2012-02-06
LAN12U0005	LANDIS, F. - OBSERVATION RECORDS FOR PHACELIA STELLARIS (CITED IN CNP12U0002) 2012-03-04
LAN12U0006	LANDIS, F. ET AL. - OBSERVATION RECORDS FOR PHACELIA STELLARIS (CITED IN CNP12U0002) 2012-03-10
LAN12U0007	LANDIS, F. ET AL. - OBSERVATION RECORD FOR PHACELIA STELLARIS (CITED IN CNP12U0002) 2012-03-16
MAC05F0001	MACGREGOR, C. - FIELD SURVEY FORM FOR PHACELIA STELLARIS 2005-03-13
SOE11U0001	SOE NYUN, J. - OBSERVATION RECORD FOR PHACELIA STELLARIS (CITED IN CNP11U0002) 2011-03-18
VIN11U0001	VINJE, J. - OBSERVATION RECORDS FOR PHACELIA STELLARIS (CITED IN CNP11U0002) 2011-03-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71033
Key Quad: La Jolla (3211772)
Occurrence Number: 1
EO Index: 18142
Element Code: PDLAM01010
Occurrence Last Updated: 2011-10-18

Scientific Name: *Acanthomintha ilicifolia*
Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered
CNDDB Element Ranks: **Global:** G1
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed: 1936-06-09
Last Survey Date: 1936-06-09
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

KEARNEY MESA, JUNCTION OF 6TH STREET AND US 395 (NOW HIGHWAY 163), SAN DIEGO.

Detailed Location:

Ecological:

IN CLAY DEPRESSIONS FORMING WINTER POOLS.

Threats:

General:

MAIN SOURCE OF INFORMATION FOR THIS SITE IS A 1936 COLLECTION BY GANDER. A 1902 BRANDEGEE COLLECTION FROM UNIVERSITY HEIGHTS ALSO ATTRIBUTED HERE. INCLUDES FORMER EO #2 & 3. A 2009 SNAPP-COOK REVIEW NOTES THIS POPULATION AS EXTIRPATED.

PLSS: T16S, R03W, Sec. 26, SE (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3623913 E485210
Latitude/Longitude: 32.75297 / -117.15788
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

BRA02S0001 BRANDEGEE, T. - BRANDEGEE #1611 POM #63359, UC #144549, CAS #30597, CAS-BOT-BC #219614, GH #400190 1902-05-10

GAN36S0003 GANDER, F. - GANDER #2593 SD #16020 1936-06-09

SNA09U0001 SNAPP-COOK, J. (U.S. FISH AND WILDLIFE SERVICE-CARLSBAD) - 5 YEAR REVIEW: SUMMARY AND EVALUATION OF ACANTHOMINTHA ILICIFOLIA (SAN DIEGO THORNMINT). 2009-08-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04253
EO Index: 18141
Key Quad: La Mesa (3211771)
Element Code: PDLAM01010
Occurrence Number: 4
Occurrence Last Updated: 2011-10-18

Scientific Name: *Acanthomintha ilicifolia*
Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed: 19XX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 19XX-XX-XX
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:

1/2 MILE EAST OF SAN DIEGO STATE UNIVERSITY ON A MESA IN SAN DIEGO.

Detailed Location:

Ecological:

Threats:

THIS AREA HAS BEEN EXTENSIVELY DEVELOPED.

General:

ONLY SOURCES OF INFORMATION FOR THIS SITE ARE TWO 1955 BALLS COLLECTIONS FROM A BOTANIC GARDEN WHICH GAVE SEED SOURCE AS "1/2 MI E OF SAN DIEGO STATE COLLEGE ON A MESA." A 2009 SNAPP-COOK REVIEW NOTES THIS POPULATION AS EXTIRPATED.

PLSS: T16S, R02W, Sec. 23 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3626044 E494468
Latitude/Longitude: 32.77228 / -117.05906
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

BAL55S0001 BALLS, E. - BALLS #20446 RSA #115060 1955-04-28

BAL55S0005 BALLS, E. - BALLS #20402 RSA #114726 1955-03-09

SNA09U0001 SNAPP-COOK, J. (U.S. FISH AND WILDLIFE SERVICE-CARLSBAD) - 5 YEAR REVIEW: SUMMARY AND EVALUATION OF ACANTHOMINTHA ILICIFOLIA (SAN DIEGO THORNMINT). 2009-08-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04107
EO Index: 18140
Key Quad: La Mesa (3211771)
Element Code: PDLAM01010
Occurrence Number: 5
Occurrence Last Updated: 2011-10-19

Scientific Name: *Acanthomintha ilicifolia*
Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G1
State: S1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed: 1949-04-21
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1949-04-21
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:

MOUTH OF MAHOGANY CANYON, SAN DIEGO.

Detailed Location:

MAHOGANY CANYON IS ALSO KNOWN AS FAIRMONT CANYON.

Ecological:

ON SLOPE.

Threats:

THIS AREA IS HAS BEEN EXTENSIVELY DEVELOPED. OCCURRENCE IS PROBABLY EXTIRPATED.

General:

BASED ON A 1936 GANDER COLLECTION. A 1949 BRATTSTROM COLLECTION, FROM ABOUT TWO MILES WEST OF SAN DIEGO STATE UNIVERSITY ON A MESA, ALSO ATTRIBUTED HERE. A 2009 SNAPP-COOK REVIEW NOTES THIS POPULATION AS EXTIRPATED.

PLSS: T16S, R02W, Sec. 16, SW (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3626585 E490608
Latitude/Longitude: 32.77713 / -117.10028
Elevation (feet): 100

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

BRA49S0001 BRATTSTROM, B. - BRATTSTROM SN LA #55124 1949-04-21

GAN36S0050 GANDER, F. - GANDER #2029 SD #15451 1936-05-17

SNA09U0001 SNAPP-COOK, J. (U.S. FISH AND WILDLIFE SERVICE-CARLSBAD) - 5 YEAR REVIEW: SUMMARY AND EVALUATION OF ACANTHOMINTHA ILICIFOLIA (SAN DIEGO THORNMINT). 2009-08-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71034
EO Index: 18138
Key Quad: La Mesa (3211771)
Element Code: PDLAM01010
Occurrence Number: 6
Occurrence Last Updated: 2011-10-18

Scientific Name: *Acanthomintha ilicifolia*
Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed: 1936-04-26
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1936-04-26
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:

ABOUT 1 MILE NORTH OF SAN DIEGO STATE UNIVERSITY ON A MESA, SAN DIEGO.

Detailed Location:

Ecological:

ON A MESA.

Threats:

EXTENSIVE DEVELOPMENT IN THIS AREA.

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1936 COLLECTION BY GANDER. OCCURRENCE LIKELY EXTIRPATED. A 2009 SNAPP-COOK REVIEW NOTES THIS POPULATION AS EXTIRPATED.

PLSS: T16S, R02W, Sec. 10, S (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3628157 E493316
Latitude/Longitude: 32.79133 / -117.07138
Elevation (feet): 300

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

GAN36S0002	GANDER, F. - GANDER #1608 SD #15023 1936-04-26
SNA09U0001	SNAPP-COOK, J. (U.S. FISH AND WILDLIFE SERVICE-CARLSBAD) - 5 YEAR REVIEW: SUMMARY AND EVALUATION OF ACANTHOMINTHA ILICIFOLIA (SAN DIEGO THORNMINT). 2009-08-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04388
EO Index: 18135
Key Quad: La Mesa (3211771)
Element Code: PDLAM01010
Occurrence Number: 7
Occurrence Last Updated: 2011-10-18

Scientific Name: *Acanthomintha ilicifolia*
Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed: 1949-05-10
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1949-05-10
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:

SPRING VALLEY, EAST OF SAN DIEGO.

Detailed Location:

Ecological:

Threats:

THIS AREA HAS BEEN EXTENSIVELY DEVELOPED. OCCURRENCE IS PROBABLY EXTIRPATED.

General:

ONLY SOURCES OF INFORMATION FOR THIS SITE ARE 1949 COLLECTION BY HIGGINS FROM SPRING VALLEY AND AN 1897 LOOMIS COLLECTION FROM LA MESA SPRINGS. A 2009 SNAPP-COOK REVIEW NOTES THIS POPULATION AS EXTIRPATED.

PLSS: T16S, R01W, Sec. 29 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3624100 E499268
Latitude/Longitude: 32.75476 / -117.00781
Elevation (feet):

County Summary:

San Diego

Quad Summary:

Jamul Mountains (3211668), El Cajon (3211678), National City (3211761), La Mesa (3211771)

Sources:

HIG49S0001 HIGGINS, E. - HIGGINS SN RSA #43712 1949-05-10

LOO97S0001 LOOMIS, G. - LOOMIS SN SD #110324 1897-04-15

SNA09U0001 SNAPP-COOK, J. (U.S. FISH AND WILDLIFE SERVICE-CARLSBAD) - 5 YEAR REVIEW: SUMMARY AND EVALUATION OF ACANTHOMINTHA ILICIFOLIA (SAN DIEGO THORNMINT). 2009-08-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04177
EO Index: 18136
Key Quad: La Mesa (3211771)
Element Code: PDLAM01010
Occurrence Number: 8
Occurrence Last Updated: 2011-10-20

Scientific Name: *Acanthomintha ilicifolia*
Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed: 1936-05-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1936-05-17
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:

ON A SLOPE AT MOUTH OF ALVARADO CANYON.

Detailed Location:

Ecological:

ON SLOPE AT THE MOUTH OF A CANYON.

Threats:

THIS AREA HAS BEEN EXTENSIVELY DEVELOPED. OCCURRENCE IS PROBABLY EXTIRPATED.

General:

MAIN SOURCE OF INFORMATION FOR THIS SITE IS A 1936 COLLECTION BY GANDER. A 1931 COOK COLLECTION FROM "ADOBE FALLS, 46 METERS ELEV" IS ALSO ATTRIBUTED TO THIS SITE. A 2009 SNAPP-COOK REVIEW NOTES THIS POPULATION AS EXTIRPATED.

PLSS: T16S, R02W, Sec. 16 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3626952 E492107
Latitude/Longitude: 32.78046 / -117.08428
Elevation (feet): 100

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

COO31S0001 COOK, L. - COOK SN SDSU #6944 1931-05-07

GAN36S0004 GANDER, F. - GANDER #2031 SD #15453, POM #223259 1936-05-17

SNA09U0001 SNAPP-COOK, J. (U.S. FISH AND WILDLIFE SERVICE-CARLSBAD) - 5 YEAR REVIEW: SUMMARY AND EVALUATION OF ACANTHOMINTHA ILICIFOLIA (SAN DIEGO THORNMINT). 2009-08-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04246
EO Index: 18133
Key Quad: National City (3211761)
Element Code: PDLAM01010
Occurrence Number: 13
Occurrence Last Updated: 2011-10-24

Scientific Name: *Acanthomintha ilicifolia*
Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed: 1895-06-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1986-05-19
Occurrence Rank: None
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Extirpated

Location:

CHOLLAS MESA, SAN DIEGO.

Detailed Location:

Ecological:

FORMER MESA.

Threats:

PEDESTRIAN TRAMPLING, BICYCLE TRAFFIC, EROSION FROM DIRT ROADS. MUCH DEVELOPMENT IN THIS AREA SINCE 1895.

General:

SITE BASED ON AN 1895 STOKES COLLECTION. WHAT REMAINS OF THE MESA IS NOW A LAKE, SURROUNDED BY EUCALYPTUS, A LANDFILL, AND NAVAL RADAR TRACKING STATION. NO PLANTS OBSERVED IN 1986.

PLSS: T16S, R02W, Sec. 35 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3622398 E493724
Latitude/Longitude: 32.73939 / -117.06698
Elevation (feet):

County Summary:

San Diego

Quad Summary:

National City (3211761), La Mesa (3211771)

Sources:

GAR86M0011 GARRETT, P. - MAP OF ACANTHOMINTHA ILICIFOLIA 1986-XX-XX
HOR86F0009 HORENSTEIN, J. - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA 1986-05-19
STO95S0001 STOKES, S. - STOKES SN DS #24091, CAS-BOT-BC #219617 1895-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04201
EO Index: 18129
Key Quad: National City (3211761)
Element Code: PDLAM01010
Occurrence Number: 14
Occurrence Last Updated: 2011-10-20

Scientific Name: *Acanthomintha ilicifolia*
Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed: 1882-05-13
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1882-05-13
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:

PARADISE VALLEY, NATIONAL CITY.

Detailed Location:

Ecological:

Threats:

THIS AREA HAS BEEN EXTENSIVELY DEVELOPED. OCCURRENCE IS PROBABLY EXTIRPATED.

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1882 COLLECTION BY CLEVELAND. A 2009 SNAPP-COOK REVIEW NOTES THIS POPULATION AS EXTIRPATED.

PLSS: T17S, R02W, Sec. 22 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3615512 E492236
Latitude/Longitude: 32.67726 / -117.08280
Elevation (feet): 100

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

CLE82S0001 CLEVELAND, D. - CLEVELAND SN UC #104808 1882-05-13

SNA09U0001 SNAPP-COOK, J. (U.S. FISH AND WILDLIFE SERVICE-CARLSBAD) - 5 YEAR REVIEW: SUMMARY AND EVALUATION OF ACANTHOMINTHA ILICIFOLIA (SAN DIEGO THORNMINT). 2009-08-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 83696
EO Index: 18131
Key Quad: National City (3211761)
Element Code: PDLAM01010
Occurrence Number: 15
Occurrence Last Updated: 2020-07-08

Scientific Name: *Acanthomintha ilicifolia*
Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed: 2019-04-09
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2019-04-09
Occurrence Rank: Fair
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:

LONG CYN; 0.1 AIR MILE SE OF EAST END OF COLLING RD EAST, NORTH OF ACACIA AVE, WEST OF COUNTRY VISTAS LANE, E OF BONITA.

Detailed Location:

MAPPED BASED ON RECON DIGITAL DATA AND SDMMP DIGITAL DATA, IN THE SOUTH 1/2 OF THE SW 1/4 OF SECTION 29.

Ecological:

FRIABLE CLAY SOIL LENS DOMINATED BY CENTAUREA MELITENSIS. ALSO ASSOCIATED WITH APIASTRUM ANGUSTIFOLIUM, DEINANDRA CONJUGENS, HARPAGONELLA PALMERI, CALIFORNIA MACROPHYLLA, AND CONVOLVULUS SIMULANS.

Threats:

THREATENED BY INDIRECT EFFECTS OF URBANIZATION, NON-NATIVE PLANTS, AND FOOT TRAFFIC.

General:

115 PLANTS IN 2001 (A DRY YEAR). 500 PLANTS SEEN, LIKELY IN 2003. 37 PLANTS IN 2013; CLAY LENS APPEARS TO BE MORE DISTRUBED THAN IN 2003 FROM FOOT TRAFFIC. 81 PLANTS IN 2015, 358 IN 2016, 965 IN 2017, 6 IN 2018, 2300 IN 2019.

PLSS: T17S, R01W, Sec. 29, SW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3613391 E499102
Latitude/Longitude: 32.65815 / -117.00958
Elevation (feet): 345

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

BEN13F0001	BENNETT, A. & M. DODERO (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA 2013-08-22
BEN15F0003	BENNETT, A. & M. DODERO (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA 2015-05-05
LOY04U0001	LOY, M. - FINDINGS OF CONFORMANCE, MULTIPLE SPECIES CONSERVATION PROGRAM, WHEELER RIDGE 2004-05-24
MUL17S0008	MULLIGAN, M. - MULLIGAN #3527 SD #269028 & #17620 2017-04-17
MUL18D0001	MULLIGAN, M. - 2017 COLLECTIONS FROM MARGIE MULLIGAN. 2018-02-06
REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
SDM19D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2019; 2019 RESULTS 2019-XX-XX
SNA09U0001	SNAPP-COOK, J. (U.S. FISH AND WILDLIFE SERVICE-CARLSBAD) - 5 YEAR REVIEW: SUMMARY AND EVALUATION OF ACANTHOMINTHA ILICIFOLIA (SAN DIEGO THORNMINT). 2009-08-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04221	**EO Index:**	4326
Key Quad:	La Mesa (3211771)	**Element Code:**	PDLAM01010
Occurrence Number:	33	**Occurrence Last Updated:**	2020-07-21

Scientific Name: *Acanthomintha ilicifolia*

Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed:	2019-07-29	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2019-07-29	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MISSION TRAILS PARK; ABOUT 1.2-1.6 AIR MILES NNE OF JUNCTION MISSION GORGE ROAD AND CONESTOGA WAY, MISSION GORGE.

Detailed Location:

MAPPED AS 6 POLYGONS BASED ON MAPS FROM MCMILLAN (1994) & SAN DIEGO (2005), AND DIGITAL DATA FROM SAN DIEGO (2008), FRIESEN (2010), SDMMP, AND 2017 ANDERSON COORDINATES. ADDITIONAL POP INFO AT CNDDB.

Ecological:

COASTAL SAGE SCRUB, NON-NATIVE GRASSLAND. ASSOCIATED WITH LOTUS SCOPARIUS, RHUS INTEGRIFOLIA, BRACHYPODIUM DISTACHYON, BRASSICA NIGRA, ISOCOMA MENZIESII, CALOCHORTUS SPLENDENS, GASTRIDIUM VENTRICOSUM, FILAGO SP, ETC.

Threats:

AREA CRISS-CROSSED BY JEEP AND HIKING TRAILS. DEVELOPMENT, HIGH COVER INVASIVES, FIRE, TRASH, DROUGHT. FORMER DOD SITE.

General:

300 IN '86, 300 IN '94, 30-50,000 IN '95, 354 IN '01, 0 IN '02, 296 IN '03, 21 IN '04, 120 IN '05, 469 IN '07, 250 IN '08, 150 IN '09, 618 IN '10, 302 IN '11, 598 IN '12, 21 IN '14, 510 IN '15, 105 IN '16, 360 IN '17, 77 IN '18, 300 IN '19.

PLSS:	T15S, R02W, Sec. 34, E (S)	**Accuracy:**	specific area	**Area (acres):**	9
UTM:	Zone-11 N3632088 E493380	**Latitude/Longitude:**	32.8268 / -117.07073	**Elevation (feet):**	650

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

AND17F0011	ANDERSON, S. - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA 2017-06-07
AND19F0016	ANDERSON, S. - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA 2019-07-29
AND20R0002	ANDERSON, S. - 2019 SEED COLLECTIONS REPORT 2020-01-31
CPR19U0001	CALIFORNIA PLANT RESCUE - SEED BANK DATA FOR THE CALIFORNIA PLANT RESCUE PROJECT 2019-07-24
CPR19U0002	CALIFORNIA PLANT RESCUE - 2019 SEED BANK DATA FOR THE CALIFORNIA PLANT RESCUE PROJECT 2019-XX-XX
FRI10D0001	FRIESEN, T. - SHAPEFILE TO ACCOMPANY 2010 B. MILLER FIELD SURVEY FORMS FOR ACANTHOMINTHA ILICIFOLIA 2010-10-06
GAR86F0002	GARRETT, P. - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA 1986-05-22
GAR86M0013	GARRETT, P. - MAP OF ACANTHOMINTHA ILICIFOLIA 1986-XX-XX
GAR86S0001	GARRETT, P. - GARRETT SN SD #119547 1986-05-22
HOW03S0019	HOWE, M. ET AL. - HOWE #489 SD #254027 2003-04-24
INA20U0015	INATURALIST - INATURALIST OBSERVATIONS OF ACANTHOMINTHA ILICIFOLIA, FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2020-07-13. 2020-XX-XX
JOH06F0003	JOHNSON, M. ET AL. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA 2006-05-26
KIM03F0032	KIM, C. - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA 2003-04-23
MCM94F0025	MCMILLAN & STONE - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA 1994-07-11
MCM94M0003	MCMILLAN & KEMP - MAP OF ACANTHOMINTHA ILICIFOLIA SITES 1994-XX-XX
MIL09F0011	MILLER, B. & K. GREER (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA 2009-04-30
MIL10F0007	MILLER, B. - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA 2010-04-18
MUL16S0011	MULLIGAN, M. - MULLIGAN #3359 SD #269013 & #17605 2016-05-02
REC13R0001	RECON ENVIRONMENTAL, INC. - NATURAL RESOURCE MANAGEMENT PLAN FOR MISSION TRAILS REGIONAL PARK, SAN DIEGO, CALIFORNIA 2013-10-31
ROB20U0001	ROBERTS, F. - COMMUNICATION AND 2019 PERMIT REPORT REGARDING LISTED PLANT OBSERVATIONS 2020-02-08
SDC05R0001	CITY OF SAN DIEGO, PLANNING DEPT., MSCP DIVISION - MSCP RARE PLANT MONITORING: FIELD MONITORING METHODS 2005 -09-XX
SDG01R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR ACANTHOMINTHA ILICIFOLIA 2001-05-XX
SDG03R0002	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR ACANTHOMINTHA ILICIFOLIA 2003-04-XX
SDG05R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO, RARE PLANT MONITORING REPORT, 2005: ACANTHOMINTHA ILICIFOLIA 2005-XX-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
SDM19D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2019; 2019 RESULTS 2019-XX-XX
SDN17U0001	SAN DIEGO NATURAL HISTORY MUSEUM - COLLECTION INFORMATION FROM THE SAN DIEGO NATURAL HISTORY MUSEUM 2017-01-18
SIM07S0003	SIMPSON, M. ET AL. - SIMPSON #2795 SDSU #17138 2007-04-20
SNA09U0001	SNAPP-COOK, J. (U.S. FISH AND WILDLIFE SERVICE-CARLSBAD) - 5 YEAR REVIEW: SUMMARY AND EVALUATION OF ACANTHOMINTHA ILICIFOLIA (SAN DIEGO THORNMINT). 2009-08-12
TAY95F0005	TAYLOR, D. - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA 1995-04-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	83773	**EO Index:**	4325
Key Quad:	La Mesa (3211771)	**Element Code:**	PDLAM01010
Occurrence Number:	34	**Occurrence Last Updated:**	2011-10-19

Scientific Name: *Acanthomintha ilicifolia*

Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened; **State:** Endangered

Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G1; **State:** S1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2010-04-29	**Occurrence Rank:**	None
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Decreasing
Presence:	Possibly Extirpated		

Location:

TIERRA SANTA OPEN SPACE; BEHIND THIRD HOUSE FROM EAST OF COLINA DORADO ST, SW OF CALLE DE VIDA.

Detailed Location:

BENEATH TRANSMISSION LINES. MAPPED BASED ON 2008 SAN DIEGO DIGITAL DATA NEAR THE CENTER OF THE SW 1/4 OF SECTION 34.

Ecological:

ON CLAY SOIL ASSOCIATED WITH AVENA, HEMIZONIA FASCICULATA, AND ANAGALLIS ARVENSIS. ON GENTLY SLOPING, EAST FACING, GRASSY HILL. ERYNGIUM ARISTULATUM VAR. PARISHII IN AREA NEARBY (PRESUMABLY A VERNAL POOL).

Threats:

FEW TRAILS AND VANDALISM. INTRODUCED SOIL, UTILITY RIGHT OF WAY, NON-NATIVE PLANTS. INDIRECT URBANIZATION EFFECTS, FIRE.

General:

200 PLANTS OBSERVED IN 1986. UNKNOWN NUMBER OF PLANTS SEEN IN 2001. SITE SURVEYED TWICE IN 2010 BY FILLIUS: NO PLANTS FOUND, SITE NOTED AS WORSE THAN POOR AND HABITAT DESTROYED.

PLSS:	T15S, R02W, Sec. 34, SW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3631603 E492546	**Latitude/Longitude:**	32.82241 / -117.07962	**Elevation (feet):**	600

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

CNP10U0001	CALIFORNIA NATIVE PLANT SOCIETY-SAN DIEGO - RARE PLANT SURVEY RESULTS FROM THE SAN DIEGO CNPS RARE PLANT GROUP 2010-08-25
FIL10U0004	FILLIUS, M. - NEGATIVE OBSERVATION RECORD FOR ACANTHOMINTHA ILICIFOLIA (CITED IN CNP10U0001) 2010-04-29
GAR86F0003	GARRETT, P. - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA 1986-06-14
GAR86M0013	GARRETT, P. - MAP OF ACANTHOMINTHA ILICIFOLIA 1986-XX-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SNA09U0001	SNAPP-COOK, J. (U.S. FISH AND WILDLIFE SERVICE-CARLSBAD) - 5 YEAR REVIEW: SUMMARY AND EVALUATION OF ACANTHOMINTHA ILICIFOLIA (SAN DIEGO THORNMINT). 2009-08-12
WIC88U0001	WICKENHEISER, L. - SITE REPORT ON SEVERAL RARE PLANTS 1988-08-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04214	**EO Index:**	4324
Key Quad:	La Mesa (3211771)	**Element Code:**	PDLAM01010
Occurrence Number:	35	**Occurrence Last Updated:**	2011-10-21

Scientific Name: *Acanthomintha ilicifolia*

Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed:	1994-05-18	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2010-04-29	**Occurrence Rank:**	None
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Decreasing
Presence:	Possibly Extirpated		

Location:

MISSION TRAILS REGIONAL PARK; JUST EAST OF THE END OF INVIERNO COURT, SAN DIEGO.

Detailed Location:

Ecological:

ASSOCIATED WITH ANAGALLIS ARVENSIS, AVENA SP., AND BRASSICA NIGRA. BEYOND THIS IS ARTEMISIA CALIFORNICA, LOTUS SCOPARIUS, ERIOGONUM FASCICULATUM, NON-NATIVE GRASSES.

Threats:

ADJACENT DEVELOPMENT, ENCROACHING NONNATIVE PLANTS, AND DUMPING THREATEN. CLEARED AREA, KEPT MOWED, POSSIBLY WATERED.

General:

VERY VIGOROUS POPULATION OF 400-600 PLANTS IN A 30 X 50 FOOT AREA IN 1980. 200-300 SEEN IN NORTH PART OF OCCURRENCE IN 1994. SITE SURVEYED TWICE IN 2010: NO PLANTS FOUND, FILLIUS NOTES SITE IS CLEARED AND MOWED, HABITAT DESTROYED.

PLSS:	T16S, R02W, Sec. 03, N (S)	**Accuracy:**	specific area	**Area (acres):**	3
UTM:	Zone-11 N3631038 E492901	**Latitude/Longitude:**	32.81732 / -117.07583	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

CNP10U0001	CALIFORNIA NATIVE PLANT SOCIETY-SAN DIEGO - RARE PLANT SURVEY RESULTS FROM THE SAN DIEGO CNPS RARE PLANT GROUP 2010-08-25
FIL10U0005	FILLIUS, M. - NEGATIVE OBSERVATION RECORD FOR ACANTHOMINTHA ILICIFOLIA WITH ERYNGIUM ARISTULATUM VAR. PARISHII LISTED AS AN ASSOCIATE (CITED IN CNP10U0001) 2010-04-29
KEM94F0006	KEMP & MCMILLAN - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA 1994-05-18
MCM94M0003	MCMILLAN & KEMP - MAP OF ACANTHOMINTHA ILICIFOLIA SITES 1994-XX-XX
PSB80R0001	PSBS - PACIFIC SOUTHWEST BIOLOGICAL SERVICES, INC. - BIOLOGICAL ASSESSMENT FOR MURPHY CANYON HEIGHTS, TIERRASANTA, AND CAMP ELLIOT SITES, SAN DIEGO 1980-10-01
SNA09U0001	SNAPP-COOK, J. (U.S. FISH AND WILDLIFE SERVICE-CARLSBAD) - 5 YEAR REVIEW: SUMMARY AND EVALUATION OF ACANTHOMINTHA ILICIFOLIA (SAN DIEGO THORNMINT). 2009-08-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	31559	**EO Index:**	29080
Key Quad:	Jamul Mountains (3211668)	**Element Code:**	PDLAM01010
Occurrence Number:	66	**Occurrence Last Updated:**	2011-10-18

Scientific Name: *Acanthomintha ilicifolia*

Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered

Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G1
State: S1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed:	XXXX-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	XXXX-XX-XX	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

JUST NORTH OF SWEETWATER RESERVOIR.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED IN VICINITY OF LA PRESA.

Ecological:

Threats:

THREATENED BY A HOTEL DEVELOPMENT.

General:

MAIN SOURCE IS GENERAL LOCATION PROVIDED BY HOGAN. A 1920 SPENCER COLLECTION FROM "FIELDS NEAR SWEETWATER" ALSO ATTRIBUTED HERE. INCLUDES FORMER EO #9. A 2009 SNAPP-COOK REVIEW NOTES THIS POPULATION AS EXTIRPATED; NEEDS CONFIRMATION.

PLSS:	T17S, R01W (S)	**Accuracy:**	1 mile	**Area (acres):**	0
UTM:	Zone-11 N3619348 E500458	**Latitude/Longitude:**	32.71189 / -116.99511	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	Jamul Mountains (3211668), National City (3211761)

Sources:

HOG91U0003	HOGAN, D. - LETTER TO C. RUTHERFORD REGARDING SAN DIEGO COUNTY MAP WITH LOCATIONS OF SEVERAL PLANTS 1991-10-09
SNA09U0001	SNAPP-COOK, J. (U.S. FISH AND WILDLIFE SERVICE-CARLSBAD) - 5 YEAR REVIEW: SUMMARY AND EVALUATION OF ACANTHOMINTHA ILICIFOLIA (SAN DIEGO THORNMINT). 2009-08-12
SPE20S0001	SPENCER, M. - SPENCER #1559 POM #9330 & #47190, GH #400192 1920-06-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 41469
EO Index: 41469
Key Quad: Imperial Beach (3211751)
Element Code: PDLAM01010
Occurrence Number: 71
Occurrence Last Updated: 2011-10-25

Scientific Name: *Acanthomintha ilicifolia*
Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed: 2001-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:

NORTHERN BLUFF OF POGGI CANYON, ABOUT 0.1 AIR MI NE OF JCT OF BRANDYWINE AVE AND OLYMPIC PKY, SOUTHEAST OF CHULA VISTA.

Detailed Location:

MAPPED BASED ON 2008 SAN DIEGO DIGITAL DATA IN THE NORTH 1/2 OF THE NW 1/4 OF SECTION 18.

Ecological:

IN FRIABLE SOIL.

Threats:

URBANIZATION, RECREATION, ORVS, NON-NATIVE PLANTS.

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN 2001. A 1987 REISER COLLECTION FROM "CHULA VISTA, NORTH SIDE OF POGGI CANYON" AND A 1988 WICKENHEISER NOTE ALSO ATTRIBUTED HERE.

PLSS: T18S, R01W, Sec. 18, NW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3608047 E497436
Latitude/Longitude: 32.60995 / -117.02732
Elevation (feet): 325

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

REI87S0004	REISER, C. - REISER SN SD #134442 1987-05-08
REI94U0002	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SNA09U0001	SNAPP-COOK, J. (U.S. FISH AND WILDLIFE SERVICE-CARLSBAD) - 5 YEAR REVIEW: SUMMARY AND EVALUATION OF ACANTHOMINTHA ILICIFOLIA (SAN DIEGO THORNMINT). 2009-08-12
WIC88U0001	WICKENHEISER, L. - SITE REPORT ON SEVERAL RARE PLANTS 1988-08-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	61315	**EO Index:**	61351
Key Quad:	La Mesa (3211771)	**Element Code:**	PDLAM01010
Occurrence Number:	79	**Occurrence Last Updated:**	2020-07-07

Scientific Name: *Acanthomintha ilicifolia*

Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed:	2016-05-05	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-05-05	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SDG&E TRANSMISSION LINE CORRIDOR; ~0.5 AND 0.6 AIR MILE NE OF US NAVAL RECREATION FACILITIES GOLF COURSE, SAN DIEGO.

Detailed Location:

MAPPED AS TWO POLYGONS IN THE NE 1/4 OF THE NE 1/4 OF SECTION 4 AND IN THE NW 1/4 OF THE NW 1/4 OF SECTION 3 BASED ON A 2003 KIM FIELD SURVEY MAP AND 2010 SAN DIEGO DIGITAL DATA.

Ecological:

NATIVE GRASSLAND VEGETATION ON NORTH-FACING SLOPE, SURROUNDED BY HOUSING. CLAY OPENING DOMINATED BY BRACHYPODIUM DISTACHYON WITH SOME DEINANDRA FASCICULATA AND CONVOLVULUS SIMULANS.

Threats:

SDG&E TRANSMISSION LINE. URBANIZATION, NON-NATIVE PLANTS.

General:

50 PLANTS OBSERVED IN 2003. 28 PLANTS OBSERVED SOMETIME BETWEEN 2005 AND 2007. NE POLYGON: 1 PLANT SEEN IN 2009, ABOUT 60 PLANTS IN 2016.

PLSS:	T16S, R02W, Sec. 3, NW (S)	**Accuracy:**	specific area	**Area (acres):**	2
UTM:	Zone-11 N3631164 E492201	**Latitude/Longitude:**	32.81846 / -117.08331	**Elevation (feet):**	390

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

ASP08R0002	ASPEN ENVIRONMENTAL GROUP - FINAL ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT AND PROPOSED LAND USE AMENDMENT, SAN DIEGO GAS & ELECTRIC CO APPLICATION FOR THE SUNRISE POWERLINK PROJECT, SEC D.2 2008-10-XX
KIM03F0033	KIM, C. - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA 2003-04-23
MUL16S0012	MULLIGAN, M. - MULLIGAN #3360 SD #269011 & #17603 2016-05-05
SDG10D0001	SAN DIEGO COUNTY - SPECIES POINT OBSERVATIONS BY COUNTY OF SAN DIEGO (SANBIOS DATABASE). 2010-06-23
SDN17U0001	SAN DIEGO NATURAL HISTORY MUSEUM - COLLECTION INFORMATION FROM THE SAN DIEGO NATURAL HISTORY MUSEUM 2017-01-18
SNA09U0001	SNAPP-COOK, J. (U.S. FISH AND WILDLIFE SERVICE-CARLSBAD) - 5 YEAR REVIEW: SUMMARY AND EVALUATION OF ACANTHOMINTHA ILICIFOLIA (SAN DIEGO THORNMINT). 2009-08-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	83831	**EO Index:**	84859
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDLAM01010
Occurrence Number:	83	**Occurrence Last Updated:**	2020-07-08

Scientific Name: *Acanthomintha ilicifolia*

Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened; **State:** Endangered

Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G1; **State:** S1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed:	2019-04-12	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2019-04-12	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

DENNERY CANYON; ABOUT 0.4 AIR MILE SW OF MOUTH OF CANYON, LOWER OTAY LAKES.

Detailed Location:

MAPPED BY CNDDB IN THE SE 1/4 OF THE SW 1/4 OF SECTION 19 BASED ON 2010 FRIESEN DIGITAL DATA, SDMMP DIGITAL DATA, 2017 MULLIGAN COORDINATES, AND 2017 ANDERSON COORDINATES.

Ecological:

NON-NATIVE GRASSLAND, SPARSE MARITIME SUCCULENT SCRUB. ASSOCIATED WITH SIMMONDSIA CHINENSIS, CENTAURIA MELITENSIS, ERODIUM SP., BROMUS MADRITENSIS SSP. RUBENS, APIASTRUM ANGUSTIFOLIUM, ADENOSTOMA FASCICULATA, ARTEMISIA CALIFORNICA, ETC.

Threats:

HIGH COVER NON-NATIVE GRASSES. ITALIAN WHITE SNAILS, LOW RAINFALL.

General:

500 PLANTS SEEN IN 2009, 267 PLANTS IN 2010, NO PLANTS SEEN IN 2014 (VERY LOW RAINFALL), 150 PLANTS IN 2015, 16 PLANTS IN 2016, 24 PLANTS IN 2017, 0 IN 2018 (VERY LOW ANNUAL RAINFALL, MANY ITALIAN WHITE SNAILS PRESENT), 178 IN 2019.

PLSS:	T18S, R01W, Sec. 19, SW (S)	**Accuracy:**	specific area	**Area (acres):**	3
UTM:	Zone-11 N3605143 E497780	**Latitude/Longitude:**	32.58375 / -117.02365	**Elevation (feet):**	325

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

AND17F0009	ANDERSON, S. - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA & DICRANOSTEGIA ORCUTTIANA 2017-05-19
CPR19U0001	CALIFORNIA PLANT RESCUE - SEED BANK DATA FOR THE CALIFORNIA PLANT RESCUE PROJECT 2019-07-24
FRI10D0001	FRIESEN, T. - SHAPEFILE TO ACCOMPANY 2010 B. MILLER FIELD SURVEY FORMS FOR ACANTHOMINTHA ILICIFOLIA 2010-10-06
MIL09F0012	MILLER, B. & J. GAUDETTE (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA 2009-05-11
MIL10F0006	MILLER, B. - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA 2010-05-24
MUL17S0006	MULLIGAN, M. - MULLIGAN #3520 SD #269027 & #17619 2017-04-17
MUL18D0001	MULLIGAN, M. - 2017 COLLECTIONS FROM MARGIE MULLIGAN. 2018-02-06
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
SDM19D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2019; 2019 RESULTS 2019-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	83845	**EO Index:**	84876
Key Quad:	National City (3211761)	**Element Code:**	PDLAM01010
Occurrence Number:	90	**Occurrence Last Updated:**	2020-07-08

Scientific Name: *Acanthomintha ilicifolia*

Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed:	2019-05-06	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2019-05-06	**Occurrence Rank:**	Excellent
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

RICE CANYON; JUST W OF, EXTENDING TO 0.6 MI W OF, BUENA VISTA WAY AND RANCHO DEL REY PARKWAY JUNCTION, W CHULA VISTA.

Detailed Location:

MAPPED AS 3 POLYGONS BASED ON 2004 RECON DIGITAL DATA, 2014 RECON MAPS, SDMMP DIGITAL DATA, & 2017 POINT. MAPPING INCLUDES SEEDED POPS; E-MOST POLYGON IS ONLY SEEDED PLANTS, MIDDLE POLYGON IS A MIXTURE, W-MOST POLYGON IS NATURAL.

Ecological:

FRIABLE, CLAY SOIL LENS. DEINANDRA CONJUGENS ALSO PRESENT. BRACHYPODIUM DOMINATED CLAY LENS WITH BROMUS RUBENS, B. MADRITENSIS, PLANTAGO RHODOSPERMA, CONVOLVULUS SIMULANS, AND CENTAUREA MELITENSIS.

Threats:

NON-NATIVES, TRAMPLING FROM HIKING/BIKING/DOGS, EROSION, DUMPING, VEG CLEARING.

General:

1430 PLANTS, LIKELY IN 2003. 8,542 IN 2011, 32,200 IN 2012, 12,568 IN 2013, 168 IN 2014 (EXTREMELY DRY YEAR), 6240 IN 2015, 2408 IN 2016, 10,091 IN 2017, 341 IN 2018, 3073 IN 2019. 1983 WICKENHEISER NOTE FROM "RICE CANYON" ATTRIBUTED HERE.

PLSS:	T17S, R01W, Sec. 31, SE (S)	**Accuracy:**	specific area	**Area (acres):**	9
UTM:	Zone-11 N3611809 E498577	**Latitude/Longitude:**	32.64389 / -117.01517	**Elevation (feet):**	335

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

BEN13F0002	BENNETT, A. & M. DODERO (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR ACANTHOMINTHA ILICIFOLIA 2013-04-25
MUL17S0007	MULLIGAN, M. - MULLIGAN #3525 SD #269023 & #17615 2017-04-17
MUL18D0001	MULLIGAN, M. - 2017 COLLECTIONS FROM MARGIE MULLIGAN. 2018-02-06
REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05
REC14R0001	RECON ENVIRONMENTAL, INC. - YEAR 3 FINAL ANNUAL REPORT FOR THE CENTRAL CITY PRESERVE OTAY TARPLANT AND SAN DIEGO THORNMINT RESTORATION AND ENHANCEMENT PROGRAM 2014-09-30
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
SDM19D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2019; 2019 RESULTS 2019-XX-XX
WIC88U0001	WICKENHEISER, L. - SITE REPORT ON SEVERAL RARE PLANTS 1988-08-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 83965
Key Quad: Imperial Beach (3211751)
Occurrence Number: 95

EO Index: 85009
Element Code: PDLAM01010
Occurrence Last Updated: 2011-10-13

Scientific Name: *Acanthomintha ilicifolia*
Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered

CNDDB Element Ranks: **Global:** G1
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed: XXXX-XX-XX
Last Survey Date: XXXX-XX-XX
Owner/Manager: PVT
Presence: Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

NE OF DENNERY CANYON, OTAY VALLEY.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB BASED ON A VAGUE 2009 SNAPP-COOK REVIEW MAP. SITE NAME GIVEN AS "DENNERY CANYON" BUT MAP LOCATION IS ACTUALLY NE OF CANYON, NO DATE OR SPECIFIC LOCATION INFO GIVEN ON THIS SITE.

Ecological:

Threats:

General:

THIS POPULATION WAS REMOVED AND TRANSPLANTED ONTO NEW SITE "CAL TERRACES", CNDDB EO #96. LITTLE INFORMATION GIVEN IN SOURCE, UNKNOWN DATE AND NUMBER OF PLANTS SEEN PRIOR TO REMOVAL/EXTIRPATION.

PLSS: T18S, R01W, Sec. 19 (S)
UTM: Zone-11 N3606444 E498387

Accuracy: 2/5 mile
Latitude/Longitude: 32.59549 / -117.01718

Area (acres): 0
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

SNA09U0001 SNAPP-COOK, J. (U.S. FISH AND WILDLIFE SERVICE-CARLSBAD) - 5 YEAR REVIEW: SUMMARY AND EVALUATION OF ACANTHOMINTHA ILICIFOLIA (SAN DIEGO THORNMINT). 2009-08-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 83973
Key Quad: Imperial Beach (3211751)
Occurrence Number: 96
EO Index: 85011
Element Code: PDLAM01010
Occurrence Last Updated: 2020-07-13

Scientific Name: *Acanthomintha ilicifolia*
Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered
CNDDB Element Ranks: **Global:** G1
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed: 2019-03-02
Last Survey Date: 2019-03-02
Owner/Manager: PVT, CALTRANS?
Presence: Presumed Extant
Occurrence Type: Transplant Outside of Native Hab./Range
Occurrence Rank: Unknown
Trend: Unknown

Location:

CAL TERRACES, OTAY MESA.

Detailed Location:

MAPPED ACCORDING TO 2019 VANDERHOFF COORDINATES. ALSO ATTRIBUTED HERE IS A 2009 SNAPP-COOK REVIEW THAT GIVES A SITE NAME OF "CAL TERRACES"; SITE NOTED AS A TRANSPLANT SITE FOR "DENNERY CANYON" POPULATION, NO DATE OR SPECIFIC LOCATION INFO.

Ecological:

Threats:

INDIRECT EFFECT OF URBANIZATION, NON-NATIVE PLANTS.

General:

UNKNOWN NUMBER OF PLANTS SEEN IN 2019. THIS IS LIKELY THE TRANSPLANT SITE FOR NOW EXTIRPATED POPULATION EO #95.

PLSS: T18S, R01W, Sec. 29, SW (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3603943 E498697
Latitude/Longitude: 32.57292 / -117.01388
Elevation (feet): 530

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

INA20U0015	INATURALIST - INATURALIST OBSERVATIONS OF ACANTHOMINTHA ILICIFOLIA, FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2020-07-13. 2020-XX-XX
SNA09U0001	SNAPP-COOK, J. (U.S. FISH AND WILDLIFE SERVICE-CARLSBAD) - 5 YEAR REVIEW: SUMMARY AND EVALUATION OF ACANTHOMINTHA ILICIFOLIA (SAN DIEGO THORNMINT). 2009-08-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A3008
EO Index: 104626
Key Quad: National City (3211761)
Element Code: PDLAM01010
Occurrence Number: 98
Occurrence Last Updated: 2016-12-19

Scientific Name: *Acanthomintha ilicifolia*
Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed: 2014-04-XX
Occurrence Type: Introduced Back into Native Hab./Range
Last Survey Date: 2014-04-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA
Trend: Decreasing
Presence: Presumed Extant

Location:

JUST NORTH OF THE JUNCTION OF TERRA NOVA DRIVE AND RANCHO DEL REY PARKWAY, NORTH OF RICE CANYON, SOUTH OF BONITA.

Detailed Location:

MAPPED AS 2 POLYGONS ACCORDING TO A 2014 RECON MAP, IN THE NE 1/4 OF THE SE 1/4 OF T17S R02W SECTION 36 AND THE NW 1/4 OF THE SW 1/4 OF T17S R01W SECTION 31.

Ecological:

THE RARE DEINANDRA CONJUGENS ALSO OCCURS AT THIS SITE.

Threats:

General:

SEEDED AT THIS SITE. 476 PLANTS IN 2012, 322 PLANTS IN 2013, 15 PLANTS IN 2014.

PLSS: T17S, R02W, Sec. 36, SE (S)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3612207 E496919
Latitude/Longitude: 32.64747 / -117.03285
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

REC14R0001 RECON ENVIRONMENTAL, INC. - YEAR 3 FINAL ANNUAL REPORT FOR THE CENTRAL CITY PRESERVE OTAY TARPLANT AND SAN DIEGO THORNMINT RESTORATION AND ENHANCEMENT PROGRAM 2014-09-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A3009
Key Quad: National City (3211761)
Occurrence Number: 99

EO Index: 104627
Element Code: PDLAM01010
Occurrence Last Updated: 2016-12-19

Scientific Name: *Acanthomintha ilicifolia*
Common Name: San Diego thorn-mint

Listing Status: **Federal:** Threatened
State: Endangered

CNDDB Element Ranks: **Global:** G1
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

ENDEMIC TO ACTIVE VERTISOL CLAY SOILS OF MESAS & VALLEYS. USUALLY ON CLAY LENSES WITHIN GRASSLAND OR CHAPARRAL COMMUNITIES. 25-945 M.

Last Date Observed: 2014-04-XX
Last Survey Date: 2014-04-XX
Owner/Manager: CITY OF CHULA VISTA
Presence: Presumed Extant

Occurrence Type: Introduced Back into Native Hab./Range
Occurrence Rank: Unknown
Trend: Unknown

Location:

SOUTH SIDE OF OTAY LAKES ROAD, NE OF THE NORTH END OF ABETO DRIVE, SE OF BONITA.

Detailed Location:

PMA 1-1C. MAPPED ACCORDING TO A 2014 RECON MAP, IN THE EAST 1/2 OF THE NE 1/4 OF SECTION 31.

Ecological:

THE RARE DEINANDRA CONJUGENS ALSO OCCURS AT THIS SITE.

Threats:

General:

SEEDED AT THIS SITE. 140 PLANTS IN 2012, 350 PLANTS IN 2013, 32 PLANTS IN 2014.

PLSS: T17S, R01W, Sec. 31, NE (S)
UTM: Zone-11 N3612853 E498313

Accuracy: specific area
Latitude/Longitude: 32.6533 / -117.01799

Area (acres): 1
Elevation (feet): 250

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

REC14R0001 RECON ENVIRONMENTAL, INC. - YEAR 3 FINAL ANNUAL REPORT FOR THE CENTRAL CITY PRESERVE OTAY TARPLANT AND SAN DIEGO THORNMINT RESTORATION AND ENHANCEMENT PROGRAM 2014-09-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1383
EO Index: 102957
Key Quad: La Mesa (3211771)
Element Code: PDLAM0V020
Occurrence Number: 19
Occurrence Last Updated: 2016-08-09

Scientific Name: *Lepechinia cardiophylla*
Common Name: heart-leaved pitcher sage

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S2S3

General Habitat:
CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, CISMONTANE WOODLAND.

Micro Habitat:
115-1345 M.

Last Date Observed: 2011-07-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2011-07-07
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
SPRING CANYON, SW OF SYCAMORE LANDFILL, NW OF SANTEE.

Detailed Location:
MAPPED ACCORDING TO MAP PROVIDED IN A 2011 TETRA TECH INC REPORT FOR THE COGENTRIX QUAIL BRUSH GENERATION PROJECT. IN THE SW 1/4 OF THE NE 1/4 OF SECTION 24.

Ecological:
ADJACENT TO EMERGENT WETLAND.

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED SOMETIME BETWEEN MAY 12 AND JULY 7, 2011.

PLSS: T15S, R02W, Sec. 24, NE (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3635273 E496472
Latitude/Longitude: 32.85554 / -117.03771
Elevation (feet): 388

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
TET11R0003 TETRA TECH, INC. - COGENTRIX QUAIL BRUSH GENERATION PROJECT, APPLICATION FOR CERTIFICATION, SECTION 4.12 BIOLOGICAL RESOURCES 2011-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03743
EO Index: 17984
Key Quad: La Jolla (3211772)
Element Code: PDLAM18140
Occurrence Number: 11
Occurrence Last Updated: 2012-06-20

Scientific Name: *Monardella viminea*
Common Name: willowy monardella

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

COASTAL SCRUB, CHAPARRAL, RIPARIAN FOREST, RIPARIAN SCRUB, RIPARIAN WOODLAND.

Micro Habitat:

IN CANYONS, IN ROCKY AND SANDY PLACES, SOMETIMES IN WASHES OR FLOODPLAINS; WITH BACCHARIS, IVA, ETC. ALLUVIAL, EPHEMERAL WASHES WITH ADJACENT COASTAL SCRUB. 45-230 M.

Last Date Observed: 1993-07-08
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: None
Owner/Manager: CITY OF SAN DIEGO
Trend: Decreasing
Presence: Possibly Extirpated

Location:

WITHIN SAN CLEMENTE PARK, IN SAN CLEMENTE CANYON; SOUTH OF STADIUM STREET AND HWY 52, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AT 0.35 MILE NE OF REGENTS ROAD, ACCORDING TO A 1981 DICE MAP.

Ecological:

SYCAMORE ALLUVIAL SCRUB WITH WILLOW/MULE FAT UNDERSTORY. CHANNEL BARS VEGETATED WITH ERIOGONUM FASCICULATUM, BACCHARIS PILULARIS, TOXICODENDRON, AND SCIRPUS.

Threats:

INCREASED RUNOFF DUE TO HIGHWAY CONSTRUCTION HAS RESULTED IN INVASION BY SEDGES/WILLOWS (1987).

General:

50 PLANTS IN 1980 IN 60 SQ METER AREA, 28 IN 1985, 13 PLANTS IN 1987, 4 IN 1993. ELVIN SAYS THAT HE "SURVEYED SYCAMORE CYN FROM 805 TO I-5 IN ABOUT 2003" AND NO SUITABLE HABITAT REMAINED IN THE AREA.

PLSS: T15S, R03W, Sec. 29, E (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3633972 E480198
Latitude/Longitude: 32.84363 / -117.21160
Elevation (feet): 150

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

DIC80S0001	DICE, J. & L. ALLEN - DICE SN SD #106423 1980-08-01
DIC81R0001	DICE, J. - ENVIRONMENTAL ANALYSIS REPORT, SAN DIEGO CALTRANS ECOLOGICAL STUDIES SECTION 1981-10-05
ELV05U0002	ELVIN, M. - EMAIL TO R. BITTMAN REGARDING MONARDELLA VIMINEA 2005-11-10
SCH87F0015	SCHEID, G. - FIELD SURVEY FORM FOR MONARDELLA VIMINEA 1987-07-12
SCH87U0001	SCHEID, G. - LETTER TO D. SHOWERS REGARDING MONARDELLA VIMINEA 1987-02-05
SCH93F0001	SCHEID, G. - FIELD SURVEY FORM FOR MONARDELLA VIMINEA 1993-07-08
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03905	**EO Index:**	13553
Key Quad:	La Jolla (3211772)	**Element Code:**	PDLAM18140
Occurrence Number:	12	**Occurrence Last Updated:**	2018-02-06

Scientific Name: *Monardella viminea*

Common Name: willowy monardella

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

COASTAL SCRUB, CHAPARRAL, RIPARIAN FOREST, RIPARIAN SCRUB, RIPARIAN WOODLAND.

Micro Habitat:

IN CANYONS, IN ROCKY AND SANDY PLACES, SOMETIMES IN WASHES OR FLOODPLAINS; WITH BACCHARIS, IVA, ETC. ALLUVIAL, EPHEMERAL WASHES WITH ADJACENT COASTAL SCRUB. 45-230 M.

Last Date Observed:	2000-08-17	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2000-08-17	**Occurrence Rank:**	Fair
Owner/Manager:	DOD-MCAS MIRAMAR, CITY OF SDG	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

SAN CLEMENTE CANYON, FROM JUST W OF I-805 TO ABOUT 1.8 MILES E OF I-805, AT MARINE CORPS AIR STATION MIRAMAR, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS 8 POLYGONS TO ENCOMPASS MULTIPLE SOURCES OF INFO WITH VARYING LEVELS OF SPECIFICITY. IN THE N 1/2 OF SECTIONS 26 AND 27, INTO THE SE 1/4 OF SEC 23 & THE SW 1/4 OF SEC 24. PORTION REMOVED BY CALTRANS DUE TO HWY EXTENSION.

Ecological:

GROWING IN RIPARIAN SCRUB ON CHANNEL BANK/BENCH OF SANDY/COBBLY ALLUVIUM; ADJACENT TO MIXED CHAPARRAL. ASSOCIATES INCLUDE BACCHARIS SAROTHROIDES, ERIOGONUM FASCICULATUM, LOTUS SCOPARIUS, AND ARTEMISIA CALIFORNICA.

Threats:

ORV DAMAGE AND TRASH DUMPING ARE MAJOR THREATS. POTENTIAL COMPETITION FROM INCREASED SALIX. HWY 52 EXTENSION.

General:

150+ IN 1981. 98 PLANTS OBSERVED "1 TO 1.5 MILES EAST OF I-805" IN 1987. COLONY JUST W OF I-805 AND COLONY ~0.25 MI E OF I-805 NOT SEEN IN 1987; POSSIBLY EXTIRPATED. 41 CLUMPS OBSERVED E OF I-805 IN 2000. INCLUDES FORMER OCC #13, 18, & 19.

PLSS:	T15S, R03W, Sec. 26, N (S)	**Accuracy:**	specific area	**Area (acres):**	118
UTM:	Zone-11 N3634440 E484446	**Latitude/Longitude:**	32.84792 / -117.16621	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BRG92M0001	BUTLER ROACH GROUP, INC. - BIOLOGICAL RESOURCE MAPS FOR MIRAMAR NAVAL AIR STATION 1992-XX-XX
DIC81R0001	DICE, J. - ENVIRONMENTAL ANALYSIS REPORT, SAN DIEGO CALTRANS ECOLOGICAL STUDIES SECTION 1981-10-05
ELV00S0001	ELVIN, M. - ELVIN #1492 UCR #219843, SD #250508 2000-08-17
ELV00S0005	ELVIN, M. - ELVIN #1494 RSA #781818, SD #239805 2000-08-17
FWS00D0001	U.S. FISH & WILDLIFE SERVICE, CARLSBAD OFFICE - DIGITAL DATA FROM FIELD SURVEYS FOR MONARDELLA VIMINEA & MONARDELLA STONEANA 2000-08-XX
GEN06R0001	GENE STOUT AND ASSOCIATES & GEOMORPH INFORMATION SYSTEMS - INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN FOR MARINE CORPS AIR STATION MIRAMAR, CALIFORNIA 2006-2010. BIOLOGICAL RESOURCES. 2006-10-XX
SCH87F0017	SCHEID, G. - FIELD SURVEY FORM FOR MONARDELLA VIMINEA 1987-06-20
SCH87F0018	SCHEID, G. - FIELD SURVEY FORM FOR MONARDELLA VIMINEA 1987-06-20
SCH87F0021	SCHEID, G. - FIELD SURVEY FORM FOR MONARDELLA VIMINEA 1987-07-12
SCH87F0030	SCHEID, J. - FIELD SURVEY FORM FOR MONARDELLA VIMINEA 1987-06-20
SCH87U0001	SCHEID, G. - LETTER TO D. SHOWERS REGARDING MONARDELLA VIMINEA 1987-02-05
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21914	**EO Index:**	24885
Key Quad:	La Mesa (3211771)	**Element Code:**	PDLAM18140
Occurrence Number:	14	**Occurrence Last Updated:**	2018-02-06

Scientific Name: *Monardella viminea*

Common Name: willowy monardella

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

COASTAL SCRUB, CHAPARRAL, RIPARIAN FOREST, RIPARIAN SCRUB, RIPARIAN WOODLAND.

Micro Habitat:

IN CANYONS, IN ROCKY AND SANDY PLACES, SOMETIMES IN WASHES OR FLOODPLAINS; WITH BACCHARIS, IVA, ETC. ALLUVIAL, EPHEMERAL WASHES WITH ADJACENT COASTAL SCRUB. 45-230 M.

Last Date Observed:	2001-01-30	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-01-30	**Occurrence Rank:**	Poor
Owner/Manager:	DOD-MCAS MIRAMAR, CALTRANS	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

MURPHY CANYON; NEAR JUNCTION OF HIGHWAY 52 AND I-15, MARINE CORPS AIR STATION MIRAMAR, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS 3 POLYGONS IN THE WEST HALF OF SECTION 29 AND THE EAST HALF OF SECTION 30 BASED ON MULTIPLE SOURCES OF INFORMATION WITH VARYING LEVELS OF SPECIFICITY. INCLUDES 1928 FEUDGE COLLECTION FROM MURPHY CANYON AT 200 FT ELEV.

Ecological:

CHAPARRAL COVERED SLOPE JUST ABOVE GRAVEL CANYON BOTTOM. SANDY-LOOSE SOIL.

Threats:

MAJORITY OF OCCURRENCE WAS EXTIRPATED WHEN I-15 WAS EXTENDED. EROSION ALSO THREATENS.

General:

15 PLANTS IN 1980; PLANTS TO BE LOST DUE TO CONSTRUCTION OF I-15. GONE BY 1985 ACCORDING TO SCHEID (1987). 1 PLANT IN 1999. 2 CLUMPS IN SMALL POLYGON IN THE NW 1/4 OF SEC 29 IN 2001. 1928 FEUDGE COLLECTION ATTRIB HERE; "FAIRLY COMMON."

PLSS:	T15S, R02W, Sec. 30, E (S)	**Accuracy:**	specific area	**Area (acres):**	67
UTM:	Zone-11 N3633915 E488868	**Latitude/Longitude:**	32.84324 / -117.11895	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BRG92M0001	BUTLER ROACH GROUP, INC. - BIOLOGICAL RESOURCE MAPS FOR MIRAMAR NAVAL AIR STATION 1992-XX-XX
DIC81R0001	DICE, J. - ENVIRONMENTAL ANALYSIS REPORT, SAN DIEGO CALTRANS ECOLOGICAL STUDIES SECTION 1981-10-05
ELV05U0002	ELVIN, M. - EMAIL TO R. BITTMAN REGARDING MONARDELLA VIMINEA 2005-11-10
FEU28S0001	FEUDGE, J. - FEUDGE #1925 POM #183493 1928-06-25
FWS00D0001	U.S. FISH & WILDLIFE SERVICE, CARLSBAD OFFICE - DIGITAL DATA FROM FIELD SURVEYS FOR MONARDELLA VIMINEA & MONARDELLA STONEANA 2000-08-XX
GAN38S0052	GANDER, F. - GANDER #6091 UCR #44654, RSA #69052, SBBG #80888, SD #21887, SDSU #11028, #11029, #7188, #7194, #7200, #7206, #7209, #7215, UC #930931 1938-07-13
RAE78F0008	RAE, S. - FIELD SURVEY FORM FOR MONARDELLA VIMINEA 1978-06-20
SCH87F0026	SCHEID, G. - FIELD SURVEY FORM FOR MONARDELLA VIMINEA 1987-06-30
SCH87U0001	SCHEID, G. - LETTER TO D. SHOWERS REGARDING MONARDELLA VIMINEA 1987-02-05
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04136	**EO Index:**	17980
Key Quad:	La Mesa (3211771)	**Element Code:**	PDLAM18140
Occurrence Number:	15	**Occurrence Last Updated:**	2012-06-20

Scientific Name: *Monardella viminea*

Common Name: willowy monardella

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

COASTAL SCRUB, CHAPARRAL, RIPARIAN FOREST, RIPARIAN SCRUB, RIPARIAN WOODLAND.

Micro Habitat:

IN CANYONS, IN ROCKY AND SANDY PLACES, SOMETIMES IN WASHES OR FLOODPLAINS; WITH BACCHARIS, IVA, ETC. ALLUVIAL, EPHEMERAL WASHES WITH ADJACENT COASTAL SCRUB. 45-230 M.

Last Date Observed:	1987-09-09	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1987-09-09	**Occurrence Rank:**	Fair
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALONG MURPHY CANYON, APPROXIMATELY 0.3 MILE SOUTHEAST OF RIFLE RANGE, MARINE CORPS AIR STATION MIRAMAR, SAN DIEGO.

Detailed Location:

2 COLONIES: SOUTHERN COLONY NEAR THE COMMON CORNER OF SECTIONS 16, 17, 20, & 21; NORTHERN COLONY IN THE NW 1/4 OF THE SW 1/4 OF SECTION 16.

Ecological:

RIPARIAN SCRUB- BACCHARIS SAROTHROIDES, ERIOGONUM FASCICULATUM, AND SALVIA APIANA. COBBLY/SANDY ALLUVIUM, CANYON BOTTOM.

Threats:

AREA DISTURBED AND SITE IS HEAVILY INVADED BY EXOTIC ANNUAL GRASSES. STREAM CHANNELIZATION AND EXPANSION OF RIFLE RANGE.

General:

SOUTH COLONY: TWO CLUMPS (~40 PLANTS) SEEN IN 1981 & 1987. VAGUE 1992 MAP IS THE ONLY SOURCE OF INFORMATION FOR NORTHERN COLONY; UNKNOWN WHEN SEEN, POSSIBLY THE SAME SITE AS SOUTHERN COLONY. NEEDS FIELDWORK. INCLUDES FORMER OCCURRENCE #30.

PLSS:	T15S, R02W, Sec. 16, SW (S)	**Accuracy:**	specific area	**Area (acres):**	11
UTM:	Zone-11 N3636479 E490734	**Latitude/Longitude:**	32.86638 / -117.09903	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BRG92M0001	BUTLER ROACH GROUP, INC. - BIOLOGICAL RESOURCE MAPS FOR MIRAMAR NAVAL AIR STATION 1992-XX-XX
DIC81R0001	DICE, J. - ENVIRONMENTAL ANALYSIS REPORT, SAN DIEGO CALTRANS ECOLOGICAL STUDIES SECTION 1981-10-05
SCH87F0025	SCHEID, G. - FIELD SURVEY FORM FOR MONARDELLA VIMINEA 1987-09-09
SCH87U0001	SCHEID, G. - LETTER TO D. SHOWERS REGARDING MONARDELLA VIMINEA 1987-02-05
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03774	**EO Index:**	17981
Key Quad:	La Jolla (3211772)	**Element Code:**	PDLAM18140
Occurrence Number:	16	**Occurrence Last Updated:**	2012-06-20

Scientific Name: *Monardella viminea*

Common Name: willowy monardella

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

COASTAL SCRUB, CHAPARRAL, RIPARIAN FOREST, RIPARIAN SCRUB, RIPARIAN WOODLAND.

Micro Habitat:

IN CANYONS, IN ROCKY AND SANDY PLACES, SOMETIMES IN WASHES OR FLOODPLAINS; WITH BACCHARIS, IVA, ETC. ALLUVIAL, EPHEMERAL WASHES WITH ADJACENT COASTAL SCRUB. 45-230 M.

Last Date Observed:	1987-07-12	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1987-07-12	**Occurrence Rank:**	None
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

SAN CLEMENTE PARK IN SAN CLEMENTE CANYON; ABOUT 0.1 MILE EAST OF GENESSE AVE, SOUTH OF HIGHWAY 52, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO A 1981 DICE MAP IN THE SE 1/4 OF THE NW 1/4 OF SECTION 28.

Ecological:

SANDBAR IN CHANNEL. RIPARIAN COMMUNITY WITH PLATANUS RACEMOSA, ERIOGONUM FASCICULATUM, QUERCUS DIVERSILOBA, AND BACCHARIS SAROTHROIDES. SANDY ALLUVIUM.

Threats:

SMALL FOOT TRAILS CRISS-CROSS SANDBAR AND MAY LEAD TO TRAMPLING OF SOME CLUSTERS IF HEAVILY USED.

General:

2 PLANTS OBSERVED IN 1981 IN LESS THAN A 1 SQUARE METER AREA, 16 PLANTS SEEN IN 1987. ELVIN (2005) INDICATES THERE IS NO SUITABLE HABITAT REMAINING IN AREA.

PLSS:	T15S, R03W, Sec. 28, NW (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3634092 E481503	**Latitude/Longitude:**	32.84474 / -117.19765	**Elevation (feet):**	200

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

DIC81R0001	DICE, J. - ENVIRONMENTAL ANALYSIS REPORT, SAN DIEGO CALTRANS ECOLOGICAL STUDIES SECTION 1981-10-05
ELV05U0002	ELVIN, M. - EMAIL TO R. BITTMAN REGARDING MONARDELLA VIMINEA 2005-11-10
SCH87F0019	SCHEID, G. - FIELD SURVEY FORM FOR MONARDELLA VIMINEA 1987-07-12
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03803	**EO Index:**	17979
Key Quad:	La Jolla (3211772)	**Element Code:**	PDLAM18140
Occurrence Number:	17	**Occurrence Last Updated:**	2012-06-20

Scientific Name: *Monardella viminea*

Common Name: willowy monardella

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

COASTAL SCRUB, CHAPARRAL, RIPARIAN FOREST, RIPARIAN SCRUB, RIPARIAN WOODLAND.

Micro Habitat:

IN CANYONS, IN ROCKY AND SANDY PLACES, SOMETIMES IN WASHES OR FLOODPLAINS; WITH BACCHARIS, IVA, ETC. ALLUVIAL, EPHEMERAL WASHES WITH ADJACENT COASTAL SCRUB. 45-230 M.

Last Date Observed:	1981-08-12	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1987-07-12	**Occurrence Rank:**	None
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

SAN CLEMENTE PARK IN SAN CLEMENTE CANYON; ABOUT 0.7 AIR MILE EAST OF GENESEE AVE, SOUTH OF HIGHWAY 52, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO A 1981 DICE MAP.

Ecological:

Threats:

General:

6 PLANTS OBSERVED IN 1981 IN A 4 SQUARE METER AREA; NO PLANTS SEEN IN 1987 BUT HABITAT STILL EXISTED, MAY HAVE BEEN WRONG TIME OF YEAR. ELVIN (2005) REPORTS THAT THERE IS NO SUITABLE HABITAT REMAINING IN SAN CLEMENTE CANYON WEST OF I-805.

PLSS:	T15S, R03W, Sec. 28, NE (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3634190 E482427	**Latitude/Longitude:**	32.84564 / -117.18778	**Elevation (feet):**	200

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

DIC81R0001	DICE, J. - ENVIRONMENTAL ANALYSIS REPORT, SAN DIEGO CALTRANS ECOLOGICAL STUDIES SECTION 1981-10-05
ELV05U0002	ELVIN, M. - EMAIL TO R. BITTMAN REGARDING MONARDELLA VIMINEA 2005-11-10
SCH87F0020	SCHEID, G. - FIELD SURVEY FORM FOR MONARDELLA VIMINEA 1987-07-12
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86028
Key Quad: Poway (3211781)
Occurrence Number: 21
EO Index: 13655
Element Code: PDLAM18140
Occurrence Last Updated: 2018-02-06

Scientific Name: *Monardella viminea*
Common Name: willowy monardella

Listing Status: **Federal:** Endangered
State: Endangered
CNDDB Element Ranks: **Global:** G1
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, CHAPARRAL, RIPARIAN FOREST, RIPARIAN SCRUB, RIPARIAN WOODLAND.

Micro Habitat:

IN CANYONS, IN ROCKY AND SANDY PLACES, SOMETIMES IN WASHES OR FLOODPLAINS; WITH BACCHARIS, IVA, ETC. ALLUVIAL, EPHEMERAL WASHES WITH ADJACENT COASTAL SCRUB. 45-230 M.

Last Date Observed: 2011-05-23
Last Survey Date: 2011-05-23
Owner/Manager: DOD-NAVY
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Excellent
Trend: Unknown

Location:

WEST SYCAMORE CANYON AND TRIBUTARIES, EAST SIDE OF MIRAMAR AIR STATION, NEAR SANTEE.

Detailed Location:

SCATTERED THROUGHOUT MAIN CANYON AND SIDE CANYONS. MAPPED AS 4 POLYGONS. UPPER PORTIONS OF OCCURRENCE MAPPED MORE PRECISELY THAN LOWER PORTIONS OF OCCURRENCE; NEED BETTER MAP DETAIL FOR NEAR MOUTH OF WEST SYCAMORE CANYON.

Ecological:

IN SANDY LOAM SOIL IN CANYONS WITH EPILOBIUM CANUM, YUCCA WHIPPLEI, MALACOTHAMNUS SP., RHUS SP., STIPA SP., CLEMATIS SP., TOXICODENDRON DIVERSILOBUM, BROMUS MOLLIS, B. DIANDRUS, ADENOSTOMA, QUERCUS, CERCOCARPUS, ERIOGONUM, BACCHARIS, ETC.

Threats:

SOME ORV ACTIVITY. THREATENED BY NON-NATIVES. FIRE BREAKS WERE CUT IN THIS AREA DURING 2003 WILDFIRES.

General:

10-20 PLANTS IN 1981. NORTH END OF SITE: 650 COLONIES IN 1987, 37 PLANTS IN 1993. 880 CLUMPS IN 2000. 700 IN 2003. UNKNOWN NUMBER SEEN IN 1990, 2009 & 2011. EXCELLENT SITE DUE TO LARGE POP & ROBUST CLUSTERS, ONLY SLIGHTLY DISTURBED HABITAT.

PLSS: T15S, R01W, Sec. 5 (S)
Accuracy: specific area
Area (acres): 371
UTM: Zone-11 N3639777 E498815
Latitude/Longitude: 32.89618 / -117.01267
Elevation (feet): 600

County Summary:

San Diego

Quad Summary:

San Vicente Reservoir (3211688), La Mesa (3211771), Poway (3211781)

Sources:

BRG92M0001	BUTLER ROACH GROUP, INC. - BIOLOGICAL RESOURCE MAPS FOR MIRAMAR NAVAL AIR STATION 1992-XX-XX
CHE11I0003	CHESNUT, J. - PHOTOS OF MONARDELLA VIMINEA, CALPHOTOS ID #0000 0000 0511 2088-2091 2011-05-23
DIC81R0001	DICE, J. - ENVIRONMENTAL ANALYSIS REPORT, SAN DIEGO CALTRANS ECOLOGICAL STUDIES SECTION 1981-10-05
DOS03S0003	DOSSEY, R. - DOSSEY SN SD #173125, SDSU #19350, UCR #202862, CAS #1179367, CAS-BOT-BC #227430 2003-08-08
FWS00D0001	U.S. FISH & WILDLIFE SERVICE, CARLSBAD OFFICE - DIGITAL DATA FROM FIELD SURVEYS FOR MONARDELLA VIMINEA & MONARDELLA STONEANA 2000-08-XX
FWS85R0008	U.S. FISH & WILDLIFE SERVICE - FIELD SURVEY OF BIOLOGICAL RESOURCES OF SPECIFIC CANYON HABITATS OF MIRAMAR NAVAL AIR STATION, CALIFORNIA 1985-09-XX
GEN06R0001	GENE STOUT AND ASSOCIATES & GEOMORPH INFORMATION SYSTEMS - INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN FOR MARINE CORPS AIR STATION MIRAMAR, CALIFORNIA 2006-2010. BIOLOGICAL RESOURCES. 2006-10-XX
REC13R0001	RECON ENVIRONMENTAL, INC. - NATURAL RESOURCE MANAGEMENT PLAN FOR MISSION TRAILS REGIONAL PARK, SAN DIEGO, CALIFORNIA 2013-10-31
REINDS0001	REISER, C. - REISER SN SD #138855 XXXX-XX-XX
RIT09I0001	RITENOUR, D. - PHOTO OF MONARDELLA VIMINEA, CALPHOTOS ID: 0000 0000 0513 2151 2009-06-06
SAN00U0010	SANDERS, A. - EMAIL TO D. TIBOR REGARDING MONARDELLA LINOIDES SSP. VIMINEA 2000-10-06
SCH87F0013	SCHEID, G. - FIELD SURVEY FORM FOR MONARDELLA VIMINEA 1987-05-15
SCH87U0001	SCHEID, G. - LETTER TO D. SHOWERS REGARDING MONARDELLA VIMINEA 1987-02-05
SCH87U0002	SCHEID, G. - INFORMATION SCHEID RECEIVED FROM M. SEVERANCE REGARDING POPULATIONS OF MONARDELLA LINOIDES SSP. VIMINEA 1987-XX-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG10D0001	SAN DIEGO COUNTY - SPECIES POINT OBSERVATIONS BY COUNTY OF SAN DIEGO (SANBIOS DATABASE). 2010-06-23
TBP01R0001	T&B PLANNING CONSULTANTS, INC. - RANCHO ENCANTADA PRECISE PLAN 2001-XX-XX
YOR90F0001	YORK, R. ET AL. - FIELD SURVEY FORM FOR MONARDELLA VIMINEA 1990-04-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04143	**EO Index:**	7796
Key Quad:	La Mesa (3211771)	**Element Code:**	PDLAM18140
Occurrence Number:	24	**Occurrence Last Updated:**	2012-06-18

Scientific Name: *Monardella viminea*

Common Name: willowy monardella

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

COASTAL SCRUB, CHAPARRAL, RIPARIAN FOREST, RIPARIAN SCRUB, RIPARIAN WOODLAND.

Micro Habitat:

IN CANYONS, IN ROCKY AND SANDY PLACES, SOMETIMES IN WASHES OR FLOODPLAINS; WITH BACCHARIS, IVA, ETC. ALLUVIAL, EPHEMERAL WASHES WITH ADJACENT COASTAL SCRUB. 45-230 M.

Last Date Observed:	2000-08-18	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2000-08-18	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ELANUS CANYON; BOTH SIDES OF HIGHWAY 52 BETWEEN SANTO RD & I-15, S EDGE OF MARINE CORPS AIR STATION MIRAMAR, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS 5 POLYGONS TO ENCOMPASS MULTIPLE SOURCES OF INFORMATION. IN THE NW 1/4 OF SECTION 28 AND THE SOUTH HALF OF SECTION 29.

Ecological:

CHAPARRAL CANYON DRAINAGE BOTTOM WITH SANDY-COBBLY SOIL. ASSOCIATED WITH ADENOSTOMA FASCICULATUM, BACCHARIS SAROTHROIDES, SALVIA MELLIFERA, CRYPTANTHA SP., HETEROMELES ARBUTIFOLIA, ERIOGONUM FASCICULATUM, RHUS LAURINA, ETC.

Threats:

THREATENED BY HIGHWAY CONSTRUCTION AND POSSIBLY DEVELOPMENT (1987).

General:

NORTH OF HWY 52: 10 PLANTS IN 1982 (AREA RECENTLY BURNED), 17 IN 1985, 24 IN 1987, 9 CLUMPS OBSERVED IN 2000. SOUTH OF HWY 52: NO POPULATION/DATE INFORMATION AVAILABLE; POLYGONS BASED ON A 2006 MAP AND 2008 CITY OF SAN DIEGO DIGITAL DATA.

PLSS:	T15S, R02W, Sec. 29, S (S)	**Accuracy:**	specific area	**Area (acres):**	23
UTM:	Zone-11 N3633621 E490086	**Latitude/Longitude:**	32.84060 / -117.10593	**Elevation (feet):**	350

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BRG92M0001	BUTLER ROACH GROUP, INC. - BIOLOGICAL RESOURCE MAPS FOR MIRAMAR NAVAL AIR STATION 1992-XX-XX
DEQ82F0001	DEQUEIROZ, K. - FIELD SURVEY FORM FOR MONARDELLA VIMINEA 1982-03-18
FWS00D0001	U.S. FISH & WILDLIFE SERVICE, CARLSBAD OFFICE - DIGITAL DATA FROM FIELD SURVEYS FOR MONARDELLA VIMINEA & MONARDELLA STONEANA 2000-08-XX
GEN06R0001	GENE STOUT AND ASSOCIATES & GEOMORPH INFORMATION SYSTEMS - INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN FOR MARINE CORPS AIR STATION MIRAMAR, CALIFORNIA 2006-2010. BIOLOGICAL RESOURCES. 2006-10-XX
SCH87F0027	SCHEID, G. - FIELD SURVEY FORM FOR MONARDELLA VIMINEA 1987-06-30
SCH87U0001	SCHEID, G. - LETTER TO D. SHOWERS REGARDING MONARDELLA VIMINEA 1987-02-05
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SPR00S0002	SPROUL, F. - SPROUL SN SD #157517, RSA #704345 2000-06-16
SPR00S0003	SPROUL, F. - SPROUL SN SD #157518 2000-07-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04293	**EO Index:**	13654
Key Quad:	Poway (3211781)	**Element Code:**	PDLAM18140
Occurrence Number:	26	**Occurrence Last Updated:**	2018-02-07

Scientific Name: *Monardella viminea*

Common Name: willowy monardella

Listing Status: **Federal:** Endangered

State: Endangered

CNDDB Element Ranks: **Global:** G1

State: S1

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, CHAPARRAL, RIPARIAN FOREST, RIPARIAN SCRUB, RIPARIAN WOODLAND.

Micro Habitat:

IN CANYONS, IN ROCKY AND SANDY PLACES, SOMETIMES IN WASHES OR FLOODPLAINS; WITH BACCHARIS, IVA, ETC. ALLUVIAL, EPHEMERAL WASHES WITH ADJACENT COASTAL SCRUB. 45-230 M.

Last Date Observed:	2016-06-17	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-06-17	**Occurrence Rank:**	Good
Owner/Manager:	DOD, CITY OF SAN DIEGO, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALONG SPRING CANYON, FROM ABOUT 1.1-3.2 AIR MILES NORTH OF SAN DIEGO RIVER, ABOUT 5 AIR MILES SOUTHEAST OF MIRAMAR.

Detailed Location:

MAPPED BY CNDDB AS SEVERAL POLYGONS BASED ON 2000 FWS DIGITAL DATA AND MAPS FROM 2006, 2011, AND 2013. IN THE EAST HALF OF T15S R2W SECTIONS 12 AND 13, THE NW 1/4 OF THE NE 1/4 OF SECTION 24, AND IN THE WEST HALF OF T15S R1W SECTION 7.

Ecological:

ASSOCIATED WITH ERIOGONUM FASCICULATUM. SELAGINELLA CINERASCENS WITHIN SAMPLING AREA. NON-NATIVES FOUND ON SITE CONSIST OF PERENNIAL MUSTARD, TOCOLOTE, LONG-BEAK FILAREE, AND NON-NATIVE GRASSES.

Threats:

NON-NATIVE SPECIES, FIRE BREAKS, HIKERS, MOUNTAIN BIKING, COMPETITION WITH NATIVE PLANTS, EROSION.

General:

185 PLANT CLUSTERS OVER ~3/4 ACRE OBSERVED IN NORTH PART OF OCCURRENCE (SEC 12) IN 1987. PORTIONS OF SOUTHERN COLONIES (SECTIONS 13 & 24): 133 CLUMPS IN 2000, SEEN IN 2001 & 2011, 31 PLANTS IN 2015, 7 PLANTS IN 2016.

PLSS:	T15S, R02W, Sec. 12, E (S)	**Accuracy:**	specific area	**Area (acres):**	156
UTM:	Zone-11 N3637469 E496757	**Latitude/Longitude:**	32.87535 / -117.03467	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), Poway (3211781)

Sources:

BRG92M0001	BUTLER ROACH GROUP, INC. - BIOLOGICAL RESOURCE MAPS FOR MIRAMAR NAVAL AIR STATION 1992-XX-XX
BUR05U0005	BURRASCANO, C. - EMAIL TO D. TIBOR REGARDING MONARDELLA VIMINEA, INCLUDING 2000 POINT DATA FROM LOPEZ AND SPRING CANYONS 2005-03-04
DOS03S0005	DOSSEY, R. - DOSSEY SN SD #173124 2003-08-06
FWS00D0001	U.S. FISH & WILDLIFE SERVICE, CARLSBAD OFFICE - DIGITAL DATA FROM FIELD SURVEYS FOR MONARDELLA VIMINEA & MONARDELLA STONEANA 2000-08-XX
GEN06R0001	GENE STOUT AND ASSOCIATES & GEOMORPH INFORMATION SYSTEMS - INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN FOR MARINE CORPS AIR STATION MIRAMAR, CALIFORNIA 2006-2010. BIOLOGICAL RESOURCES. 2006-10-XX
REC13R0001	RECON ENVIRONMENTAL, INC. - NATURAL RESOURCE MANAGEMENT PLAN FOR MISSION TRAILS REGIONAL PARK, SAN DIEGO, CALIFORNIA 2013-10-31
SCH87U0002	SCHEID, G. - INFORMATION SCHEID RECEIVED FROM M. SEVERANCE REGARDING POPULATIONS OF MONARDELLA LINOIDES SSP. VIMINEA 1987-XX-XX
SDG00R0004	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR MONARDELLA VIMINEA 2000-07-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
TET11R0003	TETRA TECH, INC. - COGENTRIX QUAIL BRUSH GENERATION PROJECT, APPLICATION FOR CERTIFICATION, SECTION 4.12 BIOLOGICAL RESOURCES 2011-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04195
EO Index: 13653
Key Quad: Poway (3211781)
Element Code: PDLAM18140
Occurrence Number: 27
Occurrence Last Updated: 2012-06-05

Scientific Name: *Monardella viminea*
Common Name: willowy monardella

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

COASTAL SCRUB, CHAPARRAL, RIPARIAN FOREST, RIPARIAN SCRUB, RIPARIAN WOODLAND.

Micro Habitat:

IN CANYONS, IN ROCKY AND SANDY PLACES, SOMETIMES IN WASHES OR FLOODPLAINS; WITH BACCHARIS, IVA, ETC. ALLUVIAL, EPHEMERAL WASHES WITH ADJACENT COASTAL SCRUB. 45-230 M.

Last Date Observed: 2000-08-18
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2000-08-18
Occurrence Rank: Good
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:

SAN CLEMENTE CANYON, APPROXIMATELY 0.3 TO 2.4 MILES EAST OF I-15, MARINE CORPS AIR STATION MIRAMAR, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS 13 POLYGONS TO ENCOMPASS 2000 FWS DIGITAL DATA, A 2006 MAP, AND 2008 CITY OF SAN DIEGO DIGITAL DATA. MAPPED IN SECTION 10, THE SE 1/4 OF SECTION 9 AND THE NORTH HALF OF SECTION 16.

Ecological:

IN CANYON BOTTOM. MANY PLANTS FOUND UNDER BROOM BACCHARIS. MONARDELLA FOUND IN OPEN, SANDY/COBBLY AREAS.

Threats:

CONTROLLED BURNING, LIVESTOCK GRAZING AND ORV ACTIVITY ARE THREATS.

General:

50 PLANTS OVER ABOUT 1 MILE OF CANYON BOTTOM SEEN IN 1985. 192 CLUMPS OBSERVED IN 2000.

PLSS: T15S, R02W, Sec. 10 (S)
Accuracy: specific area
Area (acres): 51
UTM: Zone-11 N3637942 E492216
Latitude/Longitude: 32.87959 / -117.08321
Elevation (feet): 550

County Summary:

San Diego

Quad Summary:

La Mesa (3211771), Poway (3211781)

Sources:

FWS00D0001	U.S. FISH & WILDLIFE SERVICE, CARLSBAD OFFICE - DIGITAL DATA FROM FIELD SURVEYS FOR MONARDELLA VIMINEA & MONARDELLA STONEANA 2000-08-XX
FWS85R0008	U.S. FISH & WILDLIFE SERVICE - FIELD SURVEY OF BIOLOGICAL RESOURCES OF SPECIFIC CANYON HABITATS OF MIRAMAR NAVAL AIR STATION, CALIFORNIA 1985-09-XX
GEN06R0001	GENE STOUT AND ASSOCIATES & GEOMORPH INFORMATION SYSTEMS - INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN FOR MARINE CORPS AIR STATION MIRAMAR, CALIFORNIA 2006-2010. BIOLOGICAL RESOURCES. 2006-10-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	21913	**EO Index:**	9635
Key Quad:	La Mesa (3211771)	**Element Code:**	PDLAM18140
Occurrence Number:	31	**Occurrence Last Updated:**	1995-11-14

Scientific Name: *Monardella viminea*

Common Name: willowy monardella

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

COASTAL SCRUB, CHAPARRAL, RIPARIAN FOREST, RIPARIAN SCRUB, RIPARIAN WOODLAND.

Micro Habitat:

IN CANYONS, IN ROCKY AND SANDY PLACES, SOMETIMES IN WASHES OR FLOODPLAINS; WITH BACCHARIS, IVA, ETC. ALLUVIAL, EPHEMERAL WASHES WITH ADJACENT COASTAL SCRUB. 45-230 M.

Last Date Observed:	XXXX-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	XXXX-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

KEARNY MESA, WEST OF BEND IN I-15, 0.3 KM NW OF BENCHMARK 462, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

Ecological:

Threats:

General:

MAP DETAIL IS ONLY SOURCE OF INFORMATION FOR THIS SITE.

PLSS:	T15S, R02W (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3635825 E488668	**Latitude/Longitude:**	32.86047 / -117.12112	**Elevation (feet):**	460

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BRG92M0001 BUTLER ROACH GROUP, INC. - BIOLOGICAL RESOURCE MAPS FOR MIRAMAR NAVAL AIR STATION 1992-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86032
EO Index: 87064
Key Quad: La Mesa (3211771)
Element Code: PDLAM18140
Occurrence Number: 32
Occurrence Last Updated: 2012-06-05

Scientific Name: *Monardella viminea*
Common Name: willowy monardella

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

COASTAL SCRUB, CHAPARRAL, RIPARIAN FOREST, RIPARIAN SCRUB, RIPARIAN WOODLAND.

Micro Habitat:

IN CANYONS, IN ROCKY AND SANDY PLACES, SOMETIMES IN WASHES OR FLOODPLAINS; WITH BACCHARIS, IVA, ETC. ALLUVIAL, EPHEMERAL WASHES WITH ADJACENT COASTAL SCRUB. 45-230 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:

SAN CLEMENTE CANYON ON BOTH SIDES OF KEARNY VILLA ROAD, MARINE CORPS AIR STATION MIRAMAR, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS BASED ON A 2006 REPORT.

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A MAP IN A 2006 REPORT FOR MARINE CORPS AIR STATION MIRAMAR; DATE PLANTS SEEN UNKNOWN. NEED ADDITIONAL INFORMATION FOR THIS SITE.

PLSS: T15S, R02W, Sec. 17, W (S)
Accuracy: specific area
Area (acres): 10
UTM: Zone-11 N3636947 E489301
Latitude/Longitude: 32.87060 / -117.11435
Elevation (feet): 450

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

GEN06R0001 GENE STOUT AND ASSOCIATES & GEOMORPH INFORMATION SYSTEMS - INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN FOR MARINE CORPS AIR STATION MIRAMAR, CALIFORNIA 2006-2010. BIOLOGICAL RESOURCES. 2006-10-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	86033	**EO Index:**	87065
Key Quad:	La Jolla (3211772)	**Element Code:**	PDLAM18140
Occurrence Number:	33	**Occurrence Last Updated:**	2012-06-05

Scientific Name: *Monardella viminea*

Common Name: willowy monardella

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

COASTAL SCRUB, CHAPARRAL, RIPARIAN FOREST, RIPARIAN SCRUB, RIPARIAN WOODLAND.

Micro Habitat:

IN CANYONS, IN ROCKY AND SANDY PLACES, SOMETIMES IN WASHES OR FLOODPLAINS; WITH BACCHARIS, IVA, ETC. ALLUVIAL, EPHEMERAL WASHES WITH ADJACENT COASTAL SCRUB. 45-230 M.

Last Date Observed:	2000-08-17	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2000-08-17	**Occurrence Rank:**	Poor
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SAN CLEMENTE CANYON, APPROX 0.7 TO 1.3 AIR MI WSW OF JUNCTION OF HWY 163 & KEARNY VILLA RD, MCAS MIRAMAR, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS 4 POLYGONS. TWO WESTERN POLYGONS BASED ON A VAGUE 1992 MAP; MIDDLE POLYGON BASED ON A 2006 MAP; EASTERN POLYGON BASED ON 2000 USFWS DIGITAL DATA.

Ecological:

CANYON THICK WITH BACCHARIS OR GRASSES. DEEPLY INSIZED CHANNEL UPSTREAM.

Threats:

General:

1 CLUMP OF PLANTS OBSERVED IN EASTERN POLYGON IN 2000; PLANT ON EDGE OF DRAINAGE AND LIKELY TO WASH OUT. POPULATION SIZES AND DATES SEEN FOR REMAINING POLYGONS UNKNOWN.

PLSS:	T15S, R02W, Sec. 19, SW (S)	**Accuracy:**	specific area	**Area (acres):**	20
UTM:	Zone-11 N3634830 E487416	**Latitude/Longitude:**	32.85148 / -117.13447	**Elevation (feet):**	350

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BRG92M0001	BUTLER ROACH GROUP, INC. - BIOLOGICAL RESOURCE MAPS FOR MIRAMAR NAVAL AIR STATION 1992-XX-XX
FWS00D0001	U.S. FISH & WILDLIFE SERVICE, CARLSBAD OFFICE - DIGITAL DATA FROM FIELD SURVEYS FOR MONARDELLA VIMINEA & MONARDELLA STONEANA 2000-08-XX
GEN06R0001	GENE STOUT AND ASSOCIATES & GEOMORPH INFORMATION SYSTEMS - INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN FOR MARINE CORPS AIR STATION MIRAMAR, CALIFORNIA 2006-2010. BIOLOGICAL RESOURCES. 2006-10-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86105
EO Index: 87139
Key Quad: Point Loma (3211762)
Element Code: PDLAM18140
Occurrence Number: 39
Occurrence Last Updated: 2012-06-18

Scientific Name: *Monardella viminea*
Common Name: willowy monardella

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

COASTAL SCRUB, CHAPARRAL, RIPARIAN FOREST, RIPARIAN SCRUB, RIPARIAN WOODLAND.

Micro Habitat:

IN CANYONS, IN ROCKY AND SANDY PLACES, SOMETIMES IN WASHES OR FLOODPLAINS; WITH BACCHARIS, IVA, ETC. ALLUVIAL, EPHEMERAL WASHES WITH ADJACENT COASTAL SCRUB. 45-230 M.

Last Date Observed: 1878-06-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1878-06-15
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:

SWITZERS CANYON, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS BEST GUESS AROUND SWITZERS CANYON.

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS AN 1878 CLEVELAND COLLECTION. SITE LIKELY EXTIRPATED; THERE HAS BEEN MUCH HABITAT ALTERATION AND DEVELOPMENT IN THE AREA SINCE THIS COLLECTION WAS MADE.

PLSS: T17S, R02W, Sec. 06 (S)
Accuracy: 4/5 mile
Area (acres): 0
UTM: Zone-11 N3621453 E487434
Latitude/Longitude: 32.73081 / -117.13410
Elevation (feet):

County Summary:

San Diego

Quad Summary:

National City (3211761), Point Loma (3211762)

Sources:

CLE78S0005 CLEVELAND, D. - CLEVELAND SN RSA #14538 1878-06-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86737
EO Index: 18073
Key Quad: Del Mar (3211782)
Element Code: PDLAM1K010
Occurrence Number: 1
Occurrence Last Updated: 2021-03-08

Scientific Name: *Pogogyne abramsii*
Common Name: San Diego mesa mint

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

VERNAL POOLS.

Micro Habitat:

VERNAL POOLS WITHIN GRASSLANDS, CHAMISE CHAPARRAL, OR COASTAL SAGE SCRUB COMMUNITIES. 70-195 M.

Last Date Observed: 2020-04-19
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2020-04-19
Occurrence Rank: Good
Owner/Manager: PVT, DOD-MCAS MIRAMAR
Trend: Decreasing
Presence: Presumed Extant

Location:

BOTH SIDES OF MIRAMAR ROAD ABOUT 0.9 TO 1.5 MILES EAST OF I-805, NORTH OF ROSE CANYON, SAN DIEGO.

Detailed Location:

BEAUCHAMP POOL COMPLEXES: I6, X1, X3, X4. MAPPED BY CNDDB AS 14 POLYGONS ACCORDING TO 1979 RECON & BEAUCHAMP MAPS, 2003 CITY OF SDG DIGITAL DATA, AND 2005, 2012, & 2016 COORDINATES. IN THE SOUTH 1/2 OF SEC 10 AND THE NORTH 1/2 OF SEC 15.

Ecological:

VERNAL POOLS ON REDDING SOILS SURROUNDED BY GRASSLAND AND CHAMISE CHAPARRAL. ASSOCIATED WITH CALLITRICHE MARGINATA, CRASSULA AQUATICA, DOWNINGIA CUSPIDATA, ERYNGIUM ARISTULATUM VAR. PARISHII, NAVARRETIA FOSSALIS, MYOSURUS MINIMUS, ETC.

Threats:

LARGE PORTION OF THIS SITE LOST TO DEVELOPMENT. ORVS, DUMPING, GRADING, BRUSHING, ROADS, IRRIGATION RUNOFF, DEVELOPMENT.

General:

SEEN IN 1979. PLANTS UNCOMMON TO COMMON IN MANY POOLS IN 1986. SEEN IN 18 BASINS IN 2003 (2 W-MOST POLYS N OF RD). 10,000S IN 28 POOLS IN 2005 (S OF ROAD). 450 IN SW-MOST POLYGON IN 2016. SEEN IN 2017-2020. INCLUDES FORMER OCCS #2 & #52.

PLSS: T15S, R03W, Sec. 15, N (S)
Accuracy: specific area
Area (acres): 17
UTM: Zone-11 N3637505 E483143
Latitude/Longitude: 32.87555 / -117.1802
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

La Jolla (3211772), Del Mar (3211782)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
BEA80U0001	BEAUCHAMP, R. - POSTCARD FROM BEAUCHAMP TO GENE COOLEY, RE: SAN DIEGO VERNAL POOL STUDY, 1978: POSTCARD STAPLED TO THE CNDDB COPY OF VERNAL POOL STUDY (INSIDE COVER OF BEA79R0002). 1980-10-01
BEA81U0003	BEAUCHAMP, R. - PHONE MEMO, CONVERSATION BETWEEN GENE COOLEY AND M. BEAUCHAMP, CONCERNING SAN DIEGO VERNAL POOL SURVEY, 1978 1981-04-30
BLA05F0005	BLACK, C. - FIELD SURVEY FORM FOR POGOGYNE ABRAMSII 2005-03-25
BRO57S0001	BROWN, R. - BROWN SN RSA #113638 & #0022112 1957-05-12
DUN09U0001	DUNSEATH, M. - OBSERVATION RECORD FOR POGOGYNE ABRAMSII, CALFLORA ID #XR344950 2009-05-19
DUN12U0001	DUNSEATH, M. - OBSERVATION RECORD FOR POGOGYNE ABRAMSII, CALFLORA ID #OE3291 2012-04-29
RAV58S0011	RAVEN, P. - RAVEN #12758 JEPS #24117, RSA #125594 & #0022109, GH #400772 1958-04-30
REI78S0003	REISENTZ, P. - REISENTZ #VP37 UCR #21799, UCSB #34789 1978-05-07
RIE85M0001	RIEGER, J. & B. STEELE - MAP OF KEARNEY MESA VERNAL POOL SITES GRADED OR DESTROYED. 1985-02-XX
ROB16F0005	ROBERTS, F. & K. HARPER - FIELD SURVEY FORM FOR POGOGYNE ABRAMSII 2016-05-17
SCH20U0013	SCHEIDT, V. - 2020 OBSERVATIONS OF POGOGYNE ABRAMSII BY VINCE SCHEIDT FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-03-02. 2020-XX-XX
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86738
EO Index: 17982
Key Quad: La Mesa (3211771)
Element Code: PDLAM1K010
Occurrence Number: 3
Occurrence Last Updated: 2012-10-01

Scientific Name: *Pogogyne abramsii*
Common Name: San Diego mesa mint

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

VERNAL POOLS.

Micro Habitat:

VERNAL POOLS WITHIN GRASSLANDS, CHAMISE CHAPARRAL, OR COASTAL SAGE SCRUB COMMUNITIES. 70-195 M.

Last Date Observed: 2001-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-XX-XX
Occurrence Rank: Fair
Owner/Manager: DOD-NAVY
Trend: Unknown
Presence: Presumed Extant

Location:

MURPHY CANYON HEIGHTS HOUSING COMPLEX, TIERRA SANTA SOUTH; SOUTH END OF SANTO ROAD, MISSION VALLEY.

Detailed Location:

BEAUCHAMP POOL COMPLEX G1. MAPPED BY CNDDB AS 4 POLYGONS ACCORDING TO A 1979 RECON MAP (MIDDLE AND SOUTH-MOST POLYGONS), A 1980 PSBS MAP (WEST-MOST POLYGON) AND A 1989 WESTEC MAP (MIDDLE AND NORTH-MOST POLYGONS).

Ecological:

INLAND SAGE SCRUB WITH VERNAL POOLS. ASSOCIATED WITH PSILOCARPHUS BREVISSIMUS VAR. BREVISSIMUS, DESCHAMPSIA DANTHONIOIDES, PILULARIA AMERICANA, LILAEA SCILLOIDES, BRODIAEA ORCUTTII, MYOSURUS MINIMUS SSP. APUS, AND ISOETES ORCUTTII.

Threats:

AREA HEAVILY IMPACTED BY ILLEGAL DUMPING AND ORVS. SOME GRADING ALSO PRESENT. SITE SURROUNDED BY DEVELOPMENT.

General:

OBSERVED THROUGHOUT AREA IN 1979. OBSERVED IN THE WEST-MOST AND MIDDLE POLYGON IN 1980. 1000+ PLANTS OBSERVED IN MIDDLE POLYGON IN 1981. PLANTS ABUNDANT IN MORE THAN 50% OF THE G1 POOLS IN 1986. OBSERVED IN SEVERAL POOLS IN 1989 AND 2001.

PLSS: T16S, R02W, Sec. 08, E (S)
Accuracy: specific area
Area (acres): 12
UTM: Zone-11 N3628979 E490090
Latitude/Longitude: 32.79872 / -117.10584
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
CAS80S0018	CASS, T. - CASS #401 UCR #73522, RSA #534197 1980-05-31
CAS80S0019	CASS, T. - CASS #402 UC #1593838 1980-05-31
CAS80S0020	CASS, T. - CASS #403 SD #132858 1980-05-31
LOE02R0001	LOEFFLER, W. (RECON ENVIRONMENTAL, INC.) - ANNUAL REPORT FOR COASTAL CALIFORNIA GNATCATCHER POPULATION SURVEYS ON THREE NAVY FAMILY HOUSING AREAS, SAN DIEGO COUNTY, CALIFORNIA 2002-07-15
PSB80R0001	PSBS - PACIFIC SOUTHWEST BIOLOGICAL SERVICES, INC. - BIOLOGICAL ASSESSMENT FOR MURPHY CANYON HEIGHTS, TIERRASANTA, AND CAMP ELLIOT SITES, SAN DIEGO 1980-10-01
SIV81F0001	SIVINSKI, R. - FIELD SURVEY FORM FOR POGOGYNE ABRAMSII 1981-04-28
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03
WAG89R0001	WAGONER, R. - NATURAL RESOURCE MANAGEMENT PLAN, NAVAL HOUSING AREA, MURPHY CANYON HEIGHTS & POMERADO TERRACE FOR MUILLA (BLOOMERIA) CLEVELANDII, POGOGYNE ABRAMSII & VIGUIERA LACINIATA 1989-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04022
Key Quad: La Jolla (3211772)
Occurrence Number: 4

EO Index: 13690
Element Code: PDLAM1K010
Occurrence Last Updated: 2021-03-08

Scientific Name: *Pogogyne abramsii*
Common Name: San Diego mesa mint

Listing Status: **Federal:** Endangered
State: Endangered

CNDDB Element Ranks: **Global:** G1
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
VERNAL POOLS.

Micro Habitat:
VERNAL POOLS WITHIN GRASSLANDS, CHAMISE CHAPARRAL, OR COASTAL SAGE SCRUB COMMUNITIES. 70-195 M.

Last Date Observed: 2019-05-30
Last Survey Date: 2019-05-30
Owner/Manager: CITY OF SAN DIEGO, PVT
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Decreasing

Location:
EAST END OF MONTGOMERY FIELD; NW OF THE JUNCTION OF AERO DRIVE AND RUFFIN ROAD, NNW OF SAN DIEGO.

Detailed Location:
BEAUCHAMP POOL COMPLEXES: N1-N6. INCLUDES "GENERAL DYNAMICS" SITE. MAPPED BY CNDDB AS 6 POLYGONS ACCORDING TO 1979 RECON & BEAUCHAMP MAPS, AND 2003 DIGITAL DATA. PORTIONS OF OCCURRENCE ON PRIVATE PROPERTY HAVE BEEN LOST TO DEVELOPMENT.

Ecological:
VERNAL POOLS IN GRASSLAND AND CHAMISE CHAPARRAL. REDDING SOILS. ASSOCIATED WITH CALLITRICHE MARGINATA, CRASSULA AQUATICA, DESCHAMPSIA DANTHONIOIDES, DOWNINGIA CUSPIDATA, ELATINE CALIFORNICA, ISOETES HOWELLII, I. ORCUTTII, LILAEA, ETC.

Threats:
DEVELOPMENT, DISKING & SILTING. MOST POOLS ARE FENCED, SOME ARE PROTECTED. GROWTH OF EXOTICS DUE TO ALTERED DRAINAGE.

General:
SEEN IN POOLS N1-N6 IN 1979. 1986: COMMON IN 10-50% OF N1-N4 POOLS; N5 POOLS (AT END OF PONDEROSA AVE) LOST TO DEVELOPMENT; COMMON IN <10% OF N6 POOLS. SEEN IN ~150 BASINS IN 2003 & 2004. N POLY: 250 IN 2008, 300 IN 2009, SEEN IN 2019.

PLSS: T16S, R02W, Sec. 06, W (S)
Accuracy: specific area
Area (acres): 98

UTM: Zone-11 N3630723 E487801
Latitude/Longitude: 32.81443 / -117.13030
Elevation (feet): 420

County Summary:
San Diego

Quad Summary:
La Mesa (3211771), La Jolla (3211772)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
CAS79S0028	CASS, T. - CASS #42 SD #132857 1979-04-27
DUN18U0002	DUNN, C. ET AL (CITY OF SAN DIEGO) - MONTGOMERY-GIBBS EXECUTIVE AIRPORT:FIRE-RESCUE AIR OPERATIONS FACILITY HANGERS AND HELICOPTER PARKING PAD PROJECT, SAN DIEGO CALIFORNIA 2018-10-XX
MIL09F0075	MILLER, B. & K. BALO (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR POGOGYNE ABRAMSII 2009-04-22
SCH20U0013	SCHEIDT, V. - 2020 OBSERVATIONS OF POGOGYNE ABRAMSII BY VINCE SCHEIDT FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-03-02. 2020-XX-XX
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03
ZED79R0001	ZEDLER, P. ET AL. - A SURVEY OF VERNAL POOLS OF KEARNY MESA, SAN DIEGO COUNTY 1979-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86740
Key Quad: Poway (3211781)
Occurrence Number: 6
EO Index: 13689
Element Code: PDLAM1K010
Occurrence Last Updated: 2012-09-19

Scientific Name: *Pogogyne abramsii*
Common Name: San Diego mesa mint

Listing Status: **Federal:** Endangered
State: Endangered

CNDDB Element Ranks: **Global:** G1
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
VERNAL POOLS.

Micro Habitat:
VERNAL POOLS WITHIN GRASSLANDS, CHAMISE CHAPARRAL, OR COASTAL SAGE SCRUB COMMUNITIES. 70-195 M.

Last Date Observed: 1986-04-10
Last Survey Date: 1986-04-10
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
EAST MARINE CORPS AIR STATION MIRAMAR; BETWEEN KEARNY VILLA ROAD AND I-15, JUST SOUTH OF ROSE CANYON, SAN DIEGO.

Detailed Location:
BAUDER POOL CODE: AA9. MAPPED BY CNDDB AS 8 POLYGONS ACCORDING TO A 1979 RECON MAP AND A 1982 BEAUCHAMP MAP.

Ecological:
VERNAL POOLS ASSOCIATED WITH PSILOCARPHUS SP., DOWNINGIA CUSPIDATA, LILAEA SCILLOIDES, CALLITRICHE LONGIPEDUNCULATA, ERYNGIUM ARISTULATUM VAR. PARISHII, AND BRODIAEA ORCUTTII.

Threats:
ACCESS ROAD HAS CHANGED WATER DURATION CYCLE.

General:
OBSERVED IN THIS AREA IN 1979 AND 1982. COMMON IN MORE THAN 50% OF THE AA9 POOLS IN 1986. SITE FENCED AND ACCESS IS LIMITED.

PLSS: T15S, R02W, Sec. 08, S (S)
Accuracy: specific area
Area (acres): 18
UTM: Zone-11 N3637627 E489532
Latitude/Longitude: 32.87673 / -117.11189
Elevation (feet): 500

County Summary:
San Diego

Quad Summary:
La Mesa (3211771), Poway (3211781)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA82M0001	BEAUCHAMP, R. - APPENDIX 1 TO BEA82U0001, MAPS OF VERNAL POOLS ON MIRAMAR NAS 1982-XX-XX
BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	86743	**EO Index:**	13688
Key Quad:	La Jolla (3211772)	**Element Code:**	PDLAM1K010
Occurrence Number:	7	**Occurrence Last Updated:**	2021-03-12

Scientific Name: *Pogogyne abramsii*

Common Name: San Diego mesa mint

Listing Status: **Federal:** Endangered
State: Endangered

CNDDB Element Ranks: **Global:** G1
State: S1

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

VERNAL POOLS.

Micro Habitat:

VERNAL POOLS WITHIN GRASSLANDS, CHAMISE CHAPARRAL, OR COASTAL SAGE SCRUB COMMUNITIES. 70-195 M.

Last Date Observed:	2020-05-27	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2020-05-27	**Occurrence Rank:**	Good
Owner/Manager:	DOD-MCAS MIRAMAR, PVT	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

KEARNY MESA; FROM JUST SOUTH OF CLAIREMONT MESA BLVD EXTENDING NORTH TO THE RUNWAYS AT MIRAMAR MCAS, SAN DIEGO.

Detailed Location:

BEAUCHAMP COMPLEXES: AA3-AA7, BB1, E1-5, F1, F2, F4, F7, F8, F12-14, F16-19, F23, GA, U2, U3, U5-12, V2-3, W1 & W3. ALSO SEEN BY BAUDER IN EE1-2, FF1-2, F27, F28, U14 & U18. MAPPED AS MANY POLYGONS BASED ON VARIOUS SOURCES FROM 1979-2020.

Ecological:

VERNAL POOLS VERY DIVERSE IN SIZE, SOIL, BOTTOM TEXTURE AND SPECIES COMPOSITION. IN CHAMISE AND MIXED CHAPARRAL AND SCRUB. SOME OF THE POOLS IN THIS AREA HAVE EXCEPTIONAL POPULATIONS OF POGOGYNE ABRAMSII.

Threats:

PARTS EXTIRPATED BY DEVELOPMENT & FREEWAY. THREATS: DIRT RDS, ORVS, BRUSHING, ALTERED DRAINAGE, DUMPING, NON-NATIVES.

General:

SEEN IN 1979 & 1982, COMMON/ABUNDANT IN 1986. PORTIONS OF OCC: ~2000 IN 1993, 2 POOLS IN 2003, 1000S IN 72 POOLS IN 2005, >5000 IN 2011, SEEN IN 2013 & 2017, ~300 IN 2019, SEEN IN 2020. INCL EOS 9, 10, 13-18, 20-22, 47, 48, 50, 51, 57.

PLSS:	T15S, R03W, Sec. 25 (S)	**Accuracy:**	specific area	**Area (acres):**	694
UTM:	Zone-11 N3634382 E487049	**Latitude/Longitude:**	32.84743 / -117.1384	**Elevation (feet):**	430

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), La Jolla (3211772)

Sources:

AND19F0029	ANDERSON, S. - FIELD SURVEY FORM FOR POGOGYNE ABRAMSII 2019-11-15
AND19F0031	ANDERSON, S. - FIELD SURVEY FORM FOR POGOGYNE ABRAMSII 2019-11-18
AND20R0002	ANDERSON, S. - 2019 SEED COLLECTIONS REPORT 2020-01-31
BAS20U0002	BASDEN, M. - 2020 OBSERVATIONS OF POGOGYNE ABRAMSII BY MILLIE BASDEN FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-03-08. 2020-XX-XX
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA71S0046	BEAUCHAMP, R. - BEAUCHAMP #2209 SD #85486, UCR #58635 1971-04-21
BEA71S0047	BEAUCHAMP, R. - BEAUCHAMP #2224 SD #128350, UCR #61465 1971-04-23
BEA71S0048	BEAUCHAMP, R. - BEAUCHAMP #2228 SD #128351 1971-04-23
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29

BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
BEA80U0001	BEAUCHAMP, R. - POSTCARD FROM BEAUCHAMP TO GENE COOLEY, RE: SAN DIEGO VERNAL POOL STUDY, 1978: POSTCARD STAPLED TO THE CNDDB COPY OF VERNAL POOL STUDY (INSIDE COVER OF BEA79R0002). 1980-10-01
BEA81U0003	BEAUCHAMP, R. - PHONE MEMO, CONVERSATION BETWEEN GENE COOLEY AND M. BEAUCHAMP, CONCERNING SAN DIEGO VERNAL POOL SURVEY, 1978 1981-04-30
BEA82M0001	BEAUCHAMP, R. - APPENDIX 1 TO BEA82U0001, MAPS OF VERNAL POOLS ON MIRAMAR NAS 1982-XX-XX
BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30
BIT92F0009	BITTMAN, R. ET AL. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII & POGOGYNE ABRAMSII & BRODIAEA ORCUTTII 1992-04-21
BLA04R0001	BLACK, C. (ECOLOGICAL RESTORATION SERVICE) - VERNAL POOL DELINEATION, RARE PLANT AND FAIRY SHRIMP SURVEY REPORTS ON MIRAMAR VERNAL POOLS, 2000-2001 THROUGH 2002-03 FIELD SEASONS, COMPREHENSIVE FINDINGS 2004-06-XX
BLA05F0006	BLACK, C. - FIELD SURVEY FORM FOR POGOGYNE ABRAMSII 2005-03-25
BLA05U0019	BLACK, C. (ECOLOGICAL RESTORATION SERVICE) - VERNAL POOL REGULATORY SURVEYS, MCAS MIRAMAR, SAN DIEGO, 2004 -05 RAINFALL YEAR. 2005-12-12
CAS79S0029	CASS, T. - CASS #117 SD #132860, UCR #73648 1979-05-12
CPR19U0001	CALIFORNIA PLANT RESCUE - SEED BANK DATA FOR THE CALIFORNIA PLANT RESCUE PROJECT 2019-07-24
CPR19U0002	CALIFORNIA PLANT RESCUE - 2019 SEED BANK DATA FOR THE CALIFORNIA PLANT RESCUE PROJECT 2019-XX-XX
EME83S0006	EMERY, D. - EMERY SN UCR #37728 1983-05-16
EVE13S0002	EVERETT, A. & S. MCMILLAN - EVERETT #6 SDSU #20499 2013-05-23
FRA11F0011	FRAGA, N. ET AL. (RANCHO SANTA ANA BOTANIC GARDEN) - FIELD SURVEY FORM FOR POGOGYNE ABRAMSII 2011-09-15
FRA11S0017	FRAGA, N. ET AL. - FRAGA #3897 RSA #808423 & #0020607 2011-09-15
FRA12R0002	FRAGA, N. & M. WALL (RANCHO SANTA ANA BOTANIC GARDEN) - GERMPLASM COLLECTION REPORT FOR FEDERALLY LISTED SPECIES COLLECTED ON DOD LANDS IN 2011 2012-01-23
GUS78S0006	GUSTAFSON, R. - GUSTAFSON #870 RSA #424564 & #0022102 1978-04-27
HEN79S0003	HENRY, J. - HENRY #30 SDSU #7049 1979-06-08
HOW75S0006	HOWALD, A. - HOWALD #482 UCSB #048603 1975-05-03
HOW75S0007	HOWALD, A. - HOWALD #498 UCSB #048597 1975-06-16
INA20U0188	INATURALIST - OBSERVATIONS OF POGOGYNE ABRAMSII DOWNLOADED FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-03-08. 2020-XX-XX
MCM91S0003	MCMILLAN, S. - MCMILLAN #30IV91E SDSU #7047 & #7048 1991-04-30
MCM92F0002	MCMILLAN, S. - FIELD SURVEY FORM FOR POGOGYNE ABRAMSII 1992-08-15
MCM93F0001	MCMILLAN, S. - FIELD SURVEY FORM FOR POGOGYNE ABRAMSII 1993-07-01
POL85S0001	POLLACK, S. - POLLACK #9 RSA #534188 & #0022111 1985-04-25
REC87R0001	REGIONAL ENVIRONMENTAL CONSULTANTS, CAMERON PATTERSON - VERNAL POOL SURVEY RESULTS (RECON #R-1633) TO MR. KICK KIPP, SIM J. HARRIS COMPANY, SAN DIEGO AREA ON KEARNY MESA BETWEEN I-163 & N SIDE SAN CLEMENTE ISLAND. 1987-XX-XX
SCH20U0013	SCHEIDT, V. - 2020 OBSERVATIONS OF POGOGYNE ABRAMSII BY VINCE SCHEIDT FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-03-02. 2020-XX-XX
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
SIL07S0006	SILVEIRA, M. & S. MCMILLAN - SILVEIRA #5 SDSU #19270 2007-04-14
SIL07S0007	SILVEIRA, M. & S. MCMILLAN - SILVEIRA #4 SDSU #19268 2007-04-14
SOL09S0043	SOLOMESHCH, A. ET AL. - SOLOMESHCH SN DAV #161997-162003, #213902 2009-04-24
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03
WEL92S0009	WELKER, S. - WELKER SN SD #261758 1992-05-11
WES87R0002	WESTEC SERVICES, INC. - ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED LAND SALES AND EXCHANGES SOUTH OF CALIFORNIA STATE ROUTE 52, NAVAL AIR STATION, MIRAMAR, SAN DIEGO COUNTY, CA 1987-04-XX
WHI99S0008	WHITE, S. - WHITE #7351 SD #181466, RSA #644701 & #0022115 1999-05-14

ZED79R0001 ZEDLER, P. ET AL. - A SURVEY OF VERNAL POOLS OF KEARNY MESA, SAN DIEGO COUNTY 1979-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	86744	**EO Index:**	13687
Key Quad:	La Mesa (3211771)	**Element Code:**	PDLAM1K010
Occurrence Number:	8	**Occurrence Last Updated:**	2012-10-01

Scientific Name: *Pogogyne abramsii*

Common Name: San Diego mesa mint

Listing Status: **Federal:** Endangered

State: Endangered

CNDDB Element Ranks: **Global:** G1

State: S1

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

VERNAL POOLS.

Micro Habitat:

VERNAL POOLS WITHIN GRASSLANDS, CHAMISE CHAPARRAL, OR COASTAL SAGE SCRUB COMMUNITIES. 70-195 M.

Last Date Observed:	1986-04-08	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-04-08	**Occurrence Rank:**	Good
Owner/Manager:	DOD, CALTRANS, OTHERS	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

JUST EAST OF THE JUNCTION OF SR 52 AND SANTO ROAD, MESA BETWEEN SHEPHERD CANYON AND ELANUS CANYON, EAST MCAS MIRAMAR.

Detailed Location:

BEAUCHAMP POOL COMPLEX: A4. MAPPED BY CNDDB AS TWO POLYGONS ACCORDING TO A 1979 RECON MAP.

Ecological:

IN CHAMISE CHAPARRAL AND GRASSLAND ON REDDING SOILS. FINE, SANDY LOAM. VERNAL POOLS ASSOCIATED WITH BRODIAEA ORCUTTII, PSILOCARPHUS BREVISSIMUS, DESCHAMPSIA DANTHONIOIDES, CRYPTANTHA, ORTHOCARPUS, LASTHENIA, LEPIDIUM, ETC.

Threats:

SITE THREATENED BY URBANIZATION, ORVS, ILLEGAL DUMPING, FILLING, AND FUTURE ROAD CONSTRUCTION.

General:

OBSERVED ACROSS SITE IN 1979. 10,000+ PLANTS OBSERVED IN 1981. FEWER THAN 1000 PLANTS IN 1982. ABUNDANT IN OVER 50% OF THE A4 POOLS IN 1986.

PLSS:	T15S, R02W, Sec. 28, N (S)	**Accuracy:**	specific area	**Area (acres):**	12
UTM:	Zone-11 N3633938 E491362	**Latitude/Longitude:**	32.84347 / -117.09230	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
LOY82F0002	LOY, M. - FIELD SURVEY FORM FOR POGOGYNE ABRAMSII 1982-XX-XX
LOY82U0001	LOY, M. - CONVERSATION WITH M. SHOWERS REGARDING LOCALITY OF POGOGYNE ABRAMSII 1982-11-02
SIV81F0002	SIVINSKI, R. - FIELD SURVEY FORM FOR POGOGYNE ABRAMSII 1981-04-26
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86745
EO Index: 18069
Key Quad: La Mesa (3211771)
Element Code: PDLAM1K010
Occurrence Number: 11
Occurrence Last Updated: 2012-09-19

Scientific Name: *Pogogyne abramsii*
Common Name: San Diego mesa mint

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
VERNAL POOLS.

Micro Habitat:
VERNAL POOLS WITHIN GRASSLANDS, CHAMISE CHAPARRAL, OR COASTAL SAGE SCRUB COMMUNITIES. 70-195 M.

Last Date Observed: 1979-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1979-XX-XX
Occurrence Rank: Fair
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:
EAST MCAS MIRAMAR; EAST OF RIFLE RANGE, ~1 MILE EAST OF KEARNY VILLA ROAD BETWEEN SAN CLEMENTE CANYON AND MURPHY CANYON.

Detailed Location:
BAUDER POOL COMPLEX: AA12. MAPPED BY CNDDB ACCORDING TO A 1979 RECON MAP IN THE SW 1/4 OF THE SW 1/4 OF SECTION 16.

Ecological:

Threats:

General:
POGOGYNE ABRAMSII WAS OBSERVED IN THREE VERNAL POOLS IN THIS SMALL ISOLATED GROUP IN 1979. UNCLEAR IF SITE WAS VISITED BY BAUDER IN 1986.

PLSS: T15S, R02W, Sec. 16, SW (S)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3636311 E490648
Latitude/Longitude: 32.86487 / -117.09995
Elevation (feet): 530

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86746
Key Quad: La Mesa (3211771)
Occurrence Number: 12
EO Index: 18067
Element Code: PDLAM1K010
Occurrence Last Updated: 2012-10-01

Scientific Name: *Pogogyne abramsii*
Common Name: San Diego mesa mint

Listing Status: **Federal:** Endangered
State: Endangered

CNDDB Element Ranks: **Global:** G1
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
VERNAL POOLS.

Micro Habitat:
VERNAL POOLS WITHIN GRASSLANDS, CHAMISE CHAPARRAL, OR COASTAL SAGE SCRUB COMMUNITIES. 70-195 M.

Last Date Observed: 1986-04-09
Last Survey Date: 1986-04-09
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:
EAST MCAS MIRAMAR; APPROXIMATELY 1 AIR MILE NE OF THE I-15/SR 52 JUNCTION BETWEEN ELANUS CANYON AND MURPHY CANYON.

Detailed Location:
BAUDER POOL COMPLEX: AA8. MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO A 1979 RECON MAP IN THE SE 1/4 OF THE SE 1/4 OF SECTION 20 AND THE NE 1/4 OF THE NE 1/4 OF SECTION 29.

Ecological:
VERNAL POOLS IN CHAMISE CHAPARRAL AND GRASSLAND. ASSOCIATED WITH PSILOCARPHUS, CALLITRICHE LONGIPEDUNCULATA, DOWNINGIA CUSPIDATA, PILULARIA AMERICANA, LILAEA SCILLOIDES, ELATINE, MYOSURUS, CRASSULA, BRODIAEA ORCUTTII, ETC.

Threats:
SOME DAMAGE FROM DIRT ROADS AND ORVS.

General:
OBSERVED HERE IN 1979. ABUNDANT IN MORE THAN 50% OF THE AA8 POOLS IN 1986.

PLSS: T15S, R02W, Sec. 29, NE (S)
Accuracy: specific area
Area (acres): 10
UTM: Zone-11 N3634525 E490209
Latitude/Longitude: 32.84875 / -117.10462
Elevation (feet): 475

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86747
Key Quad: La Jolla (3211772)
Occurrence Number: 19
EO Index: 13681
Element Code: PDLAM1K010
Occurrence Last Updated: 2021-03-12

Scientific Name: *Pogogyne abramsii*
Common Name: San Diego mesa mint

Listing Status: **Federal:** Endangered
State: Endangered

CNDDB Element Ranks: **Global:** G1
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
VERNAL POOLS.

Micro Habitat:
VERNAL POOLS WITHIN GRASSLANDS, CHAMISE CHAPARRAL, OR COASTAL SAGE SCRUB COMMUNITIES. 70-195 M.

Last Date Observed: 2019-11-15
Last Survey Date: 2019-11-15
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

MARINE CORPS AIR STATION MIRAMAR; NORTH OF THE WEST END OF THE RUNWAYS, JUST SOUTH OF ROSE CANYON, SAN DIEGO.

Detailed Location:

BAUDER POOL CODE: HH, RECON POOL CODE: MM. MAPPED BY CNDDB AS 5 POLYGONS: 4 S POLYS ARE BASED ON 1979 RECON MAP & 1982 BEAUCHAMP MAP; N POLYGON IS BASED ON A 1994 HULL COLLECTION FOR NAVARRETIA FOSSALIS WITH POGOGYNE MENTIONED AS ASSOCIATE.

Ecological:

VERNAL POOLS IN CHAMISE CHAPARRAL WITH PSILOCARPHUS, DOWNINGIA CUSPIDATA, PILULARIA AMERICANA, ISOETES, LILAEA SCILLOIDES, CALLITRICHE, ERYNGIUM ARISTULATUM VAR. PARISHII, BRODIAEA ORCUTTII, ISOETES ORCUTTII, ORCUTTIA CALIFORNICA, ETC.

Threats:

EARTH MOVING AND RUNWAY CONSTRUCTION HAVE ALTERED WATER REGIME. INVASIVE PLANT SPECIES.

General:

4 SOUTH POLYGONS: OBSERVED IN 1979 & 1982, COMMON IN OVER 50% OF HH POOLS IN 1986. NORTH POLYGON BASED ON 1994 COLLECTION FROM THE "HHI+ SERIES." SEEN IN 42 BASINS IN THIS VICINITY DURING 2004/2005 SURVEYS. ~500 IN W POLYGON IN 2019.

PLSS: T15S, R03W, Sec. 14 (S)
Accuracy: specific area
Area (acres): 28
UTM: Zone-11 N3636751 E484962
Latitude/Longitude: 32.86877 / -117.16074
Elevation (feet): 425

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

AND19F0028	ANDERSON, S. - FIELD SURVEY FORM FOR POGOGYNE ABRAMSII 2019-11-15
AND20R0002	ANDERSON, S. - 2019 SEED COLLECTIONS REPORT 2020-01-31
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA82M0001	BEAUCHAMP, R. - APPENDIX 1 TO BEA82U0001, MAPS OF VERNAL POOLS ON MIRAMAR NAS 1982-XX-XX
BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30
BLA05U0019	BLACK, C. (ECOLOGICAL RESTORATION SERVICE) - VERNAL POOL REGULATORY SURVEYS, MCAS MIRAMAR, SAN DIEGO, 2004 -05 RAINFALL YEAR. 2005-12-12
CPR19U0002	CALIFORNIA PLANT RESCUE - 2019 SEED BANK DATA FOR THE CALIFORNIA PLANT RESCUE PROJECT 2019-XX-XX
GEN06R0001	GENE STOUT AND ASSOCIATES & GEOMORPH INFORMATION SYSTEMS - INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN FOR MARINE CORPS AIR STATION MIRAMAR, CALIFORNIA 2006-2010. BIOLOGICAL RESOURCES. 2006-10-XX
HUL94S0002	HULL, C. - HULL #19V94A SDSU #3207 1994-05-19
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03825
Key Quad: La Jolla (3211772)
Occurrence Number: 44
EO Index: 21914
Element Code: PDLAM1K010
Occurrence Last Updated: 2012-09-20

Scientific Name: *Pogogyne abramsii*
Common Name: San Diego mesa mint

Listing Status: **Federal:** Endangered
State: Endangered
CNDDB Element Ranks: **Global:** G1
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
VERNAL POOLS.

Micro Habitat:
VERNAL POOLS WITHIN GRASSLANDS, CHAMISE CHAPARRAL, OR COASTAL SAGE SCRUB COMMUNITIES. 70-195 M.

Last Date Observed: 1938-05-04
Last Survey Date: 1938-05-04
Owner/Manager: PVT
Presence: Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
0.5 MILE WEST OF LINDA VISTA, KEARNY MESA.

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS ABOUT 0.5 AIR MILE WEST OF LINDA VISTA. HOWEVER, LABEL ALSO SAYS "KEARNY MESA" WHICH IS FURTHER NORTH.

Ecological:
VERNAL POOL.

Threats:
LIKELY EXTIRPATED BY DEVELOPMENT.

General:
SITE BASED ON A 1938 GANDER COLLECTION. AN 1894 BRANDEGEE COLLECTION AND A 1921 SPENCER COLLECTION FROM "LINDA VISTA" ARE ALSO ATTRIBUTED TO THIS SITE. ACCORDING TO BEAUCHAMP, SITE IS PROBABLY UNDER HOUSING TRACTS.

PLSS: T16S, R03W, Sec. 15 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3627256 E483010
Latitude/Longitude: 32.78310 / -117.18143
Elevation (feet):

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

BEA81U0003	BEAUCHAMP, R. - PHONE MEMO, CONVERSATION BETWEEN GENE COOLEY AND M. BEAUCHAMP, CONCERNING SAN DIEGO VERNAL POOL SURVEY, 1978 1981-04-30
BRA94S0044	BRANDEGEE, T. - BRANDEGEE SN UC #104541 1894-05-16
GAN38S0053	GANDER, F. - GANDER #5486 UC #930922, SD #21063 1938-05-04
SPE21S0004	SPENCER, M. - SPENCER #127 POM #15001 1921-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03965
Key Quad: La Jolla (3211772)
Occurrence Number: 45
EO Index: 18056
Element Code: PDLAM1K010
Occurrence Last Updated: 2012-09-18

Scientific Name: *Pogogyne abramsii*
Common Name: San Diego mesa mint

Listing Status: **Federal:** Endangered
State: Endangered

CNDDB Element Ranks: **Global:** G1
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
VERNAL POOLS.

Micro Habitat:
VERNAL POOLS WITHIN GRASSLANDS, CHAMISE CHAPARRAL, OR COASTAL SAGE SCRUB COMMUNITIES. 70-195 M.

Last Date Observed: 1954-04-29
Last Survey Date: 1954-04-29
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
KEARNY MESA, ALONG HIGHWAY 395, 4.2 MILES NORTH OF BRIDGE CROSSING SAN DIEGO RIVER, NORTH OF SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS ALONG HWY 395 ABOUT 4.2 ROAD MILES NORTH OF BRIDGE CROSSING SAN DIEGO RIVER.

Ecological:
ALONG SHALLOW PARTS OF DRAINAGE DITCH.

Threats:

General:
SITE BASED ON A 1954 BACIGALUPI COLLECTION.

PLSS: T15S, R03W, Sec. 36 (S)
UTM: Zone-11 N3631554 E486275
Accuracy: non-specific area
Latitude/Longitude: 32.82192 / -117.14662
Area (acres): 107
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
BAC54S0001 BACIGALUPI, R. & G. NEWCOMB - BACIGALUPI #4437 JEPS #14395, SD #51784, OBI #13597 1954-04-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	86758	**EO Index:**	16650
Key Quad:	La Mesa (3211771)	**Element Code:**	PDLAM1K010
Occurrence Number:	46	**Occurrence Last Updated:**	2012-09-24

Scientific Name: *Pogogyne abramsii*

Common Name: San Diego mesa mint

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

VERNAL POOLS.

Micro Habitat:

VERNAL POOLS WITHIN GRASSLANDS, CHAMISE CHAPARRAL, OR COASTAL SAGE SCRUB COMMUNITIES. 70-195 M.

Last Date Observed:	1941-06-06	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1941-06-06	**Occurrence Rank:**	None
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Extirpated		

Location:

50 ST & ADAMS AND NORTH OF TALMADGE PARK UNIT 4, EAST SAN DIEGO.

Detailed Location:

MAPPED TO ENCOMPASS TWO VAGUE COLLECTIONS IN VICINITY OF 50TH STREET AND ADAMS AVENUE AND TO ENCOMPASS TALMADGE PARK ROW OFF OF FAIRMONT AVENUE (EXACT LOCATION OF "TALMADGE PARK UNIT 4" IS UNKNOWN).

Ecological:

EDGE OF VERNAL POOL. HEAVY CLAY SOIL IN RECENTLY DISTURBED CHAPARRAL.

Threats:

SITE LIKELY EXTIRPATED BY DEVELOPMENT.

General:

SITE BASED ON A 1936 GANDER COLLECTION FROM "50 ST & ADAMS" AND A 1941 SILVA COLLECTION FROM "MESA NORTH OF TALMADGE PARK UNIT 4."

PLSS:	T16S, R02W, Sec. 21 (S)	**Accuracy:**	3/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3625230 E491474	**Latitude/Longitude:**	32.76492 / -117.09102	**Elevation (feet):**	

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

GAN36S0005	GANDER, F. - GANDER #1624 SD #15036 1936-04-17
SIL41S0001	SILVA, P. - SILVA #27(2) & #27(4) RSA #424566A, #424568, #0022104, #0022105 1941-06-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86760
EO Index: 18055
Key Quad: La Mesa (3211771)
Element Code: PDLAM1K010
Occurrence Number: 49
Occurrence Last Updated: 2021-03-12

Scientific Name: *Pogogyne abramsii*
Common Name: San Diego mesa mint

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G1
State: S1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
VERNAL POOLS.

Micro Habitat:
VERNAL POOLS WITHIN GRASSLANDS, CHAMISE CHAPARRAL, OR COASTAL SAGE SCRUB COMMUNITIES. 70-195 M.

Last Date Observed: 2017-05-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2017-05-11
Occurrence Rank: Poor
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
NW SIDE OF JUNCTION OF FLETCHER PARKWAY AND AMAYA DRIVE, LA MESA.

Detailed Location:
20 FEET FROM SCHOOLYARD. BAUDER'S LL POOL GROUP. MAPPED ACCORDING TO 2017 SCHEIDT COORDINATES FROM INATURALIST, IN THE NW 1/4 OF THE NE 1/4 OF SECTION 17.

Ecological:
IN ONE REMAINING VERNAL POOL AT EDGE OF DEVELOPED MESA. SURROUNDED BY COASTAL SAGE SCRUB; ASSOCIATED WITH PSILOCARPHUS TENELLUS AND GRASSES. THE RARE BRODIAEA ORCUTTII IS ALSO AT THIS SITE.

Threats:
SITE SURROUNDED BY DEVELOPMENT. FREEWAY RAMP IS PLANNED ON SITE (1985). LOTS OF TRASH/DUMPING ON SITE (1986).

General:
FEWER THAN 50 PLANTS SEEN IN A SINGLE POOL IN 1985. COMMON IN A SINGLE POOL IN 1986. SEEN IN 2017.

PLSS: T16S, R01W, Sec. 17, NE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3627692 E499599
Latitude/Longitude: 32.78716 / -117.00428
Elevation (feet): 630

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

BAU86R0001 BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX

CUR85S0007 CURTO, M. - CURTO SN SD #120515 1985-04-27

SCH20U0013 SCHEIDT, V. - 2020 OBSERVATIONS OF POGOGYNE ABRAMSII BY VINCE SCHEIDT FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-03-02. 2020-XX-XX

STE85F0008 STEELE, B. - FIELD SURVEY FORM FOR POGOGYNE ABRAMSII 1985-04-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86761
EO Index: 13668
Key Quad: Poway (3211781)
Element Code: PDLAM1K010
Occurrence Number: 53
Occurrence Last Updated: 2012-09-20

Scientific Name: *Pogogyne abramsii*
Common Name: San Diego mesa mint

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G1
State: S1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
VERNAL POOLS.

Micro Habitat:
VERNAL POOLS WITHIN GRASSLANDS, CHAMISE CHAPARRAL, OR COASTAL SAGE SCRUB COMMUNITIES. 70-195 M.

Last Date Observed: 1986-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1986-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:
ABOUT 0.3 TO 0.7 MILE EAST OF I-15, BETWEEN ROSE CANYON AND SAN CLEMENTE CANYON, EAST MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:
BAUDER POOL CODE: AA10. MAPPED BY CNDDB AS 7 POLYGONS ACCORDING TO A 1979 RECON MAP, MOSTLY IN THE SW 1/4 OF THE SW 1/4 OF SECTION 9.

Ecological:
VERNAL POOLS ASSOCIATED WITH PSILOCARPHUS SP., DOWNINGIA CUSPIDATA, BRODIAEA ORCUTTII, ISOETES ORCUTTII, CALLITRICHE LONGIPEDUNCULATA, AND ELATINE SP.

Threats:
ACCESS TO THIS AREA IS LIMITED BUT POSSIBLY THREATENED BY OFF-ROAD VEHICLES (TANKS).

General:
OBSERVED ACROSS THIS SITE IN 1979. ABUNDANT IN OVER 50% OF THE AA10 POOLS IN 1986.

PLSS: T15S, R02W, Sec. 09, SW (S)
Accuracy: specific area
Area (acres): 7
UTM: Zone-11 N3637594 E490768
Latitude/Longitude: 32.87645 / -117.09868
Elevation (feet): 535

County Summary:	Quad Summary:
San Diego	La Mesa (3211771), Poway (3211781)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03968
Key Quad: Point Loma (3211762)
Occurrence Number: 58
EO Index: 87734
Element Code: PDLAM1K010
Occurrence Last Updated: 2012-09-21

Scientific Name: *Pogogyne abramsii*
Common Name: San Diego mesa mint

Listing Status: **Federal:** Endangered
State: Endangered
CNDDB Element Ranks: **Global:** G1
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
VERNAL POOLS.

Micro Habitat:
VERNAL POOLS WITHIN GRASSLANDS, CHAMISE CHAPARRAL, OR COASTAL SAGE SCRUB COMMUNITIES. 70-195 M.

Last Date Observed: 1935-05-04
Last Survey Date: 1935-05-04
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
BALBOA PARK, SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN GENERAL VICINITY OF BALBOA PARK.

Ecological:

Threats:
SITE LIKELY EXTIRPATED BY DEVELOPMENT.

General:
SITE BASED ON A 1935 GANDER COLLECTION. AN 1897 SNYDER COLLECTION FROM "UNIVERSITY HEIGHTS" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS: T17S, R03W, Sec. 01 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3621430 E486333
Latitude/Longitude: 32.73059 / -117.14586
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

GAN35S0055 GANDER, F. - GANDER #1985 SD #11338 1935-05-04
SNY97S0002 SNYDER, M. - SNYDER SN SD #4351 1897-04-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86765
Key Quad: La Mesa (3211771)
Occurrence Number: 59
EO Index: 87735
Element Code: PDLAM1K010
Occurrence Last Updated: 2012-09-20

Scientific Name: *Pogogyne abramsii*
Common Name: San Diego mesa mint

Listing Status: **Federal:** Endangered
State: Endangered

CNDDB Element Ranks: **Global:** G1
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
VERNAL POOLS.

Micro Habitat:
VERNAL POOLS WITHIN GRASSLANDS, CHAMISE CHAPARRAL, OR COASTAL SAGE SCRUB COMMUNITIES. 70-195 M.

Last Date Observed: 1952-05-XX
Last Survey Date: 1952-05-XX
Owner/Manager: PVT
Presence: Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
NEAR MONTEZUMA ROAD AND COLLEGE WAY, SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS NEAR THE JUNCTION OF MONTEZUMA ROAD AND COLLEGE AVENUE JUST SOUTH OF SAN DIEGO STATE UNIVERSITY.

Ecological:
ABUNDANT IN DRY MESA POOLS WITH SALVIA APIANA.

Threats:
SITE LIKELY EXTIRPATED BY DEVELOPMENT.

General:
SITE BASED ON A 1952 COOP COLLECTION. A 1949 BRATTSTROM COLLECTION FROM "MESA SE OF SAN DIEGO STATE COLLEGE" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS: T16S, R02W, Sec. 22 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3625868 E493467
Latitude/Longitude: 32.77069 / -117.06975
Elevation (feet): 475

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

BRA49S0005	BRATTSTROM, B. - BRATTSTROM SN LA #63101 1949-05-05
COO52S0003	COOP, W. - COOP SN SDSU #133 1952-05-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B7099	**EO Index:**	120166
Key Quad:	La Mesa (3211771)	**Element Code:**	PDLAM1K010
Occurrence Number:	62	**Occurrence Last Updated:**	2021-03-09

Scientific Name: *Pogogyne abramsii*

Common Name: San Diego mesa mint

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

VERNAL POOLS.

Micro Habitat:

VERNAL POOLS WITHIN GRASSLANDS, CHAMISE CHAPARRAL, OR COASTAL SAGE SCRUB COMMUNITIES. 70-195 M.

Last Date Observed:	2020-05-11	**Occurrence Type:**	Transplant Outside of Native Hab./Range
Last Survey Date:	2020-05-11	**Occurrence Rank:**	Unknown
Owner/Manager:	SDG COUNTY?	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

APPROXIMATELY 0.9 AIR MILE SW OF FORTUNA MTN, EAST OF TIERRASANTA.

Detailed Location:

MAPPED ACCORDING TO COORDINATES FROM INATURALIST, NEAR THE CENTER OF THE SE 1/4 OF SECTION 27.

Ecological:

EDGE OF MAN-MADE VERNAL POOL.

Threats:

General:

SITE OBSERVED IN 2019 AND 2020. ASSUMPTION MADE AT CNDDB THAT THIS IS A TRANSPLANT POPULATION BASED ON NOTE THAT PLANTS WERE AT EDGE OF MAN-MADE VERNAL POOL.

PLSS:	T15S, R02W, Sec. 27, SE (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3633229 E493246	**Latitude/Longitude:**	32.83709 / -117.07216	**Elevation (feet):**	835

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BAS20U0002	BASDEN, M. - 2020 OBSERVATIONS OF POGOGYNE ABRAMSII BY MILLIE BASDEN FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-03-08. 2020-XX-XX
INA20U0188	INATURALIST - OBSERVATIONS OF POGOGYNE ABRAMSII DOWNLOADED FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2021-03-08. 2020-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03993
EO Index: 18049
Key Quad: La Jolla (3211772)
Element Code: PDLAM1K040
Occurrence Number: 4
Occurrence Last Updated: 2011-03-24

Scientific Name: *Pogogyne nudiuscula*
Common Name: Otay Mesa mint

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
VERNAL POOLS.

Micro Habitat:
DRY BEDS OF VERNAL POOLS AND MOIST SWALES WITH ERYNGIUM ARISTULATUM VAR. PARISHII AND ORCUTTIA CALIFORNICA. 135-165 M.

Last Date Observed: 1895-05-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1895-05-15
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:
UNIVERSITY HEIGHTS AND MISSION VALLEY.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS TO ENCOMPASS UNIVERSITY HEIGHTS.

Ecological:
IN "HOG WALLOWS".

Threats:
OCCURRENCE IS PRESUMED EXTIRPATED BY DEVELOPMENT.

General:
MAIN SOURCE OF INFORMATION FOR THIS SITE IS AN 1895 ALDERSON COLLECTION. AN 1894 BRANDEGEE COLLECTION FROM "MISSION VALLEY" IS ALSO ATTRIBUTED TO THIS SITE. INCLUDES FORMER EO #10.

PLSS: T16S, R03W, Sec. 25 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3624353 E486888
Latitude/Longitude: 32.75696 / -117.13998
Elevation (feet):

County Summary:
San Diego

Quad Summary:
National City (3211761), Point Loma (3211762), La Mesa (3211771), La Jolla (3211772)

Sources:

ALD95S0001 ALDERSON, R. - ALDERSON #998 DS #136948, CAS-BOT-BC #15015 1895-05-15

BRA94S0002 BRANDEGEE, T. - BRANDEGEE SN UC #104542, JEPS #62456 1894-06-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 38915
EO Index: 18046
Key Quad: Imperial Beach (3211751)
Element Code: PDLAM1K040
Occurrence Number: 8
Occurrence Last Updated: 2017-09-06

Scientific Name: *Pogogyne nudiuscula*
Common Name: Otay Mesa mint

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

VERNAL POOLS.

Micro Habitat:

DRY BEDS OF VERNAL POOLS AND MOIST SWALES WITH ERYNGIUM ARISTULATUM VAR. PARISHII AND ORCUTTIA CALIFORNICA. 135-165 M.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Poor
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

OTAY MESA; APPROXIMATELY 0.5 AIR MILE SW OF OTAY MESA ROAD / HERITAGE ROAD JUNCTION, SOUTH OF DENNERY CANYON.

Detailed Location:

BEAUCHAMP POOL COMPLEX J-14. A 1997 ELVIN & ANDERSON COLLECTION FROM "S OF 905, 0.4 MI W OF HERITAGE RD, 0.5 MI S OF OTAY MESA RD" IS ALSO ATTRIBUTED TO THIS SITE.

Ecological:

NATURAL VERNAL POOL WITH HEMIZONIA CONJUGENS AND NAVARRETIA FOSSALIS. ASSOCIATED WITH LILAEA SCILLOIDES, PSILOCARPHUS BREVISSIMUS, CRASSULA AQUATICA, DESCHAMPSIA DANTHONIOIDES, EPILOBIUM, ETC. THE SOILS ARE ALTAMONT / DIABLO CLAY SERIES.

Threats:

POOLS IN DIRT ROAD. FARM EQUIPMENT AND ROAD WIDENING THREATEN. HIGHLY DISTURBED BY ILLEGAL ALIEN FOOT TRAFFIC & ORV USE.

General:

OBSERVED IN 1978 AND 1979. NO PLANTS SEEN IN 1985. A 3 SQUARE METER POPULATION OBSERVED IN 1986. 630+ PLANTS OBSERVED SOMETIME BETWEEN 1995 AND 2001. ~500 PLANTS IN 1997 (ELVIN 1997). UNKNOWN NUMBER OBSERVED IN 2003.

PLSS: T18S, R01W, Sec. 32, NE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3603056 E499612
Latitude/Longitude: 32.56493 / -117.00412
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
CAL01M0002	CALTRANS - MAPS SHOWING SENSITIVE PLANT SPECIES IMPACT FOOTPRINT FOR ROUTE 905, REVISED 2001 2001-06-XX
CAS78S0003	CASS, T. - CASS SN SD #132855 1978-07-25
COO81M0028	COOLEY, G. - MAP OF POGOGYNE NUDIUSCULA 1981-08-26
ELV96M0001	ELVIN, M. - MAP SHOWING LOCATION OF POGOGYNE NUDIUSCULA. 1996-XX-XX
ELV97S0010	ELVIN, M & S. ANDERSON - ELVIN #381 RSA #788778 1997-04-02
GRI85U0003	GRIGGS, T. - MAPS WITH NOTES ON CONDITION OF VERNAL POOL AREAS 1985-07-15
JAM01U0001	JAMES, R. - MAP AND LETTER REGARDING DEINANDRA CONJUGENS ON OTAY MESA 2001-02-27
MCM95F0001	MCMILLAN, B. - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS, POGOGYNE NUDIUSCULA & NAVARRETIA FOSSALIS 1995-09-08
PAT97U0001	PATTERSON, C. (RECON ENVIRONMENTAL, INC.) - DENNERY CANYON VERNAL POOL, COASTAL SAGE SCRUB, AND MULE FAT SCRUB RESTORATION AND PRESERVATION PLAN. 1997-03-05
SCO80U0001	SCOTT, T. - CURRENT STATUS OF POGOGYNE NUDIUSCULA IN SAN DIEGO COUNTY & BAJA 1980-01-29
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	82019	**EO Index:**	83000
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDLAM1K040
Occurrence Number:	13	**Occurrence Last Updated:**	2017-09-06

Scientific Name: *Pogogyne nudiuscula*

Common Name: Otay Mesa mint

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

VERNAL POOLS.

Micro Habitat:

DRY BEDS OF VERNAL POOLS AND MOIST SWALES WITH ERYNGIUM ARISTULATUM VAR. PARISHII AND ORCUTTIA CALIFORNICA. 135-165 M.

Last Date Observed:	2016-04-21	**Occurrence Type:**	Introduced Back into Native Hab./Range
Last Survey Date:	2016-04-21	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY MESA; VICINITY OF DENNERY CANYON ON THE NORTH SIDE OF OTAY MESA ROAD.

Detailed Location:

MAPPED AS 7 POLYGONS ACCORDING TO 2009 COORDINATES & DIGITAL DATA FROM CITY OF SAN DIEGO (2003); DATA ORIGINALLY FROM RECON & HELIX. SITE NAMES FOR VARIOUS PORTIONS OF SITE INCLUDE J-2, RECON CAL TERRACES, OTAY MESA ROAD, & ROBINHOOD RIDGE.

Ecological:

NEARLY ALL OF THESE VERNAL POOLS WERE CREATED ARTIFICIALLY. A FEW NATURAL POOLS ARE PRESENT. NATURAL VERNAL POOL ASSOCIATES: DESCHAMPSIA DANTHONIOIDES, NIT GRASS, FEROCACTUS VIRIDESCENS, PSILOCARPHUS AND HEMIZONIA.

Threats:

OFF-ROAD VEHICLE ACTIVITY & NON-NATIVES. AREA HIGHLY DEVELOPED; NATURAL POOLS LIKELY COVERED A LARGER AREA AT ONE TIME.

General:

JUST N OF OTAY MESA RD (SE 1/4 SW 1/4 SEC 29), NATURAL POOLS: OBS IN 1979, <50 IN 1980, NONE IN 1985 OR 1986, REINTROD IN 1990S, OBS IN 2010. FAR N POLY, "RESTORED" POOLS: ~10 IN '08 & ~120 IN '09, 44 IN '15, 21 IN '16. OTHER POOLS CREATED.

PLSS:	T18S, R01W, Sec. 29 (S)	**Accuracy:**	specific area	**Area (acres):**	55
UTM:	Zone-11 N3603874 E499241	**Latitude/Longitude:**	32.5723 / -117.00808	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BAU98U0001	BAUDER, E. - LETTER TO DIANA HICKSON REGARDING POGOGYNE ACCOUNTS 1998-09-15
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
BRA80F0007	BRAMLET, D. - FIELD SURVEY FORM FOR POGOGYNE NUDIUSCULA 1980-04-12
BRA80S0001	BRAMLET, D. - BRAMLET #1 UCR #31834 1980-05-28
BUO10S0003	BUONACCORSI, T. - BUONACCORSI #2 SD #216568 2010-07-26
BUO10S0004	BUONACCORSI, T. - BUONACCORSI #3 RSA #767614 2010-07-26
CAS79S0025	CASS, T. - CASS #103 SD #105678 1979-05-06
CAS79S0026	CASS, T. - CASS #352 SD #132856 1979-08-25
GRI85U0003	GRIGGS, T. - MAPS WITH NOTES ON CONDITION OF VERNAL POOL AREAS 1985-07-15
KED09S0007	KEDZIORA, M. & L. SPEARS-LEBRUN - KEDZIORA #29 RSA #820316, SD #246931 2009-05-12
MIL09F0003	MILLER, B. & J. GAUDETTE - FIELD SURVEY FORM FOR POGOGYNE NUDIUSCULA 2009-05-11
OLS11U0001	OLSON, M. (RECON ENVIRONMENTAL, INC.) - 2010 SEED COLLECTION SUMMARY REPORT FOR THE RESTORATION OF VERNAL POOLS ON THE SHINOHARA PARCEL OF THE USFWS SAN DIEGO NATIONAL WILDLIFE REFUGE. 2011-01-06
PAT97U0001	PATTERSON, C. (RECON ENVIRONMENTAL, INC.) - DENNERY CANYON VERNAL POOL, COASTAL SAGE SCRUB, AND MULE FAT SCRUB RESTORATION AND PRESERVATION PLAN. 1997-03-05
ROB10F0023	ROBERTS, F. - FIELD SURVEY FORM FOR POGOGYNE NUDIUSCULA 2010-05-13
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82020
EO Index: 82980
Key Quad: Imperial Beach (3211751)
Element Code: PDLAM1K040
Occurrence Number: 14
Occurrence Last Updated: 2011-03-14

Scientific Name: *Pogogyne nudiuscula*
Common Name: Otay Mesa mint

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

VERNAL POOLS.

Micro Habitat:

DRY BEDS OF VERNAL POOLS AND MOIST SWALES WITH ERYNGIUM ARISTULATUM VAR. PARISHII AND ORCUTTIA CALIFORNICA. 135-165 M.

Last Date Observed: 2003-02-21
Occurrence Type: Transplant Outside of Native Hab./Range
Last Survey Date: 2003-02-21
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

OTAY MESA; SOUTH OF OTAY MESA ROAD BETWEEN MOODY CANYON AND DILLON CANYON.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO DIGITAL DATA SUBMITTED BY THE CITY OF SAN DIEGO (2003); DATA ORIGINALLY FROM HELIX, SITE NAME IS SWEETWATER HS (ALSO KNOWN AS J-33).

Ecological:

CREATED VERNAL POOLS. OTHER RARE PLANTS HERE INCLUDE ERYNGIUM ARISTULATUM, MYOSURUS MINIMUS AND NAVARRETIA FOSSALIS.

Threats:

General:

OBSERVED IN 5 CREATED VERNAL POOLS IN 2003 COVERING AN ESTIMATED 9 SQUARE FEET.

PLSS: T18S, R01W, Sec. 31, NE (S)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3602894 E497956
Latitude/Longitude: 32.56346 / -117.02176
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

SDG03D0001 CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX

SDG03R0001 CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82021
EO Index: 82982
Key Quad: Imperial Beach (3211751)
Element Code: PDLAM1K040
Occurrence Number: 15
Occurrence Last Updated: 2011-03-14

Scientific Name: *Pogogyne nudiuscula*
Common Name: Otay Mesa mint

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

VERNAL POOLS.

Micro Habitat:

DRY BEDS OF VERNAL POOLS AND MOIST SWALES WITH ERYNGIUM ARISTULATUM VAR. PARISHII AND ORCUTTIA CALIFORNICA. 135-165 M.

Last Date Observed: 2003-02-21
Occurrence Type: Transplant Outside of Native Hab./Range
Last Survey Date: 2003-02-21
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

OTAY MESA, NORTH OF MOODY CANYON AND SOUTH OF OTAY MESA ROAD.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO DIGITAL DATA SUBMITTED BY THE CITY OF SAN DIEGO (2003); DATA ORIGINALLY FROM HELIX, SITE NAME IS OTAY MESA A + B (ALSO KNOWN AS J-32). POOL IN NW POLYGON IS NATURAL AS WELL AS 3 OF THE 7 POOLS IN THE SE POLYGON.

Ecological:

NATURAL AND CREATED VERNAL POOLS. THE RARE ERYNGIUM ARISTULATUM, MYOSURUS MINIMUS AND NAVARRETIA FOSSALIS ALSO OCCUR IN SOME OF THESE POOLS.

Threats:

General:

SITE CONTAINS A MIXTURE OF UNNATURAL RUTS FROM HISTORIC GRADING, RECENTLY CREATED BASINS, AND A FEW NATURAL DEPRESSIONS. SEEN IN 2003. EO MARKED AS A "TRANSPLANT" AT CNDDB; POGOGYNE WAS LIKELY SEEDED AT THIS SITE BUT NEEDS CONFIRMATION.

PLSS: T18S, R01W, Sec. 31, W (S)
Accuracy: specific area
Area (acres): 4
UTM: Zone-11 N3602634 E497393
Latitude/Longitude: 32.56111 / -117.02776
Elevation (feet): 450

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

SDG03D0001 CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX

SDG03R0001 CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82022
EO Index: 82990
Key Quad: Otay Mesa (3211658)
Element Code: PDLAM1K040
Occurrence Number: 16
Occurrence Last Updated: 2011-03-14

Scientific Name: *Pogogyne nudiuscula*
Common Name: Otay Mesa mint

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

VERNAL POOLS.

Micro Habitat:

DRY BEDS OF VERNAL POOLS AND MOIST SWALES WITH ERYNGIUM ARISTULATUM VAR. PARISHII AND ORCUTTIA CALIFORNICA. 135-165 M.

Last Date Observed: 2006-XX-XX
Occurrence Type: Transplant Outside of Native Hab./Range
Last Survey Date: 2006-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

APPROXIMATELY 0.4 AIR MILE SE OF THE MOUTH OF WRUCK CANYON, SW END OF OTAY MESA.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO A 2006 ECOLOGICAL RESTORATION SERVICE MAP. THIS SITE IS CALLED "ARNIE'S POINT". EO MARKED AS A "TRANSPLANT" AT CNDDB; POGOGYNE WAS LIKELY SEEDED AT THIS SITE BUT CNDDB NEEDS CONFIRMATION.

Ecological:

CREATED/RESTORED VERNAL POOLS. ASSOCIATED WITH DESCHAMPSIA DANTHONIOIDES, ERYNGIUM ARISTULATUM, JUNCUS BUFONIUS, LYTHRUM HYSSOPIFOLIUM, NAVARRETIA FOSSALIS, PLAGIOBOTHRYS SP., PLANTAGO ELONGATA, PSILOCARPHUS BREVISSIMUS, ETC.

Threats:

THREATS INCLUDE IMPACTS FROM OFF-ROAD VEHICLE ACTIVITY SUCH AS BORDER PATROL AND ILLEGAL IMMIGRANT TRAFFIC.

General:

NOT SEEN IN 2003. SEEN IN 8 CREATED / RESTORED POOLS IN 2004 & 2005 AND SEEN IN 9 CREATED / RESTORED POOLS IN 2006; POPULATION ESTIMATES RANGED FROM >48 PLANTS IN 2004 TO ~216 PLANTS IN 2006. POOLS WERE CREATED/RESTORED IN 2002.

PLSS: T19S, R01W, Sec. 05, SE (S)
Accuracy: specific area
Area (acres): 14
UTM: Zone-11 N3601048 E500007
Latitude/Longitude: 32.54681 / -116.99991
Elevation (feet): 445

County Summary:

San Diego

Quad Summary:

Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

ERS06R0001	ECOLOGICAL RESTORATION SERVICE - MAINTENANCE AND MONITORING OF VERNAL POOLS AND UPLAND VEGETATION AT ARNIE'S POINT, SAN DIEGO, CA: AREA A (YEAR 4) AND AREA B (YEAR 3), 2005-2006 HYDROLOGICAL YEAR 2006-XX-XX
FWS07D0001	U.S. FISH AND WILDLIFE SERVICE-CARLSBAD - USFWS CARLSBAD SPECIAL STATUS SPECIES DATABASE, AUGUST 2007 VERSION 2007-08-09
FWS09D0001	U.S. FISH AND WILDLIFE SERVICE-CARLSBAD - USFWS CARLSBAD SPECIAL STATUS SPECIES DATABASE, SEPTEMBER 2009 VERSION 2009-09-01
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	82023	**EO Index:**	82991
Key Quad:	Otay Mesa (3211658)	**Element Code:**	PDLAM1K040
Occurrence Number:	17	**Occurrence Last Updated:**	2011-03-14

Scientific Name: *Pogogyne nudiuscula*

Common Name: Otay Mesa mint

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

VERNAL POOLS.

Micro Habitat:

DRY BEDS OF VERNAL POOLS AND MOIST SWALES WITH ERYNGIUM ARISTULATUM VAR. PARISHII AND ORCUTTIA CALIFORNICA. 135-165 M.

Last Date Observed:	2003-04-16	**Occurrence Type:**	Transplant Outside of Native Hab./Range
Last Survey Date:	2003-04-16	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY MESA; WSW OF THE JUNCTION OF OTAY MESA ROAD AND HERITAGE ROAD, JUST NORTH OF SPRING CANYON.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO DIGITAL DATA SUBMITTED BY THE CITY OF SAN DIEGO (2003); DATA ORIGINALLY FROM HELIX, SITE NAME IS J 14 (RECON SOUTH).

Ecological:

CREATED VERNAL POOLS WITH CALLITRICHE MARGINATA, CRASSULA AQUATICA, DESCHAMPSIA DANTHONIOIDES, LILAEA SCILLOIDES, MARSILEA, ETC. OTHER RARE PLANTS AT THIS SITE INCLUDE ERYNGIUM ARISTULATUM, NAVARRETIA FOSSALIS AND ORCUTTIA CALIFORNICA.

Threats:

PRIOR TO RESTORATION, THE SITE WAS SUBJECT TO OFF-ROAD VEHICLE ACTIVITY.

General:

OBSERVED IN 55 CREATED VERNAL POOLS IN 2003 WITH 1505 SQUARE FEET OF COVER.

PLSS:	T18S, R01W, Sec. 32, NE (S)	**Accuracy:**	specific area	**Area (acres):**	14
UTM:	Zone-11 N3603257 E500001	**Latitude/Longitude:**	32.56674 / -116.99998	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82033
EO Index: 83013
Key Quad: La Mesa (3211771)
Element Code: PDLAM1K040
Occurrence Number: 18
Occurrence Last Updated: 2011-03-24

Scientific Name: *Pogogyne nudiuscula*
Common Name: Otay Mesa mint

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
VERNAL POOLS.

Micro Habitat:
DRY BEDS OF VERNAL POOLS AND MOIST SWALES WITH ERYNGIUM ARISTULATUM VAR. PARISHII AND ORCUTTIA CALIFORNICA. 135-165 M.

Last Date Observed: 1930-06-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1930-06-XX
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:
ADOBE FALLS.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS AROUND WHAT IS NOW ADOBE FALLS OPEN SPACE PARK JUST NORTH OF SAN DIEGO STATE UNIVERSITY.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A NOTE FROM CRAIG REISER'S RARE PLANTS OF SAN DIEGO COUNTY (2001). REISER MENTIONS THAT THERE WAS ONCE AN EXTENSIVE VERNAL POOL COMPLEX IN THIS AREA THAT NO LONGER EXISTS.

PLSS: T16S, R02W, Sec. 15 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3627043 E493166
Latitude/Longitude: 32.78129 / -117.07296
Elevation (feet):

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
REI01B0001 REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 99139
EO Index: 100662
Key Quad: National City (3211761)
Element Code: PDLAM1S140
Occurrence Number: 42
Occurrence Last Updated: 2016-02-08

Scientific Name: *Salvia munzii*
Common Name: Munz's sage

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
ROLLING HILLS AND SLOPES, IN ROCKY SOIL. 35-575 M.

Last Date Observed: 2011-03-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2011-03-14
Occurrence Rank: Fair
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
APPROXIMATELY 0.3 AIR MILE WSW OF THE SWEETWATER DAM.

Detailed Location:
MAPPED ACCORDING TO RECON DIGITAL DATA, IN THE SW 1/4 OF THE SW 1/4 OF SECTION 17.

Ecological:

Threats:
POTENTIALLY THREATENED BY SWEETWATER DAM RAW WATER PIPELINE REPLACEMENT.

General:
1 PLANT OBSERVED IN 2011.

PLSS: T17S, R01W, Sec. 17, SW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3616749 E498797
Latitude/Longitude: 32.68845 / -117.01283
Elevation (feet): 120

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

REC11D0003 RECON ENVIRONMENTAL, INC. - TWO SHAPEFILES OF SENSITIVE SPECIES OBSERVED DURING SURVEYS FOR THREE SAN DIEGO PUBLIC WORKS PROJECTS, 2005-2011. 2011-10-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 99141
Key Quad: La Jolla (3211772)
Occurrence Number: 44

EO Index: 100664
Element Code: PDLAM1S140
Occurrence Last Updated: 2019-01-11

Scientific Name: *Salvia munzii*
Common Name: Munz's sage

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2
State: S2

Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
ROLLING HILLS AND SLOPES, IN ROCKY SOIL. 35-575 M.

Last Date Observed: 2012-07-07
Last Survey Date: 2012-07-07
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:
RUFFIN CANYON OPEN SPACE; EAST SIDE OF TAFT MIDDLE SCHOOL & SOUTH OF INTERSECTION OF GRAMERCY DR/RUFFIN RD, SERRA MESA.

Detailed Location:
MAPPED ACCORDING TO 2012 RIEFNER COORDINATES.

Ecological:
ALONG EDGE OF TRAILS. FOUND IN OPEN COASTAL SAGE SCRUB WITH SALVIA CLEVELANDII, ARTEMISIA CALIFORNICA, AND ERIOGONUM FASCICULATUM.

Threats:
UNINTENDED REMOVAL DURING TRAIL IMPROVEMENT ACTIVITIES.

General:
FEWER THAN 3 PLANTS IN 2012.

PLSS: T16S, R02W, Sec. 7, NW (S)
UTM: Zone-11 N3629238 E487884

Accuracy: specific area
Latitude/Longitude: 32.80104 / -117.12941

Area (acres): 1
Elevation (feet): 356

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

CAD12R0002	CADRE ENVIRONMENTAL - SAN DIEGO RIVER TRIBUTARY CANYONS PROJECT FOCUSED SENSITIVE SPECIES SURVEYS. 2012-12-XX
ESA13R0001	ENVIRONMENTAL SCIENCE ASSOCIATES - SAN DIEGO RIVER, RUFFIN CANYON TRAIL AND URBAN WALK, INITIAL STUDY / MITIGATED NEGATIVE DECLARATION 2013-03-XX
RIE12F0004	RIEFNER, R. - FIELD SURVEY FORM FOR SALVIA MUNZII 2012-06-18
RIE12S0004	RIEFNER, R. - RIEFNER #12-203 CAS #1161230, CAS-BOT-BC #354342, UCR #246464 2012-07-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1943
Key Quad: National City (3211761)
Occurrence Number: 48
EO Index: 113867
Element Code: PDLAM1S140
Occurrence Last Updated: 2019-01-11

Scientific Name: *Salvia munzii*
Common Name: Munz's sage

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
ROLLING HILLS AND SLOPES, IN ROCKY SOIL. 35-575 M.

Last Date Observed: 2012-04-16
Last Survey Date: 2012-04-16
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Transplant Outside of Native Hab./Range
Occurrence Rank: Unknown
Trend: Unknown

Location:
CHOLLAS PARK, JUST NORTH OF COLLEGE GROVE DRIVE, 0.15 MI WEST OF THE DAM, SAN DIEGO.

Detailed Location:
MAPPED ACCORDING TO 2012 LAGRANGE COORDINATES, IN THE NE 1/4 OF THE SE 1/4 OF SECTION 34.

Ecological:
CLAY SOIL. CHAPARRAL OPEN DISTURBED GRASS AREAS. ERIOGONUM FASCICULATUM, ARTEMISIA CALIFORNICA, SALVIA MELLIFERA, AND MALOSMA LAURINA.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2012 LAGRANGE COLLECTION. PLANTED ALONG ROAD, ONE PLANT AWAY FROM PLANTED AREA APPARENTLY NATURALIZED.

PLSS: T16S, R02W, Sec. 34, SE (S)
Accuracy: 80 meters
Area (acres): 5
UTM: Zone-11 N3622097 E493623
Latitude/Longitude: 32.73667 / -117.06806
Elevation (feet): 410

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
LAG12S0005 LAGRANGE, J. - LAGRANGE #990 SD #246951 2012-04-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B1944
Key Quad: La Mesa (3211771)
Occurrence Number: 49

EO Index: 113868
Element Code: PDLAM1S140
Occurrence Last Updated: 2019-01-22

Scientific Name: *Salvia munzii*
Common Name: Munz's sage

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2
State: S2

Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB, CHAPARRAL.

Micro Habitat:
ROLLING HILLS AND SLOPES, IN ROCKY SOIL. 35-575 M.

Last Date Observed: 2016-03-13
Last Survey Date: 2016-03-13
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
ADJACENT TO KWAAY PAAY TRAIL, CA. 500 FEET SOUTH OF TRAILHEAD AT JUNCTION WITH JUNIPERO SERRA RD, MISSION TRAILS RP.

Detailed Location:
MAPPED ACCORDING TO 2016 SIMPSON COORDINATES, IN THE NE 1/4 OF THE SW 1/4 OF SECTION 25.

Ecological:
RED-BROWN, SILTY CLAY SOIL. COASTAL SAGE SCRUB. ASSOCIATED WITH ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, DIPLACUS PUNICEUS, MALOSMA LAURINA, AND CEANOTHUS TOMENTOSUS.

Threats:

General:
FIVE SHRUBS OBSERVED IN 2016.

PLSS: T15S, R02W, Sec. 25, SW (S)
UTM: Zone-11 N3633325 E496097

Accuracy: 80 meters
Latitude/Longitude: 32.83797 / -117.04171

Area (acres): 5
Elevation (feet): 390

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
SIM16S0002 SIMPSON, M. - SIMPSON #3959 SD #255781, SDSU #21582 2016-03-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A3672
EO Index: 105309
Key Quad: La Jolla (3211772)
Element Code: PDMAL110J0
Occurrence Number: 17
Occurrence Last Updated: 2017-02-09

Scientific Name: *Sidalcea neomexicana*
Common Name: salt spring checkerbloom

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G4
State: S2

General Habitat:

PLAYAS, CHAPARRAL, COASTAL SCRUB, LOWER MONTANE CONIFEROUS FOREST, MOJAVEAN DESERT SCRUB.

Micro Habitat:

ALKALI SPRINGS AND MARSHES. 3-2380 M.

Last Date Observed: 1961-04-03
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1961-04-03
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

WEST OF MIRAMAR NAVAL AIR STATION, MIRAMAR ROAD.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB ALONG MIRAMAR RD/LA JOLLA VILLAGE DR WEST OF MIRAMAR NAS; MOST OF ROAD IS ABOVE GIVEN ELEVATION OF 200 FT.

Ecological:

SANDY.

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1961 HUGHES COLLECTION. NEEDS FIELDWORK.

PLSS: T15S, R03W, Sec. 17 (S)
Accuracy: non-specific area
Area (acres): 168
UTM: Zone-11 N3636949 E479364
Latitude/Longitude: 32.87047 / -117.22058
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

La Jolla (3211772), Del Mar (3211782)

Sources:

HUG61S0001 HUGHES, K. - HUGHES #385 POM #311824 1961-04-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	89537	**EO Index:**	90531
Key Quad:	La Mesa (3211771)	**Element Code:**	PDONA050D0
Occurrence Number:	58	**Occurrence Last Updated:**	2013-06-21

Scientific Name: *Clarkia delicata*

Common Name: delicate clarkia

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

CISMONTANE WOODLAND, CHAPARRAL.

Micro Habitat:

OFTEN ON GABBRO SOILS. 95-1800 M.

Last Date Observed:	1997-05-07	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1997-05-07	**Occurrence Rank:**	Unknown
Owner/Manager:	MISSION TRAILS RP	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH SIDE OF FATHER JUNIPERO SERRA TRAIL, DIRECTLY ACROSS FROM BM 268, MISSION GORGE.

Detailed Location:

"W SIDE OF STEEP, ROCKY RAVINE, ~1/3 THE WAY UP." MAPPED AS BEST GUESS BASED ON A 1981 DARNELL COLLECTION, AROUND S SIDE OF TRAIL NEAR BM 268. IN THE SW 1/4 SECTION 25 AND THE NW 1/4 OF SECTION 36.

Ecological:

CHAPARRAL BURN COMMUNITY (BURNED LATE JULY 1980). GRASSY, SHADED SLOPE OF A STEEP, ROCKY RAVINE. ASSOCIATED WITH SIDALCEA MALVIFLORA, PHOLISTOMA RACEMOSUM, MELICA IMPERFECTA, BRODIAEA PULCHELLA, HETEROMELES ARBUTIFOLIA, ETC.

Threats:

General:

OBSERVED IN 1981. A 1997 SIMPSON COLLECTION FROM "STEEP CREEKBED OF CANYON OF MISSION GORGE, LEADING SOUTH FROM FATHER JUNIPERO SERRA TRAIL RD, CA. 1 MI E OF VISITOR'S CENTER" IS ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS:	T15S, R02W, Sec. 36, NW (S)	**Accuracy:**	1/10 mile	**Area (acres):**	0
UTM:	Zone-11 N3632743 E495736	**Latitude/Longitude:**	32.83272 / -117.04555	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

DAR81S0001	DARNELL, D. - DARNELL SN SDSU #8673 1981-05-08
SIM97S0003	SIMPSON, M. - SIMPSON #7V97E SDSU #12470 1997-05-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 89538
EO Index: 90532
Key Quad: La Mesa (3211771)
Element Code: PDONA050D0
Occurrence Number: 59
Occurrence Last Updated: 2017-10-02

Scientific Name: *Clarkia delicata*
Common Name: delicate clarkia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:
CISMONTANE WOODLAND, CHAPARRAL.

Micro Habitat:
OFTEN ON GABBRO SOILS. 95-1800 M.

Last Date Observed: 2014-04-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2014-04-15
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
MISSION TRAILS REGIONAL PARK, ABOUT 0.1 MILE WEST AND 0.34 MILE NW OF MISSION GORGE RD AND JACKSON DR.

Detailed Location:
MAPPED AS 2 POLYGONS ACCORDING TO 2009 GREGORY COORDINATES AND 2014 AYALA COORDINATES, IN THE SW 1/4 OF THE SW 1/4 OF SECTION 35 AND THE NE 1/4 OF THE NW 1/4 OF SECTION 2.

Ecological:
GRANITIC, NEAR RIVERBED; SANDY, LOAM SOIL. RIPARIAN AND CHAPARRAL. ASSOCIATED WITH SALIX SP, POPULUS FREMONTII, MIMULUS SPP, TYPHA SP, RORIPPA, JUNCUS BUFONIUS, AND SPERGULARIA BOCCONEI.

Threats:

General:
"UNCOMMON" IN NORTHERN POLYGON IN 2009. UNKNOWN NUMBER OF PLANTS IN SOUTHERN POLYGON IN 2014.

PLSS: T16S, R02W, Sec. 2, NW (S)
Accuracy: specific area
Area (acres): 10
UTM: Zone-11 N3631031 E494231
Latitude/Longitude: 32.81727 / -117.06163
Elevation (feet): 325

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:

AYA14S0001 AYALA, A. & M. SIMPSON - AYALA #2 SDSU #20831 2014-04-15

GRE09S0004 GREGORY, J. ET AL. - GREGORY #3052 SD #217863 2009-05-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	39945	**EO Index:**	35678
Key Quad:	Point Loma (3211762)	**Element Code:**	PDORO040A2
Occurrence Number:	19	**Occurrence Last Updated:**	1999-01-21

Scientific Name: *Orobanche parishii ssp. brachyloba* **Common Name:** short-lobed broomrape

Listing Status: **Federal:** None **Rare Plant Rank:** 4.2

State: None **Other Lists:**

CNDDB Element Ranks: **Global:** G4?T4

State: S3

General Habitat:

COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:

SANDY SOIL NEAR BEACHES; REPORTED TO GROW ON ISOCOMA MENZIESII AND OTHER SHRUBS. 3-305 M.

Last Date Observed:	1932-05-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1932-05-24	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

CORONADO PENINSULA, SILVER STRAND, SAN DIEGO.

Detailed Location:

EXACT LOCATION ALONG PENINSULA NOT KNOWN; MAPPED ALONG PENINSULA JOINING CORONADO WITH IMPERIAL BEACH.

Ecological:

Threats:

General:

TWO COLLECTIONS BY PURER ATTRIBUTED TO THIS SITE; PURER #2923 (SD) AND #15427 (LACM).

PLSS:	T18S, R03W, Sec. 01 (S)	**Accuracy:**	non-specific area	**Area (acres):**	1,584
UTM:	Zone-11 N3611215 E486531	**Latitude/Longitude:**	32.63845 / -117.14360	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751), Point Loma (3211762)

Sources:

BEA75U0002	BEAUCHAMP, R.M. - CNPS CARD ABOUT SITE 1975-09-XX
HEC73A0001	HECKARD, L. - A TAXONOMIC RE-INTERPRETATION OF THE OROBANCHE CALIFORNIA COMPLEX. MADRONO 22 (2) PP. 41-104. 1973-XX-XX
PUR32S0003	PURER, E. - PURER #15427 LACM 1932-05-24
PURNDS0002	PURER, E. - PURER #2923 SD (CITED IN HEC73A0001) XXXX-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03625
EO Index: 17447
Key Quad: Point Loma (3211762)
Element Code: PDORO040A2
Occurrence Number: 21
Occurrence Last Updated: 1999-01-21

Scientific Name: *Orobanche parishii ssp. brachyloba*
Common Name: short-lobed broomrape

Listing Status: **Federal:** None
Rare Plant Rank: 4.2
State: None
Other Lists:

CNDDB Element Ranks: **Global:** G4?T4
State: S3

General Habitat:

COASTAL BLUFF SCRUB, COASTAL DUNES, COASTAL SCRUB.

Micro Habitat:

SANDY SOIL NEAR BEACHES; REPORTED TO GROW ON ISOCOMA MENZIESII AND OTHER SHRUBS. 3-305 M.

Last Date Observed: 1981-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1981-XX-XX
Occurrence Rank: None
Owner/Manager: DOD-NAVAL OCEAN SYSTEMS CENTER
Trend: Unknown
Presence: Extirpated

Location:

POINT LOMA; NAVAL OCEAN SYSTEMS CENTER, ALONG DIRT ROAD BETWEEN CABRILLO MEMORIAL DRIVE AND WOODWARD ROAD.

Detailed Location:

GROWING ALONG DIRT ROAD EAST OF BATTERY WOODWARD AND SE OF PISTOL RANGE, WEST OF ANTENNAE. MAPPED ABOUT 200 METERS SW OF 'MID' BEHNCHMARK.

Ecological:

WITHIN MARITIME SAGE SCRUB/CHAPARRAL WITH ARTEMISIA CALIFORNICA, ADENOSTOMA FASCICULATUM, CNEORIDIUM DUMOSUM, CEANOTHUS VERRUCOSUS, ENCELIA CALIFORNICA, ERIOGONUM FASCICULATUM, EUPHORBIA MISERA, SALVIA MELLIFERA, AND XYLOCOCCUS BICOLOR.

Threats:

SITE DESTROYED IN 1988 FOR CONSTRUCTION OF A NARROW ROAD REPAIR (REISER, 1994).

General:

ONE COLONY IN 1981. ADDITIONAL POPULATIONS MAY BE ON POINT LOMA BUT MAY HAVE BEEN OVERLOOKED.

PLSS: T17S, R04W, Sec. 13, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3618204 E476455
Latitude/Longitude: 32.70133 / -117.25120
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

REI94U0002 REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX

WOO81R0001 WOODWARD & CLYDE - TERRESTRIAL BIOSURVEY AND INVENTORY OF NAVAL PROPERTY ON POINT LOMA 1981-11-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03660
EO Index: 14225
Key Quad: Point Loma (3211762)
Element Code: PDPGN040G0
Occurrence Number: 2
Occurrence Last Updated: 2012-05-29

Scientific Name: *Chorizanthe orcuttiana*
Common Name: Orcutt's spineflower

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:
SANDY SITES AND OPENINGS; SOMETIMES IN TRANSITION ZONES. 3-125 M.

Last Date Observed: 1962-04-04
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2000-XX-XX
Occurrence Rank: None
Owner/Manager: DOD-NAVY
Trend: Unknown
Presence: Possibly Extirpated

Location:
POINT LOMA, JUST NORTH OF FORT ROSECRANS NATIONAL CEMETERY ALONG THE WEST SIDE OF CABRILLO MEMORIAL DRIVE.

Detailed Location:
SITE MAPPED ABOUT 100-150 METERS NORTH OF THE BENNINGTON MONUMENT ON THE OPPOSITE SIDE OF THE ROAD. HARDHAM MAP NOTES THAT THIS IS WHERE COLLECTION WAS MADE IN 1962 "...IF CEMETERY BOUNDARY IS STILL THE SAME."

Ecological:
FOUND IN SANDY SOIL.

Threats:
THIS AREA THREATENED BY DEVELOPMENT AND CARPOBROTUS EDULIS (BAUDER 2000).

General:
MAIN SOURCE OF INFORMATION FOR THIS SITE IS A 1981 MAP BY C. HARDHAM BASED UPON HER 1962 COLLECTION. 3 SURVEYS CONDUCTED "RECENTLY" (P. GORDON-REEDY 1996); NO PLANTS SEEN. NO PLANTS SEEN IN 1999/2000 (BAUDER 2000).

PLSS: T17S, R04W, Sec. 13, SE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3617051 E476982
Latitude/Longitude: 32.69093 / -117.24554
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

BAU00R0001	BAUDER, E. - RECOVERY AND MANAGEMENT OF ORCUTT'S SPINEFLOWER (CHORIZANTHE ORCUTTIANA) 2000-11-XX
HAR62S0022	HARDHAM, C. - HARDHAM #8945 RSA #149889, SBBG #18134, SD #77926, CAS #494487, CAS-BOT-BC #252726 1962-04-04
HAR81M0005	HARDHAM, C. - MAP OF PT. LOMA FOR CHORIZANTHE ORCUTTIANA. 1981-08-XX
HIC96U0002	HICKSON, D. - RECOVERY WORKSHOP SUMMARY: SOUTHERN MARITIME CHAPARRAL PLANTS 1996-10-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03876	**EO Index:**	21124
Key Quad:	La Jolla (3211772)	**Element Code:**	PDPGN040G0
Occurrence Number:	9	**Occurrence Last Updated:**	2012-05-03

Scientific Name: *Chorizanthe orcuttiana*

Common Name: Orcutt's spineflower

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:

SANDY SITES AND OPENINGS; SOMETIMES IN TRANSITION ZONES. 3-125 M.

Last Date Observed:	1967-03-25	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1967-03-25	**Occurrence Rank:**	None
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

NORTH SIDE OF 6060 CLAIREMONT MESA BLVD, 1.5 MILES WEST OF INTERSTATE 395, KEARNY MESA.

Detailed Location:

A 1935 GANDER COLLECTION FROM "KEARNEY MESA" IS ALSO ATTRIBUTED TO THIS SITE.

Ecological:

LOW HILLS.

Threats:

BASED ON ADDRESS ON COLLECTION LABEL, SITE MAY HAVE BEEN LOST TO I-805/CLAIREMONT MESA BLVD INTERCHANGE.

General:

SITE BASED ON A 1967 KEEFE COLLECTION. ACCORDING TO HOGAN (1996) POTENTIAL HABITAT STILL EXISTS NORTH OF HWY 52, BUT ACCORDING TO BEAUCHAMP, THIS HAS BEEN MINED. 2001 REISER REPORT INDICATES SITE PROBABLY EXTIRPATED.

PLSS:	T15S, R03W, Sec. 27 (S)	**Accuracy:**	3/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3633519 E484006	**Latitude/Longitude:**	32.83961 / -117.17089	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BAU00R0001	BAUDER, E. - RECOVERY AND MANAGEMENT OF ORCUTT'S SPINEFLOWER (CHORIZANTHE ORCUTTIANA) 2000-11-XX
GAN35S0015	GANDER, F. - GANDER #14011 SD #10604 1935-03-13
HIC96U0002	HICKSON, D. - RECOVERY WORKSHOP SUMMARY: SOUTHERN MARITIME CHAPARRAL PLANTS 1996-10-XX
KEE67S0001	KEEFE, J. - KEEFE #1642 UCSB #22183 1967-03-25
REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 37731
EO Index: 32737
Key Quad: Point Loma (3211762)
Element Code: PDPGN040G0
Occurrence Number: 12
Occurrence Last Updated: 2018-12-10

Scientific Name: *Chorizanthe orcuttiana*
Common Name: Orcutt's spineflower

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:
SANDY SITES AND OPENINGS; SOMETIMES IN TRANSITION ZONES. 3-125 M.

Last Date Observed: 2016-03-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2016-03-16
Occurrence Rank: Excellent
Owner/Manager: DOD-NAVY
Trend: Unknown
Presence: Presumed Extant

Location:
POINT LOMA; EAST SIDE OF CABRILLO MEMORIAL DRIVE, 0.3 TO 0.5 AIR MILE NNE OF BENNINGTON MEMORIAL.

Detailed Location:
IN SANDY OPENINGS IN VERY DENSE CHAMISE CHAPARRAL. TWO POLYGONS IN AN AREA PROPOSED FOR THE POINT LOMA ECOLOGICAL RESERVE. 1998 RUSSELL COLLECTIONS FROM "N OF FORT ROSECRANS NATIONAL CEMETERY, S OF MCCLELLAND RD" ARE ALSO ATTRIBUTED HERE.

Ecological:
SOUTHERN MARITIME CHAPARRAL W/ ADENOSTOMA FASCICULATUM. PLANTS IN DEEP SANDY OPENINGS BETWEEN SHRUBS. WITH ERIOGONUM FASCICULATUM, SOLANUM PARISHII, CEANOTHUS VERRUCOSUS, YUCCA SCHIDIGERA, MUCRONEA CALIFORNICA & CORETHROGYNE FILAGINIFOLIA.

Threats:
SUBJECT TO EXTIRPATION BY ACTIVITIES RELATED TO ONGOING HERPETOLOGICAL PROJECT (TRAMPLING). EXOTIC SPP, SOIL EROSION.

General:
AT LEAST 130 PLANTS IN APRIL 1997 & AT LEAST 200 IN MAY 1997, 2520 IN 1998, 403 IN 1999, 1163 IN 2000, AT LEAST 4 IN 2005. UNKNOWN NUMBER OBSERVED IN 2007 AND 2016.

PLSS: T17S, R04W, Sec. 13, SE (S)
Accuracy: specific area
Area (acres): 3
UTM: Zone-11 N3617554 E477205
Latitude/Longitude: 32.69547 / -117.24319
Elevation (feet): 285

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

BAU00R0001	BAUDER, E. - RECOVERY AND MANAGEMENT OF ORCUTT'S SPINEFLOWER (CHORIZANTHE ORCUTTIANA) 2000-11-XX
CLO07U0001	CLOUD-HUGHES, M. - OBSERVATION OF CHORIZANTHE ORCUTTIANA, CALFLORA ID #XR344438 2007-05-04
ELI97S0001	ELIASON, S. & A. RUSSELL - ELIASON #97-001 SDSU #12630 1997-04-18
KEA16F0001	KEAN, J. - FIELD SURVEY FORM FOR CHORIZANTHE ORCUTTIANA 2016-03-16
RUS05R0001	RUSEV, A. & T. ZINK - DRAFT FINAL PHASE II WORK PLAN FOR THE NATIVE HABITAT ENHANCEMENT FOR ORCUTT'S SPINEFLOWER (CHORIZANTHE ORCUTTIANA) ON NAVAL BASE POINT LOMA 2005-09-16
RUS97F0001	RUSSELL, A. - FIELD SURVEY FORM FOR CHORIZANTHE ORCUTTIANA 1997-04-18
RUS98S0002	RUSSELL, A. - RUSSELL #103 SDSU #14138 & #20320 1998-04-17
RUS98S0003	RUSSELL, A. - RUSSELL #106 SDSU #13493 1998-05-18
SCH97F0025	SCHEIDT, V. - FIELD SURVEY FORM FOR CHORIZANTHE ORCUTTIANA 1997-05-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	41249	**EO Index:**	41249
Key Quad:	Point Loma (3211762)	**Element Code:**	PDPGN040G0
Occurrence Number:	13	**Occurrence Last Updated:**	2018-12-10

Scientific Name: *Chorizanthe orcuttiana*

Common Name: Orcutt's spineflower

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:

SANDY SITES AND OPENINGS; SOMETIMES IN TRANSITION ZONES. 3-125 M.

Last Date Observed:	2016-03-16	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-03-16	**Occurrence Rank:**	Good
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

POINT LOMA, WEST OF CABRILLO MEMORIAL DRIVE AND NORTH OF WOODWARD ROAD, 0.5 MI NNW OF BENNINGTON MEMORIAL.

Detailed Location:

MAPPED NORTH OF WOODWARD ROAD AND WEST OF STRONG ROAD ACCORDING TO A 1999 BAUDER MAP. SITE MAY BE WITHIN THE POINT LOMA ECOLOGICAL RESERVE.

Ecological:

SANDY OPENINGS IN SHRUB COMMUNITY ON GENTLE WSW-FACING SLOPE. ASSOCIATED WITH RHAMNUS CROCEA, CNEORIDIUM DUMOSUM, RHUS INTEGRIFOLIA, LOTUS SCOPARIUS, MALOSMA LAURINA, ARTEMISIA CALIFORNICA, CAMISSONIA BISTORTA AND MUCRONEA CALIFORNICA.

Threats:

ADJ AREAS +/- DISTURBED; NEAR RDS & BUILDINGS NOT ACTIVELY USED. CARPOBROTUS FAIRLY COMMON NEAR POP- CARPO REMOVED 2002.

General:

31 PLANTS IN 1999. 47 IN 2000. "LARGE" POP IN 2005. UNKNOWN NUMBER IN 2008 & 2016. 1906 BRANDEGEE COLLECTION FROM "POINT LOMA RES, AT POINT WHERE OLD RD BRANCHES TO GO DOWN CYN TOWARDS NEW LIGHTHOUSE" ATTRIBUTED HERE. INCL FORMER EO #3.

PLSS:	T17S, R04W, Sec. 13, SW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3617599 E476641	**Latitude/Longitude:**	32.69587 / -117.24919	**Elevation (feet):**	330

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

BAU00R0001	BAUDER, E. - RECOVERY AND MANAGEMENT OF ORCUTT'S SPINEFLOWER (CHORIZANTHE ORCUTTIANA) 2000-11-XX
BAU99F0001	BAUDER, E. & J. SAKRISON - FIELD SURVEY FORM FOR CHORIZANTHE ORCUTTIANA 1999-05-04
BAU99S0001	BAUDER, E. & J. SAKRISON - BAUDER SN SD #154068 1999-05-04
BRA06S0001	BRANDEGEE, K. - BRANDEGEE #218 UC #84558, CAS #143548, DS #158049, CAS-BOT-BC #252730 & #252732, GH #369871, LA #206540 1906-04-10
CLO08U0002	CLOUD-HUGHES, M. - OBSERVATION OF CHORIZANTHE ORCUTTIANA, CALFLORA ID #XR344439 2008-04-18
HIC96U0002	HICKSON, D. - RECOVERY WORKSHOP SUMMARY: SOUTHERN MARITIME CHAPARRAL PLANTS 1996-10-XX
KEA16F0001	KEAN, J. - FIELD SURVEY FORM FOR CHORIZANTHE ORCUTTIANA 2016-03-16
RUS05R0001	RUSEV, A. & T. ZINK - DRAFT FINAL PHASE II WORK PLAN FOR THE NATIVE HABITAT ENHANCEMENT FOR ORCUTT'S SPINEFLOWER (CHORIZANTHE ORCUTTIANA) ON NAVAL BASE POINT LOMA 2005-09-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 63639
EO Index: 63734
Key Quad: Point Loma (3211762)
Element Code: PDPGN040G0
Occurrence Number: 14
Occurrence Last Updated: 2018-12-10

Scientific Name: *Chorizanthe orcuttiana*
Common Name: Orcutt's spineflower

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:
SANDY SITES AND OPENINGS; SOMETIMES IN TRANSITION ZONES. 3-125 M.

Last Date Observed: 2016-03-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2016-03-16
Occurrence Rank: Good
Owner/Manager: DOD-NAVY
Trend: Unknown
Presence: Presumed Extant

Location:
POINT LOMA, WEST OF CABRILLO MEMORIAL DRIVE, ABOUT 0.65 MILE SOUTH OF POINT LOMA NAZARENE COLLEGE.

Detailed Location:
SANDY OPENINGS IN SHRUB COMMUNITY.

Ecological:
WITH RHUS INTEGRIFOLIA, CEANOTHUS VERRUSCOSUS, CNEORIDIUM DUMOSUM, ERIOGONUM FASCICULATUM, CRASSULA CONNATA, CROTON CALIFORNICUS, AND MUCRONEA CALFORNICA.

Threats:
CARPOBROTUS AND ACACIA ARE DENSE. EROSION FROM ROAD OR OTHER RUNOFF.

General:
300 PLANTS OBSERVED IN 2005. UNKNOWN NUMBER OF PLANTS OBSERVED IN 2016. A 2003 ESTRELLA COLLECTION FROM "OFF ELECTRON DRIVE ON WEST HILL NEAR OLD BALL FIELD" AND A 2008 CLOUD-HUGHES OBSERVATION ARE ALSO ATTRIBUTED TO THIS SITE.

PLSS: T17S, R04W, Sec. 12, SW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3618883 E476462
Latitude/Longitude: 32.70744 / -117.25113
Elevation (feet): 330

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

BAU05F0001	BAUDER, E. - FIELD SURVEY FORM FOR CHORIZANTHE ORCUTTIANA & CEANOTHUS VERRUCOSUS 2005-04-29
CLO08U0001	CLOUD-HUGHES, M. - OBSERVATION OF CHORIZANTHE ORCUTTIANA, CALFLORA ID #XR344440 2008-04-24
EST03S0006	ESTRELLA, D. & R. LAURI - ESTRELLA #149 SDSU #16192 2003-05-15
KEA16F0001	KEAN, J. - FIELD SURVEY FORM FOR CHORIZANTHE ORCUTTIANA 2016-03-16
RUS05R0001	RUSEV, A. & T. ZINK - DRAFT FINAL PHASE II WORK PLAN FOR THE NATIVE HABITAT ENHANCEMENT FOR ORCUTT'S SPINEFLOWER (CHORIZANTHE ORCUTTIANA) ON NAVAL BASE POINT LOMA 2005-09-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 85865
EO Index: 86900
Key Quad: Point Loma (3211762)
Element Code: PDPGN040G0
Occurrence Number: 17
Occurrence Last Updated: 2012-05-04

Scientific Name: *Chorizanthe orcuttiana*
Common Name: Orcutt's spineflower

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
COASTAL SCRUB, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST.

Micro Habitat:
SANDY SITES AND OPENINGS; SOMETIMES IN TRANSITION ZONES. 3-125 M.

Last Date Observed: 1905-04-28
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1905-04-28
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
POINT LOMA; ON HILL NE FROM BROTHERHOOD GROUNDS (NOW POINT LOMA NAZARENE UNIVERSITY).

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS AROUND THE AREA NE OF POINT LOMA NAZARENE UNIVERSITY.

Ecological:
ON HILL, UNDER BUSHES PRINCIPALLY AUDIBERTIA.

Threats:
MUCH DEVELOPMENT HAS OCCURRED IN THIS AREA SINCE COLLECTION WAS MADE.

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1905 BRANDEGEE COLLECTION. NEEDS FIELDWORK.

PLSS: T17S, R04W, Sec. 01 (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3620587 E477241
Latitude/Longitude: 32.72284 / -117.24286
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
BRA05S0037 BRANDEGEE, K. - BRANDEGEE SN UC #84377, DS #48130, CAS-BOT-BC #252731 1905-04-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03648
Key Quad: Point Loma (3211762)
Occurrence Number: 4
EO Index: 313
Element Code: PDPGN040K1
Occurrence Last Updated: 2010-02-11

Scientific Name: *Chorizanthe polygonoides var. longispina*
Common Name: long-spined spineflower

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T3
State: S3
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

GABBROIC CLAY. 30-1630 M.

Last Date Observed: 1905-04-28
Last Survey Date: 1905-04-28
Owner/Manager: DOD-NAVY, NPS-CABRILLO NM
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

POINT LOMA, SAN DIEGO.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS BASED ON A 1994 REISER REPORT THAT THIS COLONY WAS SEEN NEAR THE ROAD TO THE TIDEPOOLS AND THE LIGHTHOUSE.

Ecological:

Threats:

General:

MANY COLLECTIONS FROM POINT LOMA AND SAN DIEGO BETWEEN 1884 AND 1905. TYPE COLLECTION FROM "SAN DIEGO" BY BRANDEGEE IN 1903.

PLSS: T17S, R04W, Sec. 13 (S)
UTM: Zone-11 N3617217 E476849
Accuracy: non-specific area
Latitude/Longitude: 32.69243 / -117.24697
Area (acres): 1,127
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

BRA03S0004	BRANDEGEE, K. - BRANDEGEE SN UC #84741, DS #48158, CAS-BOT-BC #257194, US 1903-04-XX
BRA03S0005	BRANDEGEE - BRANDEGEE #3412 UC #84786, CAS #84902, POM #165146, SBBG #62247, DS #73675, CAS-BOT-BC #70 & #26100, GH #36054, MO, NY 1903-04-25
BRA05S0009	BRANDEGEE, K. - BRANDEGEE SN UC #77350, DS #48157, CAS-BOT-BC #257189 1905-04-28
BRA97S0001	BRANDEGEE, K. - BRANDEGEE SN UC #1601402 1897-04-25
CLE82S0012	CLEVELAND, D. - CLEVELAND SN SD #8127 1882-XX-XX
CLE84S0003	CLEVELAND, D. - CLEVELAND SN SD #8125, UC #84500, GH #369884 1884-05-04
GOO55A0001	GOODMAN - ORIGINAL DESCRIPTION FOR CHORIZANTHE POLYGONOIDES VAR. LONGISPINA IN LEAFLETS OF WESTERN BOTANY 7:10. 1955-XX-XX
HAL03S0001	HALL, H.M. - HALL SN UC #50320 1903-04-XX
ORC84S0003	ORCUTT, C.R. - ORCUTT SN MO, NY, UC #52606, GH #369886, US 1884-04-21
REI94U0002	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 50004
Key Quad: Poway (3211781)
Occurrence Number: 5
EO Index: 241
Element Code: PDPGN040K1
Occurrence Last Updated: 2013-07-30

Scientific Name: *Chorizanthe polygonoides var. longispina*
Common Name: long-spined spineflower

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T3
State: S3
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

GABBROIC CLAY. 30-1630 M.

Last Date Observed: 2003-05-15
Last Survey Date: 2003-05-15
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:

MARINE CORPS AIR STATION MIRAMAR, BETWEEN ROSE CANYON AND SAN CLEMENTE CANYON, SE OF MIRAMAR.

Detailed Location:

MANY SMALL COLONIES IN SECTION 8 AND THE WEST 1/2 OF SECTION 9. MAPPED BY CNDDB BASED ON SHAPEFILES FROM RARE PLANT SURVEYS AT MCAS MIRAMAR.

Ecological:

DISTURBED, HARD-PACKED OPENINGS WITHIN CHAPARRAL. OFTEN FOUND ON TRAILS, DIRT ROADS, AND PREVIOUSLY SCOURED AREAS. ASSOCIATED WITH ERODIUM BOTRYS.

Threats:

AREA PREVIOUSLY USED AS A TRAINING AREA. LARGE AREAS OF SCARRED EARTH REMAIN. SOME PLANTS OBSERVED ON TRAILS AND ROADS.

General:

1497 PLANTS REPORTED HERE IN MANY COLONIES IN 2003.

PLSS: T15S, R02W, Sec. 08 (S)
Accuracy: specific area
Area (acres): 19
UTM: Zone-11 N3637991 E490266
Latitude/Longitude: 32.88002 / -117.10405
Elevation (feet): 530

County Summary:

San Diego

Quad Summary:

La Mesa (3211771), Poway (3211781)

Sources:

REI94U0002	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX
ROE03F0004	ROESCH, K. - FIELD SURVEY FORM FOR CHORIZANTHE POLYGONOIDES VAR. LONGISPINA 2003-05-15
TIE04D0001	TIERRA DATA, INC. - SHAPEFILES FOR RARE PLANT SURVEYS AT MCAS MIRAMAR IN 2001 AND 2003. 2004-06-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	47593	**EO Index:**	47593
Key Quad:	La Jolla (3211772)	**Element Code:**	PDPGN040K1
Occurrence Number:	42	**Occurrence Last Updated:**	2010-02-03

Scientific Name: *Chorizanthe polygonoides var. longispina*

Common Name: long-spined spineflower

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G5T3

State: S3

Rare Plant Rank: 1B.2

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

GABBROIC CLAY. 30-1630 M.

Last Date Observed:	1995-04-20	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1995-04-20	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

VICINITY OF THE S ENTRANCE TO MIRAMAR LANDFILL; BOTH SIDES OF SR 52 NEAR ITS INTERSECTION WITH CONVOY ST, KEARNY MESA.

Detailed Location:

SE-MOST POP IS "S OF VERNAL POOL 3." MAPPED AS BEST GUESS BY CNDDB AS 2 POLYGONS. N POLY: 100 YDS E OF THE SOUTHERN ENTRANCE TO MIRAMAR LANDFILL. S POLY: JUST E OF THE NORTHERN TERMINUS OF CONVOY RD (S OF SR 52) & JUST E OF OLD MERCURY CT.

Ecological:

OPEN CHAPARRAL. SE-MOST POPULATION IS ON FLAT MESA NEAR VERNAL POOLS WITH BARE SCRAPED LANDFILL SURFACE AND OPEN, DISTURBED BROOM BACCHARIS SCRUB, SPARSE MIXED (QUERCUS DUMOSA/ LOTUS SCOPARIUS) SCRUB AND CLOSED UNDERSTORY OF ANNUAL GRASSES.

Threats:

General:

SEEN IN BOTH POLYGONS IN 1995. A SUBSTANTIAL POPULATION EXISTS AT THE S POLY ACCORDING TO REISER (2001). NEED BETTER LOCATION INFORMATION.

PLSS:	T15S, R03W, Sec. 25, W (S)	**Accuracy:**	non-specific area	**Area (acres):**	62
UTM:	Zone-11 N3633321 E486040	**Latitude/Longitude:**	32.83785 / -117.14915	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
REI87S0006	REISER, C. - REISER SN SD #134408 1987-06-01
REI95S0001	REISER, C. - REISER SN SD #138827 1995-04-15
RUS95S0001	RUSSELL, A. - RUSSELL #20IV95B SDSU #12624 1995-04-20
RUS95S0002	RUSSELL, A. - RUSSELL #14V95A SDSU #12623 1995-05-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 61238
EO Index: 61274
Key Quad: La Mesa (3211771)
Element Code: PDPGN040K1
Occurrence Number: 49
Occurrence Last Updated: 2010-02-09

Scientific Name: *Chorizanthe polygonoides var. longispina*
Common Name: long-spined spineflower

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G5T3
State: S3
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

GABBROIC CLAY. 30-1630 M.

Last Date Observed: 2003-06-18
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-06-18
Occurrence Rank: Fair
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:

MARINE CORPS AIR STATION MIRAMAR, BETWEEN SAN CLEMENTE & MURPHY CANYONS.

Detailed Location:

EAST AND NE OF RIFLE RANGE. MANY SMALL COLONIES. MAPPED BY CNDDB BASED ON SHAPEFILES FROM RARE PLANT SURVEYS AT MCAS MIRAMAR IN 2003 AND A 2003 SAUCEDO-ORTIZ FIELD SURVEY MAP.

Ecological:

DISTURBED, HARD-PACKED OPENINGS WITHIN CHAPARRAL. OFTEN FOUND ON TRAILS, DIRT ROADS, AND PREVIOUSLY SCOURED AREAS. ASSOCIATED WITH ERODIUM BOTRYS.

Threats:

AREA PREVIOUSLY USED AS A TRAINING AREA. LARGE AREAS OF SCARRED EARTH REMAIN. SOME PLANTS OBSERVED ON TRAILS & ROADS.

General:

ESTIMATED TOTAL OF 36,216 PLANTS OBSERVED IN 2003.

PLSS: T15S, R02W, Sec. 16 (S)
Accuracy: specific area
Area (acres): 36
UTM: Zone-11 N3636635 E491355
Latitude/Longitude: 32.86779 / -117.09239
Elevation (feet): 600

County Summary:

San Diego

Quad Summary:

La Mesa (3211771), Poway (3211781)

Sources:

ROE03F0003	ROESCH, K. - FIELD SURVEY FORM FOR CHORIZANTHE POLYGONOIDES VAR. LONGISPINA 2003-05-15
SAU03F0005	SAUCEDO-ORTIZ, D. - FIELD SURVEY FORM FOR CHORIZANTHE POLYGONOIDES VAR. LONGISPINA 2003-05-01
TIE04D0001	TIERRA DATA, INC. - SHAPEFILES FOR RARE PLANT SURVEYS AT MCAS MIRAMAR IN 2001 AND 2003. 2004-06-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 77847
Key Quad: La Jolla (3211772)
Occurrence Number: 66
EO Index: 78742
Element Code: PDPGN040K1
Occurrence Last Updated: 2010-01-20

Scientific Name: *Chorizanthe polygonoides var. longispina*
Common Name: long-spined spineflower

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T3
State: S3
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPARRAL, COASTAL SCRUB, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:
GABBROIC CLAY. 30-1630 M.

Last Date Observed: 1978-04-27
Last Survey Date: 1978-04-27
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:
KEARNEY VILLA RD, KEARNEY MESA.

Detailed Location:
5900 BLOCK, EAST OF WATER TOWER. MAPPED BY CNDDB AS BEST GUESS AROUND THE 5900 BLOCK OF KEARNEY VILLA RD.

Ecological:
CHAPARRAL AND VERNAL POOLS.

Threats:

General:
MENTIONED AS "COMMON IN SOME DRIED POOLS" IN 1978.

PLSS: T15S, R02W, Sec. 30, SW (S)
UTM: Zone-11 N3633508 E487878
Accuracy: non-specific area
Latitude/Longitude: 32.83956 / -117.12952
Area (acres): 21
Elevation (feet): 427

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:
MOR78S0005 MORAN, R. - MORAN #25562 RSA #294042 SD #104394, DAV #99830 1978-04-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 77863
EO Index: 78759
Key Quad: Imperial Beach (3211751)
Element Code: PDPGN040K1
Occurrence Number: 76
Occurrence Last Updated: 2010-01-21

Scientific Name: *Chorizanthe polygonoides var. longispina*
Common Name: long-spined spineflower

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:

CHAPARRAL, COASTAL SCRUB, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

GABBROIC CLAY. 30-1630 M.

Last Date Observed: 1996-04-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1996-04-17
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

S SIDE OF TELEGRAPH CANYON, ABOUT 1000 FT SE OF INTERSECTION OF MEDICAL CENTER DR AND E NAPLES ST, CHULA VISTA.

Detailed Location:

MAPPED BY CNDDB AS BEST GUESS ABOUT 1000 FT SE OF INTERSECTION OF MEDICAL CENTER DR AND E NAPLES ST.

Ecological:

IN OPEN ERODED AREA WITH SANDY SOIL IN COASTAL SAGE SCRUB WITH ERIOGONUM FASCICULATUM, HEMIZONIA, PLANTAGO, AND NAVARRETIA HAMATA.

Threats:

FUTURE SITE OF CHULA VISTA VETERANS HOME.

General:

THREE POPULATIONS TOTALING ~100 PLANTS SEEN IN 1996. ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1996 JONES COLLECTION.

PLSS: T18S, R01W, Sec. 07, W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3609146 E497634
Latitude/Longitude: 32.61986 / -117.02521
Elevation (feet): 400

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

JON96S0002 JONES, C. - JONES #12 RSA #592058 1996-04-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 77866
Key Quad: La Mesa (3211771)
Occurrence Number: 78
EO Index: 78762
Element Code: PDPGN040K1
Occurrence Last Updated: 2014-11-21

Scientific Name: *Chorizanthe polygonoides var. longispina*
Common Name: long-spined spineflower

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T3
State: S3
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

GABBROIC CLAY. 30-1630 M.

Last Date Observed: 2010-04-20
Last Survey Date: 2010-04-20
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

EAST SIDE OF LAKE MURRAY ALONG ROAD/TRAIL AROUND EDGE OF THE LAKE, NORTHERN AND EASTERN ARMS OF THE LAKE.

Detailed Location:

5 POLYGONS MAPPED ACCORDING TO A 2010 HELIX MAP, IN THE SW 1/4 OF THE SE 1/4 OF SECTION 12 AND THE NW 1/4 OF THE NE 1/4 OF SECTION 13.

Ecological:

DIEGAN COASTAL SAGE SCRUB. ROCKY; PINKISH, SANDY SUBSTRATE. 5-10 DEGREES SE-FACING SLOPE. SPARSE BACCHARIS SAROTHROIDES SCRUB.

Threats:

General:

"APPROXIMATELY 52 INDIVIDUALS (IN 2 AREAS) AS WELL AS A 0.32-ACRE AREA SUPPORTING THIS SPECIES" OBSERVED IN 2010. A 1997 SIMPSON COLLECTION AND 2010 BENNETT PHOTOS FROM "LAKE MURRAY" ARE ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS: T16S, R02W, Sec. 12, SE (S)
Accuracy: specific area
Area (acres): 10
UTM: Zone-11 N3628007 E496417
Latitude/Longitude: 32.79000 / -117.03825
Elevation (feet): 560

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

BEN10I0004	BENNETT, A. - PHOTOS OF CHORIZANTHE POLYGONOIDES VAR. LONGISPINA, CALPHOTOS ID #0000 0000 0610 1632-1634 2010-04-20
HEL10R0024	HELIX ENVIRONMENTAL PLANNING, INC. - R0274 RELINING PIPELINE 4 STATE ROUTE 52 TO LAKE MURRAY & PIPELINE 3 30-INCH INTERCONNECT TO LAKE MURRAY CONTROL VALVE, BIOLOGICAL TECHNICAL REPORT 2010-10-08
SIM97S0002	SIMPSON, M. - SIMPSON #30IV97C SDSU #12495 1997-04-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A9775
EO Index: 78781
Key Quad: Point Loma (3211762)
Element Code: PDPGN040K1
Occurrence Number: 87
Occurrence Last Updated: 2018-06-22

Scientific Name: *Chorizanthe polygonoides var. longispina*
Common Name: long-spined spineflower

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G5T3
State: S3
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

GABBROIC CLAY. 30-1630 M.

Last Date Observed: 2011-05-20
Occurrence Type: Natural/Native occurrence

Last Survey Date: 2011-05-20
Occurrence Rank: Unknown

Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown

Presence: Presumed Extant

Location:

BALBOA PARK; S AND SW OF THE VELODROME AT MORLEY FIELD, EAST OF FLORIDA DR AND WEST OF PERSHING DR, FLORIDA CANYON.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO 2008 REBMAN COORDINATES AND 2011 NENOW COORDINATES.

Ecological:

IN CHAPARRAL/COASTAL SAGE SCRUB ON FLAT, CLAYEY MESA WITH ADENOSTOMA FASCICULATUM, XYLOCOCCUS BICOLOR, ARTEMISIA CALIFORNICA, LONICERA SUBSPICATA AND DEINANDRA FASCICULATA.

Threats:

General:

1000S OF PLANTS SEEN IN SOUTHERN POLYGON IN 2008. UNKNOWN NUMBER OF PLANTS SEEN IN NORTHERN POLYGON IN 2011.

PLSS: T16S, R03W, Sec. 36, SE (S)
Accuracy: specific area
Area (acres): 10

UTM: Zone-11 N3621895 E486750
Latitude/Longitude: 32.73479 / -117.14141
Elevation (feet): 260

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

NEN11S0005 NENOW, N. - NENOW #2016 SD #253840 2011-05-20

REB08S0002 REBMAN, J. & BIOBLITZ BOTANY TEAM - REBMAN #14966 SD #187066 2008-05-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 77905
Key Quad: La Mesa (3211771)
Occurrence Number: 95
EO Index: 78796
Element Code: PDPGN040K1
Occurrence Last Updated: 2010-02-08

Scientific Name: *Chorizanthe polygonoides var. longispina*
Common Name: long-spined spineflower

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T3
State: S3
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

GABBROIC CLAY. 30-1630 M.

Last Date Observed: 2003-05-08
Last Survey Date: 2003-05-08
Owner/Manager: DOD-USMC
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

JUST NORTH OF SR 52 E, ABOUT 0.6 MI EAST OF I-15, ELANUS CANYON.

Detailed Location:

MAPPED BY CNDDB AS 8 POLYGONS BASED ON A 2003 SAUCEDO-ORTIZ FIELD SURVEY FORM.

Ecological:

GRAVELLY LOAM IN OPEN AREAS OF CHAMISE CHAPARRAL W/ADENOSTOMA FASCICULATUM, ERODIUM SP., HEMIZONIA FASCICULATA, NAVARRETIA HAMATA, SELAGINELLA CINERASCENS. RARE SPECIES INCLUDE: POGOGYNE ABRAMSII, BRODIAEA ORCUTTII & FEROCACTUS VIRIDESCENS.

Threats:

General:

~2751 PLANTS SEEN IN 2003. A 1971 BEAUCHAMP COLLECTION FROM "E OF KEARNEY VILLA RD, 1 MI N OF CLAIRMONT MESA RD" ATTRIBUTED TO THIS SITE.

PLSS: T15S, R02W, Sec. 29, NE (S)
Accuracy: specific area
Area (acres): 14
UTM: Zone-11 N3634393 E490117
Latitude/Longitude: 32.84757 / -117.10561
Elevation (feet): 400

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

BEA71S0034	BEAUCHAMP, R.M. - BEAUCHAMP #2229 SD #128244 1971-04-23
REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05
SAU03F0011	SAUCEDO-ORTIZ, D. - FIELD SURVEY FORM FOR CHORIZANTHE POLYGONOIDES VAR. LONGISPINA 2003-05-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	77906	**EO Index:**	78802
Key Quad:	La Mesa (3211771)	**Element Code:**	PDPGN040K1
Occurrence Number:	96	**Occurrence Last Updated:**	2010-01-26

Scientific Name: *Chorizanthe polygonoides var. longispina*

Common Name: long-spined spineflower

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G5T3

State: S3

Rare Plant Rank: 1B.2

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

GABBROIC CLAY. 30-1630 M.

Last Date Observed:	2003-05-08	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-05-08	**Occurrence Rank:**	Good
Owner/Manager:	DOD-USMC	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MARINE CORPS AIR STATION MIRAMAR; ABOUT 0.75 MI NORTH OF SR 52 E, 1.5 MI EAST OF I-15, NORTHERN ELANUS CANYON.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS BASED ON COORDINATES FROM TWO 2003 SAUCEDO-ORTIZ FIELD SURVEY FORMS.

Ecological:

GRAVELLY LOAM IN OPEN AREAS OF CHAMISE CHAPARRAL W/ADENOSTOMA FASCICULATUM, ERODIUM SP., HEMIZONIA FASCICULATA, NAVARRETIA HAMATA, ETC. RARE SPECIES INCLUDE: POGOGYNE ABRAMSII, BRODIAEA ORCUTTII, FEROCACTUS VIRIDESCENS & MUILLA CLEVELANDII.

Threats:

General:

IN 2003, 26 PLANTS WERE SEEN IN SOUTHERN POLY AND A TOTAL OF 107 PLANTS WERE SEEN IN NORTHERN POLY AND OCCURRENCE #97 TOGETHER.

PLSS:	T15S, R02W, Sec. 21, SW (S)	**Accuracy:**	specific area	**Area (acres):**	2
UTM:	Zone-11 N3634942 E491127	**Latitude/Longitude:**	32.85253 / -117.09481	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05
SAU03F0008	SAUCEDO-ORTIZ, D. - FIELD SURVEY FORM FOR CHORIZANTHE POLYGONOIDES VAR. LONGISPINA 2003-05-08
SAU03F0009	SAUCEDO-ORTIZ, D. - FIELD SURVEY FORM FOR CHORIZANTHE POLYGONOIDES VAR. LONGISPINA 2003-05-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 77907
EO Index: 78803
Key Quad: La Mesa (3211771)
Element Code: PDPGN040K1
Occurrence Number: 97
Occurrence Last Updated: 2010-01-26

Scientific Name: *Chorizanthe polygonoides var. longispina*
Common Name: long-spined spineflower

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G5T3
State: S3
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

GABBROIC CLAY. 30-1630 M.

Last Date Observed: 2003-05-08
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-05-08
Occurrence Rank: Good
Owner/Manager: DOD-USMC
Trend: Unknown
Presence: Presumed Extant

Location:

MARINE CORPS AIR STATION MIRAMAR, ABOUT 1.1 MI NORTH OF SR 52 E, 1 MI EAST OF I-15, BETWEEN MURPHY AND ELANUS CANYONS.

Detailed Location:

MAPPED BY CNDDB BASED ON COORDINATES FROM A 2003 SAUCEDO-ORTIZ FIELD SURVEY FORM.

Ecological:

GRAVELLY LOAM IN OPEN AREAS OF CHAMISE CHAPARRAL W/ADENOSTOMA FASCICULATUM, ERODIUM SP., HEMIZONIA FASCICULATA, NAVARRETIA HAMATA, SELAGINELLA CINERASCENS. RARE SPECIES INCLUDE: POGOGYNE ABRAMSII, BRODIAEA ORCUTTII & FEROCACTUS VIRIDESCENS.

Threats:

General:

TOTAL OF 107 PLANTS SEEN IN 2003 BETWEEN THIS OCCURRENCE AND OCCURRENCE #97 (NORTHERN POLYGON).

PLSS: T15S, R02W, Sec. 21, NW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3635535 E491083
Latitude/Longitude: 32.85788 / -117.09529
Elevation (feet): 500

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05
SAU03F0009	SAUCEDO-ORTIZ, D. - FIELD SURVEY FORM FOR CHORIZANTHE POLYGONOIDES VAR. LONGISPINA 2003-05-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 89815
EO Index: 90823
Key Quad: Imperial Beach (3211751)
Element Code: PDPGN040K1
Occurrence Number: 104
Occurrence Last Updated: 2013-07-31

Scientific Name: *Chorizanthe polygonoides var. longispina*
Common Name: long-spined spineflower

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:

CHAPARRAL, COASTAL SCRUB, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

GABBROIC CLAY. 30-1630 M.

Last Date Observed: 2010-05-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2010-05-07
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

NW OTAY LANDFILL, APPROXIMATELY 1.2 MILES (1.9 KM) NE OF JUNCTION OF I-805 AND OTAY VALLEY ROAD/MAIN STREET.

Detailed Location:

600 M ESE OF WATER TANKS AND 440 M SOUTH OF POGGI CYN. MAPPED ACCORDING TO COORDINATES PROVIDED ON A 2010 SILVERMAN COLLECTION, IN THE NE 1/4 OF THE SE 1/4 OF SECTION 18. DATUM NOT PROVIDED, BUT NAD83 MATCHES LOCALITY AND GIVEN ELEVATION.

Ecological:

OPEN, EXPOSED RIDGETOP ON CRUSTY-CLAYEY SOILS WITH PEBBLES. DISTURBED COASTAL SAGE SCRUB WITH ERIOGONUM FASCICULATUM, ISOCOMA MENZIESII DECUMBENS, CARDIONEMA RAMOSISSIMUM, DEINANDRA CONJUGENS, OSMADENIA TENELLA, CRASSULA CONNATA, ETC.

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2010 SILVERMAN COLLECTION; DESCRIBED AS "LOCALLY RARE".

PLSS: T18S, R01W, Sec. 18, SE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3607461 E498184
Latitude/Longitude: 32.60466 / -117.01935
Elevation (feet): 470

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

SIL10S0010 SILVERMAN, D. - SILVERMAN #7969 UCR #224981 2010-05-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 89820
EO Index: 90825
Key Quad: National City (3211761)
Element Code: PDPGN040K1
Occurrence Number: 105
Occurrence Last Updated: 2013-07-31

Scientific Name: *Chorizanthe polygonoides var. longispina*
Common Name: long-spined spineflower

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G5T3
State: S3
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPARRAL, COASTAL SCRUB, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:
GABBROIC CLAY. 30-1630 M.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:
0.19 AIR MILE SOUTH OF THE INTERSECTION OF OTAY LAKES ROAD AND CAMINO ELEVADO, CHULA VISTA.

Detailed Location:
MAPPED ACCORDING TO DIGITAL DATA PROVIDED BY RECON ENVIRONMENTAL, INC IN THE NW 1/4 OF THE NW 1/4 OF SECTION 31.

Ecological:
DISTURBED VEGETATION COMMUNITY. NORTH-FACING SLOPE.

Threats:

General:
15 PLANTS OBSERVED IN 2003 DURING THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY.

PLSS: T17S, R01W, Sec. 31, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3613042 E497210
Latitude/Longitude: 32.65501 / -117.02974
Elevation (feet): 240

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 89823
EO Index: 90829
Key Quad: National City (3211761)
Element Code: PDPGN040K1
Occurrence Number: 106
Occurrence Last Updated: 2013-07-31

Scientific Name: *Chorizanthe polygonoides var. longispina*
Common Name: long-spined spineflower

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:

CHAPARRAL, COASTAL SCRUB, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

GABBROIC CLAY. 30-1630 M.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:

0.18 AIR MILE NW OF INTERSECTION OF RANCHO DEL REY PARKWAY AND DEL REY BLVD, CHULA VISTA.

Detailed Location:

MAPPED ACCORDING TO DIGITAL DATA PROVIDED BY RECON ENVIRONMENTAL, INC IN THE SE 1/4 OF THE SE 1/4 OF SECTION 36.

Ecological:

INTERFACE OF COASTAL SAGE SCRUB AND MARITIME SUCCULENT SCRUB COMMUNITIES.

Threats:

General:

2 PLANTS OBSERVED IN 2003 DURING THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY.

PLSS: T17S, R02W, Sec. 36, SE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3611697 E496680
Latitude/Longitude: 32.64287 / -117.03538
Elevation (feet): 340

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 89825
EO Index: 90830
Key Quad: National City (3211761)
Element Code: PDPGN040K1
Occurrence Number: 107
Occurrence Last Updated: 2013-07-31

Scientific Name: *Chorizanthe polygonoides var. longispina*
Common Name: long-spined spineflower

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G5T3
State: S3
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPARRAL, COASTAL SCRUB, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:
GABBROIC CLAY. 30-1630 M.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:
0.23 AIR MILE WNW OF THE INTERSECTION OF TELEGRAPH CANYON ROAD AND PASEO RANCHERO, CHULA VISTA.

Detailed Location:
MAPPED ACCORDING TO DIGITAL DATA PROVIDED BY RECON ENVIRONMENTAL, INC IN THE NW 1/4 OF THE NW 1/4 OF SECTION 8.

Ecological:
COASTAL SAGE SCRUB. GROWING AMONG CHORIZANTHE FIMBRIATA AND SOUTH COAST SALTBUSH.

Threats:

General:
5 PLANTS OBSERVED IN 2003 DURING THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY.

PLSS: T18S, R01W, Sec. 08, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3609825 E498870
Latitude/Longitude: 32.62599 / -117.01204
Elevation (feet): 430

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	94544	**EO Index:**	95658
Key Quad:	National City (3211761)	**Element Code:**	PDPGN040K1
Occurrence Number:	126	**Occurrence Last Updated:**	2014-11-25

Scientific Name: *Chorizanthe polygonoides var. longispina*

Common Name: long-spined spineflower

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5T3
State: S3

Rare Plant Rank: 1B.2

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SCRUB, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

GABBROIC CLAY. 30-1630 M.

Last Date Observed:	XXXX-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	XXXX-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EAST OF LYNNDALE PLACE AND NORTH OF EAST H STREET, EAST OF INTERSTATE 805, LYNWOOD HILLS NORTH OF CHULA VISTA.

Detailed Location:

MAPPED ACCORDING TO A 2011 CALTRANS MAP, IN THE SW 1/4 OF THE SE 1/4 OF SECTION 35.

Ecological:

OPEN SPACE; DISTURBED AREA. NEARBY ASSOCIATES INCLUDE COAST BARREL CACTUS, SNAKE CHOLLA, SAN DIEGO SUNFLOWER, AND SOUTH COAST SALTBUSH.

Threats:

General:

UNKNOWN NUMBER OF PLANTS OBSERVED SOMETIME PRIOR TO 2009.

PLSS:	T17S, R02W, Sec. 35, SE (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3611756 E494869	**Latitude/Longitude:**	32.64339 / -117.05470	**Elevation (feet):**	140

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

CAL11R0002	CALIFORNIA DEPARTMENT OF TRANSPORTATION - INTERSTATE 805 MANAGED LANES SOUTH PROJECT, FINAL EIR/EA WITH FONSI 2011-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 94545
EO Index: 95662
Key Quad: National City (3211761)
Element Code: PDPGN040K1
Occurrence Number: 127
Occurrence Last Updated: 2014-11-25

Scientific Name: *Chorizanthe polygonoides var. longispina*
Common Name: long-spined spineflower

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T3
State: S3

General Habitat:
CHAPARRAL, COASTAL SCRUB, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:
GABBROIC CLAY. 30-1630 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF CHULA VISTA
Trend: Unknown
Presence: Presumed Extant

Location:
MCCANDLISS PARK, NORTH OF EAST J STREET, EAST OF INTERSTATE 805, NORTH OF TELEGRAPH CANYON.

Detailed Location:
2 POLYGONS MAPPED ACCORDING TO A 2011 CALTRANS MAP, IN THE SW 1/4 OF THE NW 1/4 OF SECTION 1.

Ecological:
MARITIME SUCCULENT SCRUB, COASTAL SAGE SCRUB, AND COASTAL SAGE CHAPARRAL SCRUB.

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED SOMETIME PRIOR TO 2009.

PLSS: T18S, R02W, Sec. 01, NW (S)
Accuracy: specific area
Area (acres): 5
UTM: Zone-11 N3610982 E495546
Latitude/Longitude: 32.63641 / -117.04748
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

CAL11R0002	CALIFORNIA DEPARTMENT OF TRANSPORTATION - INTERSTATE 805 MANAGED LANES SOUTH PROJECT, FINAL EIR/EA WITH FONSI 2011-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A9777
Key Quad: Point Loma (3211762)
Occurrence Number: 139
EO Index: 111633
Element Code: PDPGN040K1
Occurrence Last Updated: 2018-06-22

Scientific Name: *Chorizanthe polygonoides var. longispina*
Common Name: long-spined spineflower

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T3
State: S3
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
CHAPARRAL, COASTAL SCRUB, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:
GABBROIC CLAY. 30-1630 M.

Last Date Observed: 2011-03-29
Last Survey Date: 2011-03-29
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
BALBOA PARK; JUST WEST OF GOLDEN HILLS RECREATION CENTER, BETWEEN 26TH STREET AND GOLF COURSE DRIVE.

Detailed Location:
MAPPED ACCORDING TO 2011 NENOW COORDINATES. IN THE NE 1/4 OF THE SE 1/4 OF SECTION 1.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2011 NENOW COLLECTION.

PLSS: T17S, R03W, Sec. 1, SE (S)
UTM: Zone-11 N3620415 E487050
Accuracy: 80 meters
Latitude/Longitude: 32.72144 / -117.13819
Area (acres): 5
Elevation (feet): 220

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
NEN11S0006 NENOW, N. - NENOW #1751 SD #252177 2011-03-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A6283	**EO Index:**	29193
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDPGN0G011
Occurrence Number:	1	**Occurrence Last Updated:**	2017-09-14

Scientific Name: *Nemacaulis denudata var. denudata*

Common Name: coast woolly-heads

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G4T2
State: S2

General Habitat:

COASTAL DUNES.

Micro Habitat:

0-5 M.

Last Date Observed:	2015-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-XX-XX	**Occurrence Rank:**	Good
Owner/Manager:	DPR-BORDER FIELD SP	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

LICHTY MESA AND FROM 0.1 TO 1.2 AIR MILES NORTH OF BOUNDARY MONUMENT 258, MOSTLY IN BORDER FIELD STATE PARK.

Detailed Location:

MAPPED AS 2 POLYGONS ON THE MESA TOP AND ALONG THE UPPER SLOPES OF LICHTY MESA AS WELL AS ALONG THE WEST EDGE OF BORDER FIELD STATE PARK. COLLECTIONS FROM "INTERNATIONAL MONUMENT," "NEAR BOUNDARY," "TIJUANA RIVER ESTUARY," ETC. ATTRIB HERE.

Ecological:

SANDY SOILS IN OPENINGS BETWEEN SHRUBS. ASSOCIATED WITH FRANKENIA SALINA, DISTICHLIS SPICATA, MESEMBRYANTHEMUM CRYSTALLINUM, AMBLYOPAPPUS PUSILLUS, SALSOLA TRAGUS, CENTAUREA MELITENSIS, CARPOBROTUS EDULIS, BROMUS MADRITENSIS, ETC.

Threats:

THREATENED BY CONSTRUCTION OF A NEW TRIPLE BORDER FENCE; CONSTRUCTION OF FENCE MAY EXTIRPATE LICHTY MESA POPULATION.

General:

LICHTY MESA: AT LEAST TENS OF THOUSANDS OF PLANTS OBSERVED IN 2006, UNKNOWN NUMBER IN 2014. NORTHERN POLYGON OBSERVED IN 2009 AND 2015; NEED POPULATION INFORMATION.

PLSS:	T19S, R02W, Sec. 6, W (S)	**Accuracy:**	specific area	**Area (acres):**	41
UTM:	Zone-11 N3600690 E488368	**Latitude/Longitude:**	32.54352 / -117.12388	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

ANO31S0001	ANONYMOUS - ANONYMOUS SN SDSU #9638 1931-07-01
BRA99S0006	BRANDEGEE, K. - BRANDEGEE SN SD #22276, UC #77723 1899-06-XX
DFW17D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 5 - COASTAL PLANT DATA FOR REGION 5 OF THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 2017-02-07
GAN36S0078	GANDER, F. - GANDER #1668 SD #15078 1936-04-28
SCH06I0007	SCHEIDT, V. - PHOTOS OF NEMACAULIS DENUDATA VAR. DENUDATA, CALPHOTOS ID #0000 0000 0606 0218, 0219, 0401 2006-05-16
SCH07R0001	SCHEIDT, V. - THE LICHTY MESA, A BIOLOGICAL RESOURCES SURVEY REPORT AND EVALUATION OF RESOURCE VALUE, APN 663-020-02, SAN DIEGO, CA 2007-08-XX
STO00S0003	STOKES, S. - STOKES SN DS #48101, CAS-BOT-BC #109092 1900-08-03
STO33S0005	STOKES, S. - STOKES #55 LA #95713, CAS #221976, DS #244567, POM #209235, SD #65913, UC #534928, CAS-BOT-BC #109093 & #109094, SEINET #3858425, UTC #00267114 1933-06-18
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX
WOL41S0086	WOLF, C. - WOLF #10915 DS #339148, RSA #25605, CAS-BOT-BC #109102 1941-06-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	28006	**EO Index:**	22075
Key Quad:	Point Loma (3211762)	**Element Code:**	PDPGN0G011
Occurrence Number:	2	**Occurrence Last Updated:**	2017-09-14

Scientific Name: *Nemacaulis denudata var. denudata*

Common Name: coast woolly-heads

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G4T2
State: S2

General Habitat:

COASTAL DUNES.

Micro Habitat:

0-5 M.

Last Date Observed:	2015-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-XX-XX	**Occurrence Rank:**	Good
Owner/Manager:	DPR-SILVER STRAND SB	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SILVER STRAND; FROM CORONADO HEIGHTS EXTENDING NORTH FOR ABOUT 3 MILES.

Detailed Location:

MAPPED AS MANY POLYGONS ACCORDING TO DIGITAL DATA AND MAPS FROM 2011, 2012, 2015, AND 2017. INCLUDES FORMER OCCURRENCE #5 & 30.

Ecological:

OPEN BACKDUNES, AROUND 25-30% VEGETATION MOST OF WHICH IS ABRONIA MARITIMA. OTHER PLANTS INCLUDE CAKILE MARITIMA, AMBROSIA CHAMISSONIS, AND OCCASIONAL CALYSTEGIA SOLDANELLA.

Threats:

WEEDS, TRASH, SOIL ADDITIONS OF MULCH OR FERTILIZER, TRAMPLING, AND EROSION.

General:

648,000+ PLANTS ESTIMATED IN 2011. 22 MILLION+ PLANTS ESTIMATED IN 2012 (SEE CNDDB FOR POPULATION ESTIMATE METHODOLOGY). UNKNOWN NUMBER IN 2015.

PLSS:	T18S, R03W, Sec. 1 (S)	**Accuracy:**	specific area	**Area (acres):**	116
UTM:	Zone-11 N3610227 E486900	**Latitude/Longitude:**	32.62954 / -117.13965	**Elevation (feet):**	15

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751), Point Loma (3211762)

Sources:

BRO78S0002	BROOME & REVEAL - BROOME #2135 CAS #800278, RSA #489245, CAS-BOT-BC #109097 1978-06-08
BUR11U0002	BURRASCANO, C. ET AL. - OBSERVATION RECORD FOR NEMACAULIS DENUDATA VAR. DENUDATA (CITED IN CNP11U0002) 2011-03-20
CNP11D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2011 SURVEYS FOR SAN DIEGO DUNE PLANTS 2011-XX-XX
CNP11U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2011 SURVEYS FOR SAN DIEGO DUNE PLANTS 2011-XX-XX
CNP12D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
CNP12U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
DEL11U0003	DELALLA, D. - OBSERVATION RECORD FOR NEMACAULIS DENUDATA VAR. DENUDATA (CITED IN CNP11U0002) 2011-03-18
DFW17D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 5 - COASTAL PLANT DATA FOR REGION 5 OF THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 2017-02-07
DON15U0001	DEPARTMENT OF THE NAVY - REVISED FINDINGS ON CONSISTENCY DETERMINATION FOR THE NAVAL BASE CORONADO COASTAL CAMPUS PROJECT 2015-02-06
KEE67S0018	KEEFE, J. - KEEFE #1638 UCSB #23353 1967-03-25
LAN11U0003	LANDIS, F. - OBSERVATION RECORD FOR NEMACAULIS DENUDATA VAR. DENUDATA (CITED IN CNP11U0002) 2011-03-18
LAN11U0004	LANDIS, F. - OBSERVATION RECORD FOR NEMACAULIS DENUDATA VAR. DENUDATA (CITED IN CNP11U0002) 2011-03-20
LAN11U0005	LANDIS, F. - OBSERVATION RECORD FOR NEMACAULIS DENUDATA VAR. DENUDATA (CITED IN CNP11U0002) 2011-03-24
NYU11U0001	NYUN, J. - OBSERVATION RECORD FOR NEMACAULIS DENUDATA VAR. DENUDATA (CITED IN CNP11U0002) 2011-03-18
PAN96S0001	PANT, R. ET AL. - PANT #1015 RSA #649663 1996-06-15
REV87S0003	REVEAL, J. & C. BROOME - REVEAL #6629 CAS #800440, RSA #487215, CAS-BOT-BC #109098 1987-06-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86404
EO Index: 1021
Key Quad: National City (3211761)
Element Code: PDPGN0G011
Occurrence Number: 3
Occurrence Last Updated: 2017-09-14

Scientific Name: *Nemacaulis denudata var. denudata*
Common Name: coast woolly-heads

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G4T2
State: S2

General Habitat:
COASTAL DUNES.

Micro Habitat:
0-5 M.

Last Date Observed: 2004-08-21
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2004-08-21
Occurrence Rank: Unknown
Owner/Manager: USFWS, UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
JUST WEST OF THE JUNCTION OF INTERSTATE 5 AND CA-54, PARADISE MARSH AND THE "D" STREET FILL, SE SAN DIEGO BAY.

Detailed Location:
MAPPED AS 2 POLYGONS ACCORDING TO 2001 ELVIN COORDINATES (NE POLYGON) AND 2004 GREGORY COORDINATES (SW POLYGON).

Ecological:
DISTURBED COASTAL SANDFILL AREAS. ASSOCIATED WITH BATIS MARITIMA, LIMONIUM CALIFORNICUM, FRANKENIA PALMERI, F. SALINA, TAMARIX SP., BACCHARIS SAROTHROIDES, AND ACACIA CYCLOPS.

Threats:

General:
SITE BASED ON A 2001 ELVIN COLLECTION AND 2004 GREGORY COLLECTION. A 1971 BEAUCHAMP COLLECTION FROM "NATIONAL CITY TIDELANDS" AND A 1999 GLAZNER COLLECTION FROM "PARADISE MARSH" ARE ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS: T17S, R02W, Sec. 32 (S)
Accuracy: specific area
Area (acres): 6
UTM: Zone-11 N3612620 E489945
Latitude/Longitude: 32.65115 / -117.10721
Elevation (feet): 0

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

BEA71S0045	BEAUCHAMP, R. - BEAUCHAMP #2307 RSA #464364, SD #85563 1971-05-01
ELV01S0012	ELVIN, M. ET AL. - ELVIN #1605 UCR #263686 2001-04-30
GLA99S0001	GLAZNER, J. - GLAZNER SN CDA #15588 & #22731, CHSC #79548 1999-07-08
GRE04S0008	GREGORY, J. & J. BARTH - GREGORY #1144 SD #160262 2004-08-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86406
EO Index: 16811
Key Quad: Point Loma (3211762)
Element Code: PDPGN0G011
Occurrence Number: 4
Occurrence Last Updated: 2017-09-14

Scientific Name: *Nemacaulis denudata var. denudata*
Common Name: coast woolly-heads

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G4T2
State: S2

General Habitat:
COASTAL DUNES.

Micro Habitat:
0-5 M.

Last Date Observed: 1937-07-02
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1937-07-02
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SILVER STRAND, 1 AND 2 MILES SOUTHEAST OF CORONADO.

Detailed Location:
EXACT LOCATIONS UNKNOWN. MAPPED AS BEST GUESS BY CNDDB ALONG HIGHWAY 75 AROUND 1 TO 2 ROAD MILES SOUTHEAST OF CORONADO BASED ON COLLECTIONS FROM "1 MILE SOUTH OF CORONADO" AND "2 MILES SE OF CORONADO."

Ecological:
STREAMBED.

Threats:

General:
ONLY SOURCES OF INFORMATION FOR THIS OCCURRENCE ARE A 1934 COLLECTION BY GANDER AND A 1937 COLLECTION BY YATES. NEEDS FIELDWORK.

PLSS: T17S, R03W, Sec. 26 (S)
Accuracy: non-specific area
Area (acres): 85
UTM: Zone-11 N3614101 E485070
Latitude/Longitude: 32.66446 / -117.15922
Elevation (feet): 15

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

GAN34S0004 GANDER, F. - GANDER SN SD #1208 1934-05-06

YAT37S0005 YATES, H. - YATES #6797 UC #1136086 1937-07-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 28003
Key Quad: Point Loma (3211762)
Occurrence Number: 6
EO Index: 17608
Element Code: PDPGN0G011
Occurrence Last Updated: 2012-07-27

Scientific Name: *Nemacaulis denudata var. denudata*
Common Name: coast woolly-heads

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4T2
State: S2
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL DUNES.

Micro Habitat:
0-5 M.

Last Date Observed: 1977-04-25
Last Survey Date: 1977-04-25
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SAND DUNES AT OCEAN BLVD AND G STREET, CORONADO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN VICINITY OF SHORELINE AT THE INTERSECTION OF OCEAN BLVD AND G STREET.

Ecological:
SAND DUNES.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1977 COLLECTION BY ALLEN. NEEDS FIELDWORK.

PLSS: T17S, R03W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3616397 E482555
Latitude/Longitude: 32.68514 / -117.18608
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
ALL77S0003 ALLEN, L. - ALLEN SN SD #112081 1977-04-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	86416	**EO Index:**	17607
Key Quad:	La Jolla (3211772)	**Element Code:**	PDPGN0G011
Occurrence Number:	7	**Occurrence Last Updated:**	2017-09-08

Scientific Name: *Nemacaulis denudata var. denudata*

Common Name: coast woolly-heads

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G4T2
State: S2

General Habitat:

COASTAL DUNES.

Micro Habitat:

0-5 M.

Last Date Observed:	2013-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2013-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

DOG BEACH; SOUTHERN RIP-RAP WALL OF THE SAN DIEGO RIVER NEAR THE RIVER MOUTH, OCEAN BEACH.

Detailed Location:

MAPPED ACCORDING TO DIGITAL DATA FROM THE SAN DIEGO RIVER PARK FOUNDATION (AS REPORTED BY CDFW 2017).

Ecological:

RIP-RAP WALL AND SEASHORE.

Threats:

General:

UNKNOWN NUMBER OBSERVED IN 2011 AND 2013. BRANDEGEE COLLECTIONS FROM 1902 AND 1906 FROM OCEAN BEACH AND "OCEAN BEACH, ON THE SEASHORE" ARE ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS:	T16S, R04W, Sec. 25 (S)	**Accuracy:**	specific area	**Area (acres):**	4
UTM:	Zone-11 N3624137 E476633	**Latitude/Longitude:**	32.75485 / -117.24945	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BRA02S0007	BRANDEGEE, T. - BRANDEGEE #1601 CAS #131818, POM #2167, UC #75158, CAS-BOT-BC #109103 1902-05-07
BRA06S0010	BRANDEGEE, K. - BRANDEGEE SN UC #125354 1906-05-XX
BRA06S0030	BRANDEGEE, T. - BRANDEGEE SN SBBG #1677 1906-06-XX
DFW17D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 5 - COASTAL PLANT DATA FOR REGION 5 OF THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 2017-02-07
NIE11U0001	NIETO, M. - OBSERVATION RECORD FOR NEMACAULIS DENUDATA VAR. DENUDATA, CALFLORA ID #OE2949 2011-10-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A6282	**EO Index:**	884
Key Quad:	La Jolla (3211772)	**Element Code:**	PDPGN0G011
Occurrence Number:	9	**Occurrence Last Updated:**	2017-09-08

Scientific Name: *Nemacaulis denudata var. denudata*

Common Name: coast woolly-heads

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G4T2
State: S2

General Habitat:

COASTAL DUNES.

Micro Habitat:

0-5 M.

Last Date Observed:	2016-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MARINERS POINT, MISSION BAY.

Detailed Location:

MAPPED ACCORDING TO CDFW DIGITAL DATA.

Ecological:

Threats:

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN 2016. REFERENCE TO "MISSION BEACH" IN BEAUCHAMP'S 1986 A FLORA OF SAN DIEGO COUNTY IS ALSO ATTRIBUTED TO THIS SITE.

PLSS:	T16S, R04W, Sec. 24 (S)	**Accuracy:**	specific area	**Area (acres):**	6
UTM:	Zone-11 N3625208 E476948	**Latitude/Longitude:**	32.76451 / -117.24612	**Elevation (feet):**	15

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BEA86B0001	BEAUCHAMP, R. - A FLORA OF SAN DIEGO COUNTY, CALIFORNIA 1986-XX-XX
DFW17D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 5 - COASTAL PLANT DATA FOR REGION 5 OF THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 2017-02-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86417
Key Quad: La Jolla (3211772)
Occurrence Number: 10
EO Index: 15021
Element Code: PDPGN0G011
Occurrence Last Updated: 2012-07-30

Scientific Name: *Nemacaulis denudata var. denudata*
Common Name: coast woolly-heads

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4T2
State: S2
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL DUNES.

Micro Habitat:
0-5 M.

Last Date Observed: 1920-06-XX
Last Survey Date: 1920-06-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SANDY RIVER BED AT OLD TOWN SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB ALONG BED OF SAN DIEGO RIVER IN THE VICINITY OF OLD TOWN SAN DIEGO.

Ecological:
SANDY RIVER BED.

Threats:

General:
OCCURRENCE IS BASED ON AN 1882 COLLECTION BY CLEVELAND AND AN ANONYMOUS COLLECTION FROM 1920. ANOTHER ANONYMOUS COLLECTION FROM 1895 FROM "OLD TOWN" IS ALSO ATTRIBUTED TO THIS OCCURRENCE. NEEDS FIELDWORK.

PLSS: T16S, R03W, Sec. 28, N (S)
Accuracy: non-specific area
Area (acres): 177
UTM: Zone-11 N3624845 E481130
Latitude/Longitude: 32.76132 / -117.20145
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

ANO20S0003	ANONYMOUS - ANONYMOUS SN SD #7895 1920-06-XX
ANO95S0005	ANONYMOUS - ANONYMOUS SN SD #1213 1895-05-27
CLE82S0016	CLEVELAND, D. - CLEVELAND SN RSA #14221 1882-05-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86424
EO Index: 87461
Key Quad: Imperial Beach (3211751)
Element Code: PDPGN0G011
Occurrence Number: 24
Occurrence Last Updated: 2012-08-09

Scientific Name: *Nemacaulis denudata var. denudata*
Common Name: coast woolly-heads

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G4T2
State: S2

General Habitat:
COASTAL DUNES.

Micro Habitat:
0-5 M.

Last Date Observed: 2005-05-05
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-05-05
Occurrence Rank: Unknown
Owner/Manager: SAN DIEGO UNIFIED PORT DIST
Trend: Unknown
Presence: Presumed Extant

Location:
CHULA VISTA WILDLIFE RESERVE IN SOUTHEAST SAN DIEGO BAY.

Detailed Location:
AREA IS ACCESSED VIA ELECTRICAL POWER PLANT. PLANTS FOUND ON "SANDY AREA SOUTH OF WEST BASIN," BUT UNKNOWN IF THIS REFERS TO THE SOUTHERN EDGE OF THE WEST BASIN OR THE LONG STRIP OF LAND TO THE SW. MAPPED BY CNDDB IN THE GENERAL CVWR AREA.

Ecological:
IMPORTED SAND ABOVE LITTORAL ZONE. ASSOCIATED WITH MELILOTUS INDICA, CAMISSONIA CHEIRANTHIFOLIA, C. CALIFORNICA, CAKILE MARITIMA, LOTUS NUTTALLIANUS, MEDICAGO POLYMORPHA, ERODIUM CICUTARIUM, AND RAPHANUS SATIVUS.

Threats:
VEGETATION FROM THIS SITE IS PERIODICALLY REMOVED BY MECHANICAL AND CHEMICAL MEANS.

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2005 COLLECTION BY BARTH. THIS IS A HUMAN MADE SITE CONSTRUCTED AS MITIGATION FOR THE ADJACENT J ST MARINA; UNKNOWN IF PLANTS OCCUR HERE NATURALLY OR WERE ACTIVELY TRANSPLANTED HERE.

PLSS: T99X, R99X, Sec. UN (X)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3608480 E489716
Latitude/Longitude: 32.61380 / -117.10960
Elevation (feet): 3

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
BAR05S0009 BARTH, J. - BARTH #490 SD #170590 2005-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A6284	**EO Index:**	87462
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDPGN0G011
Occurrence Number:	25	**Occurrence Last Updated:**	2017-09-11

Scientific Name: *Nemacaulis denudata var. denudata*

Common Name: coast woolly-heads

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G4T2

State: S2

General Habitat:

COASTAL DUNES.

Micro Habitat:

0-5 M.

Last Date Observed:	2012-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH END OF IMPERIAL BEACH; APPROXIMATELY 0.3-0.7 AIR MILE NW OF WEST VIEW SCHOOL, US NAVAL RADIO STATION.

Detailed Location:

MAPPED AS 4 POLYGONS ACCORDING TO NAVY DIGITAL DATA (AS PROVIDED TO CDFW IN 2017) AND 2015 NAVY MAP.

Ecological:

Threats:

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN 2004 AND 2012. A 1937 HOWE COLLECTION FROM IMPERIAL BEACH IS ALSO ATTRIBUTED TO THIS SITE.

PLSS:	T18S, R02W, Sec. 19, W (S)	**Accuracy:**	specific area	**Area (acres):**	5
UTM:	Zone-11 N3606125 E487640	**Latitude/Longitude:**	32.59254 / -117.13171	**Elevation (feet):**	15

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

DFW17D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 5 - COASTAL PLANT DATA FOR REGION 5 OF THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 2017-02-07
DON15U0001	DEPARTMENT OF THE NAVY - REVISED FINDINGS ON CONSISTENCY DETERMINATION FOR THE NAVAL BASE CORONADO COASTAL CAMPUS PROJECT 2015-02-06
HOW37S0025	HOWE, D. - HOWE #467 SD #114244 1937-04-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86425
EO Index: 87463
Key Quad: Point Loma (3211762)
Element Code: PDPGN0G011
Occurrence Number: 26
Occurrence Last Updated: 2017-09-11

Scientific Name: *Nemacaulis denudata var. denudata*
Common Name: coast woolly-heads

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G4T2
State: S2

General Habitat:
COASTAL DUNES.

Micro Habitat:
0-5 M.

Last Date Observed: 2005-05-01
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-05-01
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVY
Trend: Unknown
Presence: Presumed Extant

Location:
NORTHWEST EDGE OF NORTH ISLAND, APPROXIMATELY 0.7 AIR MILE ESE OF KONA KAI CLUB ON SHELTER ISLAND.

Detailed Location:
MAPPED ACCORDING TO 2005 DIGITAL DATA PROVIDED BY RECON ENVIRONMENTAL, INC.

Ecological:
RUDERAL HABITAT.

Threats:

General:
500 PLANTS OBSERVED IN 2005.

PLSS: T17S, R03W, Sec. 08, SW (S)
Accuracy: specific area
Area (acres): 4
UTM: Zone-11 N3618547 E479242
Latitude/Longitude: 32.70447 / -117.22146
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

DON15U0001	DEPARTMENT OF THE NAVY - REVISED FINDINGS ON CONSISTENCY DETERMINATION FOR THE NAVAL BASE CORONADO COASTAL CAMPUS PROJECT 2015-02-06
REC05D0001	RECON ENVIRONMENTAL, INC. - DIGITAL DATA FROM SURVEYS FOR MULTIPLE TAXA ON NORTH ISLAND NAVAL AIR STATION, SAN DIEGO 2005-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86426
EO Index: 87464
Key Quad: Point Loma (3211762)
Element Code: PDPGN0G011
Occurrence Number: 27
Occurrence Last Updated: 2012-07-31

Scientific Name: *Nemacaulis denudata var. denudata*
Common Name: coast woolly-heads

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G4T2
State: S2

General Habitat:
COASTAL DUNES.

Micro Habitat:
0-5 M.

Last Date Observed: 2005-05-01
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-05-01
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVY
Trend: Unknown
Presence: Presumed Extant

Location:
SOUTHERN AND SOUTHWESTERN EDGES OF NORTH ISLAND, BETWEEN 0.4 AND 2.25 AIR MILES EAST OF BALLAST POINT.

Detailed Location:
SEVERAL COLONIES MAPPED BY CNDDB AS 19 POLYGONS ACCORDING TO 2005 DIGITAL DATA PROVIDED BY RECON ENVIRONMENTAL, INC.

Ecological:
RUDERAL, BEACH, AND SAND VERBENA-BEACH BURSAGE SERIES HABITAT.

Threats:

General:
11,014 PLANTS OBSERVED IN 2005.

PLSS: T17S, R03W, Sec. 20 (S)
Accuracy: specific area
Area (acres): 116
UTM: Zone-11 N3616743 E480008
Latitude/Longitude: 32.68821 / -117.21326
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

REC05D0001	RECON ENVIRONMENTAL, INC. - DIGITAL DATA FROM SURVEYS FOR MULTIPLE TAXA ON NORTH ISLAND NAVAL AIR STATION, SAN DIEGO 2005-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86427
EO Index: 87465
Key Quad: Point Loma (3211762)
Element Code: PDPGN0G011
Occurrence Number: 28
Occurrence Last Updated: 2017-09-14

Scientific Name: *Nemacaulis denudata var. denudata*
Common Name: coast woolly-heads

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G4T2
State: S2

General Habitat:
COASTAL DUNES.

Micro Habitat:
0-5 M.

Last Date Observed: 2013-04-03
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2013-04-03
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVY
Trend: Unknown
Presence: Presumed Extant

Location:
EAST OF ROSECRANS RD NORTH OF THE INTERSECTION BETWEEN ROSECRANS RD AND MCCLELLEN RD, POINT LOMA NAVAL FACILITY.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO 2003 ESTRELLA AND 2013 GROSS COORDINATES.

Ecological:
VERY SHELLY SANDY SOIL, WITH A LOT OF BIRD BONES. NATIVE AND WEEDY HABITAT OF PLANTS, WITH MOSS AND LICHENS. ASSOCIATED WITH RHUS INTEGRIFOLIA, ACACIA CYCLOPS, PHACELIA RAMOSISSIMA, ENCELIA CALIFORNICA, ARTEMISIA CALIFORNICA, ETC.

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 2003 AND 2013.

PLSS: T17S, R03W, Sec. 18 (S)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3617803 E477520
Latitude/Longitude: 32.69773 / -117.23983
Elevation (feet): 15

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

EST03S0007	ESTRELLA, D. & R. LAURI - ESTRELLA #142 SD #158408, SDSU #15771 & #15772 2003-05-05
GRO13S0011	GROSS, L. ET AL. - GROSS #5960 RSA #805448 2013-04-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86428
EO Index: 87466
Key Quad: Point Loma (3211762)
Element Code: PDPGN0G011
Occurrence Number: 29
Occurrence Last Updated: 2012-07-31

Scientific Name: *Nemacaulis denudata var. denudata*
Common Name: coast woolly-heads

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G4T2
State: S2

General Habitat:
COASTAL DUNES.

Micro Habitat:
0-5 M.

Last Date Observed: 1936-04-25
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1936-04-25
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SILVER STRAND, NEAR TENT CITY, CORONADO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN GENERAL VICINITY OF HISTORIC TENT CITY.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1936 COLLECTION BY GANDER. NEEDS FIELDWORK.

PLSS: T17S, R03W, Sec. 22, SE (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3615490 E483722
Latitude/Longitude: 32.67697 / -117.17362
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
GAN36S0079 GANDER, F. - GANDER #1600 SD #15015 1936-04-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86430
EO Index: 87468
Key Quad: La Jolla (3211772)
Element Code: PDPGN0G011
Occurrence Number: 31
Occurrence Last Updated: 2017-09-08

Scientific Name: *Nemacaulis denudata var. denudata*
Common Name: coast woolly-heads

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G4T2
State: S2

General Habitat:
COASTAL DUNES.

Micro Habitat:
0-5 M.

Last Date Observed: 2012-04-05
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-04-05
Occurrence Rank: Fair
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
FIESTA ISLAND CENTER, BETWEEN 0.5 AND 0.7 AIR MILE SSW OF POINT LOWELL.

Detailed Location:
4 COLONIES MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO 2011 DIGITAL DATA PROVIDED BY CNPS.

Ecological:
IN OPENINGS AND ALONG TRAIL. SANDY SOIL. ASSOCIATED WITH CAMISSONIOPSIS CHEIRANTHIFOLIA, AMBROSIA PSILOSTACHYA, ERODIUM CICUTARIUM, ABRONIA UMBELLATA, GLEBIONIS CORONARIA, ERODIUM BOTRYS, E. CICUTARIUM, BROMUS DIANDRUS, ETC.

Threats:
THREATENED BY TRAILS, SOME VEHICLE USE, AND WEEDS ENCROACHING ON POPULATION (GLEBIONIS AND BROMUS DIANDRUS).

General:
NORTHERN POLYGON: 700-1300 PLANTS OBSERVED IN 2011, 98,000 PLANTS OBSERVED IN 2012. SOUTHERN POLYGON: ~125 PLANTS OBSERVED IN 2011, 432 PLANTS OBSERVED IN 2012.

PLSS: T16S, R03W, Sec. 17, SW (S)
Accuracy: specific area
Area (acres): 5
UTM: Zone-11 N3627042 E479627
Latitude/Longitude: 32.78111 / -117.21756
Elevation (feet): 15

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

CNP11D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2011 SURVEYS FOR SAN DIEGO DUNE PLANTS 2011-XX-XX
CNP11U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2011 SURVEYS FOR SAN DIEGO DUNE PLANTS 2011-XX-XX
CNP12D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
CNP12U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
KTU07R0001	KTU+A LAND PLANNING AND LANDSCAPE ARCHITECTURE - FIESTA ISLAND PARK PRECISE PLAN 2007-08-XX
LAN11U0006	LANDIS, F. - OBSERVATION RECORDS FOR NEMACAULIS DENUDATA VAR. DENUDATA (CITED IN CNP11U0002) 2011-04-01
LAN11U0008	LANDIS, F. - OBSERVATION RECORDS FOR NEMACAULIS DENUDATA VAR. DENUDATA (CITED IN CNP11U0002) 2011-04-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86431
EO Index: 87469
Key Quad: La Jolla (3211772)
Element Code: PDPGN0G011
Occurrence Number: 32
Occurrence Last Updated: 2017-09-08

Scientific Name: *Nemacaulis denudata var. denudata*
Common Name: coast woolly-heads

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G4T2
State: S2

General Habitat:
COASTAL DUNES.

Micro Habitat:
0-5 M.

Last Date Observed: 2012-03-23
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2012-03-23
Occurrence Rank: Fair
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
SOUTHEAST LOBE OF FIESTA ISLAND, APPROXIMATELY 0.5 AIR MILE WEST OF THE I-5/TELECOTE ROAD INTERCHANGE.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO 2011 AND 2012 DIGITAL DATA PROVIDED BY CNPS.

Ecological:
OPEN AREA IN SAND, ~50-75% COVER. ASSOCIATED WITH ERODIUM BOTRYS, LOTUS STRIGOSUS, HETEROTHECA GRANDIFLORA, GLEBIONIS CORONARIUM, LOTUS NUTTALLIANUS, CAMISSONIOPSIS CHEIRANTHIFOLIA, FILAGO CALIFORNICA, HYPOCHAERIS GLABRA, ETC.

Threats:
THREATENED BY DOG WALKERS ON NEARBY PATH AND WEEDS, PRIMARILY ERODIUM BOTRYS AND GLEBIONIS CARINATUM.

General:
APPROXIMATELY 3550 PLANTS OBSERVED IN 2011. ABOUT 31,000 PLANTS ESTIMATED IN 2012. A 1969 LANTZ COLLECTION FROM "MISSION BAY 0.5 MILE S OF HILTON INN" IS ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS: T16S, R03W, Sec. 20 (S)
Accuracy: specific area
Area (acres): 3
UTM: Zone-11 N3625711 E479895
Latitude/Longitude: 32.76911 / -117.21466
Elevation (feet): 20

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

CNP11D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2011 SURVEYS FOR SAN DIEGO DUNE PLANTS 2011-XX-XX
CNP11U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2011 SURVEYS FOR SAN DIEGO DUNE PLANTS 2011-XX-XX
CNP12D0001	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - DIGITAL DATA FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
CNP12U0002	CALIFORNIA NATIVE PLANT SOCIETY - SAN DIEGO - EXCEL TABLE OF RESULTS FOR SPRING 2012 SURVEYS FOR SAN DIEGO DUNE PLANTS 2012-XX-XX
KTU07R0001	KTU+A LAND PLANNING AND LANDSCAPE ARCHITECTURE - FIESTA ISLAND PARK PRECISE PLAN 2007-08-XX
LAN11U0007	LANDIS, F. - OBSERVATION RECORDS FOR NEMACAULIS DENUDATA VAR. DENUDATA (CITED IN CNP11U0002) 2011-04-08
LAN69S0001	LANTZ, R. - LANTZ SN SDSU #9641 1969-07-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 86432
Key Quad: La Jolla (3211772)
Occurrence Number: 33
EO Index: 87470
Element Code: PDPGN0G011
Occurrence Last Updated: 2012-08-01

Scientific Name: *Nemacaulis denudata var. denudata*
Common Name: coast woolly-heads

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4T2
State: S2
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL DUNES.

Micro Habitat:
0-5 M.

Last Date Observed: 1981-07-17
Last Survey Date: 1981-07-17
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
FAMOSA MARSH NORTH OF WEST POINT LOMA BLVD.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN GENERAL VICINITY OF THE PORTION OF FAMOSA SLOUGH NORTH OF WEST POINT LOMA BLVD.

Ecological:
SANDY FILL. ASSOCIATED WITH LOTUS NUTTALLIANUS, CAMISSONIA, AND HAPLOPAPPUS.

Threats:

General:
MAIN SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1981 COLLECTION BY SPROUL. A 1962 WEDBERG COLLECTION FROM "SAND NORTH OF WEST POINT LOMA BLVD, 0.2 MILE E FROM NIMITZ BLVD, S END OF MISSION BAY PARK" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS: T16S, R03W, Sec. 30, E (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3624138 E478556
Latitude/Longitude: 32.75490 / -117.22891
Elevation (feet): 10

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

SPR81S0001 SPROUL, F. - SPROUL SN SD #132784 1981-07-17

WED62S0002 WEDBERG, H. - WEDBERG #973 SDSU #9636 1962-07-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A6274
EO Index: 108034
Key Quad: Imperial Beach (3211751)
Element Code: PDPGN0G011
Occurrence Number: 39
Occurrence Last Updated: 2017-09-11

Scientific Name: *Nemacaulis denudata var. denudata*
Common Name: coast woolly-heads

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G4T2
State: S2

General Habitat:
COASTAL DUNES.

Micro Habitat:
0-5 M.

Last Date Observed: 2016-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2016-XX-XX
Occurrence Rank: Unknown
Owner/Manager: USFWS-TIJUANA SLOUGH NWR
Trend: Unknown
Presence: Presumed Extant

Location:
ONEONTA SLOUGH, APPROXIMATELY 1.6 TO 2.1 AIR MILES NORTH OF BOUNDARY MONUMENT 258, TIJUANA SLOUGH NWR.

Detailed Location:
MAPPED AS 3 POLYGONS ACCORDING TO CDFW DIGITAL DATA.

Ecological:

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN 2016.

PLSS: T18S, R02W, Sec. 31, W (S)
Accuracy: specific area
Area (acres): 14
UTM: Zone-11 N3602631 E487697
Latitude/Longitude: 32.56102 / -117.13105
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
DFW17D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 5 - COASTAL PLANT DATA FOR REGION 5 OF THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 2017-02-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A6286
EO Index: 108043
Key Quad: Point Loma (3211762)
Element Code: PDPGN0G011
Occurrence Number: 45
Occurrence Last Updated: 2017-09-14

Scientific Name: *Nemacaulis denudata var. denudata*
Common Name: coast woolly-heads

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3G4T2
State: S2

General Habitat:
COASTAL DUNES.

Micro Habitat:
0-5 M.

Last Date Observed: 2013-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2013-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DPR-SILVER STRAND SB
Trend: Unknown
Presence: Presumed Extant

Location:
SILVER STRAND; NW OF PALAU ROAD ON THE WEST SIDE OF CA-75, SILVER STRAND STATE BEACH.

Detailed Location:
MAPPED AS 2 POLYGONS ACCORDING TO CNPS DIGITAL DATA (AS SUBMITTED BY CDFW IN 2017) AND 2010 SIMPSON COORDINATES.

Ecological:

Threats:

General:
UNKNOWN NUMBER OF PLANTS OBSERVED IN NORTHERN POLYGON IN 2010 AND IN SOUTHERN POLYGON IN 2013.

PLSS: T17S, R03W, Sec. 36 (S)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3612659 E485804
Latitude/Longitude: 32.65146 / -117.15137
Elevation (feet): 10

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

DFW17D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 5 - COASTAL PLANT DATA FOR REGION 5 OF THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE 2017-02-07
SIM10S0011	SIMPSON, M. & T. SHEPHERD - SIMPSON #3297 SD #221233 2010-06-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 26103
EO Index: 4782
Key Quad: Point Loma (3211762)
Element Code: PDPGN0G012
Occurrence Number: 1
Occurrence Last Updated: 2010-04-12

Scientific Name: *Nemacaulis denudata var. gracilis*
Common Name: slender cottonheads

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists:

CNDDB Element Ranks: **Global:** G3G4T3?
State: S2

General Habitat:
COASTAL DUNES, DESERT DUNES, SONORAN DESERT SCRUB.

Micro Habitat:
IN DUNES OR SAND. -45-745 M.

Last Date Observed: 1913-04-21
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1913-04-21
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:
POINT LOMA ROAD, OCEAN BEACH.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS NEAR OCEAN BEACH AND POINT LOMA ROAD.

Ecological:

Threats:

General:
SITE BASED ON A 1906 BRANDEGEE COLLECTION FROM "OCEAN BEACH" & A 1913 EASTWOOD COLLECTION FROM "POINT LOMA ROAD". AREA APPEARS TO HAVE BEEN HEAVILY DEVELOPED SINCE THE EARLY 1900'S WHEN SPECIES WAS LAST COLLECTED HERE; POSSIBLY EXTIRPATED.

PLSS: T17S, R04W (S)
Accuracy: 4/5 mile
Area (acres): 0
UTM: Zone-11 N3621579 E476892
Latitude/Longitude: 32.73178 / -117.24662
Elevation (feet): 100

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

BRA06S0002	BRANDEGEE, K. - BRANDEGEE SN UC #125355, POM #2164 1906-05-XX
EAS13S0006	EASTWOOD, A. - EASTWOOD #2880 UC #890874 & #849826, POM #14771, GH #364754 1913-04-21
REI94U0002	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03758
EO Index: 19200
Key Quad: Point Loma (3211762)
Element Code: PDPGN0G012
Occurrence Number: 2
Occurrence Last Updated: 2012-11-20

Scientific Name: *Nemacaulis denudata var. gracilis*
Common Name: slender cottonheads

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists:

CNDDB Element Ranks: **Global:** G3G4T3?
State: S2

General Habitat:
COASTAL DUNES, DESERT DUNES, SONORAN DESERT SCRUB.

Micro Habitat:
IN DUNES OR SAND. -45-745 M.

Last Date Observed: 1926-05-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1926-05-XX
Occurrence Rank: None
Owner/Manager: DOD-NAVY
Trend: Unknown
Presence: Possibly Extirpated

Location:
NORTH CORONADO ISLAND.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS AROUND THE NW PORTION OF CORONADO ISLAND.

Ecological:

Threats:

General:
SITE BASED ON 1913 EASTWOOD COLLECTION. AREA IS NOW PART OF A U.S. NAVAL AIR STATION. STATUS OF SUITABLE HABITAT IS UNKNOWN. 1926 WOODCOCK COLL FROM "SILVER FLATS NEAR MARINE BASE" AND 1891 BLAISDELL COLL FROM "CORONADO" ATTRIBUTED HERE.

PLSS: T17S, R03W, Sec. 17 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3618040 E480464
Latitude/Longitude: 32.69992 / -117.20842
Elevation (feet): 20

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

BLA91S0009	BLAISDELL, M. - BLAISDELL SN CAS #131811 1891-XX-XX
EAS13S0005	EASTWOOD, A. - EASTWOOD SN CAS #131814 1913-04-07
REI94U0002	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX
WOO26S0002	WOODCOCK, F. - WOODCOCK SN SD #1212 1926-05-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 26123
EO Index: 11770
Key Quad: Imperial Beach (3211751)
Element Code: PDPGN0G012
Occurrence Number: 3
Occurrence Last Updated: 2010-04-13

Scientific Name: *Nemacaulis denudata var. gracilis*
Common Name: slender cottonheads

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists:

CNDDB Element Ranks: **Global:** G3G4T3?
State: S2

General Habitat:
COASTAL DUNES, DESERT DUNES, SONORAN DESERT SCRUB.

Micro Habitat:
IN DUNES OR SAND. -45-745 M.

Last Date Observed: 1903-05-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1903-05-15
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
TIAJUANA RIVER, TIAJUANA (NOW = SAN YSIDRO).

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS IN VICINITY OF SAN YSIDRO AND THE TIJUANA RIVER.

Ecological:

Threats:

General:
SITE BASED ON TWO 1903 ABRAMS COLLECTIONS. NEEDS FIELDWORK.

PLSS: T19S, R02W, Sec. 02 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3601614 E495269
Latitude/Longitude: 32.55191 / -117.05038
Elevation (feet): 100

County Summary:
San Diego, Mexico

Quad Summary:
Imperial Beach (3211751)

Sources:

ABR03S0012 ABRAMS, L. - ABRAMS #3509 DS #48096, POM #282835, UC #153576, SEINET #3132412, NMC #40429 1903-05-15

ABR03S0035 ABRAMS, L. - ABRAMS #3884 POM #2165 1903-05-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	23352	**EO Index:**	18465
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDPLM0C080
Occurrence Number:	1	**Occurrence Last Updated:**	2009-02-18

Scientific Name: *Navarretia fossalis*

Common Name: spreading navarretia

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS, CHENOPOD SCRUB, MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

SAN DIEGO HARDPAN AND SAN DIEGO CLAYPAN VERNAL POOLS; IN SWALES & VERNAL POOLS, OFTEN SURROUDED BY OTHER HABITAT TYPES. 15-850 M.

Last Date Observed:	1980-05-29	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1980-05-29	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

JUST SOUTH OF OTAY MESA ROAD, ABOUT 1.7 MILE EAST OF JUNCTION WITH I-805, EAST END OF MOODY CANYON.

Detailed Location:

ON THE SOUTH SIDE OF THE ROAD ABOUT 200 FT FROM THE ROAD EDGE. THIS NATURAL SITE IS WITHIN 1/4 MILE OF INTRODUCED CNDDB OCCURRENCE #53.

Ecological:

VERNAL POOL COMMUNITY WITHIN A DISTURBED GRASSLAND. IN FAIRLY LARGE VERNAL POOLS WITH PSILOCARPHUS AND LYTHRUM HYSSOPIFOLIA. OLIVEHAIN COBBLY LOAM.

Threats:

PROXIMITY TO NEW BORDER CROSSING AND DEVELOPMENT. POSSIBLY EXTIRPATED BASED ON 2008 AERIAL IMAGERY OF THIS AREA.

General:

FEWER THAN 50 PLANTS OVER 5-10 SQUARE METER AREA SEEN IN 1980.

PLSS:	T18S, R01W, Sec. 31, NE (S)	**Accuracy:**	specific area	**Area (acres):**	2
UTM:	Zone-11 N3603156 E498094	**Latitude/Longitude:**	32.56583 / -117.02030	**Elevation (feet):**	525

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BIT83U0003	BITTMAN, R. - TNC ELEMENT PRESERVATION PLAN, TABLES, ETC. 1983-10-19
BRA80F0001	BRAMLET, D. - FIELD SURVEY FORM FOR NAVARRETIA FOSSALIS 1980-04-12
BRA80S0005	BRAMLET, D. - BRAMLET #BC-7 UCR #31833 1980-05-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04433	**EO Index:**	18464
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDPLM0C080
Occurrence Number:	2	**Occurrence Last Updated:**	2009-02-26

Scientific Name: *Navarretia fossalis*

Common Name: spreading navarretia

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS, CHENOPOD SCRUB, MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

SAN DIEGO HARDPAN AND SAN DIEGO CLAYPAN VERNAL POOLS; IN SWALES & VERNAL POOLS, OFTEN SURROUDED BY OTHER HABITAT TYPES. 15-850 M.

Last Date Observed:	1979-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-05-28	**Occurrence Rank:**	Good
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

0.9 AIR MILE SW OF OTAY RANCH, NNW OF BROWN FIELD, SOUTH OF SAN DIEGO.

Detailed Location:

FOUND IN FISH & GAME (BEAUCHAMP) POOL COMPLEX "M2". THIS POOL COMPLEX CONTAINED 2 VERNAL POOLS IN 1979.

Ecological:

IN SCRUB ON OLIVENHAIN SOIL SERIES.

Threats:

DEVELOPMENT. MINOR DISTURBANCES IN 1979. GRAVEL DUMPED IN ONE POOL TO FORM ROAD BED IN 1986.

General:

FOUND IN THIS POOL COMPLEX BY BEAUCHAMP IN 1979. NOT SEEN IN A 1986 SURVEY.

PLSS:	T18S, R01W, Sec. 17, NE (S)	**Accuracy:**	specific area	**Area (acres):**	3
UTM:	Zone-11 N3608235 E499898	**Latitude/Longitude:**	32.61165 / -117.00108	**Elevation (feet):**	490

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
COO81M0014	COOLEY, G. - MAP 5: IMPERIAL BEACH, OTAY MESA QUADS FOR NAVARRETIA FOSSALIS. 1981-07-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04019	**EO Index:**	18463
Key Quad:	La Jolla (3211772)	**Element Code:**	PDPLM0C080
Occurrence Number:	3	**Occurrence Last Updated:**	2014-08-13

Scientific Name: *Navarretia fossalis*

Common Name: spreading navarretia

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS, CHENOPOD SCRUB, MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

SAN DIEGO HARDPAN AND SAN DIEGO CLAYPAN VERNAL POOLS; IN SWALES & VERNAL POOLS, OFTEN SURROUDED BY OTHER HABITAT TYPES. 15-850 M.

Last Date Observed:	2011-09-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2011-09-15	**Occurrence Rank:**	Fair
Owner/Manager:	DOD-MCAS MIRIMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

KEARNY VILLA NORTH; JUST NORTH AND EAST OF THE INTERSECTION OF HIGHWAY 163 AND 52.

Detailed Location:

2 POLYGONS. EASTERN POLYGON: FISH & GAME (BEAUCHAMP) POOL COMPLEX "F17," CONSISTED OF 19 POOLS IN 1979; POOLS USED FOR BIOLOGICAL RESEARCH. WESTERN POLYGON MAPPED ACCORDING TO 2011 FRAGA COORDINATES.

Ecological:

IN CHAMISE CHAPARRAL ON REDDING SOILS. VERNAL POOL. ASSOCIATED WITH POGOGYNE ABRAMSII, ERYNGIUM ARISTULATUM VAR. PARISHII, BRODIAEA ORCUTTII, POLYPOGON MONSPELIENSIS, CROTON SETIGERUSM, LYTHRUM HYSSOPIFOLIA, LOLIUM PERENNE, ETC.

Threats:

E POLY: SCHEDULED FOR DESTRUCTION BY HIGHWAY CONSTRUCTION. ALSO THREATENED BY DUMPING AND NON-NATIVE SPECIES.

General:

E POLYGON: PLANT SEEN IN THIS VERNAL POOL COMPLEX IN 1979, NOT SEEN IN 1986; POOLS AT THIS SITE LOOK TO HAVE BEEN DESTROYED BY HWY CONSTRUCTION BASED ON 2008 AERIAL IMAGERY. W POLYGON: >500 PLANTS OBSERVED IN 2011.

PLSS:	T15S, R02W, Sec. 30, W (S)	**Accuracy:**	specific area	**Area (acres):**	9
UTM:	Zone-11 N3633853 E487509	**Latitude/Longitude:**	32.84267 / -117.13347	**Elevation (feet):**	430

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
BIT83U0003	BITTMAN, R. - TNC ELEMENT PRESERVATION PLAN, TABLES, ETC. 1983-10-19
COO81M0008	COOLEY, G. - MAP: LA JOLLA QUAD FOR NAVARRETIA FOSSALIS. 1981-07-06
FRA11F0010	FRAGA, N. ET AL. (RANCHO SANTA ANA BOTANIC GARDEN) - FIELD SURVEY FORM FOR NAVARRETIA FOSSALIS 2011-09-15
FRA11S0012	FRAGA, N. ET AL. - FRAGA #3895 RSA #808436 2011-09-15
FRA12R0002	FRAGA, N. & M. WALL (RANCHO SANTA ANA BOTANIC GARDEN) - GERMPLASM COLLECTION REPORT FOR FEDERALLY LISTED SPECIES COLLECTED ON DOD LANDS IN 2011 2012-01-23
WES87R0002	WESTEC SERVICES, INC. - ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED LAND SALES AND EXCHANGES SOUTH OF CALIFORNIA STATE ROUTE 52, NAVAL AIR STATION, MIRAMAR, SAN DIEGO COUNTY, CA 1987-04-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	16462	**EO Index:**	18462
Key Quad:	La Jolla (3211772)	**Element Code:**	PDPLM0C080
Occurrence Number:	4	**Occurrence Last Updated:**	2009-03-04

Scientific Name: *Navarretia fossalis*

Common Name: spreading navarretia

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS, CHENOPOD SCRUB, MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

SAN DIEGO HARDPAN AND SAN DIEGO CLAYPAN VERNAL POOLS; IN SWALES & VERNAL POOLS, OFTEN SURROUDED BY OTHER HABITAT TYPES. 15-850 M.

Last Date Observed:	1979-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-04-09	**Occurrence Rank:**	Excellent
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NE END OF MONTGOMERY FIELD BETWEEN RUNWAYS & PONDEROSA AVE, WEST OF MURPHY CANYON AND EAST OF HWY 163.

Detailed Location:

FOUND IN FISH & GAME (BEAUCHAMP) POOL COMPLEX "N6". AIRPORT FENCE APPEARS TO AFFORD PROTECTION TO THE MAJORITY OF THIS POOL COMPLEX; A FEW POOLS OCCUR OUTSIDE FENCE. THIS POOL COMPLEX CONTAINED 34 VERNAL POOLS IN 1979.

Ecological:

ON REDDING SOILS IN GRASSLAND. ASSOCIATED WITH POGOGYNE ABRAMSII & ISOETES ORCUTTII.

Threats:

SOME DESTRUCTION & DEGRADATION HAS OCCURRED DUE TO SEWER LINE PLACEMENT, DISKING, & SILTATION FROM ADJACENT DEVELOPMENT.

General:

FOUND IN THIS VERNAL POOL COMPLEX BY BEAUCHAMP IN 1979. NOT SEEN IN 1986 SURVEY OF THESE POOLS. THESE WERE "EXCELLENT" IN 1979; WHAT IS THEIR STATUS NOW?

PLSS:	T16S, R02W, Sec. 06, NW (S)	**Accuracy:**	specific area	**Area (acres):**	15
UTM:	Zone-11 N3631090 E487440	**Latitude/Longitude:**	32.81774 / -117.13416	**Elevation (feet):**	420

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
BIT83U0003	BITTMAN, R. - TNC ELEMENT PRESERVATION PLAN, TABLES, ETC. 1983-10-19
COO81M0015	COOLEY, G. - MAP: LA JOLLA QUAD FOR NAVARRETIA FOSSALIS. 1981-07-10
ZED79R0001	ZEDLER, P. ET AL. - A SURVEY OF VERNAL POOLS OF KEARNY MESA, SAN DIEGO COUNTY 1979-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 73626
EO Index: 13543
Key Quad: Imperial Beach (3211751)
Element Code: PDPLM0C080
Occurrence Number: 19
Occurrence Last Updated: 2014-08-13

Scientific Name: *Navarretia fossalis*
Common Name: spreading navarretia

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

VERNAL POOLS, CHENOPOD SCRUB, MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

SAN DIEGO HARDPAN AND SAN DIEGO CLAYPAN VERNAL POOLS; IN SWALES & VERNAL POOLS, OFTEN SURROUDED BY OTHER HABITAT TYPES. 15-850 M.

Last Date Observed: 2003-04-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-04-14
Occurrence Rank: Fair
Owner/Manager: UNKNOWN
Trend: Decreasing
Presence: Presumed Extant

Location:

WEST OF FINGER CANYON & DILLON CANYON, NORTH OF SOUTH RIM & SE OF MOODY CANYON, EAST OF SAN YSIDRO.

Detailed Location:

MAPPED TO ENCOMPASS FISH & GAME (BEAUCHAMP) POOL COMPLEX "J-13" (THIS COMPLEX HAD 4 POOLS IN 1979) & A 1985 GRIGGS MAP. NORTH-MOST POLYGON BASED ON DIGITAL DATA SUBMITTED BY THE CITY OF SAN DIEGO, 2003 (SITE J13N, IN A ROAD RUT).

Ecological:

IN VERNAL POOLS GROWING IN ASSOCIATION WITH ORCUTTIA CALIFORNICA, ERYNGIUM ARISTULATUM PARISHII, MYOSURUS MINIMUS APUS, PSILOCARPHUS BREVISSIMUS, ELEOCHARIS, EPILOBIUM PYGMAEUM, ORCUTTIA CALIFORNICA, PHALARIS LEMMONII, ETC.

Threats:

MOUNDS REMOVED, GRAZING, DISKING, ROADS THOUGH PONDS (1985). POTENTIAL DEV & ILLEGAL ALIEN TRAFFIC ALSO THREATEN.

General:

NOT SEEN BY BEAUCHAMP IN 1979 BUT SEEN BY CASS IN SEVERAL "J13" VERNAL POOLS (J13A-D, H) IN 1979. SEEN IN 1985 IN "WEST MESA PONDS". COMMON TO ABUNDANT IN 4 OF THESE POOLS IN 1986. COVERED 17 SQ FT IN N-MOST POOL IN 2003.

PLSS: T19S, R01W, Sec. 06, NE (S)
Accuracy: specific area
Area (acres): 6
UTM: Zone-11 N3601808 E498303
Latitude/Longitude: 32.55366 / -117.01807
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

BAU85U0002	BAUDER, E. - ELEMENT OCCURRENCE EVALUATION FORMS, OTAY MESA AREA 1985-XX-XX
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
CAS79S0010	CASS, T. - CASS #2E SD #105670 1979-04-14
CAS79S0011	CASS, T. - CASS #26B SD #105648 1979-04-21
CAS79S0012	CASS, T. - CASS #98 SD #105646 1979-05-06
CAS79S0013	CASS, T. - CASS #99 SD #105653 1979-05-06
GRI85U0002	GRIGGS, T. - MEMO REGARDING OTAY MESA 1985-05-01
MIS90U0002	MISTRETTA, O. & P. FRITSCH - SENSITIVE SPECIES SEED COLLECTION FORM FOR ORCUTTIA CALIFORNICA. 1990-08-03
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	73628	**EO Index:**	27105
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDPLM0C080
Occurrence Number:	20	**Occurrence Last Updated:**	2017-08-21

Scientific Name: *Navarretia fossalis*

Common Name: spreading navarretia

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS, CHENOPOD SCRUB, MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

SAN DIEGO HARDPAN AND SAN DIEGO CLAYPAN VERNAL POOLS; IN SWALES & VERNAL POOLS, OFTEN SURROUDED BY OTHER HABITAT TYPES. 15-850 M.

Last Date Observed:	2010-07-26	**Occurrence Type:**	Introduced Back into Native Hab./Range
Last Survey Date:	2010-07-26	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY MESA, NEAR THE HEAD OF DENNERY CANYON.

Detailed Location:

NEARLY ALL POOLS IN THIS AREA ARE CREATED. N. FOSSALIS REPORTED TO NATURALLY OCCUR IN SE-MOST POOL (J2S) IN 1985; POOL HAS SINCE BEEN RESTORED AND SDG NOW REPORTS IT AS A CREATED POOL (2003). WITHIN 1/4 MILE OF NATURAL OCC #S 34 & 55.

Ecological:

NATURAL VERNAL POOL (1985) WAS ON STOCKPEN SOILS WITH MIMA MOUNDS. ASSOCIATED WITH FESTUCA MEGALURA, DESCHAMPSIA DANTHONIOIDES, MYOSURUS MINIMUS SSP. APUS, AND ERYNGIUM ARISTULATUM VAR. PARISHII.

Threats:

HEAVY ORV DISTURBANCE IN AREA IN 1985.

General:

PLANT NOT SEEN IN THIS AREA IN 1980 SURVEY BUT ~80 PLANTS SEEN IN A NATURAL POOL IN 1985 BY BRAMLET. MORE THAN 70 POOLS WERE CREATED AND SEEDED WITH NAVARRETIA FOSSALIS BY RECON AS REPORTED BY THE CITY OF SAN DIEGO (2003). SEEN IN 2010.

PLSS:	T18S, R01W, Sec. 29, SW (S)	**Accuracy:**	specific area	**Area (acres):**	30
UTM:	Zone-11 N3603884 E499241	**Latitude/Longitude:**	32.57239 / -117.00807	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BRA85F0002	BRAMLET, D. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII, MYOSURUS MINIMUS SSP. APUS & NAVARRETIA FOSSALIS 1985-04-11
OLS11U0001	OLSON, M. (RECON ENVIRONMENTAL, INC.) - 2010 SEED COLLECTION SUMMARY REPORT FOR THE RESTORATION OF VERNAL POOLS ON THE SHINOHARA PARCEL OF THE USFWS SAN DIEGO NATIONAL WILDLIFE REFUGE. 2011-01-06
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	38915	**EO Index:**	33922
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDPLM0C080
Occurrence Number:	34	**Occurrence Last Updated:**	2014-09-08

Scientific Name: *Navarretia fossalis*

Common Name: spreading navarretia

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS, CHENOPOD SCRUB, MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

SAN DIEGO HARDPAN AND SAN DIEGO CLAYPAN VERNAL POOLS; IN SWALES & VERNAL POOLS, OFTEN SURROUDED BY OTHER HABITAT TYPES. 15-850 M.

Last Date Observed:	2003-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-XX-XX	**Occurrence Rank:**	Poor
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY MESA ABOVE SPRING CANYON, ABOUT 0.15 MI SOUTH OF OTAY MESA ROAD AND 2.1 MI EAST OF I-805, SOUTHEAST OF SAN DIEGO.

Detailed Location:

NEAR DIRT ROAD. MAPPED BY CNDDB ACCORDING TO 2003 DIGITAL DATA FROM THE CITY OF SAN DIEGO; DATA ORIGINALLY FROM HELIX, SITE NAME IS J14. NOT REPORTED FROM FISH & GAME (BEAUCHAMP) POOL COMPLEX "J14" IN 1979.

Ecological:

VERNAL POOL ON ALTAMONT/DIABLO CLAY SOILS. ASSOCIATED WITH POGOGYNE NUDIUSCULA, MYOSURUS MINIMUS. POOL SURROUNDED BY HEMIZONIA CONJUGENS AND COASTAL SAGE SCRUB.

Threats:

SITE DAMAGED BY BORDER PATROL VEHICLES AND TRAMPLING BY ILLEGAL ALIENS.

General:

NOT SEEN IN THIS POOL COMPLEX BY BEAUCHAMP IN 1979. UNKNOWN NUMBER OF PLANTS SEEN IN 1991, 1995, AND 2003. ABOUT 30 PLANTS OBSERVED SOMETIME PRE-2001. THIS NATURAL SITE IS WITHIN 1/4 MILE OF INTRODUCED OCCURRENCE #S 20 & 51.

PLSS:	T18S, R01W, Sec. 32, NE (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3603056 E499612	**Latitude/Longitude:**	32.56493 / -117.00412	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
CAL01M0002	CALTRANS - MAPS SHOWING SENSITIVE PLANT SPECIES IMPACT FOOTPRINT FOR ROUTE 905, REVISED 2001 2001-06-XX
JAM01U0001	JAMES, R. - MAP AND LETTER REGARDING DEINANDRA CONJUGENS ON OTAY MESA 2001-02-27
MCM91F0001	MCMILLAN, B.L. - FIELD SURVEY FORM FOR DEINANDRA CONJUGENS & NAVARRETIA FOSSALIS 1991-08-09
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	73644	**EO Index:**	74527
Key Quad:	Otay Mesa (3211658)	**Element Code:**	PDPLM0C080
Occurrence Number:	51	**Occurrence Last Updated:**	2014-08-18

Scientific Name: *Navarretia fossalis*

Common Name: spreading navarretia

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS, CHENOPOD SCRUB, MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

SAN DIEGO HARDPAN AND SAN DIEGO CLAYPAN VERNAL POOLS; IN SWALES & VERNAL POOLS, OFTEN SURROUDED BY OTHER HABITAT TYPES. 15-850 M.

Last Date Observed:	2003-04-16	**Occurrence Type:**	Introduced Back into Native Hab./Range
Last Survey Date:	2003-04-16	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

WSW OF THE INTERSECTION OF OTAY MESA ROAD AND HERITAGE ROAD, SW OF BROWN FIELD.

Detailed Location:

3 POLYGONS MAPPED ACCORDING TO A 2001 CALTRANS MAP AND 2003 DIGITAL DATA FROM THE CITY OF SAN DIEGO (ORIGINALLY FROM HELIX 2003); 4 CREATED POOLS FROM "RECON SOUTH." UNK IF 2 CALTRANS POOLS ARE CREATED. WITHIN 1/4 MI OF NATURAL OCC #34.

Ecological:

CREATED VERNAL POOLS. ASSOCIATED WITH ERYNGIUM ARISTULATUM & POGOGYNE NUDIUSCULA.

Threats:

General:

SEEN IN 2 COLONIES IN 1995, UNKNOWN IF POOLS WERE NATURAL OR CREATED. SEEN IN 4 CREATED VERNAL POOLS WITH 7 SQ FT OF COVER IN 2003.

PLSS:	T18S, R01W, Sec. 32, NE (S)	**Accuracy:**	specific area	**Area (acres):**	4
UTM:	Zone-11 N3603241 E499989	**Latitude/Longitude:**	32.56659 / -117.00010	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

CAL01M0002	CALTRANS - MAPS SHOWING SENSITIVE PLANT SPECIES IMPACT FOOTPRINT FOR ROUTE 905, REVISED 2001 2001-06-XX
JAM01U0001	JAMES, R. - MAP AND LETTER REGARDING DEINANDRA CONJUGENS ON OTAY MESA 2001-02-27
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 73645
EO Index: 74530
Key Quad: Otay Mesa (3211658)
Element Code: PDPLM0C080
Occurrence Number: 52
Occurrence Last Updated: 2009-03-23

Scientific Name: *Navarretia fossalis*
Common Name: spreading navarretia

Listing Status: **Federal:** Threatened
State: None
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

VERNAL POOLS, CHENOPOD SCRUB, MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

SAN DIEGO HARDPAN AND SAN DIEGO CLAYPAN VERNAL POOLS; IN SWALES & VERNAL POOLS, OFTEN SURROUDED BY OTHER HABITAT TYPES. 15-850 M.

Last Date Observed: 2006-XX-XX
Occurrence Type: Introduced Back into Native Hab./Range
Last Survey Date: 2006-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

APPROXIMATELY 0.35 AIR MI SE OF THE MOUTH OF WRUCK CANYON, SW END OF OTAY MESA.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO A 2006 ECOLOGICAL RESTORATION SERVICE MAP. THIS SITE IS CALLED "ARNIE'S POINT".

Ecological:

CREATED/RESTORED VERNAL POOLS.

Threats:

General:

NOT SEEN IN 2003. SEEN IN 6 CREATED OR RESTORED VERNAL POOLS IN 2004-2006; POPULATION ESTIMATES RANGED FROM ~250 PLANTS IN 2004 TO ~400 PLANTS IN 2006. POOLS WERE CREATED/RESTORED IN 2002.

PLSS: T19S, R01W, Sec. 05, SE (S)
Accuracy: specific area
Area (acres): 4
UTM: Zone-11 N3601012 E499921
Latitude/Longitude: 32.54649 / -117.00083
Elevation (feet): 445

County Summary:

San Diego

Quad Summary:

Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

ERS06R0001	ECOLOGICAL RESTORATION SERVICE - MAINTENANCE AND MONITORING OF VERNAL POOLS AND UPLAND VEGETATION AT ARNIE'S POINT, SAN DIEGO, CA: AREA A (YEAR 4) AND AREA B (YEAR 3), 2005-2006 HYDROLOGICAL YEAR 2006-XX-XX
FWS07D0001	U.S. FISH AND WILDLIFE SERVICE-CARLSBAD - USFWS CARLSBAD SPECIAL STATUS SPECIES DATABASE, AUGUST 2007 VERSION 2007-08-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	73646	**EO Index:**	74531
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDPLM0C080
Occurrence Number:	53	**Occurrence Last Updated:**	2014-08-18

Scientific Name: *Navarretia fossalis*

Common Name: spreading navarretia

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS, CHENOPOD SCRUB, MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

SAN DIEGO HARDPAN AND SAN DIEGO CLAYPAN VERNAL POOLS; IN SWALES & VERNAL POOLS, OFTEN SURROUDED BY OTHER HABITAT TYPES. 15-850 M.

Last Date Observed:	2003-02-21	**Occurrence Type:**	Introduced Back into Native Hab./Range
Last Survey Date:	2003-02-21	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NEAR THE HEAD OF MOODY CANYON, SOUTH OF OTAY MESA ROAD, SW END OF OTAY MESA.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO DIGITAL DATA SUBMITTED BY THE CITY OF SAN DIEGO (2003); DATA ORIGINALLY FROM HELIX (2003), SITE NAME IS SWEETWATER HS. THIS INTRODUCED SITE IS WITHIN 1/4 MILE OF NATURAL CNDDB OCCURRENCE #1.

Ecological:

CREATED VERNAL POOLS. ASSOCIATED WITH MYOSURUS MINIMUS & POGOGYNE NUDIUSCULA.

Threats:

General:

SEEN IN 3 CREATED VERNAL POOLS WITH A TOTAL COVER OF 7 SQ FT IN 2003.

PLSS:	T18S, R01W, Sec. 31, NE (S)	**Accuracy:**	specific area	**Area (acres):**	2
UTM:	Zone-11 N3602902 E497961	**Latitude/Longitude:**	32.56353 / -117.02171	**Elevation (feet):**	520

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	73648	**EO Index:**	74532
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDPLM0C080
Occurrence Number:	54	**Occurrence Last Updated:**	2014-08-18

Scientific Name: *Navarretia fossalis*

Common Name: spreading navarretia

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS, CHENOPOD SCRUB, MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

SAN DIEGO HARDPAN AND SAN DIEGO CLAYPAN VERNAL POOLS; IN SWALES & VERNAL POOLS, OFTEN SURROUDED BY OTHER HABITAT TYPES. 15-850 M.

Last Date Observed:	2003-02-21	**Occurrence Type:**	Introduced Back into Native Hab./Range
Last Survey Date:	2003-02-21	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH SIDE OF MOODY CANYON, SOUTH OF OTAY MESA ROAD, SW END OF OTAY MESA.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO DIGITAL DATA SUBMITTED BY THE CITY OF SAN DIEGO (2003); DATA ORIGINALLY FROM HELIX (2003), SITE NAME IS WEST OTAY A+B.

Ecological:

CREATED VERNAL POOLS. ASSOCIATED WITH MYOSURUS MINIMUS & POGOGYNE NUDIUSCULA.

Threats:

General:

SEEN IN 3 CREATED VERNAL POOLS WITH AN ESTIMATED COVER OF 18 SQ FT IN 2003.

PLSS:	T18S, R01W, Sec. 31, SW (S)	**Accuracy:**	specific area	**Area (acres):**	2
UTM:	Zone-11 N3602625 E497376	**Latitude/Longitude:**	32.56103 / -117.02795	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	73650	**EO Index:**	74533
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDPLM0C080
Occurrence Number:	55	**Occurrence Last Updated:**	2017-08-21

Scientific Name: *Navarretia fossalis*

Common Name: spreading navarretia

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS, CHENOPOD SCRUB, MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

SAN DIEGO HARDPAN AND SAN DIEGO CLAYPAN VERNAL POOLS; IN SWALES & VERNAL POOLS, OFTEN SURROUDED BY OTHER HABITAT TYPES. 15-850 M.

Last Date Observed:	2009-05-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-04-21	**Occurrence Rank:**	Poor
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

EAST SIDE OF DENNERY CANYON, WEST OF CHESTER GRADE & BROWN FIELD.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO DIGITAL DATA SUBMITTED BY THE CITY OF SAN DIEGO (2003); DATA ORIGINALLY FROM HELIX, SITE NAME IS ROBINHOOD RIDGE. WITHIN 1/4 MILE OF CNDDB OCCURRENCE #20 WHICH CONTAINS CREATED/RESTORED POOLS.

Ecological:

RESTORED VERNAL POOL, MARITIME SUCCULENT SCRUB. ASSOCIATED WITH ERYNGIUM ARISTULATUM, MYOSURUS MINIMUS, POGOGYNE NUDIUSCULA, PSILOCARPHUS BREVISSIMUS, DESCHAMPSIA DANTHONIOIDES, DEINANDRA FASCICULATA, BROMUS HORDACEUS, ETC.

Threats:

HIGH COVER OF NON-NATIVE GRASSES IN UPLANDS. HOMELESS ENCAMPMENTS NEARBY.

General:

SEEN IN 4 POOLS COVERING 13 SQ FT IN 2003. 50 PLANTS OBSERVED OVER 770 SQ FT IN 2009. NO PLANTS SEEN IN 2014-2016; 2015 DIGITAL DATA INDICATES RESTORATION MAY HAVE NOT BEEN SUCCESSFUL.

PLSS:	T18S, R01W, Sec. 29, NE (S)	**Accuracy:**	specific area	**Area (acres):**	2
UTM:	Zone-11 N3604465 E499637	**Latitude/Longitude:**	32.57763 / -117.00386	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

MIL09F0071	MILLER, B. & J. GAUDETTE (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR NAVARRETIA FOSSALIS 2009-05-11
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	73654	**EO Index:**	74534
Key Quad:	La Jolla (3211772)	**Element Code:**	PDPLM0C080
Occurrence Number:	56	**Occurrence Last Updated:**	2017-08-24

Scientific Name: *Navarretia fossalis*

Common Name: spreading navarretia

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS, CHENOPOD SCRUB, MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

SAN DIEGO HARDPAN AND SAN DIEGO CLAYPAN VERNAL POOLS; IN SWALES & VERNAL POOLS, OFTEN SURROUDED BY OTHER HABITAT TYPES. 15-850 M.

Last Date Observed:	2016-04-06	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-04-06	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

JUST SSW OF THE INTERSECTION OF NOBEL DRIVE AND I-805, NE OF UNIVERSITY CITY.

Detailed Location:

ROSE CANYON OPEN SPACE. 2 POLYGONS MAPPED BY CNDDB ACCORDING TO 2003 & 2008 DIGITAL DATA SUBMITTED BY THE CITY OF SAN DIEGO AND A MAP FROM 2010.

Ecological:

VERNAL POOLS, DISTURBED COASTAL SAGE SCRUB, NON-NATIVE GRASSLAND. ASSOCIATED WITH BRODIAEA ORCUTTIA, DESCHAMPSIA DANTHONIOIDES, LYTHRUM HYSSOPIFOLIUM, COTULA CORONOPIFOLIA, ERODIUM SP., PILULARIA AMERICANA, CALLITRICHE MARGINATA, ETC.

Threats:

POSSIBLY THREATENED BY NON-NATIVES, VEG CLEARING (WEED REMOVAL FOR CALTRANS MITIGATION), TRAIL USE, MTN BIKES.

General:

N. FOSSALIS COVERED ~11 SQ FT IN A SINGLE BASIN IN 2003. SEEN IN 2008. 87 PLANTS OBSERVED IN 2009. 1 PLANT IN 2014, 8 PLANTS IN 2015, 1 PLANT IN 2016.

PLSS:	T15S, R03W, Sec. 16, S (S)	**Accuracy:**	specific area	**Area (acres):**	3
UTM:	Zone-11 N3636487 E481658	**Latitude/Longitude:**	32.86635 / -117.19604	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

ANO10R0001	ANONYMOUS - EXHIBIT J: KNOWN BIOLOGICAL RESOURCES ON THE NOBEL DR. SITE AND NEARBY PROPERTIES 2010-XX-XX
MIL09F0070	MILLER, B. & K. BALO (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR NAVARRETIA FOSSALIS 2009-04-22
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 73658
Key Quad: La Jolla (3211772)
Occurrence Number: 58
EO Index: 74536
Element Code: PDPLM0C080
Occurrence Last Updated: 2009-02-19

Scientific Name: *Navarretia fossalis*
Common Name: spreading navarretia

Listing Status: **Federal:** Threatened
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

VERNAL POOLS, CHENOPOD SCRUB, MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

SAN DIEGO HARDPAN AND SAN DIEGO CLAYPAN VERNAL POOLS; IN SWALES & VERNAL POOLS, OFTEN SURROUDED BY OTHER HABITAT TYPES. 15-850 M.

Last Date Observed: 1982-XX-XX
Last Survey Date: 1982-XX-XX
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

ABOUT 1.1 AIR MI NW OF INTERSECTION OF KEARNY VILLA ROAD & HWY 163, SE END OF RUNWAYS, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

MAPPED BY CNDDB IN BEAUCHAMP POOL "EE 33" ACCORDING TO A 1982 BEAUCHAMP REPORT.

Ecological:

VERNAL POOL. ASSOCIATES INCLUDE ANAGALLIS MINIMUS, DOWNINGIA CUSPIDATA, & PSILOCARPHUS.

Threats:

General:

MENTIONED IN A 1982 BEAUCHAMP REPORT AS OCCURRING IN THIS VERNAL POOL. NEED ADDITIONAL HABITAT AND POPULATION INFORMATION FOR THIS SITE.

PLSS: T15S, R02W, Sec. 18, SW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3636187 E487382
Latitude/Longitude: 32.86372 / -117.13486
Elevation (feet): 450

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

BEA82M0001	BEAUCHAMP, R. - APPENDIX 1 TO BEA82U0001, MAPS OF VERNAL POOLS ON MIRAMAR NAS 1982-XX-XX
BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 73659
Key Quad: La Jolla (3211772)
Occurrence Number: 59
EO Index: 74540
Element Code: PDPLM0C080
Occurrence Last Updated: 2014-08-19

Scientific Name: *Navarretia fossalis*
Common Name: spreading navarretia

Listing Status: **Federal:** Threatened
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

VERNAL POOLS, CHENOPOD SCRUB, MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

SAN DIEGO HARDPAN AND SAN DIEGO CLAYPAN VERNAL POOLS; IN SWALES & VERNAL POOLS, OFTEN SURROUDED BY OTHER HABITAT TYPES. 15-850 M.

Last Date Observed: 2003-XX-XX
Last Survey Date: 2003-XX-XX
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SOUTH OF ROSE CANYON AND NORTH OF THE RUNWAYS, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

FOUND IN A SWALE WITHIN A LARGER VERNAL POOL. MAPPED BY CNDDB TO ENCOMPASS VERNAL POOLS IN "VERNAL POOL MANAGEMENT PLAN SERIES HHI+." ASSUMPTION MADE AT CNDDB THAT "HHI+" IS ACTUALLY "HH 1+".

Ecological:

OPEN FLAT SOIL. IN A SWALE WITHIN A LARGER VERNAL POOL. POGOGYNE ABRAMSII AND ERYNGIUM ARISTULATUM VAR. PARISHII, & ORCUTTIA CALIFORNICA ALSO FOUND HERE.

Threats:

General:

~200 PLANTS SEEN IN 1994. POPULATION MENTIONED IN A REPORT FOR 2001-2003 SURVEYS OF THE AREA, THOUGH IT IS UNCLEAR IF PLANTS WERE ACTUALLY SEEN AT THIS SITE IN 2001-2003.

PLSS: T15S, R03W, Sec. 14, NE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3637184 E484990
Latitude/Longitude: 32.87268 / -117.16044
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

BLA04R0001	BLACK, C. (ECOLOGICAL RESTORATION SERVICE) - VERNAL POOL DELINEATION, RARE PLANT AND FAIRY SHRIMP SURVEY REPORTS ON MIRAMAR VERNAL POOLS, 2000-2001 THROUGH 2002-03 FIELD SEASONS, COMPREHENSIVE FINDINGS 2004-06-XX
GEN06R0001	GENE STOUT AND ASSOCIATES & GEOMORPH INFORMATION SYSTEMS - INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN FOR MARINE CORPS AIR STATION MIRAMAR, CALIFORNIA 2006-2010. BIOLOGICAL RESOURCES. 2006-10-XX
HUL94S0002	HULL, C. - HULL #19V94A SDSU #3207 1994-05-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	93514	**EO Index:**	94646
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDPLM0C080
Occurrence Number:	77	**Occurrence Last Updated:**	2014-08-19

Scientific Name: *Navarretia fossalis*

Common Name: spreading navarretia

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS, CHENOPOD SCRUB, MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

SAN DIEGO HARDPAN AND SAN DIEGO CLAYPAN VERNAL POOLS; IN SWALES & VERNAL POOLS, OFTEN SURROUDED BY OTHER HABITAT TYPES. 15-850 M.

Last Date Observed:	1995-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1995-XX-XX	**Occurrence Rank:**	None
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Extirpated		

Location:

WEST OF DENNERY CANYON, APPROXIMATELY 1.3 AIR MILES ENE OF THE INTERSECTION OF SR 905 AND I-850, OTAY MESA.

Detailed Location:

2 POLYGONS MAPPED IN THE NORTH 1/2 OF THE SE 1/4 OF SECTION 30 ACCORDING TO A 1997 MAP BY RECON ENVIRONMENTAL.

Ecological:

VERNAL POOLS.

Threats:

POPULATION APPEARS TO BE EXTIRPATED BY DEVELOPMENT BASED ON 2012 AERIAL IMAGERY.

General:

SEEN IN 2 POOLS DURING 1993 AND 1995 SURVEYS. SALVAGED SEED AND SOIL WILL BE INTRODUCED INTO CREATED POOLS WITHIN THE VERNAL POOL PRESERVE AREAS.

PLSS:	T18S, R01W, Sec. 30, SE (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3604053 E498206	**Latitude/Longitude:**	32.57392 / -117.01910	**Elevation (feet):**	550

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

PAT97U0001 PATTERSON, C. (RECON ENVIRONMENTAL, INC.) - DENNERY CANYON VERNAL POOL, COASTAL SAGE SCRUB, AND MULE FAT SCRUB RESTORATION AND PRESERVATION PLAN. 1997-03-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A6132	**EO Index:**	94651
Key Quad:	Otay Mesa (3211658)	**Element Code:**	PDPLM0C080
Occurrence Number:	78	**Occurrence Last Updated:**	2017-08-29

Scientific Name: *Navarretia fossalis*

Common Name: spreading navarretia

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS, CHENOPOD SCRUB, MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

SAN DIEGO HARDPAN AND SAN DIEGO CLAYPAN VERNAL POOLS; IN SWALES & VERNAL POOLS, OFTEN SURROUDED BY OTHER HABITAT TYPES. 15-850 M.

Last Date Observed:	2011-05-31	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-04-26	**Occurrence Rank:**	Poor
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTHEAST OF CONFLUENCE OF WRUCK CANYON AND SPRING CANYON, ABOUT 2.5 AIR MILES EAST OF SAN YSIDRO.

Detailed Location:

MAPPED IN NORTH 1/2 OF NE 1/4 OF SECTION 5 ACCORDING TO 2011 MILLER COORDINATES AND SDMMP DIGITAL DATA FOR NEGATIVE OBSERVATIONS IN 2014-2016 (PLANT PRESUMABLY SEEN AT SITE IN PREVIOUS YEARS).

Ecological:

SOUTHERN MARITIME SCRUB HABITAT. SIMMONDSIA CHINENSIS-BAHIOPSIS LACINIATA ASSOCIATION.

Threats:

ORV USE BY PUBLIC AND BORDER PATROL. NON-NATIVES AND TRAILS MAY ALSO THREATEN.

General:

NEGATIVE OBSERVATION REPORTED FROM VICINITY (J 16-18 POOLS) IN 2009, WHICH IMPLIES THAT NAVARRETIA MAY HAVE BEEN HERE SOMETIME PRIOR TO 2009. UNKNOWN NUMBER IN 2011. NO PLANTS IN 2014-2016; PLANTS ONLY PRESENT IN ABOVE AVG RAINFALL YEARS.

PLSS:	T19S, R01W, Sec. 5, NE (S)	**Accuracy:**	specific area	**Area (acres):**	10
UTM:	Zone-11 N3601594 E499921	**Latitude/Longitude:**	32.55173 / -117.00084	**Elevation (feet):**	470

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

MIL11F0017	MILLER, B. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA & LEPUS CALIFORNICUS BENNETTII & ERYNGIUM ARISTULATUM VAR. PARISHII & NAVARRETIA FOSSALIS 2011-05-31
SDG09F0002	CITY OF SAN DIEGO - FIELD SURVEY FORM FOR NAVARRETIA FOSSALIS 2009-05-15
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	93526	**EO Index:**	94659
Key Quad:	La Jolla (3211772)	**Element Code:**	PDPLM0C080
Occurrence Number:	79	**Occurrence Last Updated:**	2016-08-01

Scientific Name: *Navarretia fossalis*

Common Name: spreading navarretia

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS, CHENOPOD SCRUB, MARSHES AND SWAMPS, PLAYAS.

Micro Habitat:

SAN DIEGO HARDPAN AND SAN DIEGO CLAYPAN VERNAL POOLS; IN SWALES & VERNAL POOLS, OFTEN SURROUDED BY OTHER HABITAT TYPES. 15-850 M.

Last Date Observed:	2011-09-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2011-09-15	**Occurrence Rank:**	Excellent
Owner/Manager:	DOD-MCAS MIRIMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

APPROXIMATELY 0.5 AND 0.75 AIR MILE WNW OF THE INTERSECTION OF STATE ROUTES 163 AND 52, KEARNY MESA.

Detailed Location:

MAPPED AS 2 POLYGONS ACCORDING TO 2009 SOLOMESHCH COORDINATES (EASTERN POLYGON) AND 2011 FRAGA COORDINATES (WESTERN POLYGON).

Ecological:

VERNAL POOL. ASSOCIATED WITH POLYPOGON MONSPELIENSIS, CROTON SETIGER, LYTHRUM HYSSOPIFOLIA, LOLIUM PERENNE, AGROSTIS AVENACEA, JUNCUS BUFONIS, ERYNGIUM ARISTULATUM VAR. PARISHII, AND POGOGYNE ABRAMSII.

Threats:

NON-NATIVE SPECIES MAY POTENTIALLY OUT COMPETE THE NATIVE SPECIES.

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN EASTERN POLYGON IN 2009. >500 PLANTS OBSERVED IN WESTERN POLYGON IN 2011.

PLSS:	T15S, R03W, Sec. 25, NW (S)	**Accuracy:**	specific area	**Area (acres):**	10
UTM:	Zone-11 N3634171 E486382	**Latitude/Longitude:**	32.84552 / -117.14552	**Elevation (feet):**	415

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

FRA11F0010	FRAGA, N. ET AL. (RANCHO SANTA ANA BOTANIC GARDEN) - FIELD SURVEY FORM FOR NAVARRETIA FOSSALIS 2011-09-15
FRA12R0002	FRAGA, N. & M. WALL (RANCHO SANTA ANA BOTANIC GARDEN) - GERMPLASM COLLECTION REPORT FOR FEDERALLY LISTED SPECIES COLLECTED ON DOD LANDS IN 2011 2012-01-23
SOL09S0026	SOLOMESHCH, A. ET AL. - SOLOMESHCH SN DAV #150079 2009-04-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17841
EO Index: 47935
Key Quad: National City (3211761)
Element Code: PDPLM0C0Q0
Occurrence Number: 1
Occurrence Last Updated: 2002-05-20

Scientific Name: *Navarretia prostrata*
Common Name: prostrate vernal pool navarretia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS, MEADOWS AND SEEPS.

Micro Habitat:

ALKALINE SOILS IN GRASSLAND, OR IN VERNAL POOLS. MESIC, ALKALINE SITES. 3-1235 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

NATIONAL CITY.

Detailed Location:

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION IS COLLECTION BY CLEVELAND. NEEDS FIELDWORK.

PLSS: T17S, R02W (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3615016 E491044
Latitude/Longitude: 32.67278 / -117.09552
Elevation (feet):

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

CLENDS0002 CLEVELAND - CLEVELAND SN HERBARIUM UNKNOWN (CITED IN JEP43B0001) XXXX-XX-XX

JEP43B0001 JEPSON, W. - A FLORA OF CALIFORNIA, UNIVERSITY OF CALIFORNIA, BERKELEY - VOL.3, PART II 1943-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	47936	**EO Index:**	47936
Key Quad:	La Jolla (3211772)	**Element Code:**	PDPLM0C0Q0
Occurrence Number:	2	**Occurrence Last Updated:**	2011-08-03

Scientific Name: *Navarretia prostrata*

Common Name: prostrate vernal pool navarretia

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists:

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS, MEADOWS AND SEEPS.

Micro Habitat:

ALKALINE SOILS IN GRASSLAND, OR IN VERNAL POOLS. MESIC, ALKALINE SITES. 3-1235 M.

Last Date Observed:	1981-04-16	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1981-04-16	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

KEARNY MESA; KEARNY VILLA ROAD NEAR HWY 52 AND WATER TOWER, MIRAMAR.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB TO ENCOMPASS THE 5900 BLOCK OF KEARNY VILLA RD, HWY 52, CHESAPEAKE DR, AND WATER TOWER, BASED ON OBERBAUER AND MORAN LOCATION INFORMATION. MAPPED MORE GENERALLY TO ENCOMPASS KEARNY VILLA RD REROUTING.

Ecological:

IN BOTTOM OF VERNAL POOLS WITH ISOETES, DOWNINGIA CUSPIDATA, AND POGOGYNE ABRAMSII. AREA OF CHAPARRAL AND VERNAL POOLS.

Threats:

General:

SITE BASED ON SEVERAL VAGUE COLLECTIONS FROM THIS VICINITY. NEEDS FIELDWORK.

PLSS:	T15S, R02W, Sec. 30 (S)	**Accuracy:**	2/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3633736 E487664	**Latitude/Longitude:**	32.84161 / -117.13181	**Elevation (feet):**	430

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), La Jolla (3211772)

Sources:

CAS79S0001	CASS, T. - CASS #80 SD #132839 1979-05-04
MOR79S0001	MORAN, R. - MORAN #25557 SD #122677, UC #1564717, UCR #58988, RSA #487167 1979-04-27
OBE81S0001	OBERBAUER, T. - OBERBAUER SN SD #127732 1981-04-16
REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
REI94U0003	REISER, C. - INVENTORY 6TH EDITION COMMENTS 1994-12-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04118	**EO Index:**	24253
Key Quad:	La Mesa (3211771)	**Element Code:**	PDRAN0H031
Occurrence Number:	6	**Occurrence Last Updated:**	1996-01-05

Scientific Name: *Myosurus minimus ssp. apus*

Common Name: little mousetail

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 3.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T2Q

State: S2

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

ALKALINE SOILS. 20-640 M.

Last Date Observed:	1986-07-09	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-07-09	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-NAVY, USFWS	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

TIERRASANTA SOUTH; S END SANTO RD. F&G POOL CODES G1&2. CITY-RECON:G.

Detailed Location:

SITE BISECTED BY POWERLINE AND HAS 2 PARALLEL DIRT ROADS FROM NORTH TO SOUTH.

Ecological:

OCCURS WITH POGOGYNE ABRAMSII, BRODIAEA ORCUTTII AND OTHER VERNAL PLANTS.

Threats:

MED-HIGH DISTURBANCE FROM ORVS, TRASH DUMPING & BRUSHING.

General:

SP COMMON IN 10-50% OF APPROXIMATELY 35-40 POOLS. SMALL-MEDIUM SIZED POOLS. SP ALSO OBSERVED IN 1979.

PLSS:	T16S, R02W, Sec. 08 (S)	**Accuracy:**	non-specific area	**Area (acres):**	20
UTM:	Zone-11 N3629305 E490204	**Latitude/Longitude:**	32.80167 / -117.10463	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
COO81M0019	COOLEY, G. - MAP: LA MESA QUAD FOR MYOSURUS MINIMUS SSP. APUS. 1981-07-13

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04427
EO Index: 21599
Key Quad: Imperial Beach (3211751)
Element Code: PDRAN0H031
Occurrence Number: 11
Occurrence Last Updated: 1989-08-11

Scientific Name: *Myosurus minimus ssp. apus*
Common Name: little mousetail

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 3.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T2Q
State: S2

General Habitat:
VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
ALKALINE SOILS. 20-640 M.

Last Date Observed: 1980-04-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1980-04-12
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
3/4 MI E OF HWYS 75 & 117 ON S SIDE, ABOUT 1/4 MI S OF HWY 117.

Detailed Location:

Ecological:
VERNAL POOL WITH PSILOCARPHUS SPECIES.

Threats:

General:
FEWER THAN 100 PLANTS SEEN IN 1980.

PLSS: T18S, R01W, Sec. 32, NE (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3603039 E499580
Latitude/Longitude: 32.56477 / -117.00447
Elevation (feet): 500

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
BRA80F0002 BRAMLET, D. - FIELD SURVEY FORM FOR MYOSURUS MINIMUS SSP. APUS 1980-04-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04420	**EO Index:**	27106
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDRAN0H031
Occurrence Number:	17	**Occurrence Last Updated:**	1993-06-02

Scientific Name: *Myosurus minimus ssp. apus*

Common Name: little mousetail

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 3.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5T2Q

State: S2

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

ALKALINE SOILS. 20-640 M.

Last Date Observed:	1985-04-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1985-04-11	**Occurrence Rank:**	Fair
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OTAY MESA, 0.2 KM (0.15 MI) DUE EAST OF HEAD OF DENNERY CANYON.

Detailed Location:

INCLUDES BEAUCHAMP J-2 POOLS.

Ecological:

VERNAL POOLS ON STOCKPEN SOILS WITH MIMA MOUNDS. ASSOCIATED WITH FESTUCA MEGALURA, DESCHAMPSIA DANTHONIOIDES, NAVARRETIA FOSSALIS, AND ERYNGIUM ARISTULATUM VAR. PARISHII.

Threats:

HEAVY ORV DISTURBANCE IN AREA.

General:

SPECIES NOT SEEN IN INITIAL VERNAL POOL ACCOUNT BY BEAUCHAMP IN 1979 OR IN BRAMLET 1980 SURVEY.

PLSS:	T18S, R01W, Sec. 29, SW (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3603699 E499365	**Latitude/Longitude:**	32.57073 / -117.00676	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BRA85F0002 BRAMLET, D. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII, MYOSURUS MINIMUS SSP. APUS & NAVARRETIA FOSSALIS 1985-04-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17713
EO Index: 11604
Key Quad: La Mesa (3211771)
Element Code: PDRHA01010
Occurrence Number: 17
Occurrence Last Updated: 2014-04-15

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 1981-10-27
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1981-10-27
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

ABOUT 1 MILE SW OF SAN DIEGO STATE UNIVERSITY, AT THE WEST CORNER OF YERBA SANTA DRIVE AND MONTEZUMA ROAD.

Detailed Location:

Ecological:

IN CLAY LOAM SOILS WITH ARTEMISIA CALIFORNICA, SALVIA MELLIFERA AND NASSELLA PULCHRA.

Threats:

FURTHER DEVELOPMENT THREATENS; THIS WAS A REMNANT OF A LARGER POPULATION IN 1981.

General:

4 PLANTS SEEN IN 1981. A FEW MORE SCATTERED GROUPS OF PLANTS MAY OCCUR IN THE SAME GENERAL AREA. A 1948 GALLUP COLLECTION FROM "WEST SIDE OF SDSC (SDSU) CAMPUS" IS ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS: T16S, R02W (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3625951 E492045
Latitude/Longitude: 32.77143 / -117.08494
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

GAL48S0001 GALLUP, A. - GALLUP #140 SDSU #10158 1948-04-11

SIV81F0017 SIVINSKI, R. - FIELD SURVEY FORM FOR ADOLPHIA CALIFORNICA 1981-10-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 17718
EO Index: 11606
Key Quad: La Mesa (3211771)
Element Code: PDRHA01010
Occurrence Number: 18
Occurrence Last Updated: 1991-10-30

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 1981-02-16
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1981-02-16
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

1 BLOCK (0.3 MILE) SOUTH OF MISSION GORGE ROAD ON MARGERUM AVE.

Detailed Location:

Ecological:

IN REDDING COBBLY LOAM SOILS WITH RHUS INTEGRIFOLIA, ISOMERIS ARBOREA, HETEROMELES ARBUTIFOLIA, AND ARTEMISIA CALIFORNICA.

Threats:

NO VISIBLE THREATS NOTED IN 1981.

General:

FEWER THAN 50 PLANTS SEEN IN 1981.

PLSS: T16S, R02W (S)
Accuracy: specific area
Area (acres): 13
UTM: Zone-11 N3629566 E493542
Latitude/Longitude: 32.80405 / -117.06898
Elevation (feet): 250

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

SIV81F0018 SIVINSKI, R. - FIELD SURVEY FORM FOR ADOLPHIA CALIFORNICA 1981-02-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 20128
Key Quad: La Mesa (3211771)
Occurrence Number: 19
EO Index: 9689
Element Code: PDRHA01010
Occurrence Last Updated: 2014-04-15

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S2
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 1934-12-18
Last Survey Date: 1934-12-18
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

ALVARADO CANYON, HALF MILE SW OF MURRAY LAKE.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS A BEST GUESS.

Ecological:

Threats:

THERE HAS BEEN EXTENSIVE DEVELOPMENT IN THIS AREA.

General:

MAIN SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1934 COLLECTION BY GANDER. NEEDS FIELDWORK.

PLSS: T16S, R02W (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3626634 E494984
Latitude/Longitude: 32.77761 / -117.05356
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

GAN34S0001 GANDER, F. - GANDER #101 RSA #13507, UCR #44762, SD #10107, UC #797655, #930912, #991027, GH #367864, LA #103889, OBI #10277, SDSU #10162, #10163, #10165-7 1934-12-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	39675	**EO Index:**	34678
Key Quad:	La Mesa (3211771)	**Element Code:**	PDRHA01010
Occurrence Number:	69	**Occurrence Last Updated:**	2008-04-02

Scientific Name: *Adolphia californica*

Common Name: California adolphia

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed:	1998-02-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1998-02-11	**Occurrence Rank:**	Good
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

WEST OF SAN DIEGO STATE UNIVERSITY, ABOUT 0.9 MILE ESE OF JUNCTION OF I-15 AND I-8 ALONG FAIRMONT AVENUE, SAN DIEGO.

Detailed Location:

MAPPED ALONG EDGE OF STEEP SLOPE ABOVE MINOR DRAINAGE ABOUT 0.2 MILE NORTH OF JUNCTION OF FAIRMONT AVENUE AND MONTEZUMA ROAD.

Ecological:

MARITIME SUCCULENT SCRUB DOMINATED BY ENCELIA CALIFORNICA WITH SIMMONDSIA CHINENSIS, RHUS INTEGRIFOLIA, AND MANY OTHERS. OTHER RARE PLANTS IN AREA INCLUDE CEANOTHUS VERRUCOSUS AND FEROCACTUS VIRIDESCENS.

Threats:

SITE PROPOSED FOR PARTIAL DEVELOPMENT.

General:

12+ PLANTS OBSERVED IN 1998. MORE POSSIBLY PRESENT, BUT NOT OBSERVED. 1929 JOHNSON COLLECTION AND 1935 GANDER COLLECTION FROM MAHOGANY CANYON ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS:	T16S, R02W, Sec. 16, SW (S)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-11 N3626459 E490893	**Latitude/Longitude:**	32.77600 / -117.09724	**Elevation (feet):**	225

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

GAN35S0030	GANDER, F. - GANDER #1242 SD #10311 1935-02-19
JOH29S0003	JOHNSON, E. - JOHNSON #1278 RSA #1326 1929-04-17
SCH98F0014	SCHEIDT, V. - FIELD SURVEY FORM FOR ADOLPHIA CALIFORNICA 1998-02-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	41529	**EO Index:**	62011
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDRHA01010
Occurrence Number:	70	**Occurrence Last Updated:**	2008-04-11

Scientific Name: *Adolphia californica*

Common Name: California adolphia

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed:	1998-04-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1998-04-24	**Occurrence Rank:**	Fair
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

JUST NORTHEAST OF JUNCTION OF I-805 AND I-905, ABOUT 1 MILE NORTHEAST OF SAN YSIDRO, EAST OF IMPERIAL BEACH.

Detailed Location:

Ecological:

MARITIME SUCCULENT SCRUB ON HILLS WITH NON-NATIVE GRASSLAND AT BASE. SOME DISTURBED COASTAL SAGE SCRUB.

Threats:

DEVELOPMENT, OFF-ROAD VEHICLE USE BY TRESPASSERS, DUMPING.

General:

UNKNOWN NUMBER OF PLANTS SEEN IN 1998. HABITAT ON HILLS IS HIGH QUALITY, REST OF SITE DISTURBED. 1935 COLLECTION FROM HOWE FROM "MESA NORTH OF SAN YSIDRO" AND 1935 GANDER COLLECTION FROM "SAN YSIDRO" ALSO ATTRIBUTED HERE.

PLSS:	T18S, R02W, Sec. 25, SE (S)	**Accuracy:**	non-specific area	**Area (acres):**	63
UTM:	Zone-11 N3603765 E496647	**Latitude/Longitude:**	32.57132 / -117.03571	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

BOE98F0001	BOESSOCO, H. - FIELD SURVEY FORM FOR AMBROSIA CHENOPODIIFOLIA & FEROCACTUS VIRIDESCENS & EUPHORBIA MISERA & ADOLPHIA CALIFORNICA 1998-04-24
GAN35S0028	GANDER, F. - GANDER #3132 SD #12938 1935-12-05
HOW35S0006	HOWE, D. - HOWE #102 SD #114132 1935-02-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	61977	**EO Index:**	62013
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDRHA01010
Occurrence Number:	71	**Occurrence Last Updated:**	2017-05-24

Scientific Name: *Adolphia californica*

Common Name: California adolphia

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3

State: S2

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed:	2007-05-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2007-05-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH OF OTAY VALLEY ROAD, ON THE EAST SIDE ON NIRVANA AVE AND SOUTH OF ENERGY WAY; EAST OF I-805.

Detailed Location:

MAPPED AS 2 POLYGONS ACCORDING TO A 1992 ROBERTS MAP AND A 2007 MERKEL AND ASSOCIATES MAP SHOWING PARCEL BOUNDARIES (UNKNOWN WHERE WITHIN THESE PARCELS ADOLPHIA WAS FOUND BUT IT IS MENTIONED AS BEING A DOMINANT).

Ecological:

SOUTHERN MARITIME SUCCULENT SCRUB WITH SIMMONDSIA CHINENSIS, CYLINDROPUNTIA PROLIFERA, ISOMERIS ARBOREA, ERIOGONUM FASCICULATUM FASCICULATUM, VIGUIERA LACINIATA, AND ENCELIA CALIFORNICA.

Threats:

NW PORTION: HABITAT DEGRADED AND THE AREA APPEARS TO HAVE BEEN BRUSHED WITHIN THE LAST DECADE (1992). DEVELOPMENT.

General:

NORTH POLYGON: 20-30 PLANTS SEEN IN 1992; BASED ON 2012 AERIAL IMAGERY, THIS SITE HAS BEEN EXTIRPATED BY DEVELOPMENT. SOUTH POLYGON: OBSERVED WITHIN PARCELS ON NORTH SIDE OF OTAY VALLEY ROAD IN 2007 (NEED MAP DETAIL).

PLSS:	T18S, R01W, Sec. 20, N (S)	**Accuracy:**	non-specific area	**Area (acres):**	26
UTM:	Zone-11 N3606308 E498982	**Latitude/Longitude:**	32.59426 / -117.01084	**Elevation (feet):**	200

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

GUT07U0001	GUTIERREZ, A. (MERKEL AND ASSOCIATES, INC.) - 45-DAY LETTER REPORT OF COASTAL CALIFORNIA GNATCATCHER PROTOCOL SURVEYS FOR THE CHULA VISTA MAIN STREET PROJECT. 2007-07-12
ROB92R0002	ROBERTS, ET AL. - OTAY RIVER VALLEY RESOURCE ENHANCEMENT PLAN PREPARED FOR THE COASTAL CONSERVANCY AND THE CITY OF CHULA VISTA 1992-09-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	61980	**EO Index:**	62016
Key Quad:	National City (3211761)	**Element Code:**	PDRHA01010
Occurrence Number:	72	**Occurrence Last Updated:**	2014-05-27

Scientific Name: *Adolphia californica*

Common Name: California adolphia

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3

State: S2

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed:	2010-08-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2010-08-24	**Occurrence Rank:**	Good
Owner/Manager:	SDG COUNTY, SWEETWATER AUTH	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

WEST SIDE OF SWEETWATER RESERVOIR, ALONG CREEK BETWEEN SWEETWATER DAM AND HIGHWAY 54.

Detailed Location:

SEVERAL SITES MAPPED BY CNDDB AS 7 POLYGONS IN THE SW 1/4 OF THE NW 1/4 AND THE NW 1/4 OF THE SW 1/4 OF SECTION 17.

Ecological:

MARITIME SUCCULENT SCRUB AND DIEGAN COASTAL SAGE SCRUB. ASSOCIATED WITH ARTEMISIA CALIFORNICA, SIMMONDSIA CHINENSIS, ERIOGONUM FASCICULATUM, VIGUIERA LACINIATA, ENCELIA CALIFORNICA, FEROCACTUS VIRIDESCENS, HEMIZONIA CONJUGENS, ETC.

Threats:

ROAD/TRAIL CONSTRUCTION AND SEWER REPAIRS.

General:

SEEN IN N POLYGON IN 1994. SOUTHERN HALF OF OCCURRENCE: 100 PLANTS SEEN IN 2004, 2 PLANTS SEEN IN 2005, 8 PLANTS SEEN IN 2010. A 1902 GRANT COLLECTION FROM SWEETWATER DAM IS ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS:	T17S, R01W, Sec. 17, W (S)	**Accuracy:**	specific area	**Area (acres):**	11
UTM:	Zone-11 N3617176 E498975	**Latitude/Longitude:**	32.69230 / -117.01093	**Elevation (feet):**	180

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

EDW95U0002	EDWARDS, C. & A. KOLTZ (PACIFIC SOUTHWEST BIOLOGICAL SERVICES) - CALIFORNIA GNATCATCHER SURVEY RESULTS 1995-01-17
FAM05R0001	FAMOLARO, P. (SWEETWATER AUTHORITY) - BIOLOGICAL RESOURCES TECHNICAL REPORT FOR THE ROBERT A. PERDUE WATER TREATMENT PLANT AND SWEETWATER RESERVOIR DAM MASTER PLAN 2005-07-11
GAR11R0001	GARROD, M. (SWEETWATER AUTHORITY) - 36-INCH RAW WATER PIPELINE REPLACEMENT PROJECT: INITIAL STUDY 2011-05-XX
GRA02S0006	GRANT, G. - GRANT #1237 UC #56269, POM #2831, DS #114049 1902-04-19
MAR04U0001	MARQUEZ, D. (RECON ENVIRONMENTAL, INC.) - POST-SURVEY NOTIFICATION-2004 FOCUSED SURVEY RESULTS FOR THE COASTAL CALIFORNIA GNATCATCHER AT THE SPRING VALLEY SUSPENSION BRIDGE SITE, SPRING VALLEY, CALIFORNIA 2004-03-16
REC11D0003	RECON ENVIRONMENTAL, INC. - TWO SHAPEFILES OF SENSITIVE SPECIES OBSERVED DURING SURVEYS FOR THREE SAN DIEGO PUBLIC WORKS PROJECTS, 2005-2011. 2011-10-20
SAU04F0003	SAUCEDO-ORTIZ, D. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR ADOLPHIA CALIFORNICA 2004-02-24
SDG08U0001	COUNTY OF SAN DIEGO - DRAFT HABITAT LOSS PERMIT FOR THE SWEETWATER RESERVOIR LOOP TRAIL 2008-07-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 61982
Key Quad: National City (3211761)
Occurrence Number: 73
EO Index: 62018
Element Code: PDRHA01010
Occurrence Last Updated: 2014-05-02

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S2
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 1971-03-22
Last Survey Date: 1971-03-22
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

SOUTHEAST OF WABASH AND HIGHWAY 94, CHOLLAS VALLEY.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB JUST SOUTHEAST OF THE INTERSECTION OF I-15 (FORMERLY WABASH BLVD) AND HIGHWAY 94.

Ecological:

OPEN SLOPE.

Threats:

EXTENSIVE DEVELOPMENT IN THIS VICINITY.

General:

ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1971 COLLECTION BY BEAUCHAMP. NEEDS FIELDWORK.

PLSS: T17S, R02W, Sec. 08 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3619290 E489512
Latitude/Longitude: 32.71132 / -117.11190
Elevation (feet): 130

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

BEA71S0028 BEAUCHAMP, R. - BEAUCHAMP #1906 SD #128303 1971-03-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 58541
EO Index: 62019
Key Quad: Point Loma (3211762)
Element Code: PDRHA01010
Occurrence Number: 74
Occurrence Last Updated: 2014-04-30

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 1999-09-10
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1999-09-10
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

SWITZER CANYON JUST WEST OF 30TH STREET BETWEEN NUTMEG STREET AND LAUREL STREET, EAST OF BALBOA PARK, SAN DIEGO.

Detailed Location:

Ecological:

COASTAL SAGE SCRUB/COASTAL CHAPARRAL.

Threats:

General:

"A LARGE POPULATION WITH MANY INDIVIDUALS" SEEN IN 1999. 1990 PHOTOS BY LAYMON FROM SWITZER CANYON ARE ALSO ATTRIBUTED TO THIS OCCURRENCE. NEEDS FIELDWORK.

PLSS: T16S, R02W, Sec. 31, SW (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3621687 E487720
Latitude/Longitude: 32.73293 / -117.13105
Elevation (feet): 250

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

LAY90I0001 LAYMON, R. - PHOTOS OF ADOLPHIA CALIFORNICA, CALPHOTOS ID: 0000 0000 0502 0855 & 0856 1990-02-26

REB99S0002 REBMAN, J. ET AL. - REBMAN #6015 UCR #112437, SD #143650, RSA #643608 1999-09-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	71291	**EO Index:**	72194
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDRHA01010
Occurrence Number:	82	**Occurrence Last Updated:**	2014-04-30

Scientific Name: *Adolphia californica*

Common Name: California adolphia

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 2B.1

CNDDB Element Ranks: **Global:** G3
State: S2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed:	2009-06-09	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-06-09	**Occurrence Rank:**	Unknown
Owner/Manager:	SDG COUNTY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH SIDE OF OTAY VALLEY, JUST NORTHWEST OF FINNEY ELEMENTARY SCHOOL, ~0.6 AIR MILE WNW OF I-805/PALM AVE INTERCHANGE.

Detailed Location:

MAPPED IN THE SW 1/4 OF THE SW 1/4 OF SECTION 24.

Ecological:

XERIC E- AND SW-FACING SLOPES, VERY STEEP WITH LOOSE ROCKY SOIL. ASSOCIATED WITH VIGUIERA LACINIATA, SIMMONDSIA CHINENSIS, ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, COREOPSIS GIGANTEA, RHUS INTEGRIFOLIA, ACHNATHERUM DIEGOENSE, ETC.

Threats:

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN 2009. 1937 AND 1938 GANDER COLLECTIONS FROM "OTAY, SOUTH SIDE OF RIVER" AND "1 MILE SOUTH OF OTAY" AND A 1950 HOWE COLLECTION FROM "ONE HALF MILE SOUTH OF OTAY" ARE ALSO ATTRIBUTED HERE.

PLSS:	T18S, R02W, Sec. 24, SW (S)	**Accuracy:**	specific area	**Area (acres):**	8
UTM:	Zone-11 N3605382 E495503	**Latitude/Longitude:**	32.58590 / -117.04791	**Elevation (feet):**	150

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

GAN37S0018	GANDER, F. - GANDER #3088 SD #16632 1937-04-01
GAN38S0038	GANDER, F. - GANDER #4902 SD #20229 1938-01-07
HOW50S0017	HOWE, D. - HOWE #2034 SD #114133 1950-09-14
VEG09F0037	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR ADOLPHIA CALIFORNICA 2009-06-09
VEG09F0040	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR ADOLPHIA CALIFORNICA 2009-06-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71295
Key Quad: National City (3211761)
Occurrence Number: 83
EO Index: 72197
Element Code: PDRHA01010
Occurrence Last Updated: 2014-05-01

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S2
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 2001-XX-XX
Last Survey Date: 2001-XX-XX
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

CHOLLAS VALLEY; JUST SOUTHWEST OF JOHNSON ELEMENTARY SCHOOL, ABOUT 0.4 AIR MILE ENE OF HWY 94/EUCLID AVE INTERCHANGE.

Detailed Location:

MAPPED IN THE SE 1/4 OF THE SW 1/4 OF SECTION 3 ACCORDING TO 2008 CITY OF SAN DIEGO DIGITAL DATA.

Ecological:

Threats:

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN 2001. A 1935 COLLECTION BY GANDER FROM "FEDERAL BLVD, NEAR EMERALD HILLS CLUB HOUSE" IS ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS: T17S, R02W, Sec. 03, SW (S)
UTM: Zone-11 N3620177 E492749
Accuracy: specific area
Latitude/Longitude: 32.71934 / -117.07736
Area (acres): 3
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

GAN35S0029 GANDER, F. - GANDER #1131 SD #10183 1935-01-29

SDG08D0001 CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71296
Key Quad: National City (3211761)
Occurrence Number: 84
EO Index: 72198
Element Code: PDRHA01010
Occurrence Last Updated: 2017-05-25

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S2
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 2010-06-28
Last Survey Date: 2010-06-28
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SOUTH OF CHOLLAS VALLEY, JUST NORTH OF MARKET ST, ABOUT 0.4 AND 0.5 MILE EAST OF EUCLID ST AND MARKET ST INTERSECTION.

Detailed Location:

MAPPED AS 2 POLYGONS ACCORDING TO 2008 SCHNEIDER COORDINATES AND 2010 VEGETATION SURVEY COORDINATES. IN CHOLLAS RADIO CANYON OPEN SPACE.

Ecological:

ASSOCIATED WITH ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, CYLINDROPUNTIA PROLIFERA, OPUNTIA LITTORALIS, SAMBUCUS MEXICANA, FEROCACTUS VIRIDESCENS, VIGUIERA LACINIATA, RHUS INTEGRIFOLIA, BACCHARIS SAROTHROIDES, ISOMERIS ARBOREA, ETC.

Threats:

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN 2008. 1% AND 35% COVER OF ADOLPHIA OBSERVED IN 2010 VEG SURVEYS. A 2000 REBMAN COLLECTION FROM "CANYON JUST N OF MARKET ST AND E OF MALCOM X LIBRARY AND EUCLID" IS ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS: T17S, R02W, Sec. 10, NW (S)
Accuracy: specific area
Area (acres): 12
UTM: Zone-11 N3619207 E492815
Latitude/Longitude: 32.71059 / -117.07667
Elevation (feet): 200

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

REB00S0003	REBMAN, J. & O. SOLIS - REBMAN #6359 SD #148327, UCR #149192, SEINET #2048842, DES #55308 2000-03-31
SCH08S0005	SCHNEIDER, C. - SCHNEIDER #149 SD #198662 2008-02-02
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71297
Key Quad: La Mesa (3211771)
Occurrence Number: 85

EO Index: 72199
Element Code: PDRHA01010
Occurrence Last Updated: 2008-05-14

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S2

Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 1936-01-16
Last Survey Date: 1936-01-16
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

1 MILE WEST OF PEAK OF COWLES MOUNTAIN.

Detailed Location:

Ecological:

Threats:

MOST OF THIS AREA HAS BEEN CONVERTED TO RESIDENTIAL DEVELOPMENT.

General:

ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1936 COLLECTION BY GANDER. OCCURRENCE IS POSSIBLY EXTIRPATED.

PLSS: T16S, R02W, Sec. 01 (S)
Accuracy: 2/5 mile
Area (acres): 0

UTM: Zone-11 N3630632 E495459
Latitude/Longitude: 32.81367 / -117.04850
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

GAN36S0056 GANDER, F. - GANDER #451 SD #13071 1936-01-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03570
Key Quad: La Jolla (3211772)
Occurrence Number: 86

EO Index: 72200
Element Code: PDRHA01010
Occurrence Last Updated: 2014-05-01

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S2

Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 1929-01-31
Last Survey Date: 1929-01-31
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

LA JOLLA MESA.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB BASED ON COLLECTIONS FROM "MESA ABOVE LA JOLLA" AND "LA JOLLA, ON SLOPES NEAR COAST, 0-150 FT ELEVATION."

Ecological:

MESA AND ON SLOPES NEAR THE COAST.

Threats:

THERE HAS BEEN EXTENSIVE DEVELOPMENT IN THIS AREA; OCCURRENCE IS POSSIBLY EXTIRPATED.

General:

OCCURRENCE IS BASED ON A 1928 KENNEDY COLLECTION AND A 1929 PARKS COLLECTION. NEEDS FIELDWORK.

PLSS: T15S, R04W, Sec. 35 (S)
Accuracy: 1 mile
Area (acres): 0

UTM: Zone-11 N3631852 E475295
Latitude/Longitude: 32.82441 / -117.26393
Elevation (feet):

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

KEN28S0007 KENNEDY, P. - KENNEDY SN DAV #111350 1928-11-22

PAR29S0004 PARKS, H. & S. PARKS - PARKS #340 UC #370429 1929-01-31

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92225
EO Index: 93323
Key Quad: Imperial Beach (3211751)
Element Code: PDRHA01010
Occurrence Number: 102
Occurrence Last Updated: 2014-05-02

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 2000-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2000-XX-XX
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

NORTH SIDE OF OTAY VALLEY, APPROXIMATELY 1 AND 1.3 AIR MILES EAST OF ROHR SCHOOL.

Detailed Location:

2 POLYGONS MAPPED IN THE SOUTH 1/2 OF THE SE 1/4 OF SECTION 18.

Ecological:

Threats:

General:

"SCATTERED" PLANTS OBSERVED IN NW POLYGON AND AN UNKNOWN NUMBER OF PLANTS OBSERVED IN SE POLYGON DURING 1996/1998/2000 SURVEYS.

PLSS: T18S, R01W, Sec. 18, SE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3607054 E497900
Latitude/Longitude: 32.60099 / -117.02237
Elevation (feet): 350

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

MER00U0006 MERKEL, K. (MERKEL AND ASSOCIATES, INC.) - LETTER AND MAP REGARDING THE CHULA VISTA SPORTS PARK PROPOSED MINOR AMENDMENT AREA 2000-12-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92230
EO Index: 93328
Key Quad: Imperial Beach (3211751)
Element Code: PDRHA01010
Occurrence Number: 103
Occurrence Last Updated: 2014-05-02

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 2000-05-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2000-05-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

BETWEEN MAIN STREET AND OTAY VALLEY ROAD, APPROXIMATELY 0.65 MILE WEST OF I-805, OTAY.

Detailed Location:

MAPPED IN THE WEST 1/2 OF THE NW 1/4 OF SECTION 24.

Ecological:

Threats:

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN 2000.

PLSS: T18S, R02W, Sec. 24, NW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3606333 E495513
Latitude/Longitude: 32.59447 / -117.04781
Elevation (feet): 100

County Summary:	Quad Summary:
San Diego	Imperial Beach (3211751)

Sources:

JOS01R0001 JOSHI, V. (DUDEK AND ASSOCIATES) - BIOLOGICAL RESOURCES TECHNICAL REPORT FOR SALT CREEK INTERCEPTOR AND WOLF CANYON TRUNK SEWER PROJECT: CHULA VISTA, CALIFORNIA 2001-01-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92232
EO Index: 93330
Key Quad: Imperial Beach (3211751)
Element Code: PDRHA01010
Occurrence Number: 104
Occurrence Last Updated: 2014-05-02

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 2008-05-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2008-05-07
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

OTAY MESA E OF CITY OF SAN YSIDRO, ABOUT 0.6 MI N OF THE BORDER WITH MEXICO, ~2 MI SW OF BROWN MUNICIPAL AIRPORT.

Detailed Location:

MAPPED IN THE NE 1/4 OF THE NW 1/4 OF SECTION 5 ACCORDING TO 2008 SALVATO COORDINATES.

Ecological:

SANDY CANYON BOTTOM WITH EPHEMERAL STREAM AND VERNAL POOLS, NOW OVERGROWN WITH WEEDY GRASSES. HIGHLY DISTURBED COASTAL SAGE SCRUB ON N-FACING CANYON WALLS. DRY, UPPER SLOPE.

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2008 COLLECTION BY SALVATO, PLANTS NOTED AS "LOCALLY COMMON."

PLSS: T19S, R01W, Sec. 05, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3601711 E499242
Latitude/Longitude: 32.55279 / -117.00806
Elevation (feet): 367

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

SAL08S0004 SALVATO, T. & E. KLEIN - SALVATO #3487 UCR #192810 2008-05-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92235
EO Index: 93335
Key Quad: National City (3211761)
Element Code: PDRHA01010
Occurrence Number: 105
Occurrence Last Updated: 2014-05-02

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 1971-02-21
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1971-02-21
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO?
Trend: Unknown
Presence: Presumed Extant

Location:

CANYON BETWEEN BAYVIEW MOBILE HOME PARK AND CHOLLAS SANITARY FILL.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB BETWEEN BAYVIEW MOBILE HOME PARK AND VICINITY OF CHOLLAS RESERVOIR.

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1971 COLLECTION BY LARSON. NEEDS FIELDWORK.

PLSS: T16S, R02W, Sec. 34 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3621714 E493497
Latitude/Longitude: 32.73321 / -117.06940
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

LAR71S0002 LARSON, L. - LARSON SN SDSU #10157 1971-02-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92238
Key Quad: National City (3211761)
Occurrence Number: 106
EO Index: 93336
Element Code: PDRHA01010
Occurrence Last Updated: 2014-05-02

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S2
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 1994-04-06
Last Survey Date: 1994-04-06
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

VICINITY OF RADIO DRIVE, BURIAN STREET, AND REPUBLIC STREET, SOUTHEAST SAN DIEGO.

Detailed Location:

EXACT LOCATIONS UNKNOWN. MAPPED GENERALLY BY CNDDB TO ENCOMPASS COLLECTIONS FROM "NEAR ROAD, OFF OF RADIO DR, NEAREST CROSS STREET, BURIAN ST, IN SE SAN DIEGO" AND "1540 REPUBLIC ST, ENCANTO."

Ecological:

DRY LIME SLOPE NEAR ROAD CUT-AWAY. CLOSED SLOPING CLAY SOIL, EAST-FACING SLOPE. ASSOCIATED WITH MALOSMA LAURINA, HETEROMELES ARBUTIFOLIA, OPUNTIA PROLIFERA, AND FEROCACTUS VIRIDESCENS.

Threats:

General:

BASED ON A 1992 ENCISCO COLLECTION AND A 1994 HANSON COLLECTION. NEEDS FIELDWORK.

PLSS: T17S, R02W, Sec. 02, SW (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3620266 E493893
Latitude/Longitude: 32.72015 / -117.06516
Elevation (feet): 300

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

ENC92S0002 ENCISCO, C. - ENCISCO #15III92A SDSU #10159 1992-03-15
HAN94S0007 HANSON, B. - HANSON #6III94C SDSU #9587 1994-04-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	69197	**EO Index:**	93337
Key Quad:	National City (3211761)	**Element Code:**	PDRHA01010
Occurrence Number:	107	**Occurrence Last Updated:**	2014-05-02

Scientific Name: *Adolphia californica*

Common Name: California adolphia

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO?	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SAN DIEGO URBAN CANYONS, NORTH PARK/GOLDEN HILL, NEAR CEDAR RIDGE PARK AT END OF PENTUCKETT.

Detailed Location:

MAPPED BY CNDDB TO ENCOMPASS AREA AROUND CEDAR RIDGE PARK BASED ON 1999 COLLECTION LOCALITY AND S SIDE OF HILL 219 BASED ON 2008 DIGITAL DATA; LOCATION OF DIG DATA MAY BE ERRONEOUS DUE TO EXISTING DEVELOPMENT ON SITE AT TIME OF SURVEY.

Ecological:

ON TOP WITH SW, E & W-FACING SLOPES. SURROUNDING CANYONS, STREAMBED WITH WATER. ASSOCIATED WITH YUCCA SCHIDIGERA, ARTEMISIA CALIFORNICA, SALVIA MELLIFERA, AND ERIOGONUM FASCICULATUM.

Threats:

General:

"QUITE A LARGE POPULATION" OBSERVED IN 1999. UNKNOWN NUMBER OF PLANTS OBSERVED IN 2001.

PLSS:	T17S, R02W, Sec. 06, SE (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3620437 E488857	**Latitude/Longitude:**	32.72166 / -117.11890	**Elevation (feet):**	492

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

REB99S0003	REBMAN, J. & O. SOLIS - REBMAN #6126 UCR #138088, SD #148326, SEINET #2047797, DES #54367 1999-12-17
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92239
EO Index: 93339
Key Quad: National City (3211761)
Element Code: PDRHA01010
Occurrence Number: 108
Occurrence Last Updated: 2014-05-02

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 2003-10-06
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-10-06
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

WEST SIDE OF SWEETWATER ROAD, ABOUT 0.3 MILE SOUTH OF INTERSECTION WITH HIGHWAY 54, WEST OF SWEETWATER RESERVOIR.

Detailed Location:

LOCATED JUST SOUTH OF THE HISTORICAL GRANT HOUSE. 2 POLYGONS MAPPED IN THE SE 1/4 OF THE SE 1/4 OF SECTION 18.

Ecological:

DIEGAN COASTAL SAGE SCRUB. ASSOCIATED WITH ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, MALOSMA LAURINA, RHUS INTEGRIFOLIA, VIGUIERA LACINIATA, AND OPUNTIA PROLIFERA.

Threats:

CONSTRUCTION OF A MAJOR SUBDIVISION IS PROPOSED FOR THIS SITE.

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN 2003.

PLSS: T17S, R01W, Sec. 18, SE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3616553 E498400
Latitude/Longitude: 32.68668 / -117.01705
Elevation (feet): 200

County Summary:	Quad Summary:
San Diego	National City (3211761)

Sources:

PSB03R0003 PACIFIC SOUTHWEST BIOLOGICAL SERVICES - CARRIAGE HILL MAJOR SUBDIVISION BONITA AREA, SAN DIEGO COUNTY, CALIFORNIA, COASTAL CALIFORNIA GNATCATCHER SURVEY RESULTS 2003-10-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92241
Key Quad: National City (3211761)
Occurrence Number: 109
EO Index: 93340
Element Code: PDRHA01010
Occurrence Last Updated: 2014-05-02

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S2
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 2003-01-31
Last Survey Date: 2003-01-31
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

NORTH OF STATE ROUTE 54, APPROXIMATELY 300 M EAST OF THE INTERSECTION OF SR-54 AND BRIARWOOD.

Detailed Location:

EXACT LOCATION UNKNOWN, MAPPED BY CNDDB AS A BEST GUESS.

Ecological:

SMALL PATCH OF INTACT NATIVE HABITAT. COASTAL SAGE SCRUB ALONG DRAINAGE, DOMINATED BY RHUS INTEGRIFOLIA, CYLINDROPUNTIA LITTORALIS, AND ERIOGONUM FASCICULATUM.

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2003 COLLECTION BY GUILLIAMS.

PLSS: T17S, R01W, Sec. 19, NW (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3616225 E497392
Latitude/Longitude: 32.68372 / -117.02780
Elevation (feet): 210

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

GUI03S0001 GUILLIAMS, C. ET AL. - GUILLIAMS #112 SDSU #18921 2003-01-31

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92242
Key Quad: Point Loma (3211762)
Occurrence Number: 110
EO Index: 93341
Element Code: PDRHA01010
Occurrence Last Updated: 2014-05-02

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3
State: S2
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 1999-XX-XX
Last Survey Date: 1999-XX-XX
Owner/Manager: DOD-NAVY
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

POINT LOMA; NORTH SIDE OF WOODWARD ROAD, APPROXIMATELY 0.2 AIR MILE SOUTHWEST OF INTERSECTION WITH CABRILLO MEMORIAL DR.

Detailed Location:

Ecological:

CEANOTHUS VERRUCOSUS, FEROCACTUS VIRIDESCENS AND COREOPSIS MARITIMA ALSO OCCUR IN THIS AREA.

Threats:

General:

UNKNOWN NUMBER OF PLANTS SEEN, MOST LIKELY DURING 1999 SURVEYS.

PLSS: T17S, R04W, Sec. 13, S (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3617445 E476650
Latitude/Longitude: 32.69448 / -117.24909
Elevation (feet): 300

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

TIE06R0001 TIERRA DATA INC. & FIREWISE 2000, INC. - NAVAL BASE POINT LOMA AND CABRILLO NATIONAL MONUMENT JOINT WILDLAND FIRE MANAGEMENT PLAN 2006-06-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92283	**EO Index:**	93389
Key Quad:	La Mesa (3211771)	**Element Code:**	PDRHA01010
Occurrence Number:	111	**Occurrence Last Updated:**	2014-05-06

Scientific Name: *Adolphia californica*

Common Name: California adolphia

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 2B.1

CNDDB Element Ranks: **Global:** G3
State: S2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NAVAJO CANYON, FROM 0.5 TO 1 AIR MILE NORTHEAST OF THE INTERSECTION OF I-8 AND WARING ROAD.

Detailed Location:

5 POLYGONS MAPPED ACCORDING TO 2008 CITY OF SAN DIEGO DIGITAL DATA.

Ecological:

ABOVE SMALL DRAINAGE. NORTH FACING, 30 DEGREE SLOPE, PARTIALLY EXPOSED. COMMUNITY CLOSED ARTEMISIA CALIFORNICA SCRUB.

Threats:

General:

UNKNOWN NUMBER OF PLANTS SEEN IN 2001. A 2000 SILVERSTEIN COLLECTION FROM " NAVAJO CYN (BETWEEN COLLEGE, WARING AND I-8), N-MOST SIDE CANYON, NE OF CHURCH, 10 M ABOVE SMALL DRAINAGE, BESIDE TRAIL" IS ALSO ATTRIBUTED TO THIS OCCURRENCE.

PLSS:	T16S, R02W, Sec. 15, N (S)	**Accuracy:**	specific area	**Area (acres):**	15
UTM:	Zone-11 N3627869 E492774	**Latitude/Longitude:**	32.78873 / -117.07715	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SIL00S0001	SILVERSTEIN, R. & C. BREHME - SILVERSTEIN #8 SDSU #13384 2000-04-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 80390
EO Index: 93390
Key Quad: La Mesa (3211771)
Element Code: PDRHA01010
Occurrence Number: 112
Occurrence Last Updated: 2014-05-06

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3
State: S2

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 1931-03-03
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1931-03-03
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

ADOBE FALLS.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED TO ENCOMPASS ADOBE FALLS OPEN SPACE PARK AND MAIN FALLS AREA WHICH IS JUST SOUTH OF ADOBE FALLS PLACE.

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1931 HARVEY COLLECTION. NEEDS FIELDWORK.

PLSS: T16S, R02W, Sec. 15, E (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3627040 E493249
Latitude/Longitude: 32.78126 / -117.07208
Elevation (feet):

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

HAR31S0002 HARVEY, D. - HARVEY SN SDSU #10160 1931-03-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92286
Key Quad: La Mesa (3211771)
Occurrence Number: 113

EO Index: 93393
Element Code: PDRHA01010
Occurrence Last Updated: 2014-05-06

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S2

Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 2009-04-17
Last Survey Date: 2009-04-17
Owner/Manager: PVT
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

BETWEEN ALDER DRIVE AND AIDINE DRIVE, APPROXIMATELY 0.25 AIR MILE WEST OF FAIRMONT AVE, SAN DIEGO.

Detailed Location:

MAPPED IN THE NW 1/4 OF THE SW 1/4 OF SECTION 21.

Ecological:

DIEGAN COASTAL SAGE SCRUB AND DISTURBED COASTAL SAGE SCRUB ON SOUTH-FACING HILLSIDE. THE RARE VIGUIERA LACINIATA AND QUERCUS DUMOSA ALSO OCCUR AT THIS SITE.

Threats:

THREATENED BY URBANIZATION, BRUSHING, AND INVASIVE PLANTS.

General:

21 PLANTS OBSERVED IN 2009.

PLSS: T16S, R02W, Sec. 21, SW (S)
UTM: Zone-11 N3625244 E490537

Accuracy: specific area
Latitude/Longitude: 32.76504 / -117.10102

Area (acres): 1
Elevation (feet): 300

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

THO09F0003 THOMPSON, T. - FIELD SURVEY FORM FOR ADOLPHIA CALIFORNICA 2009-04-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A4838
Key Quad: Imperial Beach (3211751)
Occurrence Number: 144

EO Index: 106535
Element Code: PDRHA01010
Occurrence Last Updated: 2017-05-25

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S2

Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 2013-11-06
Last Survey Date: 2013-11-06
Owner/Manager: PVT
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

ABOUT 0.25 AIR MILE NNE OF WHERE I-5 CROSSES THE MEXICO BORDER.

Detailed Location:

MAPPED ACCORDING TO VEGETATION SURVEY COORDINATES.

Ecological:

ASSOCIATED WITH SIMMONDSIA CHINENSIS, AMBROSIA CHENOPODIIFOLIA, CYLINDROPUNTIA PROLIFERA, YUCCA SCHIDIGERA, EUPHORBIA MISERA, BRASSICA NIGRA, BAHIOPSIS LACINIATA, ARTEMISIA CALIFORNICA, CYLINDROPUNTIA CALIFORNICA, LYCIUM CALIFORNICUM, ETC.

Threats:

General:

LESS THAN 1% COVER OF ADOLPHIA CALIFORNICA OBSERVED IN A 2013 VEGETATION SURVEY.

PLSS: T19S, R01W, Sec. 6, SW (S)
UTM: Zone-11 N3600936 E497295

Accuracy: 80 meters
Latitude/Longitude: 32.54579 / -117.02881

Area (acres): 5
Elevation (feet): 130

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

VEG16U0001 VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A4839	**EO Index:**	106537
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDRHA01010
Occurrence Number:	145	**Occurrence Last Updated:**	2017-05-25

Scientific Name: *Adolphia californica*

Common Name: California adolphia

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G3

State: S2

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed:	2013-11-06	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2013-11-06	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

UPPER MOODY CANYON, JUST SOUTH OF OTAY MESA ROAD.

Detailed Location:

MAPPED ACCORDING TO VEGETATION SURVEY COORDINATES, IN THE SE 1/4 OF THE NW 1/4 OF SECTION 31.

Ecological:

ASSOCIATED WITH CYLINDROPUNTIA PROLIFERA, AMBROSIA CHENOPODIIFOLIA, SIMMONDSIA CHINENSIS, BAHIOPSIS LACINIATA, ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, ONCOSIPHON PILULIFERUM, OPUNTIA ORICOLA, EUPHORBIA MISERA, MALOSMA, ETC.

Threats:

General:

LESS THAN 1% COVER OF ADOLPHIA CALIFORNICA OBSERVED IN A 2013 VEGETATION SURVEY.

PLSS:	T18S, R01W, Sec. 31, NW (S)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3602827 E497644	**Latitude/Longitude:**	32.56285 / -117.02509	**Elevation (feet):**	455

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

VEG16U0001 VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A4840
Key Quad: Imperial Beach (3211751)
Occurrence Number: 146

EO Index: 106538
Element Code: PDRHA01010
Occurrence Last Updated: 2017-05-25

Scientific Name: *Adolphia californica*
Common Name: California adolphia

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3
State: S2

Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

CHAPARRAL, COASTAL SAGE SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

FROM SANDY/GRAVELLY TO CLAY SOILS WITHIN GRASSLAND, COASTAL SAGE SCRUB, OR CHAPARRAL; VARIOUS EXPOSURES. 5-335 M.

Last Date Observed: 2013-11-06
Last Survey Date: 2013-11-06
Owner/Manager: PVT
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

NORTH OF OTAY MESA ROAD, ABOUT 0.3 AIR MILE SE OF I-805/CA-905 JUNCTION.

Detailed Location:

MAPPED ACCORDING TO VEGETATION SURVEY COORDINATES, IN THE SW 1/4 OF THE NE 1/4 OF SECTION 36.

Ecological:

ASSOCIATED WITH AMBROSIA CHENOPODIIFOLIA, SIMMONDSIA CHINENSIS, BAHIOPSIS LACINIATA, CYLINDROPUNTIA PROLIFERA, ARTEMISIA CALIFORNICA, BRASSICA NIGRA, AND FEROCACTUS CYLINDRACEUS.

Threats:

General:

LESS THAN 1% COVER OF ADOLPHIA CALIFORNICA OBSERVED IN A 2013 VEGETATION SURVEY.

PLSS: T18S, R02W, Sec. 36, NE (S)
UTM: Zone-11 N3602982 E496460

Accuracy: 80 meters
Latitude/Longitude: 32.56425 / -117.03771

Area (acres): 5
Elevation (feet): 270

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

VEG16U0001 VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04222	**EO Index:**	31475
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDRHA041J0
Occurrence Number:	1	**Occurrence Last Updated:**	2017-06-13

Scientific Name: *Ceanothus verrucosus*

Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.2

CNDDB Element Ranks: **Global:** G2

State: S2?

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL.

Micro Habitat:

25-470 M.

Last Date Observed:	2013-04-30	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2013-04-30	**Occurrence Rank:**	Good
Owner/Manager:	SDG COUNTY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NEAR BOUNDARY MONUMENT 256, JUST E OF SMUGGLER GULCH, ABOUT 3 MILES WEST OF SAN YSIDRO, TIJUANA RIVER VALLEY REG PARK.

Detailed Location:

JUST NORTH OF BORDER FENCE. MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO SDG COUNTY MAP AND COORDINATES FROM SDG COUNTY, VEGETATION SURVEY COORDINATES, AND KEELAN COORDINATES. POSSIBLY MORE EXTENSIVE ALONG BORDER BASED ON 2002 AMEC REPORT.

Ecological:

CHAPARRAL WITH BROMUS RUBENS, ADENOSTOMA FASCICULATUM, CNEORIDIUM DUMOSUM, MALOSMA LAURINA, XYLOCOCCUS BICOLOR, SALVIA MELLIFERA, CALOCHORTUS WEEDII VAR. WEEDII, DICHELOSTEMMA CAPITATUM, GALIUM PORRIGENS, MIMULUS AURANTIACUS, ETC.

Threats:

POSSIBLY THREATENED BY CONSTRUCTION OF TRIPLE BORDER FENCE (2009). LOTS OF ROADS IN THIS AREA.

General:

65 INDIVIDUALS SEEN IN 2004; CEANOTHUS WAS ONE OF THE DOMINANT PLANTS IN THE FAIRLY OPEN CHAPARRAL IN WHICH IT WAS FOUND. 5% TO 20% COVER OF CEANOTHUS SEEN DURING 2006 VEG SURVEYS, 60% COVER DURING 2009 VEG SURVEYS. UNKNOWN NUMBER IN 2013.

PLSS:	T19S, R02W, Sec. 10, W (S)	**Accuracy:**	specific area	**Area (acres):**	21
UTM:	Zone-11 N3600217 E492633	**Latitude/Longitude:**	32.53929 / -117.07846	**Elevation (feet):**	350

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

AME02U0001	HOWARD, M. (AMEC) - BORDER INFRASTRUCTURE PROJECT - COASTAL CALIFORNIA GNATCATCHER (POLIOPTILA CALIFORNICA) & QUINO CHECKERSPOT BUTTERFLY (EUPHYDRYAS EDITHA QUINO) 45-DAY MONITORING PROGRAM REPORT 2002-08-08
KEE13U0001	KEELAN, B. - EXPORT OF DATA FROM BRIAN KEELAN'S PLANT DATABASE 2013-07-26
MOR70S0016	MORAN, R. - MORAN #16724 RSA #231197A & #398997, SD #79410 1970-02-07
MOR73S0002	MORAN, R. - MORAN #20351 SD, LA 1973-04-02
SDG07R0001	SAN DIEGO COUNTY - TIJUANA RIVER VALLEY REGIONAL PARK, AREA SPECIFIC MANAGEMENT DIRECTIVES 2007-06-22
SDG10D0001	SAN DIEGO COUNTY - SPECIES POINT OBSERVATIONS BY COUNTY OF SAN DIEGO (SANBIOS DATABASE). 2010-06-23
VEG09F0130	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR CEANOTHUS VERRUCOSUS 2009-06-05
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	36481	**EO Index:**	31478
Key Quad:	National City (3211761)	**Element Code:**	PDRHA041J0
Occurrence Number:	2	**Occurrence Last Updated:**	2017-06-15

Scientific Name: *Ceanothus verrucosus*

Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 2B.2

CNDDB Element Ranks: **Global:** G2
State: S2?

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL.

Micro Habitat:

25-470 M.

Last Date Observed:	2013-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2013-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

CHOLLAS VALLEY; NE SIDE OF FAIRMOUNT AVENUE JUST EAST OF ITS JUNCTION WITH RIDGE VIEW DRIVE, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO A SAN DIEGO CANYONLANDS MAP. NOTE ON MAP SAYS VEGETATION DATA WAS COLLECTED IN 2012/2013; PRESUMABLY THE RARE PLANT DATA WAS ALSO COLLECTED/OBSERVED IN 2012/2013.

Ecological:

ADENOSTOMA FASCICULATUM. ALSO ASSOCIATED WITH FEROCACTUS VIRIDESCENS.

Threats:

CEANOTHUS WAS LIKELY MORE EXTENSIVE IN THIS AREA BEFORE DEVELOPMENT BASED ON 1934 MAP.

General:

BASED ON A SAN DIEGO CANYONLANDS MAP; PLANTS PRESUMABLY OBSERVED IN 2012 OR 2013. A 1934 VEGETATION MAP DEVELOPED BY WIESLANDER FOR THE USFS ALSO SHOWS CEANOTHUS IN THIS AREA; CEANOTHUS WAS LIKELY MORE EXTENSIVE IN AREA IN THE 1930S.

PLSS:	T17S, R02W, Sec. 04, NW (S)	**Accuracy:**	specific area	**Area (acres):**	4
UTM:	Zone-11 N3621055 E491097	**Latitude/Longitude:**	32.72725 / -117.09500	**Elevation (feet):**	250

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

SDC13M0002	SAN DIEGO CANYONLANDS - MAPS OF VEGETATION/HABITAT CONDITIONS AT CHOLLAS CREEK - CITY HEIGHTS 2013-03-19
USF34M0002	U.S. FOREST SERVICE - VEGETATION TYPES OF CALIFORNIA, SAN DIEGO COUNTY. WIESLANDER MAPS. 1934-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36482
EO Index: 31479
Key Quad: National City (3211761)
Element Code: PDRHA041J0
Occurrence Number: 3
Occurrence Last Updated: 1997-08-25

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

CNDDB Element Ranks: **Global:** G2
State: S2?

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 1935-01-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1935-01-17
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
AT UNIVERSITY AVENUE AND ESTRELLA STREET, EAST SAN DIEGO.

Detailed Location:

Ecological:
GROWING IN SUN IN YELLOW ADOBE SOILS. ASSOCIATED WITH ADENOSTOMA FASCICULATUM OBTUSIFOLIUM.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1935 COLLECTION BY WOLF.

PLSS: T16S, R02W, Sec. 28 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3623499 E491540
Latitude/Longitude: 32.74931 / -117.09030
Elevation (feet): 250

County Summary:
San Diego

Quad Summary:
National City (3211761), La Mesa (3211771)

Sources:
WOL35S0013 WOLF, C. - WOLF #6286 SD #60282, DS #505031, GH #425624, RSA #12896 & #176480 1935-01-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	36483	**EO Index:**	31480
Key Quad:	Point Loma (3211762)	**Element Code:**	PDRHA041J0
Occurrence Number:	4	**Occurrence Last Updated:**	2017-06-29

Scientific Name: *Ceanothus verrucosus*

Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2
State: S2?

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL.

Micro Habitat:

25-470 M.

Last Date Observed:	2014-03-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2014-03-26	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BALBOA PARK AND CEDAR RIDGE PARK CANYON AREA, SAN DIEGO.

Detailed Location:

WESTERN POLYGON IN BALBOA PARK IS MAPPED LARGELY ACCORDING TO 1934 WIESLANDER MAPS AND MUCH OF THIS AREA IS NOW MORELY FIELD AND GOLF COURSE. EASTERN POLYGON BASED ON 2000 REBMAN COLLECTIONS FROM CEDAR RIDGE PARK AND JUNIPER CANYON.

Ecological:

CHAPARRAL AND COASTAL SAGE SCRUB WITH ADENOSTOMA FASCICULATUM, LAUREL SUMAC, LEMONADE BERRY, CALIFORNIA SAGEBRUSH, SALVIAS, WILLOW, AND MULEFAT.

Threats:

PORTIONS HAVE BEEN DEVELOPED.

General:

LARGE WESTERN POLYGON: MAIN SOURCE OF INFORMATION IS 1934 VEGETATION MAP DEVELOPED BY WIESLANDER FOR THE USFS; ALSO OBSERVED IN 2004, 2006, 2007, 2009, 2011, & 2014. LARGE EASTERN POLYGON BASED ON 2000 REBMAN COLLECTIONS.

PLSS:	T17S, R02W, Sec. 6, S (S)	**Accuracy:**	non-specific area	**Area (acres):**	562
UTM:	Zone-11 N3621352 E487355	**Latitude/Longitude:**	32.72989 / -117.13495	**Elevation (feet):**	200

County Summary:	**Quad Summary:**
San Diego	National City (3211761), Point Loma (3211762)

Sources:

BAR04S0002	BARTH, J. ET AL. - BARTH #27 SD #154879 2004-02-18
BOR28S0001	BORTHWICK, H. - BORTHWICK #1071 DAV #112845 1928-06-XX
EST89R0002	ESTRADA LAND PLANNING, INC., ETC. - BALBOA PARK MASTER PLAN 1989-07-25
KEN21S0007	KENDALL, L. - KENDALL SN POM #9629 1921-03-27
MIL09F0025	MILLER, B. & M. JENNINGS (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR OPUNTIA CALIFORNICA VAR. CALIFORNICA 2009-05-29
NEN07S0001	NENOW, N. - NENOW #308 SD #212334 2007-03-26
NEN11S0003	NENOW, N. - NENOW #1522 SD #251108 2011-01-22
REB00S0001	REBMAN, J. - REBMAN #6406 UCR #138344, SD #148540, SEINET #2049182, DES #00055819 2000-04-13
REB00S0013	REBMAN, J. ET AL. - REBMAN #6192 UCR #148666, SD #152087, SEINET #949319 & #2044439, ARIZ #386553, DES #00053201 2000-03-03
REB00S0014	REBMAN, J. - REBMAN #6501 UCR #148680, SD #152160, SEINET #3241770, ARIZ #406541 2000-04-18
SCH14F0004	SCHEIDT, V. - FIELD SURVEY FORM FOR QUERCUS DUMOSA & CEANOTHUS VERRUCOSUS 2014-03-26
TUM06I0002	TUMA, M. - PHOTO OF CEANOTHUS VERRUCOSUS, CALPHOTOS ID #0000 0000 0406 1104 2006-04-14
USF34M0002	U.S. FOREST SERVICE - VEGETATION TYPES OF CALIFORNIA, SAN DIEGO COUNTY. WIESLANDER MAPS. 1934-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36484
EO Index: 31481
Key Quad: Point Loma (3211762)
Element Code: PDRHA041J0
Occurrence Number: 5
Occurrence Last Updated: 2017-06-29

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2

CNDDB Element Ranks: **Global:** G2
State: S2?
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 2015-03-11
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2015-03-11
Occurrence Rank: Unknown
Owner/Manager: DOD, CITY OF SAN DIEGO, NPS
Trend: Decreasing
Presence: Presumed Extant

Location:
POINT LOMA, SAN DIEGO.

Detailed Location:
MAPPED AS MANY POLYGONS ACCORDING TO MAP IN 2006 TIERRA DATA INC REPORT & SUNSET CLIFFS PLANT LIST. SYMBOLOGY FOR 2006 MAP IS UNCLEAR IN SOME AREAS (DIFFICULT TO SEPARATE SOME CORETHROGYNE FILAGINIFOLIA AND CEANOTHUS VERRUCOSUS POLYGONS).

Ecological:
CHAPARRAL WITH ADENOSTOMA FASCICULATUM, MALOSMA LAURINA, XYLOCOCCUS BICOLOR, RHAMNUS CROCEA, QUERCUS DUMOSA, CORETHROGYNE FILAGINIFOLIA INCANA, FEROCACTUS VIRIDESCENS, COREOPSIS MARITIMA, AND EUPHORBIA MISERA.

Threats:
CEANOTHUS POPULATIONS ON POINT LOMA APPEAR TO BE DECREASING DUE TO LACK OF FIRE.

General:
OBSERVED ACROSS SITE IN 1931, 1981, AND 1993. 20 INDIVIDUALS PLANTED IN 1997. ALSO OBSERVED IN 1998, 2000, 2002, 2003, 2005-2007, & 2015.

PLSS: T17S, R04W, Sec. 13 (S)
Accuracy: non-specific area
Area (acres): 309
UTM: Zone-11 N3617344 E476936
Latitude/Longitude: 32.69357 / -117.24604
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

ANO12U0002	ANONYMOUS - NATIVE PLANTS AT SUNSET CLIFF NATURAL PARK 2012-06-22
APP27S0004	APPLEGATE, E. - APPLEGATE #4960 DS #234266 1927-01-26
ASI93R0001	ADVANCED SCIENCES, INC. - TERRESTRIAL BIOLOGICAL SURVEY AND INVENTORY OF NAVY PROPERTY ON POINT LOMA, SAN DIEGO, CALIFORNIA 1993-05-XX
BAU05F0001	BAUDER, E. - FIELD SURVEY FORM FOR CHORIZANTHE ORCUTTIANA & CEANOTHUS VERRUCOSUS 2005-04-29
BUR07S0019	BURGE, D. - BURGE #924B CAS #1116937, RSA #754630, DAV #123938 2007-05-16
CHA04S0012	CHANDLER, H. - CHANDLER #5072 DS #114097 1904-05-01
CLO06I0001	CLOUD-HUGHES, M. - PHOTOS OF CEANOTHUS VERRUCOSUS, CALPHOTOS ID #0000 0000 0209 0624, 0626, 0628, 0629 2006-04-25
DUD09S0006	DUDLEY, W. - DUDLEY SN DS #31972 1909-01-01
EAS13S0011	EASTWOOD, A. - EASTWOOD #2877 A #425619, CAS #54865, GH #425627 1913-04-21
EST03S0010	ESTRELLA, D. & R. LAURI - ESTRELLA #57 SBBG #117624, SDSU #15785, SD #158396 2003-04-07
HOW36S0017	HOWE, D. - HOWE #304 SD #114272 1936-03-29
KEN28S0001	KENNEDY, P. - KENNEDY SN DAV #112847 1928-04-03
LAU02S0007	LAURI, R. ET AL. - LAURI #64 SDSU #15786, SD #158397, SBBG #117625 2002-02-01
MCE93S0007	MCEACHERN, K. - MCEACHERN #30 SBBG #106498, SD #172207 1993-03-24
MCE98S0003	MCEACHERN, K. - MCEACHERN #239 SBBG #113952 1998-04-17
PAR14S0005	PARISH, S. - PARISH #9062 A #425620, DS #114084 1914-03-28
REB15S0011	REBMAN, J. & A. TAYLOR - REBMAN #29616 SD #245120 2015-03-11
ROS50S0008	ROSE, L. - ROSE #50009 RSA #70695 1950-02-21
SER01R0001	SDSU SOIL ECOLOGY AND RESTORATION GROUP - POINT LOMA SUBMARINE BASE RESTORATION REPORT 2001-05-08
STO36S0004	STOVER, A. - STOVER SN SD #14056 & #14127 1936-03-11
TIE06R0001	TIERRA DATA INC. & FIREWISE 2000, INC. - NAVAL BASE POINT LOMA AND CABRILLO NATIONAL MONUMENT JOINT WILDLAND FIRE MANAGEMENT PLAN 2006-06-XX
USF34M0002	U.S. FOREST SERVICE - VEGETATION TYPES OF CALIFORNIA, SAN DIEGO COUNTY. WIESLANDER MAPS. 1934-XX-XX
WOO20S0003	WOODCOCK, F. - WOODCOCK #757 A #425617 1920-06-XX
WOO24S0002	WOODCOCK, F. - WOODCOCK SN SD #2944 1924-XX-XX
WOO81R0001	WOODWARD & CLYDE - TERRESTRIAL BIOSURVEY AND INVENTORY OF NAVAL PROPERTY ON POINT LOMA 1981-11-XX
YAT37S0007	YATES, H. - YATES #6789 UC #1071503 1937-07-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36485
Key Quad: La Mesa (3211771)
Occurrence Number: 6
EO Index: 31482
Element Code: PDRHA041J0
Occurrence Last Updated: 1997-08-25

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2?
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 1934-XX-XX
Last Survey Date: 1934-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NORMAL HEIGHTS SOUTH OF MISSION VALLEY, SAN DIEGO.

Detailed Location:
MAPPED ALONG SLOPES OF CANYON ON EITHER SIDE OF WARD ROAD JUST SOUTH OF I-8.

Ecological:
CHAPARRAL WITH ADENOSTOMA FASCICULATUM, SALVIA MELLIFERA, AND ARTEMISIA CALIFORNICA.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1934 VEGETATION MAP DEVELOPED BY WIESLANDER FOR THE USFS.

PLSS: T16S, R02W, Sec. 20 (S)
Accuracy: non-specific area
Area (acres): 137
UTM: Zone-11 N3625804 E489499
Latitude/Longitude: 32.77008 / -117.11212
Elevation (feet): 350

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
USF34M0002 U.S. FOREST SERVICE - VEGETATION TYPES OF CALIFORNIA, SAN DIEGO COUNTY. WIESLANDER MAPS. 1934-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36486
Key Quad: La Mesa (3211771)
Occurrence Number: 7
EO Index: 31483
Element Code: PDRHA041J0
Occurrence Last Updated: 2005-04-22

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2?
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 1998-02-11
Last Survey Date: 1998-02-11
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:
BETWEEN SAN DIEGO STATE UNIVERSITY AND NORMAL HEIGHTS, SOUTH OF MISSION VALLEY, SAN DIEGO.

Detailed Location:
NORTHEAST OF FAIRMONT AVENUE AND MONTEZUMA ROAD AND SOUTHWEST OF YERBA SANTA DRIVE.

Ecological:
CHAPARRAL WITH ADENOSTOMA FASCICULATUM, SALVIA MELLIFERA, MALOSMA LAURINA, MALACOTHAMNUS FASCICULATUS, HETEROMELES ARBUTIFOLIA, XYLOCCUS BICOLOR. NEARBY RARE PLANTS INCLUDE ADOLPHIA CALIFORNICA, FEROCACTUS VIRIDESCENS, AND QUERCUS DUMOSA.

Threats:
DEVELOPMENT.

General:
1000+ PLANTS REPORTED IN 1981. THOUSANDS OBSERVED IN 1998. APPROXIMATELY 1/2 OF THIS POPULATION HAS BEEN ELIMINATED BY DEVELOPMENT. BUILDING WOULD HAVE TO OCCUR ON VERY STEEP SLOPES IN ORDER TO ELIMINATE C. VERRUCOSUS FROM THIS SITE.

PLSS: T16S, R02W, Sec. 16 (S)
Accuracy: specific area
Area (acres): 51
UTM: Zone-11 N3626312 E491407
Latitude/Longitude: 32.77468 / -117.09175
Elevation (feet): 300

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

SCH98F0014	SCHEIDT, V. - FIELD SURVEY FORM FOR ADOLPHIA CALIFORNICA 1998-02-11
SCH98F0053	SCHEIDT, V. - FIELD SURVEY FORM FOR CEANOTHUS VERRUCOSUS 1998-02-11
SIV81F0019	SIVINSKI, R. - FIELD SURVEY FORM FOR CEANOTHUS VERRUCOSUS 1981-09-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	36487	**EO Index:**	31484
Key Quad:	La Jolla (3211772)	**Element Code:**	PDRHA041J0
Occurrence Number:	8	**Occurrence Last Updated:**	2017-06-29

Scientific Name: *Ceanothus verrucosus*

Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 2B.2

CNDDB Element Ranks: **Global:** G2
State: S2?

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL.

Micro Habitat:

25-470 M.

Last Date Observed:	2013-05-22	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2013-05-22	**Occurrence Rank:**	Poor
Owner/Manager:	UNKNOWN	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

KEARNY MESA, SAN DIEGO.

Detailed Location:

LARGE NON-SPECIFIC AREA. MAPPED AS 2 POLYGONS FROM MURRAY CANYON IN THE SE, TECOLOTE CREEK IN CLAIREMONT IN THE SW, UPPER REACHES OF TECOLOTE CREEK IN NORTH CLAIREMONT IN THE NW, AND SAN CLEMENTE CANYON SOUTH OF MIRAMAR NAS IN THE NE.

Ecological:

CHAPARRAL WITH ADENOSTOMA FASCICULATUM AND QUERCUS DUMOSA.

Threats:

MAPPED AREA INCLUDES HISTORIC DISTRIBUTION; MUCH OF THIS AREA EXTIRPATED BY DEVELOPMENT.

General:

S PART OF SITE BASED ON 1934 WIESLANDER VEGETATION MAPS. N PART OF SITE BASED ON 1982 MAPS OF THE KEARNY MESA AREA AND LOCATION DESCRIPTION ON 2006 DOSSEY COLLECTION. OBSERVED IN SW PART IN 2013. INCLUDES VAGUE COLLECTIONS FROM CAMP KEARNY.

PLSS:	T15S, R03W, Sec. 35 (S)	**Accuracy:**	non-specific area	**Area (acres):**	3,102
UTM:	Zone-11 N3632488 E484729	**Latitude/Longitude:**	32.83032 / -117.16315	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

ANO82M0001	ANONYMOUS - AERIAL PHOTO OF KEARNY MESA VICINITY WITH RARE PLANT LOCATIONS 1982-05-25
BRA49S0007	BRATTSTROM, B. - BRATTSTROM SN LA #45137 1949-03-29
DOS06S0005	DOSSEY, R. - DOSSEY #1203 SD #171787 2006-04-07
MER07S0002	MERRIAM, C. & V. BAILEY - MERRIAM SN CAS #508602 & #508744 1907-10-21
PAR32S0004	PARKS, H. - PARKS #1089 UC #494002, A #425648, DS #221863, HSC #18363, POM #199436 1932-01-21
PUR39S0001	PURER, E. - PURER #7910 A #425641 1939-03-12
RAM39S0009	RAMSEY, H. - RAMSEY #I919 POM #307057 1939-04-07
ROB13S0003	ROBERTS, J. - ROBERTS #9 SD #249024 2013-05-20
ROB13S0004	ROBERTS, J. - ROBERTS #14 SD #249025 2013-05-22
SCH87S0004	SCHMIDT, C. - SCHMIDT #1126 SJSU #14045 1987-01-22
SIV80F0003	SIVINSKI, R. - FIELD SURVEY FORM FOR CEANOTHUS VERRUCOSUS 1980-10-22
USF34M0002	U.S. FOREST SERVICE - VEGETATION TYPES OF CALIFORNIA, SAN DIEGO COUNTY. WIESLANDER MAPS. 1934-XX-XX
WES87R0002	WESTEC SERVICES, INC. - ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED LAND SALES AND EXCHANGES SOUTH OF CALIFORNIA STATE ROUTE 52, NAVAL AIR STATION, MIRAMAR, SAN DIEGO COUNTY, CA 1987-04-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36488
Key Quad: La Jolla (3211772)
Occurrence Number: 9
EO Index: 31485
Element Code: PDRHA041J0
Occurrence Last Updated: 2014-05-05

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2?
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 1938-02-05
Last Survey Date: 1938-02-05
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
LA JOLLA MESA, SAN DIEGO.

Detailed Location:
OCCURRENCE MAPPED BASED UPON ASSOCIATION OF C. VERRUCOSUS WITH CHAPARRAL AT THIS SITE.

Ecological:
CHAPARRAL WITH ADENOSTOMA FASCICULATUM.

Threats:
EXTENSIVE DEVELOPMENT THROUGHOUT THIS AREA.

General:
ONLY SOURCES OF INFO FOR THIS SITE ARE 1934 VEGETATION MAPS DEVELOPED BY WIESLANDER FOR THE USFS AND 6 COLLECTIONS. MOST RECENT SOURCE OF INFO IS A 1938 COLLECTION BY ROSE. OCCURRENCE MAY HAVE BEEN DESTROYED BY DEVELOPMENT.

PLSS: T15S, R04W, Sec. 35 (S)
Accuracy: non-specific area
Area (acres): 493
UTM: Zone-11 N3632043 E475686
Latitude/Longitude: 32.82614 / -117.25976
Elevation (feet): 500

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

BEN29S0009	BENSON, C. - BENSON SN POM #284702 1929-01-16
CLE14S0002	CLEMENTS, F. & E. CLEMENTS - CLEMENTS SN UC #196910, GH #425630, UCSB #4005 1914-02-26
JEP27S0030	JEPSON, W. - JEPSON #11841 JEPS #42090 1927-04-19
OFF32S0002	OFFORD, H. - OFFORD SN LA #45334 1932-01-27
PAR29S0003	PARKS, H. & S. PARKS - PARKS #330 UC #370417 1929-01-XX
ROS38S0021	ROSE, L. - ROSE #38073 UC #870690 1938-02-05
USF34M0002	U.S. FOREST SERVICE - VEGETATION TYPES OF CALIFORNIA, SAN DIEGO COUNTY. WIESLANDER MAPS. 1934-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36489
Key Quad: La Jolla (3211772)
Occurrence Number: 10
EO Index: 31486
Element Code: PDRHA041J0
Occurrence Last Updated: 1997-08-25

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2?
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 1996-XX-XX
Last Survey Date: 1996-XX-XX
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:
JUST NORTH OF JUNCTION OF ARDATH ROAD AND I-5 EAST OF SOLEDAD PARK, SAN DIEGO.

Detailed Location:
OCCURRENCE MAPPED BASED UPON ASSOCIATION OF C. VERRUCOSUS WITH SOUTHERN MARITIME CHAPARRAL AT THIS SITE.

Ecological:
SOUTHERN MARITIME CHAPARRAL WITH ADENOSTOMA FASCICULATUM OBTUSIFOLIUM, ARTEMISIA CALIFORNICA, BACCHARIS PILULARIS, ERIOGONUM FASCICULATUM, MALOSMA LAURINA, QUERCUS DUMOSA, RHUS INTEGRIFOLIA, XYLOCOCCUS BICOLOR, SALVIA MELLIFERA, ET AL.

Threats:

General:
SITE BASED UPON 1993 OBSERVATION FOR SOUTHERN MARITIME CHAPARRAL BY HOGAN IN WHICH C. VERRUCOSUS WAS NOTED.

PLSS: T15S, R03W, Sec. 30 (S)
Accuracy: specific area
Area (acres): 15
UTM: Zone-11 N3633895 E477662
Latitude/Longitude: 32.84289 / -117.23870
Elevation (feet): 350

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

HOG93F0005	HOGAN, D. - FIELD SURVEY FORM FOR SOUTHERN MARITIME CHAPARRAL 1993-05-26
HOG93M0001	HOGAN, D. - MAPS OF LOCATIONS OF SOUTHERN MARITIME CHAPARRAL. 1993-05-XX
HOG96M0001	HOGAN, D. - UPDATES REGARDING 1993 MAPS OF SOUTHERN MARITIME CHAPARRAL. 1996-04-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	36490	**EO Index:**	31487
Key Quad:	La Jolla (3211772)	**Element Code:**	PDRHA041J0
Occurrence Number:	11	**Occurrence Last Updated:**	2014-05-06

Scientific Name: *Ceanothus verrucosus*

Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2
State: S2?

Rare Plant Rank: 2B.2

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL.

Micro Habitat:

25-470 M.

Last Date Observed:	2005-05-01	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2005-05-01	**Occurrence Rank:**	Fair
Owner/Manager:	PVT, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

WEST SIDE OF LA JOLLA SCENIC DRIVE ABOUT 0.5 MILE NORTH OF ARDATH ROAD, SAN DIEGO.

Detailed Location:

MOSTLY IN THE EAST 1/2 OF THE SE 1/4 OF SECTION 24.

Ecological:

SOUTHERN MARITIME CHAPARRAL WITH ADENOSTOMA FASCICULATUM OBTUSIFOLIUM, ARTEMISIA CALIFORNICA, BACCHARIS PILULARIS, ERIOGONUM FASCICULATUM, MALOSMA LAURINA, QUERCUS DUMOSA, RHUS INTEGRIFOLIA, XYLOCOCCUS BICOLOR, SALVIA MELLIFERA, ET AL.

Threats:

PORTION OF SITE WILL PROBABLY BE GRADED IN FUTURE (1996).

General:

SITE BASED UPON 1993 OBSERVATION FOR SOUTHERN MARITIME CHAPARRAL BY HOGAN IN WHICH C. VERRUCOSUS WAS NOTED. 5 SPECIMENS OBSERVED IN 1996. UNKNOWN NUMBER OBSERVED IN 2005.

PLSS:	T15S, R04W, Sec. 24, SE (S)	**Accuracy:**	specific area	**Area (acres):**	21
UTM:	Zone-11 N3635113 E477468	**Latitude/Longitude:**	32.85387 / -117.24079	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

HOG93F0005	HOGAN, D. - FIELD SURVEY FORM FOR SOUTHERN MARITIME CHAPARRAL 1993-05-26
HOG93M0001	HOGAN, D. - MAPS OF LOCATIONS OF SOUTHERN MARITIME CHAPARRAL. 1993-05-XX
HOG96M0001	HOGAN, D. - UPDATES REGARDING 1993 MAPS OF SOUTHERN MARITIME CHAPARRAL. 1996-04-XX
LAU05S0001	LAUE, M. - LAUE #6 SD #169596 2005-05-01
SCH96F0014	SCHEIDT, V. - FIELD SURVEY FORM FOR CEANOTHUS VERRUCOSUS 1996-12-16

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 91999
Key Quad: La Jolla (3211772)
Occurrence Number: 12
EO Index: 31488
Element Code: PDRHA041J0
Occurrence Last Updated: 2017-06-29

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2?
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 2011-01-22
Last Survey Date: 2011-01-22
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:
WEST OF TORREY PINES ROAD AND SOUTH OF UC SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO A 2004 HELIX MAP AND 2011 NENOW COORDINATES, IN THE NW 1/4 OF THE SE 1/4 OF SECTION 13.

Ecological:
SOUTHERN MARITIME CHAPARRAL WITH ADENOSTOMA FASCICULATUM OBTUSIFOLIUM, ARTEMISIA CALIFORNICA, BACCHARIS PILULARIS, ERIOGONUM FASCICULATUM, MALOSMA LAURINA, QUERCUS DUMOSA, RHUS INTEGRIFOLIA, XYLOCOCCUS BICOLOR, SALVIA MELLIFERA, ETC.

Threats:

General:
UNKNOWN NUMBER OBSERVED IN 1989. OBSERVED IN ASSOCIATION WITH SOUTHERN MARITIME CHAPARRAL AT THIS SITE IN 1993. A SUBDOMINANT SPECIES IN SOUTHERN MARITIME CHAPARRAL AT THIS SITE IN 2001. UNKNOWN NUMBER OF PLANTS OBSERVED IN 2011.

PLSS: T15S, R04W, Sec. 13, SE (S)
Accuracy: specific area
Area (acres): 19
UTM: Zone-11 N3636702 E477107
Latitude/Longitude: 32.8682 / -117.24471
Elevation (feet): 380

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

HEL04R0010	HELIX ENVIRONMENTAL PLANNING, INC. - BIOLOGICAL RESOURCES TECHNICAL REPORT, 2004 UCSD LONG RANGE DEVELOPMENT PLAN UPDATE 2004-09-XX
HOG93F0005	HOGAN, D. - FIELD SURVEY FORM FOR SOUTHERN MARITIME CHAPARRAL 1993-05-26
HOG93M0001	HOGAN, D. - MAPS OF LOCATIONS OF SOUTHERN MARITIME CHAPARRAL. 1993-05-XX
NEN11S0004	NENOW, N. - NENOW #1528 SD #251109 2011-01-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 36495
EO Index: 31492
Key Quad: Del Mar (3211782)
Element Code: PDRHA041J0
Occurrence Number: 16
Occurrence Last Updated: 2017-06-22

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2

CNDDB Element Ranks: **Global:** G2
State: S2?
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 2006-02-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-02-15
Occurrence Rank: Fair
Owner/Manager: PVT, CITY OF SAN DIEGO
Trend: Decreasing
Presence: Presumed Extant

Location:
SOUTH OF SOLEDAD CANYON BETWEEN GENESEE AVENUE AND I-805, NORTH OF SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS 5 POLYGONS ACCORDING TO MAPS FROM 1982, 1992, & 1999, AND 2006 SWEET COORDINATES.

Ecological:
MIXED CHAPARRAL AND COASTAL SAGE SCRUB WITH ADENOSTOMA FASCICULATUM, QUERCUS DUMOSA, XYLOCOCCUS BICOLOR, MALOSMA LAURINA, AND RHUS INTEGRIFOLIA.

Threats:
BASED ON 2012 AERIAL IMAGERY, 3 S POLYGONS AND MOST OF THE N POLYGON HAVE BEEN EXTIRPATED BY DEVELOPMENT.

General:
2 NE POLYGONS: 1000+ PLANTS OBSERVED BY SIVINSKI IN 1982. 2ND S-MOST POLYGON: UNKNOWN NUMBER OF PLANTS OBSERVED BY AFFINIS IN 1992. S-MOST POLYGON: 1 PLANT IN 1999. WESTERN POLYGON: UNKNOWN NUMBER OF PLANTS OBSERVED BY SWEET IN 2006.

PLSS: T15S, R03W, Sec. 8 (S)
Accuracy: specific area
Area (acres): 72
UTM: Zone-11 N3638047 E480825
Latitude/Longitude: 32.88041 / -117.20499
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
La Jolla (3211772), Del Mar (3211782)

Sources:

AFF92F0004	AFFINIS - FIELD SURVEY FORM FOR CEANOTHUS VERRUCOSUS 1992-10-26
MER99U0004	REISER, C. (MERKEL AND ASSOCIATES, INC.) - 45-DAY LETTER REPORT OF FOCUSED COASTAL CALIFORNIA GNATCATCHER (POLIOPTILA CALIFORNICA CALIFORNICA) SURVEYS FOR THE HELEN SMITH PROPERTY, LA JOLLA, SAN DIEGO COUNTY. 1999-06-29
SIV82F0006	SIVINSKI, R. - FIELD SURVEY FORM FOR CEANOTHUS VERRUCOSUS 1982-02-13
SWE06S0005	SWEET, M. - SWEET #272 SD #178388, SEINET #959222, ARIZ #390306 2006-02-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 61082
Key Quad: La Mesa (3211771)
Occurrence Number: 40
EO Index: 61118
Element Code: PDRHA041J0
Occurrence Last Updated: 2005-04-22

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2?
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 1985-04-30
Last Survey Date: 1985-04-30
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
FAIRMOUNT AVE, NORTH OF ALDINE DRIVE, SAN DIEGO.

Detailed Location:

Ecological:
CEANOTHUS VERRUCOSUS IS DOMINANT.

Threats:
DEVELOPMENT SURROUNDS THE AREA.

General:
SITE BASED ON A 1985 COLLECTION BY CLARKE. NEEDS FIELDWORK.

PLSS: T16S, R02W, Sec. 21, SW (S)
UTM: Zone-11 N3625277 E490933
Accuracy: non-specific area
Latitude/Longitude: 32.76534 / -117.09679
Area (acres): 25
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
CLA85S0001 CLARKE, I. - CLARKE #8502 UCR #73611 1985-04-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92205
EO Index: 93303
Key Quad: National City (3211761)
Element Code: PDRHA041J0
Occurrence Number: 45
Occurrence Last Updated: 2014-05-02

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2

CNDDB Element Ranks: **Global:** G2
State: S2?
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 2013-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2013-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO, UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SOUTH SIDE OF CHOLLAS CREEK; EAST OF 54TH STREET AT THE NORTH END OF SPA STREET, SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS 2 POLYGONS BASED ON A SAN DIEGO CANYONLANDS MAP. ON THE SECTION LINE BETWEEN THE NORTH 1/2 OF SECTION 34 AND THE SOUTH 1/2 OF SECTION 27.

Ecological:

Threats:

General:
NOTE ON MAP SAYS VEGETATION DATA WAS COLLECTED IN 2012/2013; PRESUMABLY THE RARE PLANT DATA WAS ALSO COLLECTED/OBSERVED IN 2012/2013.

PLSS: T16S, R02W, Sec. 34, N (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3623080 E492957
Latitude/Longitude: 32.74553 / -117.07517
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
SDC13M0002 SAN DIEGO CANYONLANDS - MAPS OF VEGETATION/HABITAT CONDITIONS AT CHOLLAS CREEK - CITY HEIGHTS 2013-03-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92206
EO Index: 93304
Key Quad: National City (3211761)
Element Code: PDRHA041J0
Occurrence Number: 46
Occurrence Last Updated: 2014-05-02

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2

CNDDB Element Ranks: **Global:** G2
State: S2?
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 2013-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2013-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
NORTH SIDE OF CHOLLAS CREEK, JUST EAST OF I-805 SW OF THE SOUTH END OF RIDGE VIEW DRIVE, SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB BASED ON A SAN DIEGO CANYONLANDS MAP. ON THE SECTION LINE BETWEEN THE NW 1/4 OF THE SW 1/4 OF SECTION 4 AND THE NE 1/4 OF THE SE 1/4 OF SECTION 5.

Ecological:

Threats:

General:
NOTE ON MAP SAYS VEGETATION DATA WAS COLLECTED IN 2012/2013; PRESUMABLY THE RARE PLANT DATA WAS ALSO COLLECTED/OBSERVED IN 2012/2013.

PLSS: T17S, R02W, Sec. 04, SW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3620552 E490520
Latitude/Longitude: 32.72271 / -117.10115
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
SDC13M0002 SAN DIEGO CANYONLANDS - MAPS OF VEGETATION/HABITAT CONDITIONS AT CHOLLAS CREEK - CITY HEIGHTS 2013-03-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92207
EO Index: 93305
Key Quad: National City (3211761)
Element Code: PDRHA041J0
Occurrence Number: 47
Occurrence Last Updated: 2014-05-16

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2

CNDDB Element Ranks: **Global:** G2
State: S2?
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 2009-06-03
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-06-03
Occurrence Rank: Fair
Owner/Manager: CITY OF SAN DIEGO, PVT, UNK
Trend: Unknown
Presence: Presumed Extant

Location:
CANYONS BETWEEN FAIRMOUNT AVENUE AND I-15, EAST SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS 4 POLYGONS. S POLYGON BASED ON 2007 EDWARDS SURVEY FORM, MIDDLE POLYGON BASED ON SAN DIEGO CANYONLANDS MAP, NE POLYGON BASED ON COORDINATES FROM 2004 ROCKS COLLECTION, NW POLY BASED ON 2009 VEGETATION SURVEY COORDINATES.

Ecological:
DISTURBED CHAPARRAL ASSOCIATED WITH QUERCUS DUMOSA, Q. BERBERIDIFOLIA, MALOSMA LAURINA, RHUS INTEGRIFOLIA, CERCOCARPUS MINUTIFLORUS, ADENOSTOMA FASCICULATUM, CEANOTHUS TOMENTOSUS, ERIOGONUM FASCICULATUM, PRUNUS ILICIFOLIA, ETC.

Threats:
SOUTHERN POLYGON MAY BE IMPACTED BY DEVELOPMENT.

General:
SOUTHERN POLYGON: ~50 PLANTS OBSERVED IN 2007. MIDDLE POLYGON: 123 PLANTS OBSERVED ON AN UNKNOWN DATE (BASED ON A 2012 MAP). NE POLYGON: 20 INDIVIDUALS OBSERVED IN 2004. NW POLYGON: OBSERVED DURING 2009 VEGETATION SURVEYS.

PLSS: T16S, R02W, Sec. 32, SE (S)
Accuracy: specific area
Area (acres): 28
UTM: Zone-11 N3621903 E490365
Latitude/Longitude: 32.73489 / -117.10282
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:

EDW07F0003	EDWARDS, C. - FIELD SURVEY FORM FOR CEANOTHUS VERRUCOSUS 2007-03-08
ROC04S0001	ROCKS, J. - ROCKS #3 SD #167505 2004-12-16
SDC12M0001	SAN DIEGO CANYONLANDS - EXISTING CONDITIONS MAP SET FOR HOLLYWOOD CANYON WITH COMPREHENSIVE NOTES ON VEGETATION COMMUNITIES 2012-02-07
VEG09F0126	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR CEANOTHUS VERRUCOSUS 2009-06-03
VEG09F0135	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR CEANOTHUS VERRUCOSUS 2009-06-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92208
Key Quad: Point Loma (3211762)
Occurrence Number: 48
EO Index: 93306
Element Code: PDRHA041J0
Occurrence Last Updated: 2014-05-02

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2?
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 1896-02-15
Last Survey Date: 1896-02-15
Owner/Manager: UNKNOWN
Presence: Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
ROSEVILLE, SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS IN VICINITY OF ROSEVILLE.

Ecological:

Threats:
NO NATURAL HABITAT REMAINS IN AREA; SITE PRESUMED EXTIRPATED BY DEVELOPMENT.

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS AN 1896 REED COLLECTION. PRESUMED EXTIRPATED.

PLSS: T17S, R03W, Sec. 06 (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3621348 E478507
Latitude/Longitude: 32.72972 / -117.22938
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:
REE96S0001 REED, M. - REED #9039 POM #2709 1896-02-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92209
Key Quad: Point Loma (3211762)
Occurrence Number: 49
EO Index: 93307
Element Code: PDRHA041J0
Occurrence Last Updated: 2014-05-02

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2?
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 1927-03-20
Last Survey Date: 1927-03-20
Owner/Manager: UNKNOWN
Presence: Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
NEAR OCEAN BEACH, SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS IN VICINITY OF OCEAN BEACH.

Ecological:
COAST.

Threats:
NO NATURAL HABITAT REMAINS IN AREA; SITE PRESUMED EXTIRPATED BY DEVELOPMENT.

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1927 BASTLIN COLLECTION. PRESUMED EXTIRPATED.

PLSS: T16S, R04W, Sec. 36 (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3623080 E476732
Latitude/Longitude: 32.74531 / -117.24835
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Point Loma (3211762), La Jolla (3211772)

Sources:
BAS27S0001 BASTLIN, J. - BASTLIN SN SDSU #10233 1927-03-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92210
Key Quad: La Mesa (3211771)
Occurrence Number: 50
EO Index: 93308
Element Code: PDRHA041J0
Occurrence Last Updated: 2014-05-02

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2?
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 1897-01-30
Last Survey Date: 1897-01-30
Owner/Manager: UNKNOWN
Presence: Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
LA MESA, SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS IN VICINITY OF LA MESA.

Ecological:

Threats:
NO NATURAL HABITAT REMAINS IN AREA; SITE PRESUMED EXTIRPATED BY DEVELOPMENT.

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS AN 1897 SARGENT COLLECTION. PRESUMED EXTIRPATED.

PLSS: T16S, R01W, Sec. 19 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3625556 E497822
Latitude/Longitude: 32.76789 / -117.02325
Elevation (feet):

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
SAR97S0002 SARGENT, C. - SARGENT SN A #425639 1897-01-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92211
Key Quad: La Mesa (3211771)
Occurrence Number: 51
EO Index: 93309
Element Code: PDRHA041J0
Occurrence Last Updated: 2014-05-02

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2?
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 1939-03-14
Last Survey Date: 1939-03-14
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NEAR MARINE RIFLE RANGE.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS AROUND THE RIFLE RANGE NEAR MURPHY CANYON ON KEARNY MESA BASED ON THE LOCATION OF OTHER GANDER COLLECTIONS FROM THE SAME DATE.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1939 GANDER COLLECTION. NEEDS FIELDWORK.

PLSS: T15S, R02W, Sec. 17 (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3636507 E490225
Latitude/Longitude: 32.86663 / -117.10447
Elevation (feet): 500

County Summary:
San Diego

Quad Summary:
La Mesa (3211771), Poway (3211781)

Sources:
GAN39S0017 GANDER, F. - GANDER #6953 SD #24329 1939-03-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92218
Key Quad: La Jolla (3211772)
Occurrence Number: 52
EO Index: 93316
Element Code: PDRHA041J0
Occurrence Last Updated: 2014-05-02

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2?
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 2006-04-07
Last Survey Date: 2006-04-07
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
BOTH SIDES OF ROSE CANYON, JUST EAST OF I-805 AND SOUTH OF MIRAMAR ROAD, MCAS MIRAMAR.

Detailed Location:
MAPPED BY CNDDB TO ENCOMPASS LOCATIONS FROM TWO 2006 DOSSEY COLLECTIONS. ONE FROM "N OF MIRAMAR NURSERY, S OF ROSE CYN, ALONG RIDGE E OF DIRT ACCESS ROAD OVER MWD PIPELINE" AND THE OTHER FROM "N OF ROSE CYN AND S OF MIRAMAR RD, E OF I-805."

Ecological:

Threats:

General:
SITE BASED ON TWO 2006 DOSSEY COLLECTIONS. NEEDS FIELDWORK.

PLSS: T15S, R03W, Sec. 15 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3636788 E483110
Latitude/Longitude: 32.86909 / -117.18053
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

DOS06S0006	DOSSEY, R. - DOSSEY #359 SD #171790 2006-04-07
DOS06S0007	DOSSEY, R. - DOSSEY #1201 SD #171796 2006-04-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92219
Key Quad: La Jolla (3211772)
Occurrence Number: 53
EO Index: 93318
Element Code: PDRHA041J0
Occurrence Last Updated: 2014-05-02

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2?
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 1995-02-23
Last Survey Date: 1995-02-23
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
GOVERNOR DRIVE EXIT OFF I-805, WEST END OF MIRAMAR NAVAL AIR STATION.

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS CENTERED ON THE JUNCTION OF GOVERNOR DRIVE AND I-805.

Ecological:
MESA IN COASTAL CHAPARRAL WITH QUERCUS, CERCOCARPUS, ADENOSTOMA, AND ERIOGONUM.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1995 WALKER COLLECTION. NEEDS FIELDWORK.

PLSS: T15S, R03W, Sec. 22, W (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3635489 E482708
Latitude/Longitude: 32.85736 / -117.18480
Elevation (feet): 230

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
WAL95S0014 WALKER, J. - WALKER #1185 NY #42587, SD #222244 1995-02-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92221
Key Quad: La Jolla (3211772)
Occurrence Number: 54
EO Index: 93319
Element Code: PDRHA041J0
Occurrence Last Updated: 2014-05-02

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2?
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 2004-03-29
Last Survey Date: 2004-03-29
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
ROSE CANYON BY GENESEE AVENUE, UNIVERSITY CITY.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO COORDINATES ON COLLECTION LABEL; DATUM UNKNOWN, MAPPED TO ENCOMPASS NAD27 AND NAD83.

Ecological:
MIXED VEGETATION WITH SALIX, BACCHARIS SALICIFOLIA, GRASSES, QUERCUS AGRIFOLIA, AND PLATANUS RACEMOSA. BETWEEN RIPARIAN AND SLOPE. HARD PACKED SOIL. IN AN AREA RECENTLY REVEGETATED.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2004 FILLIUS COLLECTION. NEEDS FIELDWORK.

PLSS: T15S, R03W, Sec. 20, NE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3635802 E480418
Latitude/Longitude: 32.86014 / -117.20928
Elevation (feet): 190

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
FIL04S0001 FILLIUS, M. - FILLIUS #43 SD #155960 2004-03-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92222
Key Quad: La Jolla (3211772)
Occurrence Number: 55
EO Index: 93320
Element Code: PDRHA041J0
Occurrence Last Updated: 2017-06-30

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2?
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 2010-05-07
Last Survey Date: 2010-05-07
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SOLEDAD NATURAL OPEN SPACE PARK; NW AND SE OF EASTER CROSS, EAST OF LA JOLLA.

Detailed Location:
MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO COORDINATES ON 2009 VEGETATION SURVEY FORMS, AND ACCORDING TO 2010 WALTHER COORDINATES.

Ecological:
ASSOCIATED WITH QUERCUS DUMOSA, RHUS INTEGRIFOLIA, HETEROMELES ARBUTIFOLIA, ADENOSTOMA FASCICULATUM, XYLOCOCCUS BICOLOR, MIMULUS AURANTIACUS, SALVIA MELLIFERA, ERIODICTYON CRASSIFOLIUM, ERIOGONUM FASCICULATUM, ETC.

Threats:

General:
1% TO 2% COVER OF CEANOTHUS VERRUCOSUS DURING 2009 VEGETATION SURVEYS. UNKNOWN NUMBER OBSERVED IN 2010. A 1962 FRANK COLLECTION FROM "MT. SOLEDAD" AND A 1991 EMMEL COLLECTION FROM "N SLOPE SOLEDAD MTN" ARE ALSO ATTRIBUTED TO THIS SITE.

PLSS: T15S, R04W, Sec. 25, SE (S)
Accuracy: specific area
Area (acres): 25
UTM: Zone-11 N3633573 E477112
Latitude/Longitude: 32.83997 / -117.24458
Elevation (feet): 700

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

EMM91S0004	EMMEL, J. - EMMEL #1171 RSA #812770 1991-05-15
FRA62S0001	FRANK, S. - FRANK SN SDSU #10280 1962-05-12
VEG09F0117	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR CEANOTHUS VERRUCOSUS 2009-07-06
VEG09F0120	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR CEANOTHUS VERRUCOSUS 2009-07-06
VEG09F0123	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR CEANOTHUS VERRUCOSUS 2009-07-06
WAL10S0008	WALTHER, M. & N. NENOW - WALTHER #3 SD #245818 2010-03-05
WAL10S0009	WALTHER, M. & A. ARTZ - WALTHER #22 SD #245820 2010-05-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92224
EO Index: 93322
Key Quad: La Jolla (3211772)
Element Code: PDRHA041J0
Occurrence Number: 56
Occurrence Last Updated: 2014-05-02

Scientific Name: *Ceanothus verrucosus*
Common Name: wart-stemmed ceanothus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

CNDDB Element Ranks: **Global:** G2
State: S2?

General Habitat:
CHAPARRAL.

Micro Habitat:
25-470 M.

Last Date Observed: 2009-06-25
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-06-25
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:
SOUTH SIDE OF SAN CLEMENTE CANYON, AT THE NW END OF LIMERICK AVENUE SW OF THE JUNCTION OF SR 52 AND I-805.

Detailed Location:
MARIAN BEAR MEMORIAL PARK. MAPPED BY CNDDB ACCORDING TO COORDINATES ON A 2009 VEGETATION SURVEY FORM. IN THE SE 1/4 OF THE NW 1/4 OF SECTION 27.

Ecological:
SITE DOMINATED BY ADENOSTOMA FASCICULATUM AND XYLOCOCCUS BICOLOR WITH CLUMPS OF CEANOTHUS VERRUCOSUS. COVER IS DENSE WITH SEVERAL OPENINGS. ALSO ASSOCIATED WITH RHUS INTEGRIFOLIA, SELAGINELLA CINERASCENS, ARTEMISIA CALIFORNICA, ETC.

Threats:

General:
6% COVER OF CEANOTHUS VERRUCOSUS OBSERVED DURING 2009 VEGETATION SURVEYS.

PLSS: T15S, R03W, Sec. 27, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3634071 E483065
Latitude/Longitude: 32.84457 / -117.18096
Elevation (feet): 380

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

VEG09F0134 VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR CEANOTHUS VERRUCOSUS 2009-06-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 98613
EO Index: 100076
Key Quad: La Mesa (3211771)
Element Code: PDRHA04430
Occurrence Number: 24
Occurrence Last Updated: 2015-12-23

Scientific Name: *Ceanothus otayensis*
Common Name: Otay Mountain ceanothus

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1G2
State: S1

General Habitat:
CHAPARRAL.

Micro Habitat:
METAVOLCANIC OR GABBROIC SOILS. 75-1160 M.

Last Date Observed: 2013-04-18
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2013-04-18
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:
KEARNY MESA; SAN CLEMENTE CANYON ABOUT 0.7 MILE SSW OF CA-163 AND HARRIS PLANT ROAD JUNCTION, MIRAMAR MCAS.

Detailed Location:
MAPPED ACCORDING TO COORDINATES FROM 2005, 2009, AND 2013.

Ecological:
CHAPARRAL ON FLAT, WEST-FACING, AND SOUTH-FACING RAVINE SLOPE. SHALLOW, VERY ROCKY SOIL DERIVED FROM EOCENE NON-MARINE CONGLOMERATE PARENT MATERIAL.

Threats:

General:
OCCASIONAL IN 2005. LOCALLY ABUNDANT IN 2009. INFREQUENT IN 2013.

PLSS: T15S, R02W, Sec. 19, S (S)
Accuracy: specific area
Area (acres): 14
UTM: Zone-11 N3634963 E488244
Latitude/Longitude: 32.85269 / -117.12563
Elevation (feet): 430

County Summary:
San Diego

Quad Summary:
La Mesa (3211771), La Jolla (3211772)

Sources:

BUR09S0022	BURGE, D. - BURGE #1179B & #1179C CAS #1117215, RSA #753170 2009-05-22
BUR13S0003	BURGE, D. & K. ZHUKOVSKY - BURGE #1398 DAV #147133 2013-04-18
ROB05S0008	ROBERTS, F. & R. DOSSEY - ROBERTS #6209 SD #164398 2005-05-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04355
EO Index: 19393
Key Quad: Imperial Beach (3211751)
Element Code: PDROS1J1B0
Occurrence Number: 1
Occurrence Last Updated: 2015-08-28

Scientific Name: *Rosa minutifolia*
Common Name: small-leaved rose

Listing Status: **Federal:** None
State: Endangered
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2G3
State: SXC

General Habitat:

COASTAL SCRUB, CHAPARRAL.

Micro Habitat:

IN THE UNITED STATES, ON COBBLY SOIL AT THE HEAD OF A SMALL, DRY CANYON ON OTAY MESA. 150-160 M.

Last Date Observed: 1997-12-19
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1997-12-19
Occurrence Rank: None
Owner/Manager: PVT
Trend: Unknown
Presence: Extirpated

Location:

ABOUT 0.6 MI NORTH OF OTAY MESA ROAD, 1.0 MI EAST OF I-805, IMMEDIATELY EAST OF UNIMPROVED DIRT ROAD, OTAY MESA.

Detailed Location:

MAPPED ACCORDING TO A 1992 CITY OF SAN DIEGO REPORT. THIS WAS THE ONLY NATURAL POPULATION IN THE US. COLLECTIONS FROM THE 1980S APPEAR TO HAVE INCORRECT TRS INFORMATION; SOME LABELS STATE SEC 29 OR 31 BUT SITE IS WITHIN SEC 30.

Ecological:

ON DENSE MARINE COBBLE SUBSTRATE WITH OLIVENHAIN COBBLY LOAM SOILS. ASSOCIATED WITH ARTEMISIA CALIFORNICA, ERIOGONUM FASCICULATUM, NON-NATIVE GRASSES, FILAREE.

Threats:

SITE WAS USED AS ORV PLAYGROUND. ORIGINAL POPULATION EXTIRPATED IN PREPARATION FOR DEVELOPMENT (TRANSPLANTED TO EO #2).

General:

100+ STEMS OVER A 30X50 METER AREA SEEN IN 1985 (POSSIBLY JUST ONE LARGE CLONAL INDIVIDUAL). ALSO OBSERVED IN 1987, 1988, & 1997. 245 ROOT CUTTINGS TRANSLOCATED IN 1997 TO ADJACENT OPEN SPACE PRESERVE. ORIGINAL PLANT/CLONE WAS EXTIRPATED.

PLSS: T18S, R01W, Sec. 30, SE (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3604209 E497937
Latitude/Longitude: 32.57533 / -117.02197
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

DOD01U0003	DODERO, M. - NOTES FROM PHONE CONVERSATION WITH MGP AND DH, REGARDING ROSA MINUTIFOLIA. 2001-12-21
MOR87S0022	MORGAN, S. & D. KUCERA - MORGAN SN UCR #49758, RSA #430520 1987-03-25
MOR87S0023	MORGAN, S. & D. KUCERA - MORGAN SN UCR #48014 1987-04-14
OBE87F0001	OBERBAUER, T. - FIELD SURVEY FORM FOR ROSA MINUTIFOLIA 1987-10-09
OBE88R0001	OBERBAUER, T. - PETITION TO FISH & GAME COMMISSION TO LIST ROSA MINUTIFOLIA 1988-02-08
REC91U0001	RECON - MEMORANDUM OF UNDERSTANDING REGARDING ROSA MINUTIFOLIA. 1991-05-23
REI91R0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1991-04-10
REV85F0001	REVEAL, J. - FIELD SURVEY FORM FOR ROSA MINUTIFOLIA 1985-02-06
REV85S0001	REVEAL, J. - REVEAL #2846 CAS #820684, RSA #396568, SD #119874, UC #1564723 1985-02-06
REV85S0002	REVEAL, J. - REVEAL #2847 SD #119873, SEINET #3077250, DES #30529, UCR #44688 1985-03-08
SCH99R0001	SCHEID, G. - MITIGATION MONITORING REPORT FOR SMALL-LEAVED ROSE (YEAR 1) CALIFORNIA TERRACES AND OTAY CORPORATE CENTER 1999-04-29
SDG92R0001	CITY OF SAN DIEGO - PORTIONS OF AN ENVIRONMENTAL IMPACT REPORT FOR THE CALIFORNIA TERRACES PRECISE PLAN 1992-XX-XX
WIL85S0001	WILLIAMS, M. & W. WISURA - WILLIAMS #4044 CAS #743587, RSA #323382 & #323383, UC #1531126, DAV #113398 1985-03-12
YOR85U0001	YORK, R. - RECORD OF PHONE CONVERSATION WITH J. REVEAL 1985-03-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	97359	**EO Index:**	98633
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDROS1J1B0
Occurrence Number:	2	**Occurrence Last Updated:**	2015-08-27

Scientific Name: *Rosa minutifolia*

Common Name: small-leaved rose

Listing Status: **Federal:** None

State: Endangered

CNDDB Element Ranks: **Global:** G2G3

State: SXC

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB, CHAPARRAL.

Micro Habitat:

IN THE UNITED STATES, ON COBBLY SOIL AT THE HEAD OF A SMALL, DRY CANYON ON OTAY MESA. 150-160 M.

Last Date Observed:	2010-02-19	**Occurrence Type:**	Transplant Outside of Native Hab./Range
Last Survey Date:	2010-02-19	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO, PVT?	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

OCEAN VIEW HILLS OPEN SPACE, OTAY MESA.

Detailed Location:

MAPPED BY CNDDB AS 3 POLYGONS AS SHOWN IN A 1999 SCHEID REPORT. A 2010 KEDZIORA COLLECTION FROM "DENNERY WEST (CALTRANS), PROPERTY IN NE PORTION OF INTERSECTION OF OCEAN VIEW HILLS PKWY AND OTAY MESA ROAD" ALSO ATTRIBUTED HERE.

Ecological:

AT THE MESA-TOP EDGE OF CANYONS WITH NORTHWESTERLY EXPOSURES AND RELATIVELY GENTLE SLOPES.

Threats:

General:

A TOTAL OF 245 CLUMPS/CUTTINGS WERE PLANTED ACROSS THE THREE AREAS IN 1997; ADDITIONAL ROOTED CLUMPS WERE PLANTED IN OTHER AREAS THROUGHOUT THE VERNAL POOL PRESERVE AREA (EXACT LOCATIONS NOT SPECIFIED). 215 SURVIVED TO 1998. UNK # IN 2010.

PLSS:	T18S, R01W, Sec. 29, SW (S)	**Accuracy:**	specific area	**Area (acres):**	20
UTM:	Zone-11 N3603858 E499222	**Latitude/Longitude:**	32.57215 / -117.00827	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

DOD01U0003	DODERO, M. - NOTES FROM PHONE CONVERSATION WITH MGP AND DH, REGARDING ROSA MINUTIFOLIA. 2001-12-21
KED10S0001	KEDZIORA, M. & E. BERGMAN - KEDZIORA #47 SD #241579, UCR #255275 2010-02-19
SCH99R0001	SCHEID, G. - MITIGATION MONITORING REPORT FOR SMALL-LEAVED ROSE (YEAR 1) CALIFORNIA TERRACES AND OTAY CORPORATE CENTER 1999-04-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 97360
EO Index: 98635
Key Quad: Imperial Beach (3211751)
Element Code: PDROS1J1B0
Occurrence Number: 3
Occurrence Last Updated: 2015-09-01

Scientific Name: *Rosa minutifolia*
Common Name: small-leaved rose

Listing Status: **Federal:** None
State: Endangered
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2G3
State: SXC

General Habitat:

COASTAL SCRUB, CHAPARRAL.

Micro Habitat:

IN THE UNITED STATES, ON COBBLY SOIL AT THE HEAD OF A SMALL, DRY CANYON ON OTAY MESA. 150-160 M.

Last Date Observed: 2014-05-13
Occurrence Type: Transplant Outside of Native Hab./Range

Last Survey Date: 2014-05-13
Occurrence Rank: Good

Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown

Presence: Presumed Extant

Location:

DENNERY RANCH; SOUTH OF FALCONHURST TERRACE, OTAY VALLEY REGIONAL PARK.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO A MAP SUBMITTED WITH A 2014 FIELD SURVEY FORM.

Ecological:

MARITIME SUCCULENT SCRUB. ASSOCIATED WITH BROMUS MADRITENSIS RUBENS, FESTUCA MYUROS, ANAGALLIS ARVENSIS, ARTEMISIA CALIFORNICA, SIMMONDSIA CHINENSIS, BAHIOPSIS LACINIATA, ENCELIA CALIFORNICA, RHUS INTEGRIFOLIA, DEINANDRA CONJUGENS, ETC.

Threats:

INVASIVE GRASSES. POSSIBLY THREATENED BY BRUSH MANAGEMENT/VEGETATION CLEARING.

General:

1 PLANT IN 2008, 13 PLANTS IN 2009, 7 IN 2013, 9 IN 2014. SITE NOT SPECIFICALLY MENTIONED AS A TRANSPLANT SITE BUT THE ONLY KNOWN NATIVE SITE (CNDDB OCCURRENCE #1) WAS EXTIRPATED BY DEVELOPMENT IN THE 1990S.

PLSS: T18S, R01W, Sec. 30, NW (S)
Accuracy: specific area
Area (acres): 1

UTM: Zone-11 N3604699 E497213
Latitude/Longitude: 32.57974 / -117.02969
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

MIL09F0081	MILLER, B. & T. CASS (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR POLIOPTILA CALIFORNICA CALIFORNICA & ROSA MINUTIFOLIA 2009-06-04
MIL13F0015	MILLER, B. ET AL. - FIELD SURVEY FORM FOR ROSA MINUTIFOLIA 2013-05-21
MIL14F0001	MILLER, B. ET AL. - FIELD SURVEY FORM FOR ROSA MINUTIFOLIA 2014-05-13
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 76277
Key Quad: Imperial Beach (3211751)
Occurrence Number: 1
EO Index: 22097
Element Code: PDSCR0J0C2
Occurrence Last Updated: 2017-05-15

Scientific Name: *Chloropyron maritimum ssp. maritimum*
Common Name: salt marsh bird's-beak

Listing Status: **Federal:** Endangered
State: Endangered
CNDDB Element Ranks: **Global:** G4?T1
State: S1
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_SBBG-Santa Barbara Botanic Garden

General Habitat:
MARSHES AND SWAMPS, COASTAL DUNES.

Micro Habitat:
LIMITED TO THE HIGHER ZONES OF SALT MARSH HABITAT. 0-10 M.

Last Date Observed: 1938-07-25
Last Survey Date: 1938-07-25
Owner/Manager: DPR-BORDER FIELD SP
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
BORDER FIELD, NEAR BOUNDARY MONUMENT #258, SOUTH OF IMPERIAL BEACH.

Detailed Location:
EXACT LOCATION NOT KNOWN; SITE MAPPED AT SITE OF BOUNDARY MONUMENT.

Ecological:

Threats:
REISER (1994) MENTIONS THAT THIS POPULATION MAY NO LONGER BE EXTANT.

General:
SITE BASED ON 1894 AND 1938 COLLECTIONS. NEEDS FIELDWORK.

PLSS: T19S, R02W, Sec. 07, SW (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3599783 E488453
Latitude/Longitude: 32.53533 / -117.12295
Elevation (feet): 10

County Summary:
San Diego, Mexico

Quad Summary:
Imperial Beach (3211751)

Sources:

GAN38S0001	GANDER, F. - GANDER #6152 SD #22014 1938-07-25
MEA94S0013	MEARNS, E. - MEARNS #3914 DS #21110, CAS-BOT-BC #372440 1894-07-02
MEA94S0014	MEARNS, E. - MEARNS #3931 DS #21109, CAS-BOT-BC #237984 1894-07-15
REI94U0002	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04047	**EO Index:**	26960
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDSCR0J0C2
Occurrence Number:	2	**Occurrence Last Updated:**	2019-05-30

Scientific Name: *Chloropyron maritimum ssp. maritimum*

Common Name: salt marsh bird's-beak

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G4?T1
State: S1

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_SBBG-Santa Barbara Botanic Garden

General Habitat:

MARSHES AND SWAMPS, COASTAL DUNES.

Micro Habitat:

LIMITED TO THE HIGHER ZONES OF SALT MARSH HABITAT. 0-10 M.

Last Date Observed:	2019-04-27	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2019-04-27	**Occurrence Rank:**	Good
Owner/Manager:	USFWS, DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

TIJUANA SLOUGH NATIONAL WILDLIFE REFUGE, BETWEEN THE MOUTH OF TIJUANA RIVER AND CORONADO AVE, IMPERIAL BEACH.

Detailed Location:

MAPPED BY CNDDB AS 11 POLYGONS BASED ON MAPS FROM 1979-1981, DIGITAL DATA AND COORDINATES FROM 2008, 2016-2019. SEVERAL VAGUE COLLECTIONS FROM "IMPERIAL BEACH" ATTRIBUTED HERE. INCLUDES FORMER EO #33.

Ecological:

UPPER SALT MARSH WITH DISTICHLIS SPICATA, SALICORNIA SPP., MONANTHOCHLOE LITTORALIS, LIMONIUM CALIFORNICUM, CUSCUTA SALINA, CRESSA TRUXILLENSIS, JAUMEA CARNOSA, BATIS MARITIMA, TRIGLOCHIN CONCINNA, FRANKENIA GRANDIFOLIA, ATRIPLEX, ETC.

Threats:

ORVS, TRAMPLING, INSECT PREDATION, DUMPING, INVASIVES, CHANGES IN TIDAL REGIME, RD/TRAILS, RUNOFF, CLIMATE CHANGE.

General:

POP #S FOR PORTIONS: 1100+ IN 1979, 1600+ IN '80, ~3000 IN '81, <1000 IN '82, 600+ IN '88, 1181 IN 2016, 178,230 IN 2017, 4142 IN 2018, SEEN IN 2019. SEEDS FROM TIJUANA EST COLLECTED TO RE-SEED INTO EO#7; SEEDS LIKELY FROM HERE OR EO #34.

PLSS:	T18S, R02W, Sec. 31 (S)	**Accuracy:**	specific area	**Area (acres):**	71
UTM:	Zone-11 N3603455 E487910	**Latitude/Longitude:**	32.56846 / -117.1288	**Elevation (feet):**	5

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

AND17F0014	ANDERSON, S. - FIELD SURVEY FORM FOR CHLOROPYRON MARITIMUM SSP. MARITIMUM 2017-09-29
ANO81U0001	ANONYMOUS - TABLE 1. ESTIMATED ABUNDANCE OF CORDYLANTHUS MARITIMUS SSP. MARITIMUS IN THE TIJUANA MARSH, 1979-1981. 1981-XX-XX
DUN81R0001	DUNN, P. & J. ZEDLER - FIELD OBSERVATIONS OF THE SALT MARSH BIRD'S BEAK, OLF IMPERIAL BEACH. DRAFT REPORT TO US DEPT. OF THE NAVY, WILDLIFE AND NATURAL RESOURCE OFFICE, NAS NORTH ISLAND. 1981-11-XX
FER79I0001	FERGUSON, H. & P. JORGENSEN - AERIAL PHOTO OF TIJUANA MARSH; CORDYLANTHUS MARITIMUS SSP. MARITIMUS SURVEY 1979-06-28
FER79S0004	FERGUSON, H. - FERGUSON #001 SBBG #105329 1979-05-17
FER80I0001	FERGUSON, H. - AERIAL PHOTOGRAPH OF 1979 AND 1980 LOCATIONS 1980-XX-XX
FER81F0006	FERGUSON, H. - FIELD SURVEY FORM FOR CORDYLANTHUS MARITIMUS SSP. MARITIMUS 1981-05-28
FER81F0007	FERGUSON, H. - SEVERAL FIELD SURVEY FORMS FOR CORDYLANTHUS MARITIMUS SSP. MARITIMUS 1981-05-28
FER81M0007	FERGUSON, H. - IMPERIAL BEACH QUAD MAP 1981-XX-XX
FIN88R0001	FINK, B. & J. ZEDLER - MAXIMIZING GROWTH OF CORDYLANTHUS MARITIMUS SSP. MARITIMUS, AN ENDANGERED SALT MARSH PLANT. 1988-11-20
FWS84R0013	U.S. FISH & WILDLIFE SERVICE - RECOVERY PLAN FOR SALT MARSH BIRD'S-BEAK. 1984-12-06
GAN38S0026	GANDER, F. - GANDER #5997 SD #21774, UCR #44764, RSA #69050, SBBG #80912, UC #930919 1938-06-15
GRI88F0001	GRIZZLE, B. - FIELD SURVEY FORMS FOR CHLOROPYRON MARITIMUM SSP. MARITIMUM 1988-04-26
HEC71S0003	HECKARD, L. - HECKARD #2565 JEPS #66301 1971-05-23
INA19U0006	INATURALIST - INATURALIST OBSERVATIONS OF CHLOROPYRON MARITIMUM, FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-05-31. 2019-05-31
NEW81F0017	NEWMAN, J. - FIELD SURVEY FORM FOR CORDYLANTHUS MARITIMUS SSP. MARITIMUS 1981-07-29
NEW82F0003	NEWMAN, J. - FIELD SURVEY FORM FOR CORDYLANTHUS MARITIMUS SSP. MARITIMUS 1982-05-13
PAR97A0001	PARSONS, L. & J. ZEDLER - FACTORS AFFECTING REESTABLISHMENT OF AN ENDANGERED ANNUAL PLANT AT A CALIFORNIA SALT MARSH (IN ECOLOGICAL APPLICATIONS 7(1) PP. 253-267). 1997-02-XX
PUR38S0001	PURER, E. - PURER #7887 SD #39542, RSA #412319 1938-10-28
ROS35S0004	ROSE, L. - ROSE #35329 POM #223413, SBBG #27299, UC #577188, CAS #227917, DS #241042, CAS-BOT-BC #237983 & #237986, NY #28951 1935-07-12
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
VEG16U0001	VEGETATION CLASSIFICATION AND MAPPING PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - DATABASE OF PLANT SPECIES OBSERVED DURING VEGETATION SURVEYS, 1984-2016 2016-XX-XX
ZAH05I0001	ZAHN, E. - PHOTO OF CHLOROPYRON MARITIMUM SSP. MARITIMUM, CALPHOTOS ID: 0000 0000 0606 0002 2005-11-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B2287
Key Quad: Imperial Beach (3211751)
Occurrence Number: 3
EO Index: 34947
Element Code: PDSCR0J0C2
Occurrence Last Updated: 2019-05-29

Scientific Name: *Chloropyron maritimum ssp. maritimum*
Common Name: salt marsh bird's-beak

Listing Status: **Federal:** Endangered
State: Endangered
CNDDB Element Ranks: **Global:** G4?T1
State: S1
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_SBBG-Santa Barbara Botanic Garden

General Habitat:
MARSHES AND SWAMPS, COASTAL DUNES.

Micro Habitat:
LIMITED TO THE HIGHER ZONES OF SALT MARSH HABITAT. 0-10 M.

Last Date Observed: 2018-XX-XX
Last Survey Date: 2018-XX-XX
Owner/Manager: DOD-NAVY
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
YMCA CAMP SURF, SOUTH END OF CORONADO SAND SPIT, NEAR IMPERIAL BEACH.

Detailed Location:
MAPPED ACCORDING TO SAN DIEGO MANAGEMENT AND MONITORING PROGRAM (SDMMP) DIGITAL DATA, IN THE NW 1/4 OF THE SW 1/4 OF SECTION 19.

Ecological:
SOUTHERN COASTAL SALT MARSH AND MARITIME SUCCULENT SCRUB. JUNCUS ACUTUS SSP. LEOPOLDII ALSO OCCURS NEARBY.

Threats:

General:
2 PLANTS IN 1996. UNKNOWN NUMBER OBSERVED IN 2012. 1685 PLANTS ESTIMATED IN 2017, 4 PLANTS SEEN IN 2018. A 1903 CHANDLER COLLECTION FROM "CORONADO SAND SPIT" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS: T18S, R02W, Sec. 19, SW (S)
Accuracy: specific area
Area (acres): 3
UTM: Zone-11 N3605767 E487655
Latitude/Longitude: 32.58931 / -117.13154
Elevation (feet): 5

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

CHA03S0001	CHANDLER, H. - CHANDLER #4003 UC #65835, DS #21111, #21112, & #74047, CAS-BOT-BC #237980-237982, NY #28953 1903-10-03
DON11R0002	DEPARTMENT OF THE NAVY - SILVER STRAND TRAINING COMPLEX, ENVIRONMENTAL IMPACT STATEMENT. SECTION 3.11: TERRESTRIAL BIOLOCIAL RESOURCES 2011-01-XX
DON15U0001	DEPARTMENT OF THE NAVY - REVISED FINDINGS ON CONSISTENCY DETERMINATION FOR THE NAVAL BASE CORONADO COASTAL CAMPUS PROJECT 2015-02-06
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04120	**EO Index:**	17520
Key Quad:	National City (3211761)	**Element Code:**	PDSCR0J0C2
Occurrence Number:	7	**Occurrence Last Updated:**	2019-06-21

Scientific Name: *Chloropyron maritimum ssp. maritimum*

Common Name: salt marsh bird's-beak

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G4?T1
State: S1

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_SBBG-Santa Barbara Botanic Garden

General Habitat:

MARSHES AND SWAMPS, COASTAL DUNES.

Micro Habitat:

LIMITED TO THE HIGHER ZONES OF SALT MARSH HABITAT. 0-10 M.

Last Date Observed:	2019-05-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2019-05-15	**Occurrence Rank:**	Fair
Owner/Manager:	USFWS-SAN DIEGO BAY NWR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SWEETWATER MARSH, WEST OF I-5, CHULA VISTA.

Detailed Location:

MAPPED AS 5 POLYGONS, MOSTLY ACCORDING TO SDMMP DIGITAL DATA. SITE IS A MIXTURE OF POPULATIONS THAT ARE NATURAL (SW-POLYGON, NATIVE POP EXTIRPATED IN LATE 1980S, RE-SEEDED IN 1990-92 FROM TIJUANA ESTURARY STOCK) AND INTRODUCED.

Ecological:

ASSOCIATED WITH MONANTHOCHLOE LITTORALIS, FRANKENIA SALINA, LIMONIUM CALIFORNICUM, SALICORNIA SUBTERMINALIS, ATRIPLEX SEMIBACCATA, CEANOTHUS TOMENTOSUS, ARTHROCNEMUM SUBTERMINALE, ISOCOMA MENZIESII, ETC.

Threats:

INVASIVES, ALTERED HYDRO, DUMPING, HOMELESS ENCAMPMENTS, SOIL COMPACTION, TRAMPLING, BRUSH MGMT, TRAILS, CLIMATE CHANGE.

General:

SW POLY:~150 IN 1979, 90+ IN 1980, SEEN IN 1987, 5000 IN 1992 AFTER RE-SEEDING, 5700 IN 1993, 14K IN 1994 & 1995, 1200 IN 1996, SEEN IN 2001 & 2004. REMAINING POLYS: 494 IN 2016, 14900 IN 2017, 2958 IN 2018, SEEN IN 2019. INCL EO #39 & #48.

PLSS:	T17S, R02W, Sec. 32, SE (S)	**Accuracy:**	specific area	**Area (acres):**	36
UTM:	Zone-11 N3611939 E490185	**Latitude/Longitude:**	32.64501 / -117.10465	**Elevation (feet):**	7

County Summary:	**Quad Summary:**
San Diego	National City (3211761)

Sources:

AND17F0015	ANDERSON, S. - FIELD SURVEY FORM FOR CHLOROPYRON MARITIMUM SSP. MARITIMUM 2017-10-06
BOY96R0001	BOYER, K. ET AL. - STATUS OF SALT MARSH BIRD'S-BEAK AT SWEETWATER MARSH NATIONAL WILDLIFE REFUGE, 1996. 1996-11-XX
DUN83A0001	DUNN, P. - TWO FEDERALLY PROMINENT PLANTS: SAN DIEGO'S ENDANGERED SPECIES. ENVIRONMENT SOUTHWEST 501:8 1983-XX-XX
FOX82R0001	FOX, L. & M. KNUDSEN - RECOVERY PLAN 1982-XX-XX
FWS84R0013	U.S. FISH & WILDLIFE SERVICE - RECOVERY PLAN FOR SALT MARSH BIRD'S-BEAK. 1984-12-06
GRE04S0005	GREGORY, J. & J. BARTH - GREGORY #1135 SD #160249 2004-08-21
INA19U0006	INATURALIST - INATURALIST OBSERVATIONS OF CHLOROPYRON MARITIMUM, FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-05-31. 2019-05-31
JOR79M0001	JORGENSEN, P. - MAP OF SWEETWATER MARSH FOR CORDYLANTHUS MARITIMUS SSP. MARITIMUS. 1979-06-06
JOR80M0001	JORGENSEN, P. - MAP OF SWEETWATER MARSH FOR CORDYLANTHUS MARITIMUS SSP. MARITIMUS. 1980-06-26
PAR97A0001	PARSONS, L. & J. ZEDLER - FACTORS AFFECTING REESTABLISHMENT OF AN ENDANGERED ANNUAL PLANT AT A CALIFORNIA SALT MARSH (IN ECOLOGICAL APPLICATIONS 7(1) PP. 253-267). 1997-02-XX
REI94U0002	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 1994-05-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04062	**EO Index:**	17507
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDSCR0J0C2
Occurrence Number:	34	**Occurrence Last Updated:**	2019-06-21

Scientific Name: *Chloropyron maritimum ssp. maritimum*

Common Name: salt marsh bird's-beak

Listing Status: **Federal:** Endangered
State: Endangered

CNDDB Element Ranks: **Global:** G4?T1
State: S1

Rare Plant Rank: 1B.2

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_SBBG-Santa Barbara Botanic Garden

General Habitat:

MARSHES AND SWAMPS, COASTAL DUNES.

Micro Habitat:

LIMITED TO THE HIGHER ZONES OF SALT MARSH HABITAT. 0-10 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-05-25	**Occurrence Rank:**	Unknown
Owner/Manager:	USFWS-TIJUANA SLOUGH NWR, DPR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

TIJUANA MARSH NATIONAL WILDLIFE REFUGE NEAR THE MOUTH OF THE TIJUANA RIVER & THE NORTH PART OF BORDER FIELD STATE PARK.

Detailed Location:

MAPPED BY CNDDB AS 7 POLYGONS ACCORDING TO 1979 & 1980 FERGUSON MAPS AND 2001 DATA FROM THE CITY OF SAN DIEGO (2008). WESTERN POLYGON IS LIKELY FROM FURTHER EAST BASED ON HABITAT SHOWN ON AERIAL IMAGERY.

Ecological:

COASTAL SALT MARSH ON SILTY SAND. ASSOCIATED WITH JAUMEA CARNOSA, SALICORNIA SPP., CRESSA TRUXILENSIS, SUAEDA, DISTICHLIS SPICATA, LIMONIUM CALIFORNICUM, MONANTHOCHLOE, FRANKENIA GRANDIFOLIA, AND CUSCUTA SALINA. 5-10 FT ELEV.

Threats:

ORVS (PAST THREAT?). TRAILS, TRAMPLING BY ILLEGAL ALIENS/HORSES, NON-NATIVES, DUMPING. PORTIONS IMPACTED BY 1980 FLOOD.

General:

~2000 PLANTS IN 1979, 35 IN 1980 (MANY OF THE 1979 POPULATIONS NOT SEEN DUE TO FLOODING), 100-1000+ IN 1981, UNK # OF PLANTS IN 2001. NO PLANTS OBSERVED AFTER SEVERAL HOURS OF SEARCHING IN 2016. INCLUDES FORMER EO #35.

PLSS:	T19S, R02W, Sec. 06 (S)	**Accuracy:**	specific area	**Area (acres):**	11
UTM:	Zone-11 N3601709 E488284	**Latitude/Longitude:**	32.55271 / -117.12478	**Elevation (feet):**	5

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

ANO81U0001	ANONYMOUS - TABLE 1. ESTIMATED ABUNDANCE OF CORDYLANTHUS MARITIMUS SSP. MARITIMUS IN THE TIJUANA MARSH, 1979-1981. 1981-XX-XX
DUN81R0001	DUNN, P. & J. ZEDLER - FIELD OBSERVATIONS OF THE SALT MARSH BIRD'S BEAK, OLF IMPERIAL BEACH. DRAFT REPORT TO US DEPT. OF THE NAVY, WILDLIFE AND NATURAL RESOURCE OFFICE, NAS NORTH ISLAND. 1981-11-XX
FER79I0001	FERGUSON, H. & P. JORGENSEN - AERIAL PHOTO OF TIJUANA MARSH; CORDYLANTHUS MARITIMUS SSP. MARITIMUS SURVEY 1979-06-28
FER80I0002	FERGUSON, H. - AERIAL PHOTOGRAPH OF 1979 AND 1980 LOCATIONS WITHIN TIJUANA MARSH AFTER FLOODNG 1980-XX-XX
FER81F0002	FERGUSON, H. - FIELD SURVEY FORM FOR CORDYLANTHUS MARITIMUS SSP. MARITIMUS 1981-05-28
FER81F0003	FERGUSON, H. - FIELD SURVEY FORM FOR CORDYLANTHUS MARITIMUS SSP. MARITIMUS 1981-05-28
FER81F0004	FERGUSON, H. - FIELD SURVEY FORM FOR CORDYLANTHUS MARITIMUS SSP. MARITIMUS 1981-05-28
FER81F0005	FERGUSON, H. - FIELD SURVEY FORM FOR CORDYLANTHUS MARITIMUS SSP. MARITIMUS 1981-05-28
FER81M0007	FERGUSON, H. - IMPERIAL BEACH QUAD MAP 1981-XX-XX
FWS84R0013	U.S. FISH & WILDLIFE SERVICE - RECOVERY PLAN FOR SALT MARSH BIRD'S-BEAK. 1984-12-06
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04074
EO Index: 17505
Key Quad: Imperial Beach (3211751)
Element Code: PDSCR0J0C2
Occurrence Number: 36
Occurrence Last Updated: 2009-08-18

Scientific Name: *Chloropyron maritimum ssp. maritimum*
Common Name: salt marsh bird's-beak

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G4?T1
State: S1
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_SBBG-Santa Barbara Botanic Garden

General Habitat:
MARSHES AND SWAMPS, COASTAL DUNES.

Micro Habitat:
LIMITED TO THE HIGHER ZONES OF SALT MARSH HABITAT. 0-10 M.

Last Date Observed: 2001-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DPR-BORDER FIELD SP
Trend: Decreasing
Presence: Presumed Extant

Location:
BORDER FIELD STATE PARK, ABOUT 0.4 MILE NORTH OF INTERNATIONAL BOUNDARY AT MONUMENT #258, SOUTH OF IMPERIAL BEACH.

Detailed Location:

Ecological:
COASTAL SALT MARSH WITH MONANTHOCHLOE, FRANKENIA GRANDIFOLIA, LIMONIUM CALIFORNICUM, SALICORNIA SPP., SUAEDA, AND ATRIPLEX SP. ELEVATION RANGE: 5-10 FEET.

Threats:

General:
200-250 PLANTS IN 1979, 35-40 IN 1980, NONE IN 1981, UNKNOWN NUMBER OF PLANTS SEEN IN 2001. CURRENT STATUS OF THIS POPULATION NEEDED.

PLSS: T19S, R02W, Sec. 06, S (S)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3600444 E488396
Latitude/Longitude: 32.54130 / -117.12358
Elevation (feet): 5

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

ANO81U0001	ANONYMOUS - TABLE 1. ESTIMATED ABUNDANCE OF CORDYLANTHUS MARITIMUS SSP. MARITIMUS IN THE TIJUANA MARSH, 1979-1981. 1981-XX-XX
DUN81R0001	DUNN, P. & J. ZEDLER - FIELD OBSERVATIONS OF THE SALT MARSH BIRD'S BEAK, OLF IMPERIAL BEACH. DRAFT REPORT TO US DEPT. OF THE NAVY, WILDLIFE AND NATURAL RESOURCE OFFICE, NAS NORTH ISLAND. 1981-11-XX
FER79I0001	FERGUSON, H. & P. JORGENSEN - AERIAL PHOTO OF TIJUANA MARSH; CORDYLANTHUS MARITIMUS SSP. MARITIMUS SURVEY 1979-06-28
FER80I0002	FERGUSON, H. - AERIAL PHOTOGRAPH OF 1979 AND 1980 LOCATIONS WITHIN TIJUANA MARSH AFTER FLOODNG 1980-XX-XX
FER81F0001	FERGUSON, H. - FIELD SURVEY FORM FOR CORDYLANTHUS MARITIMUS SSP. MARITIMUS 1981-05-28
FER81M0007	FERGUSON, H. - IMPERIAL BEACH QUAD MAP 1981-XX-XX
FWS84R0013	U.S. FISH & WILDLIFE SERVICE - RECOVERY PLAN FOR SALT MARSH BIRD'S-BEAK. 1984-12-06
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A4683	**EO Index:**	106377
Key Quad:	La Jolla (3211772)	**Element Code:**	PDSCR0J0C2
Occurrence Number:	49	**Occurrence Last Updated:**	2019-06-03

Scientific Name: *Chloropyron maritimum ssp. maritimum*

Common Name: salt marsh bird's-beak

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G4?T1
State: S1

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_SBBG-Santa Barbara Botanic Garden

General Habitat:

MARSHES AND SWAMPS, COASTAL DUNES.

Micro Habitat:

LIMITED TO THE HIGHER ZONES OF SALT MARSH HABITAT. 0-10 M.

Last Date Observed:	2019-05-16	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2019-05-16	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EASTERN END OF DOG BEACH, OCEAN BEACH DUNES, AT THE MOUTH OF THE SAN DIEGO RIVER.

Detailed Location:

MOST PLANTS ARE IN DEPRESSION BETWEEN THE MAIN TIDAL MARSH FINGER AND THE DUNES. MAPPED ACCORDING TO SAN DIEGO MANAGEMENT AND MONITORING PROGRAM (SDMMP) DIGITAL DATA AND INATURALIST COORDINATES.

Ecological:

SANDY SUBSTRATE IN A DEPRESSION. SALT MARSH VEGETATION WITH LIMONIUM RAMOSISSIMUM, MONANTHOCHLOE, JAUMEA, SALICORNIA, AND FRANKENIA.

Threats:

ENCROACHMENT OF LIMONIUM, ALTERED HYDROLOGY, DISTURBANCE FROM TRAIL, TRAMPLING BY PEOPLE AND PETS.

General:

UNKNOWN NUMBER IN 2009 & 2010. 50+ PLANTS IN 2013. 1042 PLANTS IN 2014. 17793 PLANTS ESTIMATED IN 2015 (NUMBERS EXTRAPOLATED FROM PARTIAL COUNT). 8130 ESTIMATED IN 2016. 93589 ESTIMATED IN 2017. 7771 IN 2018. SEEN IN 2019.

PLSS:	T99X, R99X, Sec. UN (X)	**Accuracy:**	specific area	**Area (acres):**	15
UTM:	Zone-11 N3624221 E476900	**Latitude/Longitude:**	32.75561 / -117.2466	**Elevation (feet):**	5

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

AND17F0013	ANDERSON, S. - FIELD SURVEY FORM FOR CHLOROPYRON MARITIMUM SSP. MARITIMUM 2017-08-25
BHA13U0001	BHARDWAJ, T. - OBSERVATION RECORD FOR CHLOROPYRON MARITIMUM SSP. MARITIMUM, CALFLORA ID #OE5913 2013-11-19
BHA13U0002	BHARDWAJ T. & P. HORMICK - OBSERVATION RECORD FOR CHLOROPYRON MARITIMUM SSP. MARITIMUM, CALFLORA ID #OE5912 2013-03-20
INA19U0006	INATURALIST - INATURALIST OBSERVATIONS OF CHLOROPYRON MARITIMUM, FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-05-31. 2019-05-31
LEA09I0001	LEAVITT, A. - PHOTOS OF CHLOROPYRON MARITIMUM SSP. MARITIMUM, CALPHOTOS ID #0000 0000 1009 2302 & 2303 2009-10-22
LIE10S0001	LIEBERMAN, C. & D. ZEMBAL - LIEBERMAN SN SD #212382 2010-10-14
NIC13U0001	NICKEL, B. - OBSERVATION RECORD FOR CHLOROPYRON MARITIMUM SSP. MARITIMUM, CALFLORA ID #OE5305 2013-06-08
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
SIK13I0010	SIKORA, R. - PHOTOS OF CHLOROPYRON MARITIMUM SSP. MARITIMUM, CALPHOTOS ID #0000 0000 0813 1508-1511 2013-08-06
ZEM10U0001	ZEMBAL, R. - EMAIL REGARDING LOCATION OF CORDYLANTHUS MARITIMUS SSP. MARITIMUS NEAR SAN DIEGO RIVER 2010-10-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04489
EO Index: 17525
Key Quad: Imperial Beach (3211751)
Element Code: PDSCR0J0G0
Occurrence Number: 1
Occurrence Last Updated: 2015-12-18

Scientific Name: *Dicranostegia orcuttiana*
Common Name: Orcutt's bird's-beak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2G3
State: S1

General Habitat:

COASTAL SCRUB.

Micro Habitat:

FOUND IN COASTAL SCRUB ASSOCIATIONS ON SLOPES; ALSO REPORTED FROM INTERMITTENTLY MOIST SWALES, AND IN WASHES. 0-200 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

OTAY MESA BETWEEN DILLON ROAD AND HERITAGE ROAD, SOUTH OF OTAY MESA ROAD.

Detailed Location:

PREVIOUSLY MAPPED ABOUT 0.75 MILE DUE EAST OF WRUCK CANYON ON OTAY MESA ACCORDING TO CNPS MAP SITE 3A WHICH WAS BASED ON BEAUCHAMP "OLD RECORD" INFORMATION. SOURCE OF INFO FOR PREVIOUS MAPPING IS EXTREMELY VAGUE, CNDDB USED UPDATED INFO.

Ecological:

Threats:

General:

MAPPED ACCORDING TO A NOTE IN REISER (2001) THAT "ISOLATED POPULATIONS ARE FOUND ON SLOPES BETWEEN DILLON RD AND HERITAGE RD IN THE NORTHERNMOST CANYONLANDS S OF OTAY MESA ROAD." DATE OF OBSERVATION UNKNOWN.

PLSS: T18S, R01W, Sec. 32 (S)
Accuracy: 3/5 mile
Area (acres): 776
UTM: Zone-11 N3602391 E499276
Latitude/Longitude: 32.55893 / -117.00771
Elevation (feet):

County Summary:

San Diego

Quad Summary:

Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

BEANDU0003 BEAUCHAMP, R. - CNPS HERBARIUM CARD XXXX-XX-XX

REI01B0001 REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	58596	**EO Index:**	17524
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDSCR0J0G0
Occurrence Number:	2	**Occurrence Last Updated:**	2015-12-17

Scientific Name: *Dicranostegia orcuttiana*

Common Name: Orcutt's bird's-beak

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2G3

State: S1

General Habitat:

COASTAL SCRUB.

Micro Habitat:

FOUND IN COASTAL SCRUB ASSOCIATIONS ON SLOPES; ALSO REPORTED FROM INTERMITTENTLY MOIST SWALES, AND IN WASHES. 0-200 M.

Last Date Observed:	2009-05-14	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-05-14	**Occurrence Rank:**	Unknown
Owner/Manager:	SDG COUNTY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

GOAT CANYON, WEST END OF SPOONERS MESA, TIJUANA HILLS.

Detailed Location:

AREA PREVIOUSLY OWNED BY SAND AND GRAVEL OPERATION AND WILL PROBABLY BE DESTROYED ACCORDING TO OBERBAUER (1984); SITE IS CURRENTLY LOCATED WITHIN TIJUANA RIVER VALLEY REGIONAL PARK.

Ecological:

Threats:

MINING.

General:

UNKNOWN NUMBER OBSERVED IN 2001. 2000 NOLL COLLECTION FROM "BLUFF OVERLOOKING QUARRY (IN BOTTOM OF GOAT CANYON), BORDER FIELD STATE PARK" AND 2009 RIPMA PHOTOS FROM "GOAT CANYON" ARE ALSO ATTRIBUTED TO THIS SITE.

PLSS:	T19S, R02W, Sec. 9, NW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3600207 E490616	**Latitude/Longitude:**	32.53919 / -117.09994	**Elevation (feet):**	200

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

NOL00S0001	NOLL, R. - NOLL SN UCR #116389 2000-07-05
OBE84U0001	OBERBAUER, T. - RECORD OF PHONE CONVERSATION WITH RICK YORK 1984-03-21
RIP09I0005	RIPMA, L. - PHOTOS OF DICRANOSTEGIA ORCUTTIANA, CALPHOTOS ID: 0000 0000 1009 0522, 0524-0527 2009-05-14
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04327
EO Index: 17522
Key Quad: Imperial Beach (3211751)
Element Code: PDSCR0J0G0
Occurrence Number: 3
Occurrence Last Updated: 2005-08-09

Scientific Name: *Dicranostegia orcuttiana*
Common Name: Orcutt's bird's-beak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2G3
State: S1

General Habitat:
COASTAL SCRUB.

Micro Habitat:
FOUND IN COASTAL SCRUB ASSOCIATIONS ON SLOPES; ALSO REPORTED FROM INTERMITTENTLY MOIST SWALES, AND IN WASHES. 0-200 M.

Last Date Observed: XXXX-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: XXXX-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
GREG ROGERS PARK IN CHULA VISTA.

Detailed Location:

Ecological:

Threats:

General:
SEEN BY TOM OBERBAUER, BUT DATE AND EXACT LOCATION UNKNOWN; OBSERVED SOMETIME PRIOR TO 1983.

PLSS: T18S, R02W, Sec. 12 (S)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N3609132 E496808
Latitude/Longitude: 32.61973 / -117.03401
Elevation (feet): 340

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751), National City (3211761)

Sources:

OBE83U0007 OBERBAUER, T. - RECORD OF PHONE CONVERSATION NOTES REGARDING SPOONER MESA LOCATION 1983-08-10

OBE84U0001 OBERBAUER, T. - RECORD OF PHONE CONVERSATION WITH RICK YORK 1984-03-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	62247	**EO Index:**	62283
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDSCR0J0G0
Occurrence Number:	5	**Occurrence Last Updated:**	2015-12-17

Scientific Name: *Dicranostegia orcuttiana*

Common Name: Orcutt's bird's-beak

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2G3

State: S1

General Habitat:

COASTAL SCRUB.

Micro Habitat:

FOUND IN COASTAL SCRUB ASSOCIATIONS ON SLOPES; ALSO REPORTED FROM INTERMITTENTLY MOIST SWALES, AND IN WASHES. 0-200 M.

Last Date Observed:	2003-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

IN POGGI CANYON APPROXIMATELY 0.5 MILE EAST OF BRANDYWINE AVE, CHULA VISTA.

Detailed Location:

SOUTH SIDE OF OLYMPIC PARKWAY. MAPPED AS 2 POLYGONS ACCORDING TO 2004 RECON DIGITAL DATA, IN THE SW 1/4 OF THE NE 1/4 OF SECTION 18.

Ecological:

COASTAL SAGE SCRUB. THE RARE DEINANDRA CONJUGENS OCCURS NEARBY.

Threats:

General:

275 PLANTS OBSERVED IN 2002 AND/OR 2003. REISER (2001) REPORTS THIS SPECIES AS "VOLUNTEERING ON MANUFACTURED SLOPES ADJACENT TO A WETLAND RESTORATION PROJECT IN POGGI CYN APPROXIMATELY A HALF MI E OF BRADYWINE AVE."

PLSS:	T18S, R01W, Sec. 18, NE (S)	**Accuracy:**	specific area	**Area (acres):**	4
UTM:	Zone-11 N3607848 E498119	**Latitude/Longitude:**	32.60815 / -117.02005	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

REC04D0001	RECON ENVIRONMENTAL, INC. - SHAPEFILE OF SENSITIVE PLANT SURVEY RESULTS FOR THE CITY OF CHULA VISTA 2004-05-XX
REC04R0001	RECON ENVIRONMENTAL, INC. - BASELINE BIOLOGICAL RESOURCES REPORT FOR THE CHULA VISTA CENTRAL CITY PRESERVE BASELINE BIOLOGICAL SURVEY, CITY OF CHULA VISTA 2004-05-05
REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	62248	**EO Index:**	62284
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDSCR0J0G0
Occurrence Number:	6	**Occurrence Last Updated:**	2015-12-17

Scientific Name: *Dicranostegia orcuttiana*

Common Name: Orcutt's bird's-beak

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2G3

State: S1

General Habitat:

COASTAL SCRUB.

Micro Habitat:

FOUND IN COASTAL SCRUB ASSOCIATIONS ON SLOPES; ALSO REPORTED FROM INTERMITTENTLY MOIST SWALES, AND IN WASHES. 0-200 M.

Last Date Observed:	2009-05-12	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-05-12	**Occurrence Rank:**	Good
Owner/Manager:	CITY OF CHULA VISTA	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

IN THE OTAY RIVER DRAINAGE FROM INTERSTATE 805 EXTENDING TO ABOUT 0.5 MILE WEST OF INTERSTATE 805.

Detailed Location:

OTAY VALLEY REGIONAL PARK. MAPPED AS 4 POLYGONS ACCORDING TO 2008 CITY OF SAN DIEGO DIGITAL DATA. REISER (2001) MENTIONS THAT THIS PLANT IS LOCALLY ABUNDANT IN THIS AREA WITH "SCATTERED OCCURRENCES FOUND DOWNSTREAM."

Ecological:

DIEGAN COASTAL SAGE SCRUB WITH BACCHARIS SAROTHROIDES, ARTEMISIA CALIFORNICA, HETEROMELES ARBUTIFOLIA, RHUS INTEGRIFOLIA, BROMUS MADRITENSIS SSP. RUBENS, VULPIA MYUROS, ISOCOMA MENZIESII, GNAPHALIUM, GALIUM, RHAMNUS CROCEA, MIMULUS, ETC.

Threats:

POSSIBLY THREATENED BY TRAIL WIDENING AND INVASIVES.

General:

1000+ PLANTS OBSERVED IN 2001, 166 IN 2002, 84,727 ESTIMATED IN 2003, 35 POPULATIONS IN 2004, OBSERVED IN 2005, 100-200 PLANTS IN A SMALL PORTION IN 2006, 1500 IN 2008, 5000 IN 2009. ABUNDANCE OF POISON OAK MAKES MONITORING SITE DIFFICULT.

PLSS:	T18S, R02W, Sec. 24, S (S)	**Accuracy:**	specific area	**Area (acres):**	23
UTM:	Zone-11 N3605601 E495959	**Latitude/Longitude:**	32.58788 / -117.04306	**Elevation (feet):**	60

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

JOH05S0003	JOHNSON, M. - JOHNSON #43 SD #206288 2005-06-30
MIL09F0021	MILLER, B. ET AL. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DICRANOSTEGIA ORCUTTIANA 2009-05-12
REI00S0010	REISER, C. - REISER SN SD #152596 2000-XX-XX
REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
REI88S0006	REISER, C. - REISER SN SD #134375 1988-09-10
ROC06F0005	ROCKS, M. & J. GARCIA (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR DICRANOSTEGIA ORCUTTIANA 2006-07-07
SDC05R0001	CITY OF SAN DIEGO, PLANNING DEPT., MSCP DIVISION - MSCP RARE PLANT MONITORING: FIELD MONITORING METHODS 2005 -09-XX
SDG03R0005	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR CORDYLANTHUS ORCUTTIANUS (DICRANOSTEGIA ORCUTTIANA) 2003-05-XX
SDG04R0002	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR CORDYLANTHUS ORCUTTIANUS (DICRANOSTEGIA ORCUTTIANA) 2004-05-XX
SDG05R0003	CITY OF SAN DIEGO - CITY OF SAN DIEGO, RARE PLANT MONITORING REPORT, 2005: CORDYLANTHUS ORCUTTIANUS (DICRANOSTEGIA ORCUTTIANA) 2005-XX-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 98542
EO Index: 99987
Key Quad: Imperial Beach (3211751)
Element Code: PDSCR0J0G0
Occurrence Number: 8
Occurrence Last Updated: 2015-12-17

Scientific Name: *Dicranostegia orcuttiana*
Common Name: Orcutt's bird's-beak

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2G3
State: S1

General Habitat:

COASTAL SCRUB.

Micro Habitat:

FOUND IN COASTAL SCRUB ASSOCIATIONS ON SLOPES; ALSO REPORTED FROM INTERMITTENTLY MOIST SWALES, AND IN WASHES. 0-200 M.

Last Date Observed: 2001-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-XX-XX
Occurrence Rank: Unknown
Owner/Manager: SDG COUNTY
Trend: Unknown
Presence: Presumed Extant

Location:

EAST SIDE OF SPOONERS MESA, ABOUT 0.5 AIR MILE NE OF WHERE GOAT CANYON CROSSES THE CALIFORNIA/MEXICO BORDER.

Detailed Location:

TIJUANA RIVER VALLEY REGIONAL PARK. MAPPED ACCORDING TO 2008 CITY OF SAN DIEGO DIGITAL DATA.

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS CITY OF SAN DIEGO DIGITAL DATA; OBSERVED IN 2001 BUT NO OTHER INFORMATION WAS PROVIDED.

PLSS: T19S, R02W, Sec. 4, S (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3600440 E491337
Latitude/Longitude: 32.54129 / -117.09226
Elevation (feet): 360

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

SDG08D0001 CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 98543
Key Quad: Imperial Beach (3211751)
Occurrence Number: 9

EO Index: 99988
Element Code: PDSCR0J0G0
Occurrence Last Updated: 2015-12-17

Scientific Name: *Dicranostegia orcuttiana*
Common Name: Orcutt's bird's-beak

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S1

Rare Plant Rank: 2B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
COASTAL SCRUB.

Micro Habitat:
FOUND IN COASTAL SCRUB ASSOCIATIONS ON SLOPES; ALSO REPORTED FROM INTERMITTENTLY MOIST SWALES, AND IN WASHES. 0-200 M.

Last Date Observed: 2001-XX-XX
Last Survey Date: 2001-XX-XX
Owner/Manager: USFWS-TIJUANA SLOUGH NWR
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NW END OF TIJUANA SLOUGH NATIONAL WILDLIFE REFUGE, JUST SOUTH OF IMPERIAL BEACH BOULEVARD.

Detailed Location:
MAPPED AS 2 POLYGONS ACCORDING TO 2008 CITY OF SAN DIEGO DIGITAL DATA.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS CITY OF SAN DIEGO DIGITAL DATA; OBSERVED IN 2001 BUT NO OTHER INFORMATION WAS PROVIDED.

PLSS: T18S, R02W, Sec. 30, SW (S)
UTM: Zone-11 N3604197 E487875

Accuracy: specific area
Latitude/Longitude: 32.57515 / -117.12918

Area (acres): 1
Elevation (feet): 5

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 98544
Key Quad: Imperial Beach (3211751)
Occurrence Number: 10
EO Index: 99989
Element Code: PDSCR0J0G0
Occurrence Last Updated: 2015-12-17

Scientific Name: *Dicranostegia orcuttiana*
Common Name: Orcutt's bird's-beak

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S1

Rare Plant Rank: 2B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

COASTAL SCRUB.

Micro Habitat:

FOUND IN COASTAL SCRUB ASSOCIATIONS ON SLOPES; ALSO REPORTED FROM INTERMITTENTLY MOIST SWALES, AND IN WASHES. 0-200 M.

Last Date Observed: 2001-XX-XX
Last Survey Date: 2001-XX-XX
Owner/Manager: CITY OF CHULA VISTA
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

OTAY RIVER VALLEY; NORTH OF LINDBERGH STREET AND EAST OF BEYER WAY, OTAY VALLEY REGIONAL PARK.

Detailed Location:

MAPPED ACCORDING TO 2008 CITY OF SAN DIEGO DIGITAL DATA. REISER (2001) MENTIONS THAT THIS PLANT IS LOCALLY ABUNDANT IN THE "OTAY RIVER DRAINAGE WEST OF I-805 TO BEYER BLVD" WITH "SCATTERED OCCURRENCES FOUND DOWNSTREAM."

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS CITY OF SAN DIEGO DIGITAL DATA; OBSERVED IN 2001 BUT NO OTHER INFORMATION WAS PROVIDED.

PLSS: T18S, R02W, Sec. 23, SE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3605632 E494701
Latitude/Longitude: 32.58815 / -117.05647
Elevation (feet): 60

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

REI01B0001	REISER, C. - RARE PLANTS OF SAN DIEGO COUNTY 2001-07-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	98545	**EO Index:**	99990
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDSCR0J0G0
Occurrence Number:	11	**Occurrence Last Updated:**	2015-12-17

Scientific Name: *Dicranostegia orcuttiana*

Common Name: Orcutt's bird's-beak

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2G3

State: S1

General Habitat:

COASTAL SCRUB.

Micro Habitat:

FOUND IN COASTAL SCRUB ASSOCIATIONS ON SLOPES; ALSO REPORTED FROM INTERMITTENTLY MOIST SWALES, AND IN WASHES. 0-200 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SW OF MOUTH OF DENNERY CANYON; ABOUT 0.3 TO 0.6 AIR MILE EAST OF THE JUNCTION OF DENNERY RD AND OCEAN VIEW HILLS PKWY.

Detailed Location:

PORTION OF SITE IS WITHIN OTAY VALLEY REGIONAL PARK. MAPPED AS 4 POLYGONS ACCORDING TO A 1998 AFFINIS MAP AND 2008 CITY OF SAN DIEGO DIGITAL DATA.

Ecological:

THE RARE DEINANDRA CONJUGENS OCCURS NEARBY.

Threats:

General:

TWO EASTERN POLYGONS HAD SEVERAL HUNDRED PLANTS IN 1998. TWO WESTERN POLYGONS WERE OBSERVED IN 2001.

PLSS:	T18S, R01W, Sec. 19, S (S)	**Accuracy:**	specific area	**Area (acres):**	6
UTM:	Zone-11 N3605274 E497834	**Latitude/Longitude:**	32.58493 / -117.02308	**Elevation (feet):**	300

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

AFF98U0007	AFFINIS - SERIES OF DOCUMENTS RELATING TO THE CONCEPTUAL REVEGETATION PLAN, HIDDEN TRAILS PROPERTY, OTAY MESA 1998-10-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	98546	**EO Index:**	99991
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDSCR0J0G0
Occurrence Number:	12	**Occurrence Last Updated:**	2015-12-17

Scientific Name: *Dicranostegia orcuttiana*

Common Name: Orcutt's bird's-beak

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2G3

State: S1

General Habitat:

COASTAL SCRUB.

Micro Habitat:

FOUND IN COASTAL SCRUB ASSOCIATIONS ON SLOPES; ALSO REPORTED FROM INTERMITTENTLY MOIST SWALES, AND IN WASHES. 0-200 M.

Last Date Observed:	1998-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1998-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

WEST SIDE OF DENNERY CANYON; ABOUT 1 AIR MILE SE OF THE JUNCTION OF DENNERY RD AND OCEAN VIEW HILLS PKWY.

Detailed Location:

SOUTHERN POLYGON MAY NOW BE WITHIN OTAY VALLEY REGIONAL PARK. MAPPED AS 2 POLYGONS ACCORDING TO A 1998 AFFINIS MAP, IN THE SOUTH 1/2 OF THE NE 1/4 OF SECTION 30.

Ecological:

THE RARE DEINANDRA CONJUGENS AND DUDLEYA VARIEGATA OCCUR NEARBY.

Threats:

DEVELOPMENT. NORTHERN POLYGON MAY HAVE BEEN EXTIRPATED BY DEVELOPMENT BASED ON 2015 AERIAL IMAGERY.

General:

IN 1998, SOUTHERN POLYGON HAD 5 PLANTS (REMNANT OF A POPULATION IMPACTED BY GRADING ALONG PROJECT BOUNDARY) AND NORTHERN POLYGON HAD ABOUT 20 PLANTS (TO BE IMPACTED BY DEVELOPMENT PROJECT).

PLSS:	T18S, R01W, Sec. 30, NE (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3604427 E498317	**Latitude/Longitude:**	32.57729 / -117.01793	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

AFF98U0007	AFFINIS - SERIES OF DOCUMENTS RELATING TO THE CONCEPTUAL REVEGETATION PLAN, HIDDEN TRAILS PROPERTY, OTAY MESA 1998-10-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	98547	**EO Index:**	99992
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PDSCR0J0G0
Occurrence Number:	13	**Occurrence Last Updated:**	2015-12-17

Scientific Name: *Dicranostegia orcuttiana*

Common Name: Orcutt's bird's-beak

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G2G3

State: S1

General Habitat:

COASTAL SCRUB.

Micro Habitat:

FOUND IN COASTAL SCRUB ASSOCIATIONS ON SLOPES; ALSO REPORTED FROM INTERMITTENTLY MOIST SWALES, AND IN WASHES. 0-200 M.

Last Date Observed:	2003-06-06	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-06-06	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

APPROXIMATELY 0.8 AIR MILE ENE OF THE JUNCTION OF CA-905 AND I-805, BOTH SIDES OF CA-905.

Detailed Location:

MAPPED AS 2 POLYGONS ACCORDING TO A 2001 CALTRANS MAP AND 2003 MACGREGOR COORDINATES.

Ecological:

OLIVENHAIN COBBLY LOAM, 30-50% SLOPES. COASTAL SAGE SCRUB. IN OPENINGS BETWEEN SHRUBS.

Threats:

NORTH POLYGON APPEARS TO HAVE BEEN EXTIRPATED BY DEVELOPMENT. SOUTH POLYGON MAY HAVE BEEN IMPACTED BY ROAD CONSTRUCTION.

General:

SOUTHERN POLYGON: 196 PLANTS OBSERVED, LIKELY AROUND 1995. NORTHERN POLYGON OBSERVED IN 2003 BUT LIKELY EXTIRPATED BASED ON 2015 AERIAL IMAGERY.

PLSS:	T18S, R01W, Sec. 30, SW (S)	**Accuracy:**	specific area	**Area (acres):**	6
UTM:	Zone-11 N3603738 E497446	**Latitude/Longitude:**	32.57107 / -117.02721	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

CAL01M0002	CALTRANS - MAPS SHOWING SENSITIVE PLANT SPECIES IMPACT FOOTPRINT FOR ROUTE 905, REVISED 2001 2001-06-XX
JAM01U0001	JAMES, R. - MAP AND LETTER REGARDING DEINANDRA CONJUGENS ON OTAY MESA 2001-02-27
MAC03S0005	MACGREGOR, C. - MACGREGOR #8 SD #154239 2003-06-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04301
EO Index: 49460
Key Quad: Imperial Beach (3211751)
Element Code: PDSCR1U010
Occurrence Number: 2
Occurrence Last Updated: 2016-09-27

Scientific Name: *Stemodia durantifolia*
Common Name: purple stemodia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:
SONORAN DESERT SCRUB.

Micro Habitat:
SANDY SOILS; MESIC SITES. 35-385 M.

Last Date Observed: 1928-06-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1928-06-17
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
OTAY RIVER, NEAR OTAY.

Detailed Location:
LOCATION INFORMATION IS VAGUE. MAPPED AS BEST GUESS AROUND THE PORTION OF THE OTAY RIVER NEAR THE TOWN OF OTAY.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1928 COLLECTION BY WIGGINS. NEEDS FIELDWORK.

PLSS: T18S, R02W, Sec. 24 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3605717 E496061
Latitude/Longitude: 32.58893 / -117.04197
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:
WIG28S0004 WIGGINS, I. - WIGGINS #3261 UC #429838, DS #181156, LA #209616 & #209620 1928-06-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 80352
EO Index: 49461
Key Quad: Imperial Beach (3211751)
Element Code: PDSCR1U010
Occurrence Number: 3
Occurrence Last Updated: 2010-10-11

Scientific Name: *Stemodia durantifolia*
Common Name: purple stemodia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:
SONORAN DESERT SCRUB.

Micro Habitat:
SANDY SOILS; MESIC SITES. 35-385 M.

Last Date Observed: 1925-05-20
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1925-05-20
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
TELEGRAPH CANYON, CHULA VISTA.

Detailed Location:
EXACT LOCATION UNKNOWN. TELEGRAPH CANYON EXTENDS FOR MILES. MAPPED BY CNDDB AS BEST GUESS AROUND THE PORTION OF TELEGRAPH CANYON THAT IS IN CENTRAL CHULA VISTA AND NEAR THE BAY.

Ecological:

Threats:

General:
ONLY SOURCES OF INFORMATION FOR THIS SITE ARE TWO VAGUE 1925 COLLECTIONS; A COLLECTION BY DAVIDSON FROM TELEGRAPH CANYON AND AN ANONYMOUS COLLECTION FROM CHULA VISTA. NEEDS FIELDWORK.

PLSS: T18S, R02W, Sec. 11 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3609458 E493796
Latitude/Longitude: 32.62266 / -117.06612
Elevation (feet): 120

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751), National City (3211761)

Sources:

ANO25S0003	ANONYMOUS - ANONYMOUS SN RSA (CITED IN SAN99U0001) 1925-XX-XX
DAV25S0002	DAVIDSON, A. - DAVIDSON #3601 RSA #427248, GH #367561 1925-05-20
SAN99U0001	SANDERS, A. - COMMENTS SUBMITTED REGARDING THE CNPS RARE PLANT INVENTORY 6TH EDITION 1999-01-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1902
EO Index: 49462
Key Quad: National City (3211761)
Element Code: PDSCR1U010
Occurrence Number: 4
Occurrence Last Updated: 2016-09-22

Scientific Name: *Stemodia durantifolia*
Common Name: purple stemodia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:
SONORAN DESERT SCRUB.

Micro Habitat:
SANDY SOILS; MESIC SITES. 35-385 M.

Last Date Observed: 1928-03-19
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1928-03-19
Occurrence Rank: Unknown
Owner/Manager: SWEETWATER AUTHORITY?
Trend: Unknown
Presence: Presumed Extant

Location:
NEAR SWEETWATER DAM, SWEETWATER LAKE.

Detailed Location:
ROCKS 1/8 MILE FROM DAM. MAPPED AS BEST GUESS BY CNDDB NEAR SWEETWATER RESERVOIR DAM.

Ecological:
ROCKY SOIL.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1928 KENNEDY COLLECTION. NEEDS FIELDWORK.

PLSS: T17S, R01W, Sec. 17, W (S)
Accuracy: 1/5 mile
Area (acres): 70
UTM: Zone-11 N3617080 E499241
Latitude/Longitude: 32.69144 / -117.00809
Elevation (feet): 200

County Summary:
San Diego

Quad Summary:
National City (3211761)

Sources:
KEN28S0009 KENNEDY, P. - KENNEDY SN DAV #124637 1928-03-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A1903	**EO Index:**	49463
Key Quad:	La Mesa (3211771)	**Element Code:**	PDSCR1U010
Occurrence Number:	5	**Occurrence Last Updated:**	2016-09-27

Scientific Name: *Stemodia durantifolia*

Common Name: purple stemodia

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5

State: S2

General Habitat:

SONORAN DESERT SCRUB.

Micro Habitat:

SANDY SOILS; MESIC SITES. 35-385 M.

Last Date Observed:	2013-05-01	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2013-05-01	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NEAR OAK CANYON TRAIL, ABOUT 0.4 MILE NORTH OF ITS MOUTH, MISSION TRAILS REGIONAL PARK.

Detailed Location:

MAPPED ACCORDING TO 2012 RIPMA COORDINATES AND 2013 KEELAN COORDINATES.

Ecological:

ROCKY SUBSTRATE ADJACENT TO WATER. OPEN BOULDERY AREA NEXT TO FLOWING CREEK. OPEN PLATANUS RACEMOSA BACCHARIS GLUTINOSA/SPARSE VULPIA MYUROS RIPARIAN COMMUNITY.

Threats:

General:

UNKNOWN NUMBER OF PLANTS OBSERVED AT THIS SITE IN 1981, 2012, AND 2013. A 1938 GANDER COLLECTION FROM "NEAR OLD MISSION DAM IN MISSION GORGE" AND A 1992 SMITH COLLECTION FROM "N OF OLD MISSION DAM" ARE ALSO ATTRIBUTED TO THIS SITE.

PLSS:	T15S, R02W, Sec. 25, NW (S)	**Accuracy:**	specific area	**Area (acres):**	10
UTM:	Zone-11 N3634108 E495729	**Latitude/Longitude:**	32.84503 / -117.04565	**Elevation (feet):**	370

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

GAN38S0031	GANDER, F. - GANDER #4925 SD #20251 1938-01-12
KEE13U0001	KEELAN, B. - EXPORT OF DATA FROM BRIAN KEELAN'S PLANT DATABASE 2013-07-26
RIP12S0001	RIPMA, L. & M. SIMPSON - RIPMA #314 SDSU #19946 2012-04-17
SIV81F0006	SIVINSKI, R. - FIELD SURVEY FORM FOR BRODIAEA ORCUTTII 1981-05-17
SMI92S0004	SMITH, D. - SMITH #24IV92C SDSU #11026 1992-04-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	20128	**EO Index:**	49466
Key Quad:	La Mesa (3211771)	**Element Code:**	PDSCR1U010
Occurrence Number:	6	**Occurrence Last Updated:**	2016-09-23

Scientific Name: *Stemodia durantifolia*

Common Name: purple stemodia

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5

State: S2

General Habitat:

SONORAN DESERT SCRUB.

Micro Habitat:

SANDY SOILS; MESIC SITES. 35-385 M.

Last Date Observed:	1940-10-28	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1940-10-28	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALVARADO CANYON, 1/2 MILE SOUTHWEST OF MURRAY DAM.

Detailed Location:

Ecological:

Threats:

General:

MAIN SOURCE OF INFORMATION IS A 1935 GANDER COLLECTION. 1938 GANDER COLLECTION FROM "70TH ST...1/2 MI. NORTH OF EL CAJON BLVD" AND OTHER HISTORIC COLLECTIONS FROM MURRAY DAM AND ALVARADO CANYON ALSO ATTRIBUTED TO THIS SITE. NEEDS FIELDWORK.

PLSS:	T16S, R02W (S)	**Accuracy:**	3/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3626634 E494984	**Latitude/Longitude:**	32.77761 / -117.05356	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

FIT40S0001	FITCH, J. - FITCH SN SDSU #11030 1940-10-28
GAN34S0003	GANDER, F. - GANDER SN SDSU #11031 1934-04-24
GAN35S0025	GANDER, F. - GANDER #2222 SD #11639 1935-06-21
GAN38S0032	GANDER, F. - GANDER #6357 SD #22567 1938-08-25
PUR34S0004	PURER, E. - PURER #5759 SD #37752 1934-04-09
WOO29S0003	WOODCOCK, F. - WOODCOCK SN SD #4423 1929-10-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 49467
EO Index: 49467
Key Quad: La Mesa (3211771)
Element Code: PDSCR1U010
Occurrence Number: 7
Occurrence Last Updated: 2010-10-14

Scientific Name: *Stemodia durantifolia*
Common Name: purple stemodia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:
SONORAN DESERT SCRUB.

Micro Habitat:
SANDY SOILS; MESIC SITES. 35-385 M.

Last Date Observed: 2003-09-03
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-09-03
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:
SAN CLEMENTE CANYON AND HIGHWAY 395.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS AT CROSSING OF SAN CLEMENTE CANYON AND HIGHWAY 395 BASED ON A 1938 GANDER COLLECTION FROM "SAN CLEMENTE CANYON, US 395."

Ecological:
CISMONTANE ALKALAI MARSH OR MEADOW. SOIL DAMP BUT NOT WET.

Threats:

General:
A 2003 MCNICHOLAS COLLECTION FROM "MCAS MIRAMAR...ON NORTH SIDE OF THE CREEK. POWAY/LA MESA QUAD-RIGHT ALONG INTERFACE OF THE TWO QUADS" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS: T15S, R02W, Sec. 17 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3636766 E489089
Latitude/Longitude: 32.86896 / -117.11662
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
La Mesa (3211771), La Jolla (3211772), Poway (3211781), Del Mar (3211782)

Sources:

GAN38S0030 GANDER, F. - GANDER #6094 SD #21890 1938-07-13

MCN03S0001 MCNICHOLAS, P. - MCNICHOLAS SN SD #152384 2003-09-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 80390
Key Quad: La Mesa (3211771)
Occurrence Number: 19
EO Index: 81376
Element Code: PDSCR1U010
Occurrence Last Updated: 2010-10-14

Scientific Name: *Stemodia durantifolia*
Common Name: purple stemodia

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S2
Rare Plant Rank: 2B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
SONORAN DESERT SCRUB.

Micro Habitat:
SANDY SOILS; MESIC SITES. 35-385 M.

Last Date Observed: 1935-04-28
Last Survey Date: 1935-04-28
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NEAR ADOBE FALLS.

Detailed Location:
MAPPED TO ENCOMPASS ADOBE FALLS OPEN SPACE PARK AND MAIN FALLS AREA WHICH IS JUST SOUTH OF ADOBE FALLS PLACE.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A VAGUE 1935 LEEPER COLLECTION. NEEDS FIELDWORK.

PLSS: T16S, R02W, Sec. 15, SE (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3627040 E493249
Latitude/Longitude: 32.78126 / -117.07208
Elevation (feet): 300

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
LEE35S0019 LEEPER, M. - LEEPER SN SDSU #11032 1935-04-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A1909
Key Quad: La Mesa (3211771)
Occurrence Number: 22

EO Index: 103511
Element Code: PDSCR1U010
Occurrence Last Updated: 2016-09-22

Scientific Name: *Stemodia durantifolia*
Common Name: purple stemodia

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S2

Rare Plant Rank: 2B.1
Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
SONORAN DESERT SCRUB.

Micro Habitat:
SANDY SOILS; MESIC SITES. 35-385 M.

Last Date Observed: 2008-05-09
Last Survey Date: 2008-05-09
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
OAK CREEK CANYON, ABOUT 1.1 KM EAST OF NORTH FORTUNA PEAK, MISSION TRAILS REGIONAL PARK.

Detailed Location:
MAPPED ACCORDING TO 2008 CAIN COORDINATES.

Ecological:
IN STREAM WITH GRANITE BOULDERS IN FRIANT ROCKY, FINE, SANDY LOAM. FOOTHILLS SCRUB WITH MIMULUS GUTTATUS, LOLIUM, AND BRIZA MINOR.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2008 CAIN COLLECTION.

PLSS: T15S, R02W, Sec. 23, SE (S)
UTM: Zone-11 N3634648 E495246

Accuracy: 80 meters
Latitude/Longitude: 32.8499 / -117.0508

Area (acres): 5
Elevation (feet): 443

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
CAI08S0008 CAIN, I. & E. CLAYTON - CAIN #841 SD #209155 2008-05-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A1910	**EO Index:**	103512
Key Quad:	La Mesa (3211771)	**Element Code:**	PDSCR1U010
Occurrence Number:	23	**Occurrence Last Updated:**	2016-09-27

Scientific Name: *Stemodia durantifolia*

Common Name: purple stemodia

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.1

Other Lists: SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G5

State: S2

General Habitat:

SONORAN DESERT SCRUB.

Micro Habitat:

SANDY SOILS; MESIC SITES. 35-385 M.

Last Date Observed:	2009-05-01	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-05-01	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALONG TRAIL HEADING WEST TO QUARRY, 0.43 MILE NW OF MISSION GORGE ROAD AND JACKSON DRIVE, MISSION TRAILS RP.

Detailed Location:

MAPPED ACCORDING TO 2009 GREGORY COORDINATES.

Ecological:

GRANITIC, STEEP ROCKY BANKS OVERHEAD. ALONGSIDE THE SAN DIEGO RIVER BED WITH SALIX SPP, QUERCUS AGRIFOLIA, ERIOGONUM FASCICULATUM, DUDLEYA PULVERULENTA, D. EDULIS, AND SOLANUM. BURNED IN 2003.

Threats:

General:

SITE BASED ON 2009 GREGORY COLLECTION, MENTIONED AS "UNCOMMON" IN 2009. 1883 ORCUTT COLLECTIONS FROM "MISSION CANYON," 1885 CLEVELAND COLLECTION FROM "MISSION VALLEY," & 1928 NUTTALL COLLECTION ARE ALSO ATTRIBUTED TO THIS SITE.

PLSS:	T15S, R02W, Sec. 35, SW (S)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-11 N3631273 E493771	**Latitude/Longitude:**	32.81945 / -117.06654	**Elevation (feet):**	164

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BEA86B0001	BEAUCHAMP, R. - A FLORA OF SAN DIEGO COUNTY, CALIFORNIA 1986-XX-XX
CLE85S0021	CLEVELAND, D. - CLEVELAND SN DS #188151 1885-06-11
GRE09S0008	GREGORY, J. ET AL. - GREGORY #3077 SD #218005 2009-05-01
NUT28S0001	NUTTALL, L. - NUTTALL SN SD #4727 1928-09-11
ORC83S0003	ORCUTT, C. - ORCUTT SN UC #59716 1883-03-06
ORC83S0004	ORCUTT, C. - ORCUTT SN UC #139720 1883-03-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B3120	**EO Index:**	22299
Key Quad:	Imperial Beach (3211751)	**Element Code:**	PMAGA010P1
Occurrence Number:	1	**Occurrence Last Updated:**	2019-06-25

Scientific Name: *Agave shawii var. shawii*

Common Name: Shaw's agave

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2G3T2

State: S1

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_SBBG-Santa Barbara Botanic Garden

General Habitat:

COASTAL BLUFF SCRUB, COASTAL SCRUB.

Micro Habitat:

COASTAL BLUFFS AND SLOPES WITHIN COASTAL SAGE SCRUB. 10-120 M.

Last Date Observed:	2016-10-01	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-10-01	**Occurrence Rank:**	Poor
Owner/Manager:	DPR-BORDER FIELD SP, PVT	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

EAST OF BORDER MONUMENT #258, EAST OF BORDER FIELD NAVAL RESERVATION.

Detailed Location:

TYPE LOCALITY. IN 2006, DENSE CLONES WERE SCATTERED ABOUT THE MESA TOP AND ON THE N-FACING SLOPES BUT SITE HAS SINCE BEEN CLEARED FOR BORDER FENCE. MANY PLANTS WERE REMOVED WITH THE INTENT OF RE-ESTABLISHING THE POP AFTER SITE WAS CLEARED.

Ecological:

ON LOAMY MARINE SEDIMENT WITH RHUS INTEGRIFOLIA, ENCELIA CALIFORNICA, ATRIPLEX CANESCENS, MARAH MACROCARPA, MIRABILIS CALIFORNICA, LUPINUS SP., COAST CHOLLA, FEROCACTUS VIRIDESCENS, SPHAERALCEA AMBIGUA AND SEVERAL ANNUALS.

Threats:

DEVELOPMENT. MAJORITY DESTROYED BY DEPT OF HOMELAND SECURITY AS PART OF VEG CLEARANCE TO CONSTRUCT TRIPLE BORDER FENCE.

General:

ONLY NATIVE POP IN CA. SEVERAL DESTROYED IN 1970S DUE TO PARKING LOT. 2 LARGE CLONES IN 1987. 100S-1000S IN 2006. ~1000 IN 2008 BUT REDUCED TO 1 CLONE (~50 ROSETTES) DUE TO VEG CLEARANCE. 1 PATCH IN 2013. 70 PLANTS (ROSETTES?) IN 2016.

PLSS:	T19S, R02W, Sec. 8, W (S)	**Accuracy:**	specific area	**Area (acres):**	3
UTM:	Zone-11 N3599815 E488926	**Latitude/Longitude:**	32.53563 / -117.11793	**Elevation (feet):**	70

County Summary:	**Quad Summary:**
San Diego	Imperial Beach (3211751)

Sources:

ANO09U0001	ANONYMOUS - WIKIPEDIA ARTICLE ON AGAVE SHAWII 2009-08-16
BAR81U0003	BARRY, J. - PERSONAL COMMUNICATIONS TO S. COCHRANE REGARDING BORDER FIELDS STATE PARK. 1981-07-31
BER87F0012	BERG, K. & J. STEWART - FIELD SURVEY FORM FOR AGAVE SHAWII 1987-06-17
EAS13S0031	EASTWOOD, A. - EASTWOOD #2940 CAS #110204 1913-04-24
GAN36S0033	GANDER, F. - GANDER #494 SD #13376 1936-01-28
GRO13S0001	GROSS, L. ET AL. - GROSS #5933 RSA #799786 2013-03-13
HAL03S0010	HALL, H. - HALL #3957 UC #404732 1903-04-30
HITNDS0006	HITCHCOCK, G. - HITCHCOCK SN MO #1782500, SEINET #10859396 XXXX-XX-XX
MOR12I0015	MORSE, K. - PHOTOS OF AGAVE SHAWII VAR. SHAWII, CALPHOTOS ID: 0000 0000 0817 0198, 0200-0203 2012-01-11
OBE83U0002	OBERBAUER, T. - PERSONAL COMMUNICATION WITH S. COCHRANE 1983-08-10
SCH06I0004	SCHEIDT, V. - PHOTOS OF AGAVE SHAWII, CALPHOTOS ID #0000 0000 0406 1509 & 1511 2006-04-14
SCH06I0005	SCHEIDT, V. - PHOTO OF AGAVE SHAWII, CALPHOTOS ID #0000 0000 0606 0207 2006-05-16
SCH06U0007	SCHEIDT, V. - OBSERVATIONS OF AGAVE SHAWII VAR. SHAWII BY VINCE SCHEIDT FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-06-25. 2006-05-16
SCH07R0001	SCHEIDT, V. - THE LICHTY MESA, A BIOLOGICAL RESOURCES SURVEY REPORT AND EVALUATION OF RESOURCE VALUE, APN 663-020-02, SAN DIEGO, CA 2007-08-XX
SCH09U0002	SCHEIDT, V. - EMAIL REGARDING AGAVE SHAWII POPULATIONS AT TORREY PINES SR, POINT LOMA, AND LICHTY MESA 2009-10-19
SCH12I0010	SCHEUERMAN, C. - PHOTO OF AGAVE SHAWII VAR. SHAWII, CALPHOTOS ID: 0000 0000 0412 1791 2012-01-11
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
SPR74U0002	SPROUL, F. - CNPS NOTE CARD W/ DATE OF OBSERVATION 1974-06-12
VAN08F0037	VANDERPLANK, S. - FIELD SURVEY FORM FOR AGAVE SHAWII VAR. SHAWII 2008-03-21
WAL72S0001	WALLACE, G. & L. DEBUHR - WALLACE #156 RSA #257000 1972-12-02
WOL33S0001	WOLF, C. - WOLF #5412 RSA #7643 & #7644, GH #357714, CAS #382998 1933-08-31

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03605	**EO Index:**	21902
Key Quad:	Point Loma (3211762)	**Element Code:**	PMAGA010P1
Occurrence Number:	2	**Occurrence Last Updated:**	2019-06-21

Scientific Name: *Agave shawii var. shawii*

Common Name: Shaw's agave

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_SBBG-Santa Barbara Botanic Garden

CNDDB Element Ranks: **Global:** G2G3T2

State: S1

General Habitat:

COASTAL BLUFF SCRUB, COASTAL SCRUB.

Micro Habitat:

COASTAL BLUFFS AND SLOPES WITHIN COASTAL SAGE SCRUB. 10-120 M.

Last Date Observed:	2016-XX-XX	**Occurrence Type:**	Transplant Outside of Native Hab./Range
Last Survey Date:	2016-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-FLEET COMBAT TRAINING CNTR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

POINT LOMA; FLEET COMBAT TRAINING CENTER ON BOTH SIDES OF WOODWARD ROAD.

Detailed Location:

LICHTY MESA POP (EO #1) IS THE ONLY CONFIRMED NATURAL POPULATION; ALL EVIDENCE SUGGESTS POINT LOMA POPS ARE SELF-SUSTAINING/NATURALIZED TRANSPLANTS POSSIBLY FROM >100 YRS AGO ACC TO SCHEIDT (2009). MAY ALSO BE AT SUNSET CLIFFS TO THE NORTH.

Ecological:

COASTAL SUCCULENT SCRUB. ON THE OCEAN BLUFF.

Threats:

POTENTIAL THREATS: STABILITY OF OCEAN BLUFFS, LOW RECRUITMENT, GENETIC DILUTION, TRAMPLING, CROWDING.

General:

200 ROSETTES IN 1969. A 1981 REPORT GIVES ~1000 ROSETTES & A TRANSPLANTED INDIVIDUAL. <10 PLANTS SEEN IN 1985. 60 INDIVIDUALS (1500 ROSETTES) IN 2008/2009. 167 CLUSTERS SEEN ACROSS PT LOMA (EOS 2, 5-8) IN 2016. INCLUDES FORMER EO #4.

PLSS:	T17S, R04W, Sec. 12 (S)	**Accuracy:**	specific area	**Area (acres):**	9
UTM:	Zone-11 N3619172 E476162	**Latitude/Longitude:**	32.71004 / -117.25435	**Elevation (feet):**	100

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

ANO12U0002	ANONYMOUS - NATIVE PLANTS AT SUNSET CLIFF NATURAL PARK 2012-06-22
ASI93R0001	ADVANCED SCIENCES, INC. - TERRESTRIAL BIOLOGICAL SURVEY AND INVENTORY OF NAVY PROPERTY ON POINT LOMA, SAN DIEGO, CALIFORNIA 1993-05-XX
BRA94S0041	BRANDEGEE, T. - BRANDEGEE SN UC #115447 1894-04-21
HAR37S0001	HARVEY & LINDSAY - HARVEY #1053 SDSU #11483 1937-02-10
HOL85F0135	HOLLAND, R. - FIELD SURVEY FORM FOR AGAVE SHAWII 1985-02-11
HOW39S0014	HOWE, D. - HOWE #764 SD #112120 1939-01-22
MOR69S0005	MORAN, R. - MORAN #16707 SD #79406, UC #1384365, SEINET #2058222, RSA #212234 1969-12-18
OBE83U0002	OBERBAUER, T. - PERSONAL COMMUNICATION WITH S. COCHRANE 1983-08-10
SCH09U0002	SCHEIDT, V. - EMAIL REGARDING AGAVE SHAWII POPULATIONS AT TORREY PINES SR, POINT LOMA, AND LICHTY MESA 2009-10-19
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
STO37S0001	STOVER, A. - STOVER SN SD #17064 1937-04-21
VAN14R0001	VANDERPLANK, S. - A CONSERVATION PLAN FOR AGAVE SHAWII SSP. SHAWII, RANCHO SANTA ANA BOTANIC GARDEN OCCASIONAL PUBLICATIONS, NUMBER 14. 2014-XX-XX
WOO81R0001	WOODWARD & CLYDE - TERRESTRIAL BIOSURVEY AND INVENTORY OF NAVAL PROPERTY ON POINT LOMA 1981-11-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03662	**EO Index:**	21899
Key Quad:	Point Loma (3211762)	**Element Code:**	PMAGA010P1
Occurrence Number:	5	**Occurrence Last Updated:**	2019-06-24

Scientific Name: *Agave shawii var. shawii*

Common Name: Shaw's agave

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 2B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_SBBG-Santa Barbara Botanic Garden

CNDDB Element Ranks: **Global:** G2G3T2
State: S1

General Habitat:

COASTAL BLUFF SCRUB, COASTAL SCRUB.

Micro Habitat:

COASTAL BLUFFS AND SLOPES WITHIN COASTAL SAGE SCRUB. 10-120 M.

Last Date Observed:	2016-11-08	**Occurrence Type:**	Transplant Outside of Native Hab./Range
Last Survey Date:	2016-11-08	**Occurrence Rank:**	Excellent
Owner/Manager:	DOD, NPS-CABRILLO NM	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH END OF POINT LOMA PENINSULA; FROM 0.05 TO 0.9 AIR MILE NORTH OF POINT LOMA LIGHTHOUSE.

Detailed Location:

MAPPED BY CNDDB AS SEVERAL POLYGONS BASED ON 2008 VANDERPLANK COORDINATES, MAP IN A 2006 TIERRA DATA INC REPORT, AND DIGITAL DATA FROM THE SAN DIEGO MANAGEMENT & MONITORING PROGRAM.

Ecological:

OPEN COASTAL SAGE SCRUB WITH YUCCA, ISOMERIS ARBOREA, ENCELIA CALIFORNICA, RHUS INTEGRIFOLIA, ARTEMISIA CALIFORNICA, SIMMONDSIA CHINENSIS, PERENNIAL BUNCH GRASSES AND SOME RED BROME.

Threats:

NON-NATIVES, TRAIL MAINTENANCE, TRAMPLING. HERBIVORY OF SEEDLINGS.

General:

TRANSPLANTED INDIVIDUALS. SEEN IN 1981 & 1992. ~30 CLUMPS (~100 ROSETTES) IN MIDDLE POLYGON IN MAY 2008; THIS IS THE ONLY US POPULATION THAT APPEARS TO BE REPRODUCING FROM SEED. 11 CLUSTERS (401 RAMETS) SEEN IN 2016. INCL FORMER EO#6.

PLSS:	T17S, R03W, Sec. 30 (S)	**Accuracy:**	specific area	**Area (acres):**	24
UTM:	Zone-11 N3614854 E477392	**Latitude/Longitude:**	32.67112 / -117.24113	**Elevation (feet):**	200

County Summary:	**Quad Summary:**
San Diego	Point Loma (3211762)

Sources:

ASI93R0001	ADVANCED SCIENCES, INC. - TERRESTRIAL BIOLOGICAL SURVEY AND INVENTORY OF NAVY PROPERTY ON POINT LOMA, SAN DIEGO, CALIFORNIA 1993-05-XX
KEE13U0001	KEELAN, B. - EXPORT OF DATA FROM BRIAN KEELAN'S PLANT DATABASE 2013-07-26
REB15S0030	REBMAN, J. & A. PARKER - REBMAN #29353 SD #246219 2015-02-23
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
TIE06R0001	TIERRA DATA INC. & FIREWISE 2000, INC. - NAVAL BASE POINT LOMA AND CABRILLO NATIONAL MONUMENT JOINT WILDLAND FIRE MANAGEMENT PLAN 2006-06-XX
VAN08F0039	VANDERPLANK, S. - FIELD SURVEY FORM FOR AGAVE SHAWII VAR. SHAWII 2008-05-03
VAN14R0001	VANDERPLANK, S. - A CONSERVATION PLAN FOR AGAVE SHAWII SSP. SHAWII, RANCHO SANTA ANA BOTANIC GARDEN OCCASIONAL PUBLICATIONS, NUMBER 14. 2014-XX-XX
WOO81R0001	WOODWARD & CLYDE - TERRESTRIAL BIOSURVEY AND INVENTORY OF NAVAL PROPERTY ON POINT LOMA 1981-11-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92026
EO Index: 93101
Key Quad: Point Loma (3211762)
Element Code: PMAGA010P1
Occurrence Number: 7
Occurrence Last Updated: 2019-05-23

Scientific Name: *Agave shawii var. shawii*
Common Name: Shaw's agave

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_SBBG-Santa Barbara Botanic Garden

CNDDB Element Ranks: **Global:** G2G3T2
State: S1

General Habitat:

COASTAL BLUFF SCRUB, COASTAL SCRUB.

Micro Habitat:

COASTAL BLUFFS AND SLOPES WITHIN COASTAL SAGE SCRUB. 10-120 M.

Last Date Observed: 2016-XX-XX
Occurrence Type: Transplant Outside of Native Hab./Range
Last Survey Date: 2016-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVY
Trend: Unknown
Presence: Presumed Extant

Location:

POINT LOMA PENINSULA; EAST SIDE OF GATCHELL ROAD ~0.3 MILE SW TO 0.5 MILE SSW OF BENNINGTON MONUMENT.

Detailed Location:

ALL AGAVE SHAWII POPULATIONS ON POINT LOMA ARE CONSIDERED TRANSPLANTS. 3 POLYGONS MAPPED ACCORDING TO DIGITAL DATA FROM THE SAN DIEGO MANAGEMENT & MONITORING PROGRAM.

Ecological:

Threats:

General:

PRESUMABLY SEEN HERE IN 1999 ACCORDING TO A 2006 TIERRA DATA INC REPORT. 3 CLUMPS (~11 ROSETTES) SEEN IN 2008 AND/OR 2009. 167 CLUSTERS OF PLANTS OBSERVED ACROSS ALL POINT LOMA OCCURRENCES (EO #S 2, 5, 7, & 8) IN 2016.

PLSS: T17S, R04W, Sec. 24 (S)
Accuracy: specific area
Area (acres): 6
UTM: Zone-11 N3616394 E476725
Latitude/Longitude: 32.685 / -117.24828
Elevation (feet): 150

County Summary:

San Diego

Quad Summary:

Point Loma (3211762)

Sources:

SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
TIE06R0001	TIERRA DATA INC. & FIREWISE 2000, INC. - NAVAL BASE POINT LOMA AND CABRILLO NATIONAL MONUMENT JOINT WILDLAND FIRE MANAGEMENT PLAN 2006-06-XX
VAN14R0001	VANDERPLANK, S. - A CONSERVATION PLAN FOR AGAVE SHAWII SSP. SHAWII, RANCHO SANTA ANA BOTANIC GARDEN OCCASIONAL PUBLICATIONS, NUMBER 14. 2014-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: B3122
Key Quad: Point Loma (3211762)
Occurrence Number: 8
EO Index: 115043
Element Code: PMAGA010P1
Occurrence Last Updated: 2019-05-23

Scientific Name: *Agave shawii var. shawii*
Common Name: Shaw's agave

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3T2
State: S1

Rare Plant Rank: 2B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_SBBG-Santa Barbara Botanic Garden

General Habitat:
COASTAL BLUFF SCRUB, COASTAL SCRUB.

Micro Habitat:
COASTAL BLUFFS AND SLOPES WITHIN COASTAL SAGE SCRUB. 10-120 M.

Last Date Observed: 2016-XX-XX
Last Survey Date: 2016-XX-XX
Owner/Manager: DOD-NAVY
Presence: Presumed Extant

Occurrence Type: Transplant Outside of Native Hab./Range
Occurrence Rank: Unknown
Trend: Unknown

Location:
EAST OF WOODWARD ROAD, ABOUT 0.75 AIR MILES NORTHWEST OF BENNINGTON MONUMENT, POINT LOMA.

Detailed Location:
ALL AGAVE SHAWII POPULATIONS ON POINT LOMA ARE CONSIDERED TRANSPLANTS. MAPPED ACCORDING TO DIGITAL DATA FROM THE SAN DIEGO MANAGEMENT & MONITORING PROGRAM.

Ecological:

Threats:

General:
167 CLUSTERS OF PLANTS OBSERVED ACROSS ALL POINT LOMA OCCURRENCES (EO #S 2, 5, 7, & 8) IN 2016.

PLSS: T17S, R04W, Sec. 13, NW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3617926 E476313
Latitude/Longitude: 32.69881 / -117.25271
Elevation (feet): 128

County Summary:	Quad Summary:
San Diego	Point Loma (3211762)

Sources:

SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03519
Key Quad: La Jolla (3211772)
Occurrence Number: 24

EO Index: 46904
Element Code: PMLIL0C0B0
Occurrence Last Updated: 2002-01-02

Scientific Name: *Brodiaea orcuttii*
Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2
State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed: 1932-04-20
Last Survey Date: 1932-04-20
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

LA JOLLA.

Detailed Location:

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1932 COLLECTION BY OFFORD. NEEDS FIELDWORK. PROBABLY EXTIRPATED.

PLSS: T15S, R04W, Sec. 27 (S)
UTM: Zone-11 N3633342 E473790

Accuracy: 1 mile
Latitude/Longitude: 32.83782 / -117.28005

Area (acres): 0
Elevation (feet):

County Summary:

San Diego, Pacific Ocean

Quad Summary:

La Jolla (3211772)

Sources:

OFF32S0001 OFFERD, T. - OFFERD SN LA #21945 1932-04-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03825	**EO Index:**	21905
Key Quad:	La Jolla (3211772)	**Element Code:**	PMLIL0C0B0
Occurrence Number:	25	**Occurrence Last Updated:**	2008-08-08

Scientific Name: *Brodiaea orcuttii*

Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None
State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed:	1940-04-23	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1940-04-23	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Possibly Extirpated		

Location:

0.5 MILE WEST OF LINDA VISTA, KEARNY MESA.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST AS POSSIBLE JUST W OF LINDA VISTA.

Ecological:

Threats:

VIRTUALLY ALL LEVEL GROUND IN THIS VICINITY HAS BEEN DEVELOPED. OCCURRENCE IS MOST LIKELY EXTIRPATED.

General:

MAIN SOURCE OF INFORMATION FOR THIS SITE IS A 1938 COLLECTION BY GANDER. 1916 COLLECTION BY SPENCER "VICINITY OF LINDA VISTA" AND 1940 COLLECTION BY GANDER FROM "LINDA VISTA ON KERNY MESA" ATTRIBUTED TO THIS SITE.

PLSS:	T16S, R03W, Sec. 15 (S)	**Accuracy:**	1 mile	**Area (acres):**	0
UTM:	Zone-11 N3627256 E483010	**Latitude/Longitude:**	32.78310 / -117.18143	**Elevation (feet):**	100

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

ABR03S0024	ABRAMS, L. - ABRAMS #3447 DS #180783 & #53190, GH #357280, MO #3270493 & #1148039, CAS-BOT-BC #132219 & #132224, SEINET #10533852 1903-05-10
GAN38S0015	GANDER, F. - GANDER #5483 SD #21060 1938-05-04
GAN40S0012	GANDER, F. - GANDER #8315 UC #768617 1940-04-23
SPE16S0001	SPENCER, M. - SPENCER #78 UC #202954, GH #357289 1916-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	71731	**EO Index:**	14324
Key Quad:	La Jolla (3211772)	**Element Code:**	PMLIL0C0B0
Occurrence Number:	27	**Occurrence Last Updated:**	2019-11-20

Scientific Name: *Brodiaea orcuttii*

Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed:	2009-04-28	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-04-28	**Occurrence Rank:**	Good
Owner/Manager:	DOD, CITY OF SAN DIEGO, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

KEARNY MESA, NEAR THE JUNCTIONS OF HIGHWAY 52, HIGHWAY 163, AND INTERSTATE 15, SAN DIEGO.

Detailed Location:

MANY POLYGONS MAPPED BY CNDDB ACCORDING TO 1979 VILLASENOR/RECON AND BEAUCHAMP MAPS, AND 2008 CITY OF SAN DIEGO DIGITAL DATA. SOME POLYGONS ENCOMPASS VERNAL POOL COMPLEXES WHERE BRODIAEA OCCURS BUT ARE NOT SPECIFIC AS TO WHICH POOL.

Ecological:

VERNAL POOLS, CHAMISE CHAPARRAL, AND GRASSLAND. ASSOCIATED WITH ELEOCHARIS PALUSTRIS, CRASSULA AQUATICA, AGROSTIS AVENACEA, POLYPOGON MARITIMA, NAVARRETIA FOSSALIS, ERYNGIUM ARISTULATUM, PSILOCARPHUS BREVISSIMUS, POGOGYNE ABRAMSII, ETC.

Threats:

SOME POOLS HAVE BEEN DESTROYED BY DEVELOPMENT AND FREEWAY CONSTRUCTION. EXTENSIVE DUMPING ALSO A PROBLEM IN 1986.

General:

HUNDREDS OF POOLS WITH HIGH SIZE AND DEPTH DIVERSITY. PORTIONS OF OCCURRENCE OBSERVED IN 1979, 1982, 1986, 1992, 2001, AND 2009. INCLUDES FORMER OCCURRENCES #26, 35, 36, 37, 40, AND 97.

PLSS:	T15S, R02W, Sec. 30 (S)	**Accuracy:**	specific area	**Area (acres):**	299
UTM:	Zone-11 N3634120 E487569	**Latitude/Longitude:**	32.84508 / -117.13284	**Elevation (feet):**	440

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), La Jolla (3211772)

Sources:

BAC54S0009	BACIGALUPI, R. & G. NEWCOMB - BACIGALUPI #4443 JEPS #14397, OBI #21303 1954-04-30
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
BEA82M0001	BEAUCHAMP, R. - APPENDIX 1 TO BEA82U0001, MAPS OF VERNAL POOLS ON MIRAMAR NAS 1982-XX-XX
BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30
BIT92F0009	BITTMAN, R. ET AL. - FIELD SURVEY FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII & POGOGYNE ABRAMSII & BRODIAEA ORCUTTII 1992-04-21
EME83S0003	EMERY, D. - EMERY SN UCR #37727 1983-05-16
GUS78S0004	GUSTAFSON, R. - GUSTAFSON #873 RSA #376780 1978-04-27
HUL94S0001	HULL, C. - HULL #16V94A SDSU #111 1994-05-16
MOR69S0008	MORAN, R. - MORAN #15992 SD #71729, SEINET #3243562, ARIZ #180084 1969-05-24
MOR78S0004	MORAN, R. - MORAN #25563 SD #114576 1978-04-27
NIC87S0002	NICOLL, R. - NICOLL #12 UCR #67705 1987-04-23
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SOL09S0029	SOLOMESHCH, A. ET AL. - SOLOMESHCH SN DAV #162007, #162009 & #162010 2009-04-24
SOL09S0030	SOLOMESHCH, A. ET AL. - SOLOMESHCH SN DAV #162008 2009-04-24
SOL09S0031	SOLOMESHCH, A. ET AL. - SOLOMESHCH SN DAV #162011 2009-04-24
SOL09S0032	SOLOMESHCH, A. ET AL. - SOLOMESHCH SN DAV #162012 2009-04-24
SOL09S0033	SOLOMESHCH, A. ET AL. - SOLOMESHCH SN DAV #150071 2009-04-28
SOL09S0034	SOLOMESHCH, A. ET AL. - SOLOMESHCH SN DAV #150072 2009-04-28
SOL09S0035	SOLOMESHCH, A. ET AL. - SOLOMESHCH SN DAV #150077 2009-04-28
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03
WEL92S0006	WELKER, S. - WELKER SN SD #262833 1992-05-03
WES87R0002	WESTEC SERVICES, INC. - ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED LAND SALES AND EXCHANGES SOUTH OF CALIFORNIA STATE ROUTE 52, NAVAL AIR STATION, MIRAMAR, SAN DIEGO COUNTY, CA 1987-04-XX
ZED79R0001	ZEDLER, P. ET AL. - A SURVEY OF VERNAL POOLS OF KEARNY MESA, SAN DIEGO COUNTY 1979-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71734
Key Quad: La Jolla (3211772)
Occurrence Number: 28
EO Index: 21760
Element Code: PMLIL0C0B0
Occurrence Last Updated: 2013-05-20

Scientific Name: *Brodiaea orcuttii*
Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed: 1978-XX-XX
Last Survey Date: 1986-04-07
Owner/Manager: PVT
Presence: Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

SOUTH OF CLAIREMONT MESA BLVD, BETWEEN COMPLEX DRIVE AND OVERLAND AVENUE, SAN DIEGO.

Detailed Location:

VERNAL POOL SERIES BB.

Ecological:

WATERSHED OF 3 ACRES ON REDDING SOILS IN SCRUB WITH ERYNGIUM ARISTULATUM VAR. PARISHII AND POGOGYNE ABRAMSII.

Threats:

2008 AERIAL PHOTO SHOWS THAT THIS SITE HAS BEEN FULLY DEVELOPED; OCCURRENCE EXTIRPATED.

General:

PLANTS FOUND IN 9 POOLS OF 150 SQ METER AREA IN 1978. JUST AFTER 1978 SURVEY, THESE POOLS WERE FILLED IN WITH TRUCK LOADS OF TOP SOIL AND SITE WAS DESTROYED. NO POOLS REMAINED AT SITE IN 1986 BAUDER SURVEY.

PLSS: T15S, R02W, Sec. 31, NW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3632558 E487553
Latitude/Longitude: 32.83098 / -117.13298
Elevation (feet): 430

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA71S0029	BEAUCHAMP, R.M. - BEAUCHAMP #2221 SD #128233, UCR #61464 1971-04-23
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	89378	**EO Index:**	14323
Key Quad:	La Jolla (3211772)	**Element Code:**	PMLIL0C0B0
Occurrence Number:	29	**Occurrence Last Updated:**	2016-08-24

Scientific Name: *Brodiaea orcuttii*

Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH AND SOUTH OF WESTERN END OF RUNWAYS, MIRAMAR NAVAL AIR STATION.

Detailed Location:

F&G POOL CODE: HH & W3; CITY-RECON: MM. MAPPED AS 4 POLYGONS ACCORDING TO 1979 VILLASENOR/RECON MAP, 1982 BEAUCHAMP MAPS, 1986 BAUDER MAP, AND 2008 DIGITAL DATA. MOST OF S POLYGON IS NONSPECIFIC; UNCLEAR WHICH POOLS PLANTS WERE OBSERVED IN.

Ecological:

ASSOCIATED WITH CHAMISE CHAPARRAL. SOME POOLS NATURAL, OTHERS MARSHY. ASSOCIATED WITH ERYNGIUM AND POGOGYNE.

Threats:

DISTURBANCES INCLUDE RUNWAY CONSTRUCTION, ORV DAMAGE, AND BRUSHING.

General:

OBSERVED IN NORTHERN TWO POLYGONS IN 1979, ALL POLYGONS IN 1982. COMMON TO ABUNDANT IN 1986. UNKNOWN NUMBER OF PLANTS OBSERVED IN THE LARGER NORTHERN POLYGON IN 2001. INCLUDES FORMER OCCURRENCE #31.

PLSS:	T15S, R03W, Sec. 14, S (S)	**Accuracy:**	specific area	**Area (acres):**	42
UTM:	Zone-11 N3636221 E484812	**Latitude/Longitude:**	32.86399 / -117.16234	**Elevation (feet):**	420

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA82M0001	BEAUCHAMP, R. - APPENDIX 1 TO BEA82U0001, MAPS OF VERNAL POOLS ON MIRAMAR NAS 1982-XX-XX
BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71782
Key Quad: La Jolla (3211772)
Occurrence Number: 32
EO Index: 21758
Element Code: PMLIL0C0B0
Occurrence Last Updated: 2016-08-12

Scientific Name: *Brodiaea orcuttii*
Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed: 2001-XX-XX
Last Survey Date: 2001-XX-XX
Owner/Manager: DOD-MCAS MIRAMAR, CITY OF SDG
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

DIRECTLY SOUTH OF MIRAMAR AIRFIELD, BETWEEN RUNWAYS AND SAN CLEMENTE CANYON, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO A 1979 VILLASENOR/RECON MAP, 1979 & 1982 BEAUCHAMP MAPS, AND 2008 CITY OF SAN DIEGO DIGITAL DATA. IN S 1/2 OF SEC 13, SW 1/4 SEC 18 & N 1/2 OF SECTIONS 19 & 24.

Ecological:

VERNAL POOLS. ASSOCIATED WITH POGOGYNE AND ERYNGIUM. REDDING SOILS. VEGETATION ASSOCIATES ARE GRASSLAND AND CHAMISE CHAPARRAL.

Threats:

General:

OBSERVED ACROSS OCCURRENCE IN 1979 & 1982. ABUNDANT TO COMMON IN THESE POOLS IN 1986. UNKNOWN NUMBER OF PLANTS OBSERVED IN PORTIONS OF OCCURRENCE IN 2001. INCLUDES FORMER OCCURRENCES #33, 34, AND 88.

PLSS: T15S, R03W, Sec. 13, S (S)
Accuracy: specific area
Area (acres): 90
UTM: Zone-11 N3636201 E486920
Latitude/Longitude: 32.86384 / -117.1398
Elevation (feet): 440

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
BEA82M0001	BEAUCHAMP, R. - APPENDIX 1 TO BEA82U0001, MAPS OF VERNAL POOLS ON MIRAMAR NAS 1982-XX-XX
BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03
ZED79R0001	ZEDLER, P. ET AL. - A SURVEY OF VERNAL POOLS OF KEARNY MESA, SAN DIEGO COUNTY 1979-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	89379	**EO Index:**	14317
Key Quad:	La Mesa (3211771)	**Element Code:**	PMLIL0C0B0
Occurrence Number:	38	**Occurrence Last Updated:**	2013-06-18

Scientific Name: *Brodiaea orcuttii*

Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

0.2 TO 0.7 AIR MILE NE OF JUNCTION OF HIGHWAY 52 AND SANTO ROAD, BETWEEN SHEPHERD CANYON AND ELANUS CANYON, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO A 1979 VILLASENOR/RECON MAP (WESTERN POLYGON) AND 2008 CITY OF SAN DIEGO DIGITAL DATA (2 EASTERN POLYGONS).

Ecological:

ASSOCIATED WITH CHAMISE CHAPARRAL AND GRASSLAND. POGOGYNE ABRAMSII ALSO AT THIS SITE. REDDING SOILS.

Threats:

LOW DISTURBANCE, PRIMARILY IN WESTERN PORTION: ORV DAMAGE, TRASH DUMPING, AND SOME BRUSHING.

General:

OBSERVED ACROSS SITE IN 1979. 100+ PLANTS OBSERVED IN 1981 AND 1982. ABUNDANT IN 1986. UNKNOWN NUMBER OF PLANTS OBSERVED IN THE TWO EASTERN POLYGONS IN 2001.

PLSS:	T15S, R02W, Sec. 28, N (S)	**Accuracy:**	specific area	**Area (acres):**	18
UTM:	Zone-11 N3634045 E491599	**Latitude/Longitude:**	32.84444 / -117.08976	**Elevation (feet):**	515

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
LOY82F0003	LOY, M. - FIELD SURVEY FORM FOR BRODIAEA ORCUTTII 1982-04-22
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SIV81F0004	SIVINSKI, R. - FIELD SURVEY FORM FOR BRODIAEA ORCUTTII 1981-04-26
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	19666	**EO Index:**	21756
Key Quad:	La Mesa (3211771)	**Element Code:**	PMLIL0C0B0
Occurrence Number:	39	**Occurrence Last Updated:**	2013-06-07

Scientific Name: *Brodiaea orcuttii*

Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

0.7 AIR MILE NNW OF THE JUNCTION OF HIGHWAY 52 AND SANTO ROAD, BETWEEN ELANUS CANYON AND MURPHY CANYON, SAN DIEGO.

Detailed Location:

F&G CODE AA8, CITY-RECON: AIII. MAPPED BY CNDDB AS 2 POLYGONS BASED ON A 1979 VILLASENOR/RECON MAP AND 2008 CITY OF SAN DIEGO DIGITAL DATA.

Ecological:

WITHIN CHAMISE CHAPARRAL AND GRASSLAND VEGETATION.

Threats:

LOW-MEDIUM DISTURBANCE, PRIMARILY FROM DIRT ROAD THAT BISECTS SITE AND ORVS (1986).

General:

OBSERVED ACROSS SITE IN 1979. PLANTS COMMON IN 1986. OBSERVED IN THE NORTHERN POLYGON IN 2001.

PLSS:	T15S, R02W, Sec. 20, SE (S)	**Accuracy:**	specific area	**Area (acres):**	5
UTM:	Zone-11 N3634686 E490293	**Latitude/Longitude:**	32.85021 / -117.10373	**Elevation (feet):**	480

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	71743	**EO Index:**	21755
Key Quad:	La Mesa (3211771)	**Element Code:**	PMLIL0C0B0
Occurrence Number:	41	**Occurrence Last Updated:**	2016-08-12

Scientific Name: *Brodiaea orcuttii*

Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ON THE EAST SIDE OF KEARNY VILLA ROAD, ABOUT 0.1 MILE SOUTH OF INTERSECTION WITH VEGAS DRIVE, KEARNY MESA, SAN DIEGO.

Detailed Location:

ON KEARNY MESA, JUST SOUTH OF SAN CLEMENTE CANYON. RECON POOL COMPLEX AAIV. MAPPED BY CNDDB ACCORDING TO A 1979 VILLASENOR/RECON MAP, 1982 BEAUCHAMP MAP, AND 2008 CITY OF SAN DIEGO DIGITAL DATA.

Ecological:

ASSOCIATED WITH POGOGYNE ABRAMSII, PSILOCARPHUS SP, DOWNINGIA CUSPIDATA, ERYNGIUM ARISTULATUM VAR. PARISHII, AND ELATINE SP.

Threats:

General:

OBSERVED IN 1979, 1982 AND 2001. NEED POPULATION INFORMATION FOR THIS SITE.

PLSS:	T15S, R02W, Sec. 17, SW (S)	**Accuracy:**	specific area	**Area (acres):**	7
UTM:	Zone-11 N3636638 E489231	**Latitude/Longitude:**	32.86781 / -117.11511	**Elevation (feet):**	490

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BEA82M0001	BEAUCHAMP, R. - APPENDIX 1 TO BEA82U0001, MAPS OF VERNAL POOLS ON MIRAMAR NAS 1982-XX-XX
BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	13620	**EO Index:**	17978
Key Quad:	La Mesa (3211771)	**Element Code:**	PMLIL0C0B0
Occurrence Number:	42	**Occurrence Last Updated:**	2013-06-24

Scientific Name: *Brodiaea orcuttii*

Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-XX-XX	**Occurrence Rank:**	Poor
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH END OF SANTO ROAD NEAR MURPHY CANYON HEIGHTS HOUSING COMPLEX, BETWEEN I-15 & ADMIRAL BAKER GOLF COURSE, SAN DIEGO.

Detailed Location:

F&G POOL CODES G1&2. CITY-RECON: G. MAPPED ACCORDING TO 2008 DIGITAL DATA FROM THE CITY OF SAN DIEGO.

Ecological:

FINE SANDY LOAM OF LINDA VISTA FORMATION. INLAND SAGE SCRUB WITH ARTEMISIA CALIFORNIA, ERIOGONUM FASCICULATUM, AND PSILOCARPHUS BREVISSIMUS. OTHER SENSITIVE TAXA: POGOGYNE ABRAMSII, MYOSURUS MINIMUS APUS AND MUILLA CLEVELANDII.

Threats:

AREA HEAVILY IMPACTED BY ILLEGAL DUMPING, ORVS AND ESPECIALLY BY CHILDREN ON BICYCLES. SITE TRAVERSED BY DIRT ROADS.

General:

OVER 1000 PLANTS OBSERVED IN THIS AREA IN 1981. SITE SURVEYED FOR VERNAL POOL TAXA IN 1986 BUT SPECIES NOT RECORDED. UNKNOWN NUMBER OF PLANTS OBSERVED AT MAPPED SITE IN 2001.

PLSS:	T16S, R02W, Sec. 08, NE (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3628956 E490137	**Latitude/Longitude:**	32.79852 / -117.10534	**Elevation (feet):**	410

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SIV81F0005	SIVINSKI, R. - FIELD SURVEY FORM FOR BRODIAEA ORCUTTII 1981-04-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04188
EO Index: 16651
Key Quad: La Mesa (3211771)
Element Code: PMLIL0C0B0
Occurrence Number: 43
Occurrence Last Updated: 1993-01-28

Scientific Name: *Brodiaea orcuttii*
Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed: 1936-04-25
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1936-04-25
Occurrence Rank: None
Owner/Manager: PVT
Trend: Unknown
Presence: Possibly Extirpated

Location:

NEAR 50TH AND ADAMS AVE, SAN DIEGO.

Detailed Location:

Ecological:

POGOGYNE ABRAMSII AND ERYNGIUM ARISTULATUM VAR. PARISHII ALSO SEEN AT THIS SITE.

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1936 COLLECTION BY GANDER.

PLSS: T16S, R02W, Sec. 21 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3624985 E491876
Latitude/Longitude: 32.76272 / -117.08673
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

GAN36S0010 GANDER, F. - GANDER #1594 SD #15216 1936-04-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04274	**EO Index:**	21751
Key Quad:	La Mesa (3211771)	**Element Code:**	PMLIL0C0B0
Occurrence Number:	44	**Occurrence Last Updated:**	2019-12-10

Scientific Name: *Brodiaea orcuttii*

Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed:	2018-05-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2018-05-10	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BANK OF OAK CREEK, OAK CANYON, ABOUT 0.5 MILE UPSTREAM FROM OLD MISSION DAM, MISSION TRAILS REGIONAL PARK, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO SDMMP DIGITAL DATA AND COORDINATES FROM A 2011 SIMPSON COLLECTION, IN THE NW 1/4 OF THE NW 1/4 OF SECTION 25.

Ecological:

CRACKS OF BOULDERS IN CREEKBED. OPEN RIPARIAN VEGETATION. ASSOCIATED WITH PLATANUS RACEMOSA, ELEOCHARIS MACROSTACHYA, STEMODIA DURANTIFOLIA, AVENA BARBATA, BRACHYPODIUM DISTACHYON, BROMUS DIANDRUS, BROMUS MADRITENSIS, ETC.

Threats:

SILTATION TO CREEKBED IF UPLANDS ARE EVER DEVELOPED OR BURNED IS A POSSIBLE THREAT. NON-NATIVES AND TRAILS.

General:

FEWER THAN 10 PLANTS OBSERVED IN THIS AREA IN 1981. UNKNOWN NUMBER OF PLANTS OBSERVED IN EASTERN POLYGON IN 2011. WESTERN POLYGON: 19 PLANTS OBSERVED IN 2015, 2 PLANTS OBSERVED IN 2016, 79 PLANTS IN 2017 AND 2018.

PLSS:	T15S, R02W, Sec. 25, NW (S)	**Accuracy:**	specific area	**Area (acres):**	2
UTM:	Zone-11 N3634101 E495472	**Latitude/Longitude:**	32.84497 / -117.04839	**Elevation (feet):**	370

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM15D0002	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2015 POLYGON DATA 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX
SIM11S0004	SIMPSON, M. & L. SIMPSON - SIMPSON #3577 SD #221817, SDSU #19838 2011-06-11
SIV81F0006	SIVINSKI, R. - FIELD SURVEY FORM FOR BRODIAEA ORCUTTII 1981-05-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04144	**EO Index:**	21752
Key Quad:	La Mesa (3211771)	**Element Code:**	PMLIL0C0B0
Occurrence Number:	45	**Occurrence Last Updated:**	2013-06-07

Scientific Name: *Brodiaea orcuttii*

Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

APPROX 1 MILE EAST OF KEARNY VILLA ROAD BETWEEN SAN CLEMENTE AND MURPHY CANYONS, EAST MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

SOUTH SIDE OF GREEN FARM ROAD. FISH AND GAME CODE: AA12, RECON: AV. MAPPED BY CNDDB AS 4 POLYGONS ACCORDING TO A 1979 VILLASENOR/RECON MAP AND 2008 CITY OF SAN DIEGO DIGITAL DATA.

Ecological:

Threats:

General:

OBSERVED IN 3 POOLS IN SW POLYGON IN 1979. OBSERVED IN ALL 4 POLYGONS IN 2001. 1935 GANDER COLLECTION FROM "NEAR HEAD OF MURPHY CANYON, ON KEARNY MESA" ALSO ATTRIBUTED HERE.

PLSS:	T15S, R02W, Sec. 16, SW (S)	**Accuracy:**	specific area	**Area (acres):**	5
UTM:	Zone-11 N3636414 E490685	**Latitude/Longitude:**	32.86580 / -117.09955	**Elevation (feet):**	520

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
GAN35S0022	GANDER, F. - GANDER #1961 SD #11333 1935-05-01
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71784
EO Index: 72671
Key Quad: Poway (3211781)
Element Code: PMLIL0C0B0
Occurrence Number: 46
Occurrence Last Updated: 2016-09-08

Scientific Name: *Brodiaea orcuttii*
Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed: 2001-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:

EAST END OF MIRAMAR AIRFIELD, ON EITHER SIDE OF I-15 NORTH OF SAN CLEMENTE CANYON.

Detailed Location:

IN POOL COMPLEXES AA1, AA2, GG, FF1 & FF2. MAPPED BY CNDDB AS MANY POLYGONS ACROSS PORTIONS OF SECTION 7, 8, 9,17 & 18, ACCORDING TO A 1979 VILLASENOR/RECON MAP, 1982 BEAUCHAMP MAPS AND 2008 CITY OF SAN DIEGO DIGITAL DATA.

Ecological:

VERNAL POOLS. ASSOCIATED WITH POGOGYNE ABRAMSII, ADENOSTOMA, AVENA BARBATA, CLARKIA PURPUREA, CENTAURIUM VENUSTUM, PSILOCARPHUS SP, DOWNINGIA CUSPIDATA, ERYNGIUM ARISTULATUM VAR. PARISHII, CALLITRICHE LONGIPEDUNCULATA, ETC.

Threats:

PORTIONS OF OCCURRENCE MAY BE THREATENED BY MILITARY OPERATIONS. SOME POOLS DESTROYED BY I-15 CONSTRUCTION.

General:

OBSERVED ACROSS SITE IN 1979 & 1982. OBSERVED IN PORTIONS OF SITE IN 1980, 1986 & 2001. INCLUDES FORMER OCCURRENCES #47, #48 & #86.

PLSS: T15S, R02W, Sec. 8, S (S)
Accuracy: specific area
Area (acres): 55
UTM: Zone-11 N3637633 E489540
Latitude/Longitude: 32.87678 / -117.11182
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

La Mesa (3211771), Poway (3211781)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA82M0001	BEAUCHAMP, R. - APPENDIX 1 TO BEA82U0001, MAPS OF VERNAL POOLS ON MIRAMAR NAS 1982-XX-XX
BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03
WCC80R0001	WOODWARD-CLYDE CONSULTANTS - BIOLOGICAL ASSESSMENT OF A PROPOSED NAVAL AND MARINE CORPS RESERVE CENTER FACILITY AT MIRAMAR NAVAL AIR STATION 1980-06-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 16249
Key Quad: La Jolla (3211772)
Occurrence Number: 59
EO Index: 13249
Element Code: PMLIL0C0B0
Occurrence Last Updated: 2013-06-24

Scientific Name: *Brodiaea orcuttii*
Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed: 2001-XX-XX
Last Survey Date: 2001-XX-XX
Owner/Manager: CITY OF SAN DIEGO, PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

EASTERN PORTION OF MONTGOMERY FIELD AIRPORT, SAN DIEGO.

Detailed Location:

WITHIN FISH AND GAME POOL COMPLEXES N1, N3, N4, AND N6. MAPPED AS 13 POLYGONS ACCORDING TO MULTIPLE SOURCES. TWO LARGE MIDDLE POLYGONS BASED MOSTLY ON 2008 CITY OF SAN DIEGO DIGITAL DATA BUT SPECIFICITY OF DATA IS UNCLEAR.

Ecological:

ON REDDING SOILS IN DISTURBED GRASSLAND. ASSOCIATED WITH ERYNGIUM ARISTULATUM VAR. PARISHII AND NAVARRETIA FOSSALIS.

Threats:

SOME OF THE EASTERN POOLS WERE DESTROYED BY COMMERCIAL DEVELOPMENT.

General:

OBSERVED ACROSS SITE IN 1979. ABUNDANT TO COMMON IN THESE POOLS IN 1986. TWO LARGE MIDDLE POLYGONS OBSERVED IN 2001 BUT NO OTHER INFORMATION WAS GIVEN. INCLUDES FORMER OCCURRENCE #60.

PLSS: T16S, R02W, Sec. 06, W (S)
Accuracy: specific area
Area (acres): 87
UTM: Zone-11 N3630689 E487694
Latitude/Longitude: 32.81413 / -117.13145
Elevation (feet): 420

County Summary:

San Diego

Quad Summary:

La Mesa (3211771), La Jolla (3211772)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
CAS79S0007	CASS, T. - CASS #39 SD #132935 1979-04-27
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
VIL79R0002	VILLASENOR, R. (RECON ENVIRONMENTAL, INC.) - REPORT ON VERNAL POOLS OF THE KEARNY MESA REGION, SAN DIEGO COUNTY 1979-10-03
ZED79R0001	ZEDLER, P. ET AL. - A SURVEY OF VERNAL POOLS OF KEARNY MESA, SAN DIEGO COUNTY 1979-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	71888	**EO Index:**	21725
Key Quad:	Del Mar (3211782)	**Element Code:**	PMLIL0C0B0
Occurrence Number:	90	**Occurrence Last Updated:**	2019-12-10

Scientific Name: *Brodiaea orcuttii*

Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed:	2019-04-29	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2019-04-29	**Occurrence Rank:**	Poor
Owner/Manager:	DOD-MCAS MIRAMAR, PVT	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

ON BOTH SIDES OF MIRAMAR ROAD, NEAR THE INTERSECTION WITH MIRAMAR PLACE, NW OF MIRAMAR AIR STATION, SAN DIEGO.

Detailed Location:

FISH AND GAME POOL COMPLEXES I6A TO I6C (2 NORTHERN POLYGONS) AND X1 TO X4 (REMAINING POOLS). I6 POOLS HAVE SINCE BEEN DESTROYED BY DEVELOPMENT AS HAVE THE EASTERN POOLS SOUTH OF THE ROAD.

Ecological:

ASSOCIATED WITH MIXED/CHAMISE CHAPARRAL AND GRASSLAND. ASSOCIATED SPECIES INCLUDE POGOGYNE ABRAMSII, ERYNGIUM ARISTULATUM, ISOETES ORCUTTII, AND MYOSURUS.

Threats:

ABOUT HALF OF THE POOLS HAVE BEEN DESTROYED BY DEVELOPMENT.

General:

IN 1986, PLANTS COMMON TO UNCOMMON IN APPROXIMATELY 50% OF 42 POOLS IN I6A, B, AND C, AND PLANTS COMMON TO UNCOMMON IN LESS THAN 10% OF 40 POOLS AT X1-4. UNKNOWN NUMBER OF PLANTS SEEN IN 2001, 2017-2019. INCLUDES FORMER OCCURRENCE #91.

PLSS:	T15S, R03W, Sec. 10, S (S)	**Accuracy:**	specific area	**Area (acres):**	36
UTM:	Zone-11 N3637636 E483188	**Latitude/Longitude:**	32.87673 / -117.17972	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772), Del Mar (3211782)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
REI78S0001	REISENTZ, P. - REISENTZ #VP31 UCSB #40612 1978-05-07
SCH19U0006	SCHEIDT, V. - OBSERVATIONS OF BRODIAEA ORCUTTII BY VINCE SCHEIDT FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-11-20. 2019-11-20
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04219
Key Quad: La Mesa (3211771)
Occurrence Number: 121
EO Index: 46927
Element Code: PMLIL0C0B0
Occurrence Last Updated: 2002-01-04

Scientific Name: *Brodiaea orcuttii*
Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed: 1949-05-05
Last Survey Date: 1949-05-05
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

MESA NORTH OF SAN DIEGO STATE COLLEGE.

Detailed Location:

ELEVATION RANGES FROM 375-500 FEET. EXACT LOCATION UNKNOWN, MAPPED AS BEST GUESS BY CNDDB.

Ecological:

DRIED MESA POOLS. ASSOCIATES INCLUDE BRODIAEA SYNANDRIA AND PLANTAGO INSULARIS.

Threats:

AREA IS NOW EXTENSIVELY DEVELOPED.

General:

PLANTS NOTED AS INFREQUENT IN 1949. OCCURRENCE IS NOW PROBABLY EXTIRPATED.

PLSS: T16S, R02W, Sec. 10 (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3628423 E493395
Latitude/Longitude: 32.79374 / -117.07054
Elevation (feet):

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

BRA49S0004 BRATTSTROM, B. - BRATTSTROM SN UCLA 1949-05-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71919
Key Quad: La Mesa (3211771)
Occurrence Number: 128
EO Index: 72792
Element Code: PMLIL0C0B0
Occurrence Last Updated: 2008-08-12

Scientific Name: *Brodiaea orcuttii*
Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed: 1986-04-07
Last Survey Date: 1986-04-07
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Unknown

Location:

JUST NW OF THE INTERSECTION OF AMAYA DRIVE AND FLETCHER PARKWAY, LA MESA.

Detailed Location:

BETWEEN FENCED SCHOOLYARD AND AMAYA DRIVE. FISH AND GAME VERNAL POOL COMPLEX LL.

Ecological:

VERNAL POOLS IN A VACANT LOT WITHIN AN URBAN SETTING. TWO SMALL, SHALLOW POOLS SURROUNDED BY COASTAL SAGE SCRUB. ASSOCIATED WITH POGOGYNE ABRAMSII.

Threats:

EXTENSIVE DEVELOPMENT IN THIS VICINITY. EVIDENCE OF TRASH DUMPING.

General:

SMALL POPULATION OF PLANTS OBSERVED IN 1986.

PLSS: T16S, R01W, Sec. 17, NE (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3627671 E499615
Latitude/Longitude: 32.78697 / -117.00410
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

BAU86R0001 BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71920
Key Quad: La Jolla (3211772)
Occurrence Number: 129
EO Index: 72794
Element Code: PMLIL0C0B0
Occurrence Last Updated: 2019-11-21

Scientific Name: *Brodiaea orcuttii*
Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed: 2017-05-02
Last Survey Date: 2018-04-30
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Poor
Trend: Decreasing

Location:

JUST SE OF THE INTERSECTION OF JUDICIAL DRIVE AND NOBEL DRIVE, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO 2008 CITY OF SAN DIEGO DIGITAL DATA. EASTERN POLYGON SHOULD BE FIELD CHECKED; POSSIBLY MISMAPPED? SITE OF CALTRANS MITIGATION RESTORATION PROJECT.

Ecological:

VERNAL POOLS SURROUNDED BY NON-NATIVE GRASSLAND. ASSOCIATED WITH ERODIUM SP., LYTHRUM HYSSOPIFOLIUM, DEINANDRA FASCICULATA, NAVARRETIA FOSSALIS, DESCHAMPSIA DANTHONIOIDES, COTULA CORONOPIFOLIA, PLAGIOBOTHRYS ACANTHOCARPA, ETC.

Threats:

INVASIVE GRASSES (PRIMARILY LOLIUM PERENNE), VEG CLEARING FOR VERNAL POOL RESTORATION, TRAILS, ORVS/MOUNTAIN BIKES.

General:

OBSERVED IN EAST POLYGON IN 2001 ACCORDING TO 2008 CITY OF SDG DATA. WESTERN POLYGON: 43 PLANTS IN 2001, 0 IN 2002, 37 IN 2003, 23 IN 2005, 10 IN 2008, 5 IN 2009, 78 IN 2011, 0 IN 2012, 2014-2016, 17 IN 2017, 0 IN 2018 (LOW RAINFALL).

PLSS: T15S, R03W, Sec. 16, S (S)
Accuracy: specific area
Area (acres): 5
UTM: Zone-11 N3636505 E481654
Latitude/Longitude: 32.86651 / -117.19608
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

MIL09F0016	MILLER, B. & K. BALO (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR BRODIAEA ORCUTTII 2009-04-22
SDC05R0001	CITY OF SAN DIEGO, PLANNING DEPT., MSCP DIVISION - MSCP RARE PLANT MONITORING: FIELD MONITORING METHODS 2005 -09-XX
SDG03R0004	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES OF SPECIAL CONCERN: SUMMARY OF MONITORING RESULTS FOR BRODIAEA ORCUTTII 2003-05-XX
SDG05R0002	CITY OF SAN DIEGO - CITY OF SAN DIEGO, RARE PLANT MONITORING REPORT, 2005: BRODIAEA ORCUTTII 2005-XX-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM13R0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM (SDMMP) - MANAGEMENT STRATEGIC PLAN FOR CONSERVED LANDS IN WESTERN SAN DIEGO COUNTY 2013-01-07
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM15D0002	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2015 POLYGON DATA 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX
SDM16U0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - BRODIAEA ORCUTTII, MSP TABLE OF OCCURRENCES 2016-XX-XX
SDM18D0001	SAN DIEGO MANAGEMENT AND MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2017 AND 2018 RESULTS 2018-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71923
EO Index: 72796
Key Quad: La Jolla (3211772)
Element Code: PMLIL0C0B0
Occurrence Number: 130
Occurrence Last Updated: 2019-11-21

Scientific Name: *Brodiaea orcuttii*
Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed: 2019-05-30
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2019-05-30
Occurrence Rank: Good
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

GENERAL DYNAMICS; W OF RUFFIN RD, IN VACANT LOT IN BETWEEN SPECTRUM CENTER BLVD AND BALBOA AVE (HIGHWAY 274), SAN DIEGO.

Detailed Location:

Ecological:

VERNAL POOLS IN DISTURBED COASTAL SAGE SCRUB. ASSOCIATED WITH POLYPOGON MONSPELIENSIS, DEINANDRA FASCICULATA, POGOGYNE ABRAMSII, ERODIUM SP., VULPIA SP., ISOCOMA MENZIESII, PSILOCARPHUS BREVISSIMUS, PLANTAGO ELONGATA, ETC.

Threats:

SITE IS COMPLETELY SURROUNDED BY DEVELOPMENT BUT FENCED FOR PROTECTION OF THE RARE PLANTS. INVASIVE PLANTS THREATEN.

General:

10,000+ PLANTS ESTIMATED IN 2001, NO PLANTS IN 2002, 46,018 PLANTS ESTIMATED IN 2003, 41 PLANTS/SQ METER OBSERVED IN 2005, 2750 PLANTS IN 2008, 332 PLANTS IN 2009, 100,232 PLANTS IN 2010, 30,000 PLANTS IN 2011, UNKNOWN NUMBER IN 2019.

PLSS: T15S, R02W, Sec. 31, SW (S)
Accuracy: specific area
Area (acres): 8
UTM: Zone-11 N3631795 E487905
Latitude/Longitude: 32.82411 / -117.12921
Elevation (feet): 430

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

MIL09F0014	MILLER, B. & K. BALO (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR BRODIAEA ORCUTTII 2009-04-22
MIL09F0015	MILLER, B. & K. BALO (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR BRODIAEA ORCUTTII 2009-04-22
SCH19U0006	SCHEIDT, V. - OBSERVATIONS OF BRODIAEA ORCUTTII BY VINCE SCHEIDT FROM HTTP://WWW.INATURALIST.ORG. ACCESSED 2019-11-20. 2019-11-20
SDC05R0001	CITY OF SAN DIEGO, PLANNING DEPT., MSCP DIVISION - MSCP RARE PLANT MONITORING: FIELD MONITORING METHODS 2005-09-XX
SDG03R0004	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES OF SPECIAL CONCERN: SUMMARY OF MONITORING RESULTS FOR BRODIAEA ORCUTTII 2003-05-XX
SDG05R0002	CITY OF SAN DIEGO - CITY OF SAN DIEGO, RARE PLANT MONITORING REPORT, 2005: BRODIAEA ORCUTTII 2005-XX-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM13R0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM (SDMMP) - MANAGEMENT STRATEGIC PLAN FOR CONSERVED LANDS IN WESTERN SAN DIEGO COUNTY 2013-01-07
SDM16U0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - BRODIAEA ORCUTTII, MSP TABLE OF OCCURRENCES 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 89465
EO Index: 90448
Key Quad: La Jolla (3211772)
Element Code: PMLIL0C0B0
Occurrence Number: 158
Occurrence Last Updated: 2013-06-17

Scientific Name: *Brodiaea orcuttii*
Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed: 2001-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

JUST EAST OF I-805 BETWEEN GOVERNOR DRIVE AND HIGHWAY 52, WEST OF MARINE CORPS AIR STATION MIRAMAR, SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS 6 SMALL POLYGONS ACCORDING TO 2008 CITY OF SAN DIEGO DIGITAL DATA. THE FAR NW POLYGON APPEARS TO BE IN AREA SHOWN IN AERIAL IMAGERY WITHOUT NATURAL HABITAT AS FAR BACK AS 2000; POSSIBLY MIS-MAPPED?

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS 2008 CITY OF SAN DIEGO DIGITAL DATA; BRODIAEA REPORTEDLY OBSERVED IN 2001. MORE INFORMATION IS NEEDED REGARDING THIS OCCURRENCE.

PLSS: T15S, R03W, Sec. 22 (S)
Accuracy: specific area
Area (acres): 6
UTM: Zone-11 N3635256 E483287
Latitude/Longitude: 32.85526 / -117.17861
Elevation (feet): 380

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

SDG08D0001 CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 89466
EO Index: 90449
Key Quad: La Jolla (3211772)
Element Code: PMLIL0C0B0
Occurrence Number: 159
Occurrence Last Updated: 2019-11-21

Scientific Name: *Brodiaea orcuttii*
Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed: 2001-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-XX-XX
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

APPROXIMATELY 0.2 AIR MILE NORTH OF THE JUNCTION OF CLAIREMONT MESA BLVD AND KEARNY MESA ROAD, KEARNY MESA, SAN DIEGO.

Detailed Location:

MAPPED ACCORDING TO 2008 CITY OF SAN DIEGO DIGITAL DATA; ONLY ATTRIBUTE TABLE INFORMATION PROVIDED WAS SPECIES AND YEAR. IN THE SW 1/4 OF THE SE 1/4 OF SECTION 25.

Ecological:

Threats:

General:

OBSERVED ON THIS PARCEL IN 1986. OBSERVED AT MAPPED SITE IN 2001. A 1992 WELKER COLLECTION FROM "GOVERNMENT LAND WEST OF 5575 MAGNATRON BLVD" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS: T15S, R03W, Sec. 25, SE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3633142 E486556
Latitude/Longitude: 32.83624 / -117.14365
Elevation (feet): 400

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
WEL92S0007	WELKER, S. - WELKER SN SD #262834 1992-05-11
WES87R0002	WESTEC SERVICES, INC. - ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED LAND SALES AND EXCHANGES SOUTH OF CALIFORNIA STATE ROUTE 52, NAVAL AIR STATION, MIRAMAR, SAN DIEGO COUNTY, CA 1987-04-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	89478	**EO Index:**	90466
Key Quad:	La Mesa (3211771)	**Element Code:**	PMLIL0C0B0
Occurrence Number:	161	**Occurrence Last Updated:**	2013-06-24

Scientific Name: *Brodiaea orcuttii*

Common Name: Orcutt's brodiaea

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, CHAPARRAL, MEADOWS AND SEEPS.

Micro Habitat:

MESIC, CLAY HABITATS; USUALLY IN VERNAL POOLS AND SMALL DRAINAGES. 30-1615 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

APPROXIMATELY 0.3 AIR MILE NNE OF JUNCTION OF SAN DIEGO RIVER WITH OAK CANYON, APPROX 1.1 AIR MILE ESE OF FORTUNA MTN.

Detailed Location:

JUST NORTH OF MISSION DAM AND FLUME HISTORIC SITE.

Ecological:

Threats:

General:

MAIN SOURCE OF INFORMATION FOR THIS SITE IS 2008 CITY OF SAN DIEGO DIGITAL DATA; BRODIAEA REPORTEDLY OBSERVED IN 2001. A 1997 SIMPSON COLLECTION FROM "BANK OF OAK CREEK, CA. 1/4 MILE N OF OLD MISSION DAM" ATTRIBUTED HERE. NEEDS FIELDWORK.

PLSS:	T15S, R02W, Sec. 25, NW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3634020 E496077	**Latitude/Longitude:**	32.84424 / -117.04192	**Elevation (feet):**	350

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SIM97S0001	SIMPSON, M. - SIMPSON #20V97D SDSU #12513 1997-05-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92786	**EO Index:**	24218
Key Quad:	La Mesa (3211771)	**Element Code:**	PMLIL1H010
Occurrence Number:	1	**Occurrence Last Updated:**	2017-10-31

Scientific Name: *Bloomeria clevelandii*

Common Name: San Diego goldenstar

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G2

State: S2

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed:	2012-04-27	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-04-27	**Occurrence Rank:**	Good
Owner/Manager:	DOD-NAVY, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

MURPHY CANYON HEIGHTS HOUSING COMPLEX; SOUTH END OF SANTO ROAD NORTH OF THE WEST END OF ADMIRAL BAKER GOLF COURSE.

Detailed Location:

MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO A 1989 WAGONER MAP, 2008 CITY OF SAN DIEGO DIGITAL DATA (WITHIN TIERRASANTA OPEN SPACE), AND 2014 MCDERMOTT DIGITAL DATA.

Ecological:

OCCURS ON MOUNDS BETWEEN POOLS ON FINE SANDY LOAM WITH SAGE SCRUB. ASSOCIATED WITH OTHER RARE PLANTS: POGOGYNE ABRAMSII, MYOSURUS MINIMUS APUS AND BRODIAEA ORCUTTII. ALSO OCCURS WITH MUILLA MARITIMA.

Threats:

MED-HIGH DISTURBANCE TO SITE FROM ORVS, TRASH DUMPING & BRUSHING. MUCH OF AREA FENCED IN 1987.

General:

WESTERN POLYGON: 1 PLANT OBSERVED IN 2012. MIDDLE POLYGON: >1000 PLANTS OBSERVED IN 1981, NOT REPORTED FROM THIS AREA IN BAUDER'S 1986 VERNAL POOL SURVEY, 1 PLANT IN 2011, 20 PLANTS IN 2012. EASTERN POLYGON: OBSERVED IN 2001.

PLSS:	T16S, R02W, Sec. 8, NE (S)	**Accuracy:**	specific area	**Area (acres):**	11
UTM:	Zone-11 N3629065 E490139	**Latitude/Longitude:**	32.7995 / -117.10532	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
MCD14D0001	MCDERMOTT, F. (RECON ENVIRONMENTAL, INC.) - CNDDB SPECIES DATA SUBMITTAL, RECON ENVIRONMENTAL, INC. 2014-06-20
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SIV81F0015	SIVINSKI, R. - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 1981-04-28
WAG89R0001	WAGONER, R. - NATURAL RESOURCE MANAGEMENT PLAN, NAVAL HOUSING AREA, MURPHY CANYON HEIGHTS & POMERADO TERRACE FOR MUILLA (BLOOMERIA) CLEVELANDII, POGOGYNE ABRAMSII & VIGUIERA LACINIATA 1989-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04169	**EO Index:**	14303
Key Quad:	La Mesa (3211771)	**Element Code:**	PMLIL1H010
Occurrence Number:	2	**Occurrence Last Updated:**	2014-06-30

Scientific Name: *Bloomeria clevelandii*

Common Name: San Diego goldenstar

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed:	2004-04-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2004-04-15	**Occurrence Rank:**	Fair
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BETWEEN ELANUS CANYON AND SHEPARD CANYON; ABOUT 0.1-0.45 AIR MI ENE OF THE JUNCTION OF SR 52 AND SANTO RD, MCAS MIRAMAR.

Detailed Location:

MAPPED BY CNDDB AS 4 POLYGONS ACCORDING TO 2007 RECON DIGITAL DATA AND 2008 CITY OF SAN DIEGO DIGITAL DATA. IN VICINITY OF BAUDER'S A4 POOLS.

Ecological:

ON MIMA MOUNDS AROUND VERNAL POOLS, ON FINE SANDY LOAM OF LINDA VISTA FORMATION. CHAMISE CHAPARRAL SYMPATRIC WITH MUILLA MARITIMA. OTHER ASSOCIATES INCLUDE ADENOSTOMA FASCICULATUM, ANAGALLIS MINIMUS, ARTEMISIA CALIFORNICA, AVENA, ETC.

Threats:

THREATENED BY ORVS, URBANIZATION, AND ILLEGAL DUMPING (1981). ALSO THREATENED/DISTURBED BY BRUSHING IN 1986.

General:

>1000 PLANTS OBSERVED IN 1981. OBSERVED DURING 1986 BAUDER VERNAL POOL SURVEYS. POPULATION NUMBERS FOR PORTIONS OF MAPPED SITE: UNKNOWN NUMBER OBSERVED IN 2001, 1 PLANT IN 2003, 84 PLANTS IN 2004.

PLSS:	T15S, R02W, Sec. 28, N (S)	**Accuracy:**	specific area	**Area (acres):**	7
UTM:	Zone-11 N3633891 E491210	**Latitude/Longitude:**	32.84304 / -117.09392	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05
SCH04F0049	SCHEID, G. - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2004-04-15
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SIV81F0016	SIVINSKI, R. - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 1981-04-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04284	**EO Index:**	21720
Key Quad:	La Mesa (3211771)	**Element Code:**	PMLIL1H010
Occurrence Number:	3	**Occurrence Last Updated:**	2017-10-30

Scientific Name: *Bloomeria clevelandii*

Common Name: San Diego goldenstar

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed:	2016-04-14	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-04-14	**Occurrence Rank:**	Fair
Owner/Manager:	PVT, CITY OF SAN DIEGO	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

APPROXIMATELY 0.8 MILE NORTH OF MISSION DAM, FIRST RIDGE WEST OF SPRING CANYON.

Detailed Location:

4 POLYGONS NORTH OF SR 52, 1 POLYGON SOUTH OF SR 52. MAPPED BY CNDDB AS 5 POLYGONS ACCORDING TO A 2003 KIM MAP, A 2005 CITY OF SAN DIEGO MAP, AND 2008 CITY OF SAN DIEGO DIGITAL DATA.

Ecological:

ON POMERADO CONGLOMERATE/REDDING SERIES SOILS. BURNED INLAND SAGE SCRUB COASTAL SAGE SCRUB WITH GRASSLAND UNDERSTORY. ASSOC W/ STIPA LEPIDA, BROMUS MOLLIS, CALOCHORTUS SPLENDENS, ORTHOCARPUS SP, DUDLEYA VARIEGATA, AND BLOOMERIA CROCEA.

Threats:

IN 1989, POSSIBLE HWY 52 CONSTRUCTION IN 5-10 YEARS WAS LISTED AS A THREAT. HIGH COVER OF NON-NATIVE GRASSES.

General:

POPULATION NUMBERS FOR PORTIONS OF SITE: >1000 PLANTS IN 1982, 1,000 PLANTS IN 2003, OBSERVED IN 2001 AND 2008, 100 PLANTS IN 2009, 193 PLANTS IN 2014, 1100 PLANTS IN 2015, 855 PLANTS IN 2016.

PLSS:	T15S, R02W, Sec. 24 (S)	**Accuracy:**	specific area	**Area (acres):**	26
UTM:	Zone-11 N3635081 E496114	**Latitude/Longitude:**	32.85381 / -117.04152	**Elevation (feet):**	550

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

DOD91S0002	DODERO, M. - DODERO #5V91A SDSU #17549 1991-05-05
KIM03F0006	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2003-05-08
LOY82F0005	LOY, M. - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 1982-05-02
MIL09F0064	MILLER, B. ET AL. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2009-04-17
SDC05R0001	CITY OF SAN DIEGO, PLANNING DEPT., MSCP DIVISION - MSCP RARE PLANT MONITORING: FIELD MONITORING METHODS 2005-09-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04248
EO Index: 21718
Key Quad: La Mesa (3211771)
Element Code: PMLIL1H010
Occurrence Number: 4
Occurrence Last Updated: 2014-06-19

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 2001-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:

RIDGE NORTH OF FORTUNA MOUNTAIN; SOUTH OF ELLIOT ELEVATION MARKER 916, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO 2008 CITY OF SAN DIEGO DIGITAL DATA IN THE SE 1/4 OF THE NW 1/4 OF SECTION 23.

Ecological:

ON MESA, ON COBBLY REDDING SERIES SOILS. CHAMISE CHAPARRAL/INLAND SAGE. ASSOCIATED WITH LOTUS SCOPARIUS, GRASSES, CALOCHORTUS SPLENDENS, AND MALOSMA LAURINA.

Threats:

IN 1984, SITE WAS WITHIN PROPOSED HIGHWAY ALIGNMENT FOR SR 52.

General:

OVER 1000 PLANTS IN 1982. ONE PLANT FOUND IN 1984. UNKNOWN NUMBER OBSERVED IN 2001.

PLSS: T15S, R02W, Sec. 23, NW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3635283 E494213
Latitude/Longitude: 32.85562 / -117.06184
Elevation (feet): 880

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

DAR84F0001	DARNELL, D. - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 1984-04-30
LOY82F0006	LOY, M. - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 1982-04-22
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04310	**EO Index:**	14302
Key Quad:	La Mesa (3211771)	**Element Code:**	PMLIL1H010
Occurrence Number:	5	**Occurrence Last Updated:**	2014-07-15

Scientific Name: *Bloomeria clevelandii*

Common Name: San Diego goldenstar

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed:	2010-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2010-XX-XX	**Occurrence Rank:**	Good
Owner/Manager:	DOD-MCAS MIRAMAR, SDG CO, PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

RIDGES AROUND LITTLE SYCAMORE CANYON, QUAIL CANYON AND WEST SYCAMORE CANYON, NORTHWEST OF CARLTON HILLS.

Detailed Location:

MAPPED BY CNDDB AS MANY POLYGONS BASED ON A 1984 MAP, 2004 COORDINATES, A 2005 CITY OF SAN DIEGO MAP, 2008 DIGITAL DATA, AND A MAP FROM A 2013 CITY OF SAN DIEGO FINAL EIR REPORT FOR THE CASTLEROCK PROJECT.

Ecological:

IN GRASSLAND AND COASTAL SAGE SCRUB ON REDDING SERIES SOIL. HABITAT BURNED IN 2003. POPULATIONS OF FEROCACTUS VIRIDESCENS AND DUDLEYA VARIEGATA OCCUR NEARBY.

Threats:

PORTIONS THREATENED BY PROPOSED LANDFILL OPERATIONS.

General:

POPULATION NUMBERS ARE FOR PORTIONS OF OCC: OVER 1000 PLANTS IN 1984, UNKNOWN NUMBER SEEN ACROSS MUCH OF SITE IN 2001, 45 PLANTS IN 2004. UNCOMMON IN 2008. ABUNDANT AND WIDESPREAD SOMETIME BETWEEN 2001 & 2010. INCLUDES FORMER OCC #23 & #71.

PLSS:	T15S, R01W, Sec. 18 (S)	**Accuracy:**	specific area	**Area (acres):**	94
UTM:	Zone-11 N3636450 E498519	**Latitude/Longitude:**	32.86616 / -117.01582	**Elevation (feet):**	700

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), Poway (3211781)

Sources:

CON99S0002	CONKLE, T. & A. ALLEN - CONKLE SN SDSU #15180 1999-05-07
KIM04F0010	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2004-04-13
KIM04F0011	KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2004-04-13
LOY84F0003	LOY, M. - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 1984-05-XX
LOY84F0004	LOY, M. - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 1984-05-XX
REI01S0013	REISER, C. - REISER SN SD #155515 2001-07-12
SAL08S0005	SALVATO, T. & E. KLEIN - SALVATO #3409 UCR #191595 2008-05-02
SDC05R0001	CITY OF SAN DIEGO, PLANNING DEPT., MSCP DIVISION - MSCP RARE PLANT MONITORING: FIELD MONITORING METHODS 2005 -09-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG13R0001	CITY OF SAN DIEGO - FINAL ENVIRONMENTAL IMPACT REPORT FOR THE CASTLEROCK PROJECT 2013-06-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21364
Key Quad: La Mesa (3211771)
Occurrence Number: 6
EO Index: 21719
Element Code: PMLIL1H010
Occurrence Last Updated: 2014-06-30

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 1950-04-08
Last Survey Date: 1950-04-08
Owner/Manager: PVT
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

VICINITY OF SAN DIEGO STATE UNIVERSITY, ADOBE FALLS, AND MONTEZUMA ROAD, SAN DIEGO.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB TO ENCOMPASS LOCATIONS FROM SEVERAL HISTORIC COLLECTIONS. AN UNDATED HARVEY COLLECTION FROM "S.D. STATE COLLEGE CAMPUS" IS ALSO ATTRIBUTED TO THIS SITE.

Ecological:

WITH ERIOGONUM FASCICULATUM ON DRY MESA.

Threats:

POSSIBLY DESTROYED BY DEVELOPMENT.

General:

SITE BASED ON 1932 YOUNGBERG COLLECTION FROM "STATE COLLEGE CAMPUS", 1938 MATLIER COLLECTION FROM "ADOBE FALLS", 1949 BRATTSTROM COLLECTION FROM "MESA S OF SAN DIEGO STATE COLLEGE", AND 1950 INGRAM COLLECTION FROM "S SIDE OF MONTEZUMA RD."

PLSS: T16S, R02W (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3626414 E493275
Latitude/Longitude: 32.77561 / -117.07180
Elevation (feet):

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

BRA49S0003	BRATTSTROM, B. - BRATTSTROM SN UCLA 1949-04-27
HARNDS0018	HARVEY - HARVEY SN RSA #12694 (CITED IN LEN75A0001) XXXX-XX-XX
ING50S0002	INGRAM, J. - INGRAM #102 UC #1094411, SEINET #199881, UTC #94591, SD #48053, DS #393254, CAS-BOT-BC #132167 1950-04-08
LEN75A0001	LENZ, L. - THE CHROMOSOMES OF BLOOMERIA AND MUILLA (LILIACEAE) AND RANGE EXTENSIONS FOR MUILLA CORONATA AND M. TRANSMONTANA. ALISO 8(3): 259-262. 1975-09-22
MAT38S0002	MATLIER, S. - MATLIER SN SDSU #11617 1938-04-28
YOU32S0002	YOUNGBERG, F. - YOUNGBERG SN SDSU #11629 1932-04-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 55191
EO Index: 55191
Key Quad: La Mesa (3211771)
Element Code: PMLIL1H010
Occurrence Number: 7
Occurrence Last Updated: 2014-06-20

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 2010-01-08
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2010-01-08
Occurrence Rank: Unknown
Owner/Manager: CITY OF SAN DIEGO
Trend: Unknown
Presence: Presumed Extant

Location:

BETWEEN LAKE MURRAY AND LAKE SHORE DRIVE, MISSION TRAILS REGIONAL PARK.

Detailed Location:

MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO A 2010 HELIX MAP. IN THE WEST 1/2 OF THE SE 1/4 OF SECTION 12 AND IN THE NW 1/4 OF THE NE 1/4 OF SECTION 13.

Ecological:

DISTURBED DIEGAN COASTAL SAGE SCRUB.

Threats:

1 INDIVIDUAL WILL BE IMPACTED BY PIPELINE REALIGNMENT ACTIVITIES.

General:

14+ INDIVIDUALS OBSERVED IN 2010. A 1936 GANDER COLLECTION FROM "MESA NE OF MURRAY DAM" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS: T16S, R02W, Sec. 12, SE (S)
Accuracy: specific area
Area (acres): 4
UTM: Zone-11 N3628206 E496475
Latitude/Longitude: 32.79179 / -117.03763
Elevation (feet): 550

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

GAN36S0103 GANDER, F. - GANDER #1678 SD #15088 1936-05-01

HEL10R0024 HELIX ENVIRONMENTAL PLANNING, INC. - R0274 RELINING PIPELINE 4 STATE ROUTE 52 TO LAKE MURRAY & PIPELINE 3 30-INCH INTERCONNECT TO LAKE MURRAY CONTROL VALVE, BIOLOGICAL TECHNICAL REPORT 2010-10-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	03962	**EO Index:**	21717
Key Quad:	La Jolla (3211772)	**Element Code:**	PMLIL1H010
Occurrence Number:	8	**Occurrence Last Updated:**	2014-06-20

Scientific Name: *Bloomeria clevelandii*

Common Name: San Diego goldenstar

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed:	1986-04-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1986-04-10	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH OF RUNWAYS AND NORTH OF SAN CLEMENTE CANYON, APPROXIMATELY 2.2 AIR MILES ENE OF I-805/SR52 JUNCTION, MCAS MIRAMAR.

Detailed Location:

MAPPED BY CNDDB AROUND BEAUCHAMP POOL HH24 BASED ON A 1982 BEAUCHAMP REPORT. THIS IS WITHIN BAUDER'S EE1 POOLS. IN THE SE 1/4 OF THE SW 1/4 OF SECTION 13.

Ecological:

VERNAL POOLS IN CHAMISE HABITAT ASSOCIATED WITH ADENOSTOMA FASCICULATUM, ANAGALLIS MINIMUS, AVENA BARBATA, BRASSICA NIGRA, BRODIAEA ORCUTTII, BROMUS MOLLIS, B. RUBENS, CALLITRICHE MARGINATA, CENTAURIUM VULGARE, CHAETOPAPPA AUREA, ETC.

Threats:

SOME ORV DAMAGE PRESENT IN 1986.

General:

OBSERVED IN "FAIRLY HIGH DENSITIES" IN THIS POOL IN 1982. OBSERVED BY BAUDER IN THE EE1 POOLS IN 1986.

PLSS:	T15S, R03W, Sec. 13, SW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3636159 E486420	**Latitude/Longitude:**	32.86346 / -117.14513	**Elevation (feet):**	440

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA82M0001	BEAUCHAMP, R. - APPENDIX 1 TO BEA82U0001, MAPS OF VERNAL POOLS ON MIRAMAR NAS 1982-XX-XX
BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04038	**EO Index:**	21716
Key Quad:	La Mesa (3211771)	**Element Code:**	PMLIL1H010
Occurrence Number:	9	**Occurrence Last Updated:**	2014-06-20

Scientific Name: *Bloomeria clevelandii*

Common Name: San Diego goldenstar

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G2

State: S2

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed:	1982-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1982-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EAST END OF RUNWAY, APPROXIMATELY 0.7 AIR MILE NW OF JUNCTION OF KEARNY VILLA RD AND HARRIS PLANT RD, MCAS MIRAMAR.

Detailed Location:

MAPPED BY CNDDB AROUND BEAUCHAMP POOL GG7 BASED ON A 1982 BEAUCHAMP REPORT. IN THE NW 1/4 OF THE SE 1/4 OF SECTION 18.

Ecological:

Threats:

General:

OBSERVED IN "FAIRLY HIGH DENSITIES" IN THIS POOL IN 1982.

PLSS:	T15S, R02W, Sec. 18, SE (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3636633 E488325	**Latitude/Longitude:**	32.86775 / -117.12478	**Elevation (feet):**	480

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BEA82M0001	BEAUCHAMP, R. - APPENDIX 1 TO BEA82U0001, MAPS OF VERNAL POOLS ON MIRAMAR NAS 1982-XX-XX
BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92787
Key Quad: La Mesa (3211771)
Occurrence Number: 10
EO Index: 93910
Element Code: PMLIL1H010
Occurrence Last Updated: 2014-06-20

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:
MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 1982-XX-XX
Last Survey Date: 1982-XX-XX
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
EAST END OF RUNWAY, APPROXIMATELY 0.7 AIR MILE NNW OF JUNCTION OF KEARNY VILLA RD AND HARRIS PLANT RD, MCAS MIRAMAR.

Detailed Location:
JUST SOUTH OF ZEPLIN AVENUE. MAPPED BY CNDDB AROUND BEAUCHAMP POOL GG11 BASED ON A 1982 BEAUCHAMP REPORT. IN THE SE 1/4 OF THE NE 1/4 OF SECTION 18.

Ecological:

Threats:

General:
OBSERVED IN "FAIRLY HIGH DENSITIES" IN THIS POOL IN 1982.

PLSS: T15S, R02W, Sec. 18, NE (S)
Accuracy: specific area
Area (acres): 3
UTM: Zone-11 N3636980 E488853
Latitude/Longitude: 32.87089 / -117.11915
Elevation (feet): 490

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

BEA82M0001	BEAUCHAMP, R. - APPENDIX 1 TO BEA82U0001, MAPS OF VERNAL POOLS ON MIRAMAR NAS 1982-XX-XX
BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 03825
EO Index: 21715
Key Quad: La Jolla (3211772)
Element Code: PMLIL1H010
Occurrence Number: 11
Occurrence Last Updated: 2014-06-20

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 1940-04-23
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1940-04-23
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Possibly Extirpated

Location:

0.5 MILE WEST OF LINDA VISTA, KEARNY MESA.

Detailed Location:

MAPPED BY CNDDB AS BEST GUESS ABOUT 0.5 AIR MILE WEST OF LINDA VISTA. HOWEVER, LABEL ALSO SAYS "KEARNY MESA" WHICH IS FURTHER NORTH.

Ecological:

GRASSLAND.

Threats:

THIS AREA HAS BEEN HIGHLY DEVELOPED SINCE COLLECTIONS MADE; POSSIBLY EXTIRPATED.

General:

SITE BASED ON A 1938 GANDER COLLECTION. A 1940 GANDER COLLECTION FROM "LINDA VISTA" IS ALSO ATTRIBUTED TO THIS SITE.

PLSS: T16S, R03W, Sec. 15 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3627256 E483010
Latitude/Longitude: 32.78310 / -117.18143
Elevation (feet):

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

GAN38S0060 GANDER, F. - GANDER #5481 SD #21058 1938-05-04

GAN40S0018 GANDER, F. - GANDER #8316 UC #768431 1940-04-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92788
EO Index: 14301
Key Quad: La Jolla (3211772)
Element Code: PMLIL1H010
Occurrence Number: 12
Occurrence Last Updated: 2014-07-11

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G2
State: S2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:
MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 2001-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:
KEARNY MESA; BOTH SIDES OF SR 52 NEAR ITS JUNCTION WITH SR 163, MCAS MIRAMAR.

Detailed Location:
MAPPED BY CNDDB AS 5 POLYGONS ACCORDING TO 1986 BAUDER INFORMATION AND 2008 DIGITAL DATA FROM THE CITY OF SAN DIEGO. MAPPED AROUND BAUDER POOLS E4, F1-17, F20, F26, F27, AND U1-13.

Ecological:
ASSOCIATED WITH ANAGALLIS MINIMUS, AVENA BARBATA, BRASSICA NIGRA, BRODIAEA ORCUTTII, BROMUS DIANDRUS, B. MOLLIS, B. RUBENS, CALLITRICHE MARGINATA, CHLOROGALUM PARVIFLORUM, COTULA CORONOPIFOLIA, CRASSULA AQUATICA, C. ERECTA, ETC.

Threats:
LOW-HIGH DISTURBANCE FROM ORVS, BRUSHING, WATER IMPOUNDMENT, DUMPING & HIGHWAY CONSTRUCTION. PORTIONS DEVELOPED.

General:
PRESENT IN THIS AREA IN 1986. OBSERVED IN THE SMALL NORTH-MOST AND EAST-MOST POLYGONS IN 2001. INCLUDES FORMER OCCURRENCES #31 AND #32. A 1978 MORAN COLLECTION FROM "5900 BLOCK, KEARNEY VILLA RD" ATTRIBUTED HERE.

PLSS: T15S, R02W, Sec. 30 (S)
Accuracy: specific area
Area (acres): 264
UTM: Zone-11 N3634001 E487356
Latitude/Longitude: 32.84400 / -117.13510
Elevation (feet): 420

County Summary:
San Diego

Quad Summary:
La Mesa (3211771), La Jolla (3211772)

Sources:

BAC54S0021	BACIGALUPI, R. & G. NEWCOMB - BACIGALUPI #4442 RSA #152506, JEPS #14398 1954-04-30
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
MOR78S0006	MORAN, R. - MORAN #25564 SD #104400 1978-04-27
REC87R0001	REGIONAL ENVIRONMENTAL CONSULTANTS, CAMERON PATTERSON - VERNAL POOL SURVEY RESULTS (RECON #R-1633) TO MR. KICK KIPP, SIM J. HARRIS COMPANY, SAN DIEGO AREA ON KEARNY MESA BETWEEN I-163 & N SIDE SAN CLEMENTE ISLAND. 1987-XX-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92789
Key Quad: Point Loma (3211762)
Occurrence Number: 13
EO Index: 2971
Element Code: PMLIL1H010
Occurrence Last Updated: 2014-06-20

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:
MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 1939-05-18
Last Survey Date: 1939-05-18
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
SIXTH STREET CANYON, SAN DIEGO.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS AROUND THE WEST END OF BALBOA PARK NEAR SIXTH AVENUE.

Ecological:

Threats:

General:
SITE BASED ON A 1939 COVEL COLLECTION. A 1903 ABRAMS COLLECTION FROM "MISSION HILLS" IS ALSO ATTRIBUTED TO THIS SITE; ABRAMS COLLECTION REPRESENTS THE TYPE LOCALITY.

PLSS: T16S, R03W, Sec. 35 (S)
Accuracy: 3/5 mile
Area (acres): 0
UTM: Zone-11 N3621600 E485362
Latitude/Longitude: 32.73211 / -117.15622
Elevation (feet):

County Summary:
San Diego

Quad Summary:
Point Loma (3211762)

Sources:

ABR03S0008	ABRAMS, L. - ABRAMS #3443 SEINET #3132418 & #10533958, NMC #40440, MO #1148443, POM #156370, GH #357560, DS #53356, CAS-BOT-BC #132165 1903-05-09
COV39S0001	COVEL, P. - COVEL #1530 CAS #432346, CAS-BOT-BC #132171 1939-05-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 04188
EO Index: 94005
Key Quad: La Mesa (3211771)
Element Code: PMLIL1H010
Occurrence Number: 24
Occurrence Last Updated: 2014-06-20

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:
MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 1936-04-25
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1936-04-25
Occurrence Rank: None
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Extirpated

Location:
NEAR 50TH AND ADAMS, EAST SAN DIEGO.

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS NEAR THE JUNCTION OF 50TH STREET AND ADAMS AVENUE.

Ecological:

Threats:
LIKELY EXTIRPATED BY DEVELOPMENT.

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1936 GANDER COLLECTION.

PLSS: T16S, R02W, Sec. 21 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3624985 E491876
Latitude/Longitude: 32.76272 / -117.08673
Elevation (feet):

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
GAN36S0105 GANDER, F. - GANDER #1595 SD #15010 1936-04-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92793	**EO Index:**	93920
Key Quad:	La Jolla (3211772)	**Element Code:**	PMLIL1H010
Occurrence Number:	33	**Occurrence Last Updated:**	2014-06-20

Scientific Name: *Bloomeria clevelandii*

Common Name: San Diego goldenstar

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH OF RUNWAYS AND NORTH OF SAN CLEMENTE CANYON, APPROXIMATELY 1.7 AIR MILES ENE OF I-805/SR52 JUNCTION, MCAS MIRAMAR.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO 2008 CITY OF SAN DIEGO DIGITAL DATA. THIS IS WITHIN BAUDER'S POOLS W1-2. IN THE SW 1/4 OF THE NW 1/4 OF SECTION 24.

Ecological:

VERNAL POOLS IN GRASSLAND. ASSOCIATED WITH ANAGALLIS MINIMUS, ARTEMISIA CALIFORNICA, AVENA BARBATA, BRODIAEA ORCUTTII, BROMUS MOLLIS, B. RUBENS, CALLITRICHE MARGINATA, CALYCADENIA TENELLA, CALOCHORTUS SPLENDENS, CENTAURIUM VENUSTUM, ETC.

Threats:

IN 1986, DENSE STAND OF EXOTIC ANNUALS PRESENT AND AREA BRUSHED MANY YEARS AGO.

General:

OBSERVED IN 1986 AND 2001.

PLSS:	T15S, R03W, Sec. 24, NW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3635500 E485951	**Latitude/Longitude:**	32.85750 / -117.15014	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92797	**EO Index:**	2521
Key Quad:	Del Mar (3211782)	**Element Code:**	PMLIL1H010
Occurrence Number:	45	**Occurrence Last Updated:**	2014-06-20

Scientific Name: *Bloomeria clevelandii*

Common Name: San Diego goldenstar

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed:	2003-05-08	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-05-08	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SE OF THE JUNCTION OF MIRAMAR ROAD AND EASTGATE MALL, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

MAPPED BY CNDDB AS BEST GUESS TO ENCOMPASS THE LOCATION DESCRIPTIONS ON SEVERAL COLLECTIONS.

Ecological:

NON-NATIVE GRASSLAND. GROWING ON DRY SOIL IN BETWEEN DRYING VERNAL POOLS. ASSOCIATED WITH ADENOSTOMA FASCICULATUM, ANAGALLIS MINIMUS, ANTIRRHINUM, AVENA BARBATA, BRODIAEA ORCUTTII, BROMUS MOLLIS, B. RUBENS, CALLITRICHE MARGINATA, ETC.

Threats:

DEVELOPMENT MAY HAVE EXTIRPATED PORTIONS OF SITE. TRASH/DUMPING, RUNOFF, GRADING, BRUSHING, ORVS, DIRT ROADS (1986).

General:

SITE BASED ON 2003 DOSSEY COLLECTIONS. 1986 BAUDER OBSERVATIONS FROM POOLS I6B, I6C, X1-4 ARE ALSO ATTRIBUTED TO THIS SITE.

PLSS:	T15S, R03W, Sec. 15, NW (S)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-11 N3637525 E482848	**Latitude/Longitude:**	32.87572 / -117.18334	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772), Del Mar (3211782)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
DOS03S0006	DOSSEY, R. ET AL. - DOSSEY #500 SD #171804 2003-05-08
DOS03S0007	DOSSEY, R. ET AL. - DOSSEY #507 SD #171798 2003-05-08
DOS03S0008	DOSSEY, R. ET AL. - DOSSEY #514 SD #171797 2003-05-08
DOS03S0009	DOSSEY, R. ET AL. - DOSSEY #10518 SD #171805 2003-05-08
REI78S0004	REISENTZ, P. - REISENTZ SN RSA #492378 1978-05-07

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 21260
EO Index: 8563
Key Quad: National City (3211761)
Element Code: PMLIL1H010
Occurrence Number: 46
Occurrence Last Updated: 2014-06-20

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 2001-07-13
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-07-13
Occurrence Rank: Unknown
Owner/Manager: DOD-NAVY
Trend: Unknown
Presence: Presumed Extant

Location:

CHOLLAS HEIGHTS NAVAL RADIO STATION.

Detailed Location:

MAPPED BY CNDDB TO ENCOMPASS A 1991 DUNHAM MAP AND A 2002 RECON ENVIRONMENTAL MAP.

Ecological:

NON-NATIVE GRASSLAND AND LOW GROWING COASTAL SAGE SCRUB. ASSOCIATED WITH PURPLE NEEDLEGRASS, NON-NATIVE GRASSES, SISYRINCHIUM BELLUM, CRYPTANTHA SP., HARPAGONELLA PALMERI, AND ERYNGIUM ARISTULATUM VAR. PARISHII.

Threats:

DEVELOPMENT COULD THREATEN.

General:

OBSERVED IN NORTHERN PORTION OF SITE IN 1991. OBSERVED THROUGHOUT SITE IN 2001.

PLSS: T16S, R02W, Sec. 35, NW (S)
Accuracy: specific area
Area (acres): 25
UTM: Zone-11 N3622543 E494220
Latitude/Longitude: 32.74070 / -117.06169
Elevation (feet): 460

County Summary:

San Diego

Quad Summary:

National City (3211761)

Sources:

DUN91R0001 DUNHAM, K. - BIOLOGICAL TECHNICAL REPORT FOR MILITARY HOUSING PROJECT CHOLLAS HEIGHTS TRANSMITTER STATION. SEVERAL RARE PLANTS, ANIMALS, AND NC'S. 1991-04-01

LOE02R0001 LOEFFLER, W. (RECON ENVIRONMENTAL, INC.) - ANNUAL REPORT FOR COASTAL CALIFORNIA GNATCATCHER POPULATION SURVEYS ON THREE NAVY FAMILY HOUSING AREAS, SAN DIEGO COUNTY, CALIFORNIA 2002-07-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	55218	**EO Index:**	55218
Key Quad:	La Jolla (3211772)	**Element Code:**	PMLIL1H010
Occurrence Number:	61	**Occurrence Last Updated:**	2014-06-23

Scientific Name: *Bloomeria clevelandii*

Common Name: San Diego goldenstar

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed:	2003-09-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2003-09-XX	**Occurrence Rank:**	Fair
Owner/Manager:	CITY OF SAN DIEGO, UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

EAST AND SOUTH ENDS OF MONTGOMERY FIELD.

Detailed Location:

MAPPED BY CNDDB AS 3 POLYGONS. NORTHERN 2 POLYGONS BASED ON 1986 BAUDER REPORT WHICH NOTES THIS SPECIES AS OCCURRING IN THE N1-4 AND N5-6 POOLS. SOUTHERN POLYGON BASED ON A 2003 NORDBY SURVEY FORM OF PROJECT SITE.

Ecological:

COASTAL TERRACE DISSECTED ALONG EASTERN PORTION BY STREAM, DOMINATED BY NON-NATIVE GRASSLAND, AREAS OF DIEGAN COASTAL SAGE SCRUB, SOUTHERN WILLOW SCRUB, & ORNAMENTAL EUCALYPTUS. PLANT OCCURS IN GRASSLAND IN VICINITY OF VERNAL POOLS.

Threats:

PORTION OF SOUTHERN POLYGON TO BE IMPACTED BY DEVELOPMENT IN 2003.

General:

OBSERVED IN TWO NORTHERN POLYGONS IN 1986; "VERY DENSE" IN 2ND NORTH-MOST POLYGON IN 1986. 306 INDIVIDUALS OBSERVED IN SOUTHERN POLYGON IN 2003.

PLSS:	T16S, R02W, Sec. 06, W (S)	**Accuracy:**	non-specific area	**Area (acres):**	77
UTM:	Zone-11 N3630597 E487813	**Latitude/Longitude:**	32.81329 / -117.13018	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771), La Jolla (3211772)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
NOR03F0001	NORDBY, C. - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2003-09-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 55220
EO Index: 55220
Key Quad: La Jolla (3211772)
Element Code: PMLIL1H010
Occurrence Number: 62
Occurrence Last Updated: 2014-06-23

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:
MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 2003-05-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-05-12
Occurrence Rank: Fair
Owner/Manager: PVT-SDGE
Trend: Unknown
Presence: Presumed Extant

Location:
GRAVEL PIT NORTH OF SAN DIEGO RIVER, APPROXIMATELY 0.8 AIR MILE NORTHEAST OF FRIARS ROAD AND HIGHWAY 805.

Detailed Location:
ONE COLONY MAPPED PER COORDINATES PROVIDED, IN THE NE 1/4 OF THE NW 1/4 OF SECTION 19.

Ecological:
MESA TOP WITH RUDERAL VEGETATION (BLACK MUSTARD & GOLDEN TARPLANT) IN A VERNAL POOL/MIMA MOUND COMPLEX.

Threats:
SITE ALONG SDG&E ACCESS ROAD AND TRANSMISSION LINE EASEMENTS.

General:
50 INDIVIDUALS OBSERVED IN 2003.

PLSS: T16S, R02W, Sec. 18, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3627829 E487885
Latitude/Longitude: 32.78833 / -117.12937
Elevation (feet): 360

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
KIM03F0010 KIM, C. (RECON ENVIRONMENTAL, INC.) - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2003-05-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 63218
EO Index: 63310
Key Quad: Imperial Beach (3211751)
Element Code: PMLIL1H010
Occurrence Number: 69
Occurrence Last Updated: 2005-11-22

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 1992-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1992-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

JUST NORTH OF OTAY VALLEY ROAD AT CROSSING OF OTAY RIVER; EAST OF CHULA VISTA.

Detailed Location:

CENTER OF THE NORTH 1/2 OF PROJECTED SECTION 20.

Ecological:

VERNALLY MOIST CRACKED CLAY SOIL, ALONG THE PERIPHERY OF AN ARTEMISIA CALIFORNICA DOMINATED DIEGAN SAGE SCRUB. FOUND WITH HEMIZONIA CONJUGENS.

Threats:

General:

APPROXIMATELY 30 INDIVIDUALS OBSERVED IN 1992.

PLSS: T18S, R01W, Sec. 20, N (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3606291 E499438
Latitude/Longitude: 32.59411 / -117.00598
Elevation (feet): 200

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

ROB92R0002 ROBERTS, ET AL. - OTAY RIVER VALLEY RESOURCE ENHANCEMENT PLAN PREPARED FOR THE COASTAL CONSERVANCY AND THE CITY OF CHULA VISTA 1992-09-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 63219
Key Quad: La Mesa (3211771)
Occurrence Number: 70
EO Index: 63311
Element Code: PMLIL1H010
Occurrence Last Updated: 2005-11-22

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 2003-04-18
Last Survey Date: 2003-04-18
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

SOUTH EDGE OF SAN CLEMENTE CANYON EAST OF I-15, JUST NORTH OF THE RIFLE RANGE, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

2 CNDDB POLYGONS.

Ecological:

OPEN AREAS WITHIN CHAMISE CHAPARRAL. THE LARGER OPENINGS APPEARED TO HAVE DRY VERNAL POOLS WITHIN. FOUND WITH HEMIZONIA FASCICULATA, SILENE SPP., CENTAUREA SPP., CENTAURIUM VENUSTUM, VULPIA MYUROS, AND BROMUS MADRITENSIS.

Threats:

INFANTRY TRAINING, ORDINANCE OPERATIONS, SMALL ARMS RANGES, AND WAR HOUSING.

General:

14404 INDIVIDUALS OBSERVED IN 2003.

PLSS: T15S, R02W, Sec. 17, NE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3637038 E490234
Latitude/Longitude: 32.87142 / -117.10438
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

DAV03F0015 DAVIS, C. - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2003-04-18

TIE04D0001 TIERRA DATA, INC. - SHAPEFILES FOR RARE PLANT SURVEYS AT MCAS MIRAMAR IN 2001 AND 2003. 2004-06-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 63221
EO Index: 63313
Key Quad: La Mesa (3211771)
Element Code: PMLIL1H010
Occurrence Number: 72
Occurrence Last Updated: 2005-11-23

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:
MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 2001-05-29
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-05-29
Occurrence Rank: Good
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:
SOUTHERN SIDE OF MURPHY CANYON, JUST EAST OF THE SECOND SAN DIEGO AQUEDUCT; 1.1 AIR MILES EAST OF I-15.

Detailed Location:
SW 1/4 OF SE 1/4 OF SECTION 16.

Ecological:

Threats:

General:
10412 INDIVIDUALS OBSERVED IN 2001.

PLSS: T15S, R02W, Sec. 16, SE (S)
Accuracy: specific area
Area (acres): 0
UTM: Zone-11 N3636101 E491502
Latitude/Longitude: 32.86298 / -117.09082
Elevation (feet): 580

County Summary:
San Diego

Quad Summary:
La Mesa (3211771)

Sources:
TIE04D0001 TIERRA DATA, INC. - SHAPEFILES FOR RARE PLANT SURVEYS AT MCAS MIRAMAR IN 2001 AND 2003. 2004-06-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 63222
EO Index: 63314
Key Quad: Poway (3211781)
Element Code: PMLIL1H010
Occurrence Number: 73
Occurrence Last Updated: 2005-11-23

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 2001-05-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-05-22
Occurrence Rank: Good
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:

ALONG THE SOUTHEASTERN EDGE OF SAN CLEMENTE CANYON, 0.7-2.0 MI NORTHEAST OF I-15, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

ALSO THROUGH THE SE 1/4 OF SECTION 9, AND NE 1/4 OF SECTION 16.

Ecological:

CLAY SOILS IN OPEN GRASSLAND, AND IN OPENINGS WITHIN THE ADJACENT SCRUB HABITAT. FOUND WITH NASSELLA PULCHRA, SISYRINCHIUM BELLUM, GNAPHALIUM CALIFORNICUM, SELAGINELLA CINERESCENS, PLANTAGO ERECTA, AND PENTACHAETA AUREA.

Threats:

INFANTRY TRAINING, ORDINANCE OPERATIONS, SMALL ARMS RANGES, WAR HOUSING, AND USE OF MILITARY VEHICLES.

General:

5,714,927 INDIVIDUALS OBSERVED BY TIERRA DATA, INC IN 2001.

PLSS: T15S, R02W, Sec. 10, SW (S)
Accuracy: specific area
Area (acres): 126
UTM: Zone-11 N3637624 E492268
Latitude/Longitude: 32.87673 / -117.08264
Elevation (feet): 600

County Summary:

San Diego

Quad Summary:

La Mesa (3211771), Poway (3211781)

Sources:

ROE01F0005 ROESCH, K. - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2001-05-09

TIE04D0001 TIERRA DATA, INC. - SHAPEFILES FOR RARE PLANT SURVEYS AT MCAS MIRAMAR IN 2001 AND 2003. 2004-06-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92818
EO Index: 93954
Key Quad: Imperial Beach (3211751)
Element Code: PMLIL1H010
Occurrence Number: 94
Occurrence Last Updated: 2014-06-23

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 1990-06-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1990-06-XX
Occurrence Rank: None
Owner/Manager: PVT
Trend: Unknown
Presence: Extirpated

Location:

BETWEEN TELEGRAPH CANYON AND POGGI CANYON; APPROXIMATELY 1.5 AIR MILES NW OF OTAY RANCH, EAST OF CHULA VISTA.

Detailed Location:

Ecological:

OCCURS NEAR A POPULATION OF HEMIZONIA CONJUGENS.

Threats:

BASED ON 2012 AERIAL IMAGERY, SITE LOOKS TO HAVE BEEN EXTIRPATED BY DEVELOPMENT.

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1990 ZIPPIN MAP.

PLSS: T18S, R01W, Sec. 08, NW (S)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-11 N3609216 E499071
Latitude/Longitude: 32.62050 / -117.00990
Elevation (feet): 450

County Summary:

San Diego

Quad Summary:

Imperial Beach (3211751)

Sources:

ZIP90M0001 ZIPPIN, D. - MAPS OF SEVERAL RARE PLANTS IN THE OTAY RANCH AREA, ACCOMPANIES THE BOTANICAL RESOURCES REPORT FOR THE OTAY RANCH PROPERTY 1990-XX-XX

ZIP90R0001 ZIPPIN, D. - BOTANICAL RESOURCES REPORT FOR THE OTAY RANCH PROPERTY 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71919
Key Quad: La Mesa (3211771)
Occurrence Number: 96
EO Index: 93956
Element Code: PMLIL1H010
Occurrence Last Updated: 2014-06-23

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 1986-04-07
Last Survey Date: 1986-04-07
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

JUST NW OF THE INTERSECTION OF AMAYA DRIVE AND FLETCHER PARKWAY, LA MESA.

Detailed Location:

BETWEEN FENCED SCHOOLYARD AND AMAYA DRIVE. FISH AND GAME VERNAL POOL COMPLEX LL. IN THE NW 1/4 OF THE NE 1/4 OF SECTION 17.

Ecological:

VERNAL POOLS IN A VACANT LOT WITHIN AN URBAN SETTING. TWO SMALL, SHALLOW POOLS SURROUNDED BY COASTAL SAGE SCRUB. ASSOCIATED WITH POGOGYNE ABRAMSII AND BRODIAEA ORCUTTII.

Threats:

EXTENSIVE DEVELOPMENT IN THIS VICINITY. EVIDENCE OF TRASH DUMPING.

General:

OBSERVED IN 1986.

PLSS: T16S, R01W, Sec. 17, NE (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3627671 E499615
Latitude/Longitude: 32.78697 / -117.00410
Elevation (feet): 600

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

BAU86R0001 BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92820
EO Index: 93957
Key Quad: La Mesa (3211771)
Element Code: PMLIL1H010
Occurrence Number: 97
Occurrence Last Updated: 2017-11-01

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G2
State: S2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 2016-04-04
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2016-04-04
Occurrence Rank: Unknown
Owner/Manager: CNLM
Trend: Unknown
Presence: Presumed Extant

Location:

NORTH OF GROSSMONT COLLEGE, EL CAJON.

Detailed Location:

WITHIN BAUDER'S Q POOLS. MAPPED ACCORDING TO 2015 AND 2016 SDMMP DIGITAL DATA, IN THE NE 1/4 OF THE SW 1/4 OF SECTION 32.

Ecological:

COASTAL SAGE SCRUB AND GRASSLAND. ASSOCIATED WITH ANAGALLIS MINIMUS, ARTEMISIA CALIFORNICA, AVENA BARBATA, BACCHARIS SAROTHROIDES, BROMUS RUBENS, CALLITRICHE MARGINATA, CENTAURIUM VENUSTUM, CHLOROGALUM PARVIFLORUM, ETC.

Threats:

ORV DAMAGE AND TRASH/DUMPING PRESENT IN 1986. NON-NATIVES, GOPHERS.

General:

OBSERVED IN BAUDER'S Q POOLS IN 1986. 2092 PLANTS OBSERVED IN 2015, 106 PLANTS OBSERVED IN 2016.

PLSS: T15S, R01W, Sec. 32, SW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3631799 E499313
Latitude/Longitude: 32.82421 / -117.00734
Elevation (feet): 760

County Summary:

San Diego

Quad Summary:

La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92821
Key Quad: La Mesa (3211771)
Occurrence Number: 98
EO Index: 93958
Element Code: PMLIL1H010
Occurrence Last Updated: 2014-06-23

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:
MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 2001-XX-XX
Last Survey Date: 2001-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
JUST EAST OF THE MOUTH OF LITTLE SYCAMORE CANYON, APPROXIMATELY 0.2 AIR MILE NE OF THE JUNCTION OF SR 52 AND MAST BLVD.

Detailed Location:
MAPPED BY CNDDB AS 2 POLYGONS IN THE SE 1/4 OF THE SW 1/4 OF SECTION 19 AND THE NE 1/4 OF THE NW 1/4 OF SECTION 30 ACCORDING TO 2008 CITY OF SAN DIEGO DIGITAL DATA.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS 2008 CITY OF SAN DIEGO DIGITAL DATA; OBSERVED IN 2001.

PLSS: T15S, R01W, Sec. 19, SW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3634443 E497662
Latitude/Longitude: 32.84805 / -117.02498
Elevation (feet): 400

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92822	**EO Index:**	93959
Key Quad:	La Mesa (3211771)	**Element Code:**	PMLIL1H010
Occurrence Number:	99	**Occurrence Last Updated:**	2014-06-23

Scientific Name: *Bloomeria clevelandii*

Common Name: San Diego goldenstar

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

JUST EAST OF LITTLE SYCAMORE CANYON, APPROXIMATELY 0.78 AIR MILE NNE OF THE JUNCTION OF SR 52 AND MAST BLVD.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS IN THE SE 1/4 OF THE NW 1/4 OF SECTION 19 AND NEAR THE CENTER OF SECTION 19 ACCORDING TO 2008 CITY OF SAN DIEGO DIGITAL DATA.

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS 2008 CITY OF SAN DIEGO DIGITAL DATA; OBSERVED IN 2001.

PLSS:	T15S, R01W, Sec. 19 (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3635457 E497663	**Latitude/Longitude:**	32.85720 / -117.02497	**Elevation (feet):**	700

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92824	**EO Index:**	93960
Key Quad:	La Mesa (3211771)	**Element Code:**	PMLIL1H010
Occurrence Number:	100	**Occurrence Last Updated:**	2014-06-23

Scientific Name: *Bloomeria clevelandii*

Common Name: San Diego goldenstar

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

APPROXIMATELY 0.6 AIR MILE ENE OF THE JUNCTION OF SR 52 AND MAST BLVD, BETWEEN SYCAMORE CYN AND LITTLE SYCAMORE CYN.

Detailed Location:

MAPPED BY CNDDB IN THE SW 1/4 OF THE SE 1/4 OF SECTION 19 ACCORDING TO 2008 CITY OF SAN DIEGO DIGITAL DATA.

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS 2008 CITY OF SAN DIEGO DIGITAL DATA; OBSERVED IN 2001.

PLSS:	T15S, R01W, Sec. 19, SE (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3634679 E498242	**Latitude/Longitude:**	32.85019 / -117.01877	**Elevation (feet):**	500

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

SDG08D0001 CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92826
EO Index: 93961
Key Quad: La Mesa (3211771)
Element Code: PMLIL1H010
Occurrence Number: 101
Occurrence Last Updated: 2017-11-14

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 2016-04-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2016-04-14
Occurrence Rank: Good
Owner/Manager: DOD-MCAS MIRAMAR, CITY OF SDG
Trend: Unknown
Presence: Presumed Extant

Location:

FROM JUST WEST OF SPRING CANYON EXTENDING WEST TO OAK CANYON.

Detailed Location:

INCLUDES EAST ELLIOTT SITE. MAPPED BY CNDDB AS MANY POLYGONS ACCORDING TO 2005 CITY OF SAN DIEGO MAP, 2007 RECON DIGITAL DATA, AND 2008 CITY OF SAN DIEGO DIGITAL DATA.

Ecological:

CHAMISE CHAPARRAL AND COASTAL SAGE SCRUB RECOVERING FROM 2003 FIRE. ASSOCIATED WITH NASSELLA PULCHRA, ADENOSTOMA FASCICULATUM, LOTUS SCOPARIUS, GUTIERREZIA CALIFORNICA, BROMUS DIANDRUS, B. MADRITENSIS SSP. RUBENS, HYPOCHAERIS, ETC.

Threats:

POSSIBLY THREATENED BY REPEATED BURNS. NON-NATIVES, SD&G ACCESS ROAD, MTN BIKES, TRAILS.

General:

POPULATION NUMBERS ARE FOR PORTIONS OF OCCURRENCE: 372 IN 2003, 235,923 IN 2004, 13,755 IN 2008, 160 IN 2009, 16 IN 2014 (LOW RAINFALL YEAR), 749 IN 2015, 14+ PLANTS IN 2016.

PLSS: T15S, R02W, Sec. 14 (S)
Accuracy: specific area
Area (acres): 79
UTM: Zone-11 N3636708 E495243
Latitude/Longitude: 32.86848 / -117.05084
Elevation (feet): 700

County Summary:

San Diego

Quad Summary:

La Mesa (3211771), Poway (3211781)

Sources:

MIL09F0065	MILLER, B. ET AL. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2009-04-17
MIL09F0066	MILLER, B. ET AL. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2009-04-17
MIL09F0067	MILLER, B. ET AL. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2009-04-17
MIL09F0068	MILLER, B. ET AL. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2009-04-17
REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05
SCH03F0035	SCHEID, G. - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2003-05-29
SCH04F0038	SCHEID, G. - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2004-04-15
SDC05R0001	CITY OF SAN DIEGO, PLANNING DEPT., MSCP DIVISION - MSCP RARE PLANT MONITORING: FIELD MONITORING METHODS 2005 -09-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92827
Key Quad: La Mesa (3211771)
Occurrence Number: 102
EO Index: 93962
Element Code: PMLIL1H010
Occurrence Last Updated: 2014-06-23

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 2003-05-01
Last Survey Date: 2003-05-01
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:

NORTH SIDE OF MURPHY CANYON JUST SE OF RIFLE RANGE ON TOPO, KEARNY MESA, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO 2007 RECON DIGITAL DATA IN THE SW 1/4 OF THE SW 1/4 OF SECTION 16.

Ecological:

CHAMISE CHAPARRAL, NON-NATIVE GRASSLAND IN OPENINGS. WITH ADENOSTOMA FASCICULATUM, ERODIUM SP., HEMIZONIA FASCICULATA, NAVARRETIA HAMATA, AND SELAGINELLA CINERASCENS. REDDING GRAVELLY LOAM. 2 TO 9% SLOPES. OPEN MOUND TOPOGRAPHY.

Threats:

DISTURBANCE/POSSIBLE THREAT IS TRASH.

General:

6 INDIVIDUALS OBSERVED IN 2003.

PLSS: T15S, R02W, Sec. 16, SW (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3636308 E490708
Latitude/Longitude: 32.86484 / -117.09931
Elevation (feet): 500

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

REC07D0001 RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05

SAU03F0004 SAUCEDO-ORTIZ, D. - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2003-05-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92828
Key Quad: La Mesa (3211771)
Occurrence Number: 103
EO Index: 93963
Element Code: PMLIL1H010
Occurrence Last Updated: 2014-07-14

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 2003-05-01
Last Survey Date: 2003-05-01
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:

BETWEEN MURPHY CANYON AND SAN CLEMENTE CANYON; ABOUT 0.3 AIR MILE SW OF RIFLE RANGE ON TOPO, KEARNY MESA, MCAS MIRAMAR.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO 2007 RECON DIGITAL DATA IN THE NORTH 1/2 OF SECTION 20.

Ecological:

NON-NATIVE GRASSLAND WITH NATIVE BUNCH GRASSES. WITH AVENA FATUA, BROMUS SP., HEMIZONIA FASCICULATA, ERODIUM SP., ERIOGONUM FASCICULATUM, AND NASSELLA PULCHRA. REDDING GRAVELLY LOAM. 2 TO 9% SLOPES. GENERALLY FLAT.

Threats:

DISTURBANCE/POSSIBLE THREAT IS TRASH.

General:

1552 INDIVIDUALS OBSERVED IN 2003.

PLSS: T15S, R02W, Sec. 20, N (S)
UTM: Zone-11 N3635850 E489740
Accuracy: specific area
Latitude/Longitude: 32.86070 / -117.10965
Area (acres): 6
Elevation (feet): 480

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05
SAU03F0003	SAUCEDO-ORTIZ, D. - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2003-05-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92829
EO Index: 93964
Key Quad: La Mesa (3211771)
Element Code: PMLIL1H010
Occurrence Number: 104
Occurrence Last Updated: 2014-06-30

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1

CNDDB Element Ranks: **Global:** G2
State: S2
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 2003-05-08
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-05-08
Occurrence Rank: Good
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:

BETWEEN MURPHY CANYON AND ELANUS CANYON; APPROXIMATELY 1-1.3 AIR MILES NE OF SR52/I-15 JUNCTION.

Detailed Location:

MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO 2007 RECON DIGITAL DATA. THIS IS IN THE VICINITY OF BAUDER'S AA8 POOLS.

Ecological:

VERNAL POOLS IN CHAMISE WITH WELL-DEVELOPED MOUNDS. THE RARE POGOGYNE ABRAMSII, BRODIAEA ORCUTTII, AND ISOETES ORCUTTII ALSO OCCUR IN THIS AREA. OTHER ASSOCIATES INCLUDE ADENOSTOMA FASCICULATUM, HEMIZONIA FASCICULATA, ERIOPHYLLUM, ETC.

Threats:

DIRT ROAD BISECTS SITE, ORV DAMAGE (1986).

General:

OBSERVED IN BAUDER'S AA8 POOLS IN 1986. 20,244 INDIVIDUALS OBSERVED IN 2003.

PLSS: T15S, R02W, Sec. 20, SE (S)
Accuracy: specific area
Area (acres): 10
UTM: Zone-11 N3634716 E490339
Latitude/Longitude: 32.85048 / -117.10324
Elevation (feet): 450

County Summary:	Quad Summary:
San Diego	La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
REC07D0001	RECON - MCAS MIRAMAR RARE PLANT SURVEY DIGITAL DATA. 2007-09-05
SAU03F0010	SAUCEDO-ORTIZ, D. - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2003-05-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92830	**EO Index:**	93965
Key Quad:	La Mesa (3211771)	**Element Code:**	PMLIL1H010
Occurrence Number:	105	**Occurrence Last Updated:**	2017-10-31

Scientific Name: *Bloomeria clevelandii*

Common Name: San Diego goldenstar

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed:	2009-04-24	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-04-24	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

BETWEEN MURPHY CANYON AND ELANUS CANYON; JUST SE OF SR52/I-15 JUNCTION, MCAS MIRAMAR.

Detailed Location:

MAPPED BY CNDDB AS 5 POLYGONS ACCORDING TO 2008 CITY OF SAN DIEGO DIGITAL DATA. THIS IS IN THE VICINITY OF BAUDER'S AA 3-7 POOLS.

Ecological:

VERNAL POOLS IN MIXED CHAPARRAL, CHAMISE, AND COASTAL SAGE SCRUB. ASSOCIATED WITH POGOGYNE ABRAMSII, BRODIAEA ORCUTTII, ISOETES ORCUTTII, ERYNGIUM ARISTULATUM, ACHILLEA MILLEFOLIUM, ADENOSTOMA FASCICULATUM, ALLIUM HAEMATOCHITON, ETC.

Threats:

POSSIBLE THREATS IN 1986 INCLUDE ORVS AND BRUSHING FOR FIREBREAKS.

General:

OBSERVED IN THIS AREA IN 1986 AND 2001. A 2009 SOLOMESCH COLLECTION IS ALSO ATTRIBUTED HERE BUT LOCATION DESCRIPTION CONTRADICTS GIVEN COORDINATES; COORDINATES ARE FROM VICINITY OF THIS OCCURRENCE.

PLSS:	T15S, R02W, Sec. 29, SW (S)	**Accuracy:**	specific area	**Area (acres):**	5
UTM:	Zone-11 N3633385 E489230	**Latitude/Longitude:**	32.83846 / -117.11508	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SOL09S0042	SOLOMESHCH, A. ET AL. - SOLOMESHCH SN DAV #161986, #161987, #213924, #213923 2009-04-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92831	**EO Index:**	93966
Key Quad:	La Mesa (3211771)	**Element Code:**	PMLIL1H010
Occurrence Number:	106	**Occurrence Last Updated:**	2017-10-31

Scientific Name: *Bloomeria clevelandii*

Common Name: San Diego goldenstar

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed:	2003-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-04-21	**Occurrence Rank:**	None
Owner/Manager:	CITY OF SAN DIEGO	**Trend:**	Decreasing
Presence:	Possibly Extirpated		

Location:

MISSION TRAILS REGIONAL PARK; APPROXIMATELY 0.4 AIR MILE E OF THE JUNCTION OF SR 52 AND THE SECOND SAN DIEGO AQUEDUCT.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO 2008 CITY OF SAN DIEGO DIGITAL DATA IN THE SE 1/4 OF THE NW 1/4 OF SECTION 27.

Ecological:

DISTURBED COASTAL SAGE SCRUB. CO-OCCURS WITH BLOOMERIA CROCEA.

Threats:

THREATENED BY REPEATED FIRE AND HIGH COVER OF NON-NATIVE EXOTICS.

General:

12 PLANTS OBSERVED IN 2001, 0 IN 2002, 6 IN 2003. 0 IN 2008, 2009, 2014, 2015, 2016. PLANTS HAVE NOT BEEN SEEN SINCE 2003 FIRE.

PLSS:	T15S, R02W, Sec. 27, NW (S)	**Accuracy:**	specific area	**Area (acres):**	2
UTM:	Zone-11 N3633924 E492714	**Latitude/Longitude:**	32.84335 / -117.07784	**Elevation (feet):**	700

County Summary:	**Quad Summary:**
San Diego	La Mesa (3211771)

Sources:

MIL09F0061	MILLER, B. ET AL. (CITY OF SAN DIEGO) - FIELD SURVEY FORM FOR BLOOMERIA CLEVELANDII 2009-04-17
SDG04R0008	CITY OF SAN DIEGO - CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM: SUMMARY OF MONITORING RESULTS FOR BLOOMERIA CLEVELANDII (MUILLA CLEVELANDII) 2004-04-XX
SDG08D0001	CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX
SDG09U0001	CITY OF SAN DIEGO - SUMMARY RESULTS OF RARE PLANT FIELD MONITORING, CITY OF SAN DIEGO, MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) 2009-XX-XX
SDM14D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2014 RESULTS 2014-XX-XX
SDM15D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2016; 2015 RESULTS 2015-XX-XX
SDM16D0001	SAN DIEGO MANAGEMENT & MONITORING PROGRAM - RARE PLANT INSPECT AND MANAGE MONITORING 2014-2018; 2016 RESULTS 2016-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92832
Key Quad: La Jolla (3211772)
Occurrence Number: 107
EO Index: 93967
Element Code: PMLIL1H010
Occurrence Last Updated: 2014-07-08

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 1986-04-07
Last Survey Date: 1986-04-07
Owner/Manager: UNKNOWN
Presence: Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

MISSION VILLAGE; AT THE SOUTH END OF AINSLEY ROAD, EAST SIDE OF THE MOUTH OF MURRAY CANYON.

Detailed Location:

BAUDER'S O1 POOLS.

Ecological:

AREA CONTAINS ABOUT 6 POOLS PLUS SOME EXCAVATED AREAS WITH STANDING WATER AND POOL PLANTS GROWING IN THEM. ASSOCIATED WITH ERYNGIUM ARISTULATUM, ANAGALLIS MINIMUS, ARTEMISIA CALIFORNICA, BACCHARIS SAROTHROIDES, BRASSICA NIGRA, ETC.

Threats:

ORV DAMAGE (POSSIBLY OLD), AREA HAS BEEN BRUSHED. BASED ON 2012 AERIAL IMAGERY, THIS AREA SCRAPED FOR DEVELOPMENT.

General:

OBSERVED IN 1986.

PLSS: T16S, R03W, Sec. 13, SW (S)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-11 N3626833 E485847
Latitude/Longitude: 32.77932 / -117.15112
Elevation (feet): 250

County Summary:	Quad Summary:
San Diego	La Jolla (3211772)

Sources:

BAU86R0001 BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92833
Key Quad: La Jolla (3211772)
Occurrence Number: 108
EO Index: 93968
Element Code: PMLIL1H010
Occurrence Last Updated: 2014-06-23

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:
MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 1971-04-23
Last Survey Date: 1971-04-23
Owner/Manager: PVT
Presence: Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
SOUTH OF CLAIREMONT MESA ROAD AND WEST OF MISSILE ROAD, KEARNY MESA.

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS AROUND BEAUCHAMP'S BB VERNAL POOLS WHICH ARE IN THE VICINITY OF HIS COLLECTION LOCATION.

Ecological:
ALONG EDGE OF DRIED VERNAL POOLS.

Threats:
SITE HAS SINCE BEEN EXTIRPATED BY DEVELOPMENT.

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1971 BEAUCHAMP COLLECTION.

PLSS: T15S, R02W, Sec. 31, NW (S)
UTM: Zone-11 N3632453 E487532
Accuracy: 1/10 mile
Latitude/Longitude: 32.83004 / -117.13320
Area (acres): 0
Elevation (feet): 427

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
BEA71S0061 BEAUCHAMP, R. - BEAUCHAMP #2222 SD #128234, SBBG #92230 1971-04-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	92834	**EO Index:**	93969
Key Quad:	La Jolla (3211772)	**Element Code:**	PMLIL1H010
Occurrence Number:	109	**Occurrence Last Updated:**	2014-06-23

Scientific Name: *Bloomeria clevelandii*

Common Name: San Diego goldenstar

Listing Status: **Federal:** None

State: None

CNDDB Element Ranks: **Global:** G2

State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed:	2001-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-XX-XX	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

APPROXIMATELY 0.5 AIR MILE NW OF THE JUNCTION OF SR 163 AND CLAIREMONT MESA BLVD, KEARNY MESA, MCAS MIRAMAR.

Detailed Location:

MAPPED BY CNDDB ACCORDING TO 2008 CITY OF SAN DIEGO DIGITAL DATA IN THE NE 1/4 OF THE SW 1/4 OF SECTION 25.

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS 2008 CITY OF SAN DIEGO DIGITAL DATA; OBSERVED IN 2001.

PLSS:	T15S, R03W, Sec. 25, SW (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3633365 E486383	**Latitude/Longitude:**	32.83825 / -117.14549	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

SDG08D0001 CITY OF SAN DIEGO, PLANNING DEPT. - CITY OF SAN DIEGO MULTIPLE SPECIES CONSERVATION PROGRAM 2008 RARE PLANT MONITORING SPATIAL DATA 2008-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92835
Key Quad: La Jolla (3211772)
Occurrence Number: 110
EO Index: 93970
Element Code: PMLIL1H010
Occurrence Last Updated: 2014-06-23

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:
CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:
MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 2003-04-21
Last Survey Date: 2003-04-21
Owner/Manager: DOD-MCAS MIRAMAR
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
ON THE NORTH SIDE OF FLIGHT LINE ROAD, 350 FT NORTH OF SIDE ENTRY GATE WEST OF FLIGHT LINE ROAD, MCAS MIRAMAR.

Detailed Location:
MAPPED BY CNDDB BASED ON COORDINATES ON COLLECTION; SOURCE OF COORDINATES UNCLEAR BUT THEY APPEAR TO LINE UP WITH LOCATION DESCRIPTION.

Ecological:
ON MESA TOP IN OPENING OF CHAMISE CHAPARRAL WITHIN VERNAL POOL.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2003 DOSSEY COLLECTION. NEEDS FIELDWORK.

PLSS: T15S, R03W, Sec. 14 (S)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N3636799 E484881
Latitude/Longitude: 32.86920 / -117.16160
Elevation (feet):

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:
DOS03S0010 DOSSEY, R. ET AL. - DOSSEY #10252 SD #171803 2003-04-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 92837
EO Index: 93973
Key Quad: Poway (3211781)
Element Code: PMLIL1H010
Occurrence Number: 112
Occurrence Last Updated: 2014-06-30

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.1
Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 1986-04-10
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1986-04-10
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:

BETWEEN KEARNY VILLA ROAD AND I-15, APPROXIMATELY 0.3 AIR MILE NORTH OF SAN CLEMENTE CANYON, MIRAMAR MCAS.

Detailed Location:

BAUDER'S AA9 POOLS.

Ecological:

VERNAL POOLS IN GRASSLAND WITH POGOGYNE ABRAMSII, BRODIAEA ORCUTTII, ADENOSTOMA FASCICULATUM, AVENA BARBATA, BACCHARIS SAROTHROIDES, CALLITRICHE MARGINATA, COTULA CORONOPIFOLIA, DESCHAMPSIA DANTHONIOIDES, DOWNINGIA CUSPIDATA, ETC.

Threats:

ROAD APPEARS TO HAVE A DAMMING EFFECT CAUSING LONGER THAN NATURAL WATER DURATIONS. ORV DAMAGE, AREA BRUSHED.

General:

OBSERVED IN 1986.

PLSS: T15S, R02W, Sec. 08, SW (S)
Accuracy: non-specific area
Area (acres): 51
UTM: Zone-11 N3637647 E489434
Latitude/Longitude: 32.87691 / -117.11294
Elevation (feet): 500

County Summary:

San Diego

Quad Summary:

La Mesa (3211771), Poway (3211781)

Sources:

BAU86R0001 BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A7048
Key Quad: La Jolla (3211772)
Occurrence Number: 133

EO Index: 108839
Element Code: PMLIL1H010
Occurrence Last Updated: 2017-11-01

Scientific Name: *Bloomeria clevelandii*
Common Name: San Diego goldenstar

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G2
State: S2

Rare Plant Rank: 1B.1

Other Lists: BLM_S-Sensitive
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank
SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:

CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Micro Habitat:

MESA GRASSLANDS, SCRUB EDGES; CLAY SOILS. OFTEN ON MOUNDS BETWEEN VERNAL POOLS IN FINE, SANDY LOAM. 60-465 M.

Last Date Observed: 1979-04-22
Last Survey Date: 1979-04-22
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

TOP OF CANYON BETWEEN RHOR PLACE AND MOBLEY STREET IN SAN DIEGO.

Detailed Location:

MAPPED BY CNDDB AS BEST GUESS AROUND THE OPEN SPACE AREAS NEAR ROHR PLACE JUST EAST OF MOBLEY STREET.

Ecological:

WITH BROMUS DIANDRUS, CEANOTHUS SP, AND MIMULUS PUNICEUS IN CLAY SOIL ON GENTLE NORTH-FACING SLOPE.

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1979 ENGLE COLLECTION; MENTIONED AS "COMMON" IN 1979. NEEDS FIELDWORK.

PLSS: T16S, R02W, Sec. 7, W (S)
Accuracy: 1/5 mile
Area (acres): 70

UTM: Zone-11 N3628956 E487527
Latitude/Longitude: 32.79849 / -117.13322
Elevation (feet):

County Summary:

San Diego

Quad Summary:

La Jolla (3211772)

Sources:

ENG79S0010 ENGLE, M. - ENGLE #46 UCSB #45246 1979-04-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04020	**EO Index:**	12842
Key Quad:	La Jolla (3211772)	**Element Code:**	PMPOA4G010
Occurrence Number:	6	**Occurrence Last Updated:**	2016-02-03

Scientific Name: *Orcuttia californica*

Common Name: California Orcutt grass

Listing Status: **Federal:** Endangered

State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

VERNAL POOLS.

Micro Habitat:

10-660 M.

Last Date Observed:	2011-09-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2011-09-15	**Occurrence Rank:**	Good
Owner/Manager:	DOD-NAVY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ADJACENT TO WEST SIDE OF HWY 163, APPROXIMATELY 1 MILE NORTH OF CLAIREMONT MESA BLVD, KEARNY MESA.

Detailed Location:

FOUND IN FISH & GAME (BEAUCHAMP) POOL COMPLEX "U4" IN 1979; THIS SAME COMPLEX CALLED "U25" IN 1982.

Ecological:

VERNAL POOLS WITH POLYPOGON MONSPELIENSIS, CROTON SETIGERUS, LYTHRUM HYSSOPIFOLIA, LOLIUM PERENNE, AGROSTIS AVENACEA, DEINANDRA, JUNCUS BUFONIUS, AND MALVA NEGLECTA. ON REDDING SOILS. SURROUNDED BY GRASSLAND OF NASELLA WITH ERIOGONUM.

Threats:

THREATENED BY HIGHWAY, VEHICLE DAMAGE. NON-NATIVE SPECIES ARE ABUNDANT (2011).

General:

OBSERVED IN 1979 & 1982. NOT SEEN IN A 1986 SURVEY. NOT SEEN IN 1990 BUT HABITAT WAS EXTANT. MORE THAN 500 GENETS OBSERVED IN 2011.

PLSS:	T15S, R02W, Sec. 30, NW (S)	**Accuracy:**	specific area	**Area (acres):**	5
UTM:	Zone-11 N3634124 E487736	**Latitude/Longitude:**	32.84511 / -117.13105	**Elevation (feet):**	440

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BAU91U0001	BAUDER, E. - RECORD OF PHONE CONVERSATION WITH MONA ROBISON REGARDING ORCUTTIA CALIFORNICA 1991-08-19
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
BEA82M0001	BEAUCHAMP, R. - APPENDIX 1 TO BEA82U0001, MAPS OF VERNAL POOLS ON MIRAMAR NAS 1982-XX-XX
BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30
COO81M0027	COOLEY, G.D. - MAP: FOR ORCUTTIA CALIFORNICA VAR. CALIFORNICA. 1981-08-20
FRA11F0009	FRAGA, N. ET AL. (RANCHO SANTA ANA BOTANIC GARDEN) - FIELD SURVEY FORM FOR ORCUTTIA CALIFORNICA 2011-09-15
FRA11S0016	FRAGA, N. ET AL. - FRAGA #3898 RSA #808422 2011-09-15
FRA12R0002	FRAGA, N. & M. WALL (RANCHO SANTA ANA BOTANIC GARDEN) - GERMPLASM COLLECTION REPORT FOR FEDERALLY LISTED SPECIES COLLECTED ON DOD LANDS IN 2011 2012-01-23
ZED79R0001	ZEDLER, P. ET AL. - A SURVEY OF VERNAL POOLS OF KEARNY MESA, SAN DIEGO COUNTY 1979-07-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 73626
EO Index: 22416
Key Quad: Imperial Beach (3211751)
Element Code: PMPOA4G010
Occurrence Number: 7
Occurrence Last Updated: 2016-02-03

Scientific Name: *Orcuttia californica*
Common Name: California Orcutt grass

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
VERNAL POOLS.

Micro Habitat:
10-660 M.

Last Date Observed: 2003-04-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-04-14
Occurrence Rank: Fair
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:
EAST OF SAN YSIDRO, WEST OF FINGER CANYON, 0.9-1.16 AIR MILES NE OF PORT OF ENTRY, SOUTH OTAY MESA.

Detailed Location:
MAPPED BY CNDDB AS 5 POLYGONS. N-MOST POLY BASED ON DIGITAL DATA (DATA COLLECTED BY BALO ET AL IN 2003); 4 S-MOST POLYS BASED ON MAPS FROM 1979, 1985, & 1990. INCLUDES BEAUCHAMP POOL COMPLEX #J13 AND SDG PLANNING DEPARTMENT MSCP SITE #J13N.

Ecological:
N-POLY: ROAD RUT; PSILOCARPHUS BREVISSIMUS AND NAVARRETIA FOSSALIS ALSO PRESENT. 4 S-MOST POLYS: ASSOCIATES INCLUDE ERYNGIUM ARISTULATUM V. PARISHII, MYOSURUS MINUMUS V. APUS, NAVARRETIA FOSSALIS.

Threats:
BORDER CROSSING (2001); GRAZING COMMON, ORV TRAFFIC, POTENTIAL INDUSTRIAL DEVELOPMENT (1990), MOUNDS REMOVED (1985).

General:
N-MOST POLY: OBS IN 1 BASIN IN 2003. MIDDLE POLY: UNK # IN 1985. 3 S POLYS: SEEN IN 1979, 1985, & 1986; 2500 SEEN IN 2 POOLS IN 1990 (O. CALIFORNICA DOING WELL DESPITE DISTURBANCE), NO PLANTS IN 2001 (SITE VERY DRY). INCLUDES FORMER EO #8.

PLSS: T19S, R01W, Sec. 06, NE (S)
Accuracy: specific area
Area (acres): 6
UTM: Zone-11 N3601808 E498303
Latitude/Longitude: 32.55366 / -117.01807
Elevation (feet): 500

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

BAU85U0002	BAUDER, E. - ELEMENT OCCURRENCE EVALUATION FORMS, OTAY MESA AREA 1985-XX-XX
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
BOY01F0016	BOYKIN, L. & P. HALL - FIELD SURVEY FORM FOR ORCUTTIA CALIFORNICA 2001-05-23
BOY01F0017	BOYKIN, L. & P. HALL - FIELD SURVEY FORM FOR ORCUTTIA CALIFORNICA 2001-05-23
CAS79S0003	CASS, T. - CASS #2C SD #105657 1979-04-14
CAS79S0004	CASS, T. - CASS #22A SD #105652 1979-04-21
CAS79S0005	CASS, T. - CASS #121 SD #105661 1979-05-XX
CAS79S0006	CASS, T. - CASS #100 SD #105638 1979-05-06
COO81M0025	COOLEY, G. - MAP OF ORCUTTIA CALIFORNICA 1981-08-19
GRI85U0002	GRIGGS, T. - MEMO REGARDING OTAY MESA 1985-05-01
HOL79U0002	HOLLAND, R.F. & T. CASS - OBSERVATION OF ORCUTTIA CALIFORNICA VAR. CALIFORNICA. 1979-05-07
MIS90U0002	MISTRETTA, O. & P. FRITSCH - SENSITIVE SPECIES SEED COLLECTION FORM FOR ORCUTTIA CALIFORNICA. 1990-08-03
MIS90U0003	MISTRETTA, O. & P. FRITSCH - SUMMARY OF ORCUTTIA CALIFORNICA SEED COLLECTION SITES. 1990-XX-XX
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71123
EO Index: 14420
Key Quad: Imperial Beach (3211751)
Element Code: PMPOA4G010
Occurrence Number: 9
Occurrence Last Updated: 2009-03-26

Scientific Name: *Orcuttia californica*
Common Name: California Orcutt grass

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
VERNAL POOLS.

Micro Habitat:
10-660 M.

Last Date Observed: 1990-08-03
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2001-05-23
Occurrence Rank: Fair
Owner/Manager: PVT
Trend: Decreasing
Presence: Presumed Extant

Location:
EAST OF SAN YSIDRO, WEST OF SPRING CANYON, 0.3-0.8 AIR MILE ENE OF PORT OF ENTRY, SOUTH OF SOUTH RIM OF OTAY MESA.

Detailed Location:
MAPPED BY CNDDB AS 4 POLYS. E-MOST POLY: BEACHAMP POOL #J-11; O. CALIFORNICA MAY ALSO BE IN A POOL JUST N OF THIS SITE BUT MAP INFO IS UNCLEAR (BAUDER 1985). MIDDLE POLY: EXACT LOCATION OF THIS VERNAL POOL (CALLED "E-4 1/2 POND") NOT KNOWN.

Ecological:
GROWING IN VERNAL POOLS IN ASSOCIATION WITH ERYNGIUM ARISTULATUM VAR. PARISHII.

Threats:
AREA DISTURBED BY FIRES, VEHICLES, CATTLE TRAMPLING, ILLEGAL ALIENS, & BORDER PATROL. PROPOSED RESIDENTIAL DEVELOPMENT.

General:
E POLY: SEEN IN 1979 & 1986, ~2000 PLANTS IN CENTRAL PART OF POOL IN 1990, NOT SEEN IN 2001 (SITE VERY DRY). MIDDLE POLY: ABUNDANT IN 1969, NOT SEEN IN 1990 OR 2001. 2 W-MOST POLYS: UNK # IN 1985, NONE IN 1990. INCL FORMER EOS #23 & 25.

PLSS: T19S, R01W, Sec. 06, SE (S)
Accuracy: specific area
Area (acres): 22
UTM: Zone-11 N3600802 E498163
Latitude/Longitude: 32.54458 / -117.01955
Elevation (feet): 345

County Summary:
San Diego, Mexico

Quad Summary:
Imperial Beach (3211751)

Sources:

BAU85U0002	BAUDER, E. - ELEMENT OCCURRENCE EVALUATION FORMS, OTAY MESA AREA 1985-XX-XX
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
BOY01F0018	BOYKIN, L. & P. HALL - FIELD SURVEY FORM FOR ORCUTTIA CALIFORNICA 2001-05-23
BOY01F0019	BOYKIN, L. & P. HALL - FIELD SURVEY FORM FOR ORCUTTIA CALIFORNICA 2001-05-23
COO81M0025	COOLEY, G. - MAP OF ORCUTTIA CALIFORNICA 1981-08-19
GRI76S0003	GRIGGS, F.T. - GRIGGS SN AHUC 1976-06-14
GRI85U0002	GRIGGS, T. - MEMO REGARDING OTAY MESA 1985-05-01
MIS90U0001	MISTRETTA, O. & P. FRITSCH - SENSITIVE SPECIES SEED COLLECTION FORM FOR ORCUTTIA CALIFORNICA. 1990-08-03
MIS90U0003	MISTRETTA, O. & P. FRITSCH - SUMMARY OF ORCUTTIA CALIFORNICA SEED COLLECTION SITES. 1990-XX-XX
MOR69A0001	MORAN, R. - ORCUTT GRASS IS WHERE IT IS (BUT WHY?), ENVIRONMENTAL SOUTHWEST, VOLUME UNKNOWN, PAGES 3-5. 1969-08-XX
MOR69S0003	MORAN, R. - MORAN #16090 SD #71701, RSA #207232, SBBG #33838, UC #1149034, UCR #44689, CAS #497301, DS #623660, GH #355903, LA #90948, NY #9654 1969-06-11
MOR69S0009	MORAN, R. - MORAN #16099 SD #71678 1969-06-14
SHO82U0003	SHOWERS, M. - LOCATION OF "E 1/2 POND" - SITE FOR ORCUTTIA CALIFORNICA. 1982-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 22885
EO Index: 22446
Key Quad: Imperial Beach (3211751)
Element Code: PMPOA4G010
Occurrence Number: 10
Occurrence Last Updated: 2009-03-26

Scientific Name: *Orcuttia californica*
Common Name: California Orcutt grass

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
VERNAL POOLS.

Micro Habitat:
10-660 M.

Last Date Observed: 1986-06-09
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1990-XX-XX
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Decreasing
Presence: Presumed Extant

Location:

EAST OF SAN YSIDRO, APPROX 1.2 AIR MI ENE OF PORT OF ENTRY, SPRING CANYON S OF DILLON CANYON, SOUTH RIM OF OTAY MESA.

Detailed Location:

FOUND IN FISH & GAME (BEAUCHAMP) POOL COMPLEXES J-12 & J-31. THESE COMPLEXES CONTAINED 3 POOLS IN 1979. MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO A 1979 BEAUCHAMP MAP AND A 1985 GRIGGS MAP.

Ecological:

GROWING WITHIN VERNAL POOLS IN ASSOCIATION WITH ERYNGIUM ARISTULATUM VAR. PARISHII.

Threats:

AREA DISTURBED BY FIRES, VEHICLES, CATTLE GRAZING, ILLEGAL ALIENS, &. BORDER PATROL ACTIVITIES. PROPOSED DEVELOPMENT.

General:

SEEN BY BEAUCHAMP IN 1979. SEEN IN 1985, POOLS IN MODERATELY GOOD CONDITION DESPITE EXTENSIVE DISTURBANCE OF AREA. SEEN IN 2 POOLS IN 1986 SURVEY. NO PLANTS WERE SEEN IN 1990 SITE VISIT, HABITAT DESCRIBED AS EXTANT BUT HIGHLY DEGRADED.

PLSS: T19S, R01W, Sec. 05, NW (S)
Accuracy: specific area
Area (acres): 3
UTM: Zone-11 N3601543 E499138
Latitude/Longitude: 32.55127 / -117.00918
Elevation (feet): 380

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

BAU85U0002	BAUDER, E. - ELEMENT OCCURRENCE EVALUATION FORMS, OTAY MESA AREA 1985-XX-XX
BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA79R0002	BEAUCHAMP, R. - SAN DIEGO VERNAL POOL STUDY, 1978. ADDITIONS AND CORRECTIONS FROM M. BEAUCHAMP ADDED TO CNDDB COPY, OCT. 1980 1979-08-XX
COO81M0025	COOLEY, G. - MAP OF ORCUTTIA CALIFORNICA 1981-08-19
GRI85U0002	GRIGGS, T. - MEMO REGARDING OTAY MESA 1985-05-01
MIS90U0003	MISTRETTA, O. & P. FRITSCH - SUMMARY OF ORCUTTIA CALIFORNICA SEED COLLECTION SITES. 1990-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	04442	**EO Index:**	7787
Key Quad:	Otay Mesa (3211658)	**Element Code:**	PMPOA4G010
Occurrence Number:	11	**Occurrence Last Updated:**	2009-03-26

Scientific Name: *Orcuttia californica*

Common Name: California Orcutt grass

Listing Status: **Federal:** Endangered
State: Endangered

CNDDB Element Ranks: **Global:** G1
State: S1

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:

VERNAL POOLS.

Micro Habitat:

10-660 M.

Last Date Observed:	1981-08-18	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2001-05-23	**Occurrence Rank:**	Fair
Owner/Manager:	PVT	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

EAST OF SAN YSIDRO, 1.7 AIR MILES ENE OF PORT OF ENTRY. NORTH OF WRUCK CANYON, SOUTH OTAY MESA.

Detailed Location:

FOUND IN FISH & GAME (BEAUCHAMP) POOL COMPLEX "J16". THIS POOL COMPLEX CONTAINED 5 VERNAL POOLS IN 1979. NOT MENTIONED AS OCCURRING IN THIS POOL COMPLEX IN 1979 BUT WAS SUBSEQUENTLY FOUND HERE BY BEAUCHAMP ACC TO 1981 PHONE CONVERSATION.

Ecological:

VERNAL POOLS WITH ERYNGIUM ARISTULATUM PARISHII. SCRUB SURROUNDS. IN 2001 VERNAL POOLS WERE VERY DIFFICULT TO DISTINGUISH FROM THE SURROUNDING VEGETATION.

Threats:

MINOR DISTURBANCE. AG HAS ELIMINATED MANY POOLS ON MESA. PROPOSED 2ND BORDER CROSSING & ILLEGAL ALIEN TRAFFIC THREATENS.

General:

SEEN BY BEAUCHAMP (LIKELY IN 1981?). POOLS WERE NOT VISITED IN 1986 SURVEY. NO PLANTS OBSERVED IN 1990 SITE VISIT, HABITAT WAS DESCRIBED AS EXTANT BUT HIGHLY DEGRADED. NO PLANTS SEEN IN 2001, SITE WAS VERY DRY.

PLSS:	T19S, R01W, Sec. 05, NE (S)	**Accuracy:**	specific area	**Area (acres):**	3
UTM:	Zone-11 N3601646 E499929	**Latitude/Longitude:**	32.55220 / -117.00074	**Elevation (feet):**	460

County Summary:	**Quad Summary:**
San Diego	Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

BAU86R0001	BAUDER, E. - SAN DIEGO VERNAL POOLS - RECENT AND PROJECTED LOSSES; THEIR CONDITION AND THREATS TO THEIR EXISTENCE, 1979-1990. VOLS I & II. PREPARED FOR EPP, CDFG. CONTRACT NO. EP85II-1 1986-09-XX
BEA79M0001	BEAUCHAMP, R. - ATTACHMENT (MAPS) TO SAN DIEGO VERNAL POOL STUDY, 1978, 4 ADDITIONAL MAPS FROM M. BEAUCHAMP FOR POOL AREAS L, S, T, AND Y ATTACHED OCT. 1980: POGOGYNE ABRAMSII 1979-08-XX
BEA79R0001	BEAUCHAMP, R. - SAN DIEGO REGIONAL VERNAL POOL SURVEY (WITH MAPS; PRELIMINARY REPORT OF BEA79M0001 AND BEA79R0002). 1979-03-29
BEA81U0003	BEAUCHAMP, R. - PHONE MEMO, CONVERSATION BETWEEN GENE COOLEY AND M. BEAUCHAMP, CONCERNING SAN DIEGO VERNAL POOL SURVEY, 1978 1981-04-30
BOY01F0023	BOYKIN, L. & P. HALL - FIELD SURVEY FORM FOR ORCUTTIA CALIFORNICA 2001-05-23
COO81M0025	COOLEY, G. - MAP OF ORCUTTIA CALIFORNICA 1981-08-19
MIS90U0003	MISTRETTA, O. & P. FRITSCH - SUMMARY OF ORCUTTIA CALIFORNICA SEED COLLECTION SITES. 1990-XX-XX
MIS90U0008	MISTRETTA, O. & P. FRITSCH - SENSITIVE SPECIES SEED COLLECTION FORM FOR ERYNGIUM ARISTULATUM VAR. PARISHII. 1990-09-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71110
EO Index: 72020
Key Quad: Imperial Beach (3211751)
Element Code: PMPOA4G010
Occurrence Number: 37
Occurrence Last Updated: 2009-03-26

Scientific Name: *Orcuttia californica*
Common Name: California Orcutt grass

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
VERNAL POOLS.

Micro Habitat:
10-660 M.

Last Date Observed: 2005-XX-XX
Occurrence Type: Introduced Back into Native Hab./Range
Last Survey Date: 2005-XX-XX
Occurrence Rank: Poor
Owner/Manager: UNKNOWN
Trend: Decreasing
Presence: Presumed Extant

Location:
APPROXIMATELY 0.35 AIR MILE SE OF THE MOUTH OF WRUCK CANYON, SW END OF OTAY MESA.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO A 2006 ECOLOGICAL RESTORATION SERVICE MAP. SITE IS CALLED "ARNIE'S POINT".

Ecological:
CREATED/RESTORED VERNAL POOLS.

Threats:

General:
3 PLANTS SEEN IN 1 VERNAL POOL IN 2004. 7 PLANTS SEEN IN 2 VERNAL POOLS IN 2005. NOT SEEN IN 2003 OR 2006. THESE POOLS WERE CREATED/RESTORED IN 2002.

PLSS: T19S, R01W, Sec. 05, SE (S)
Accuracy: specific area
Area (acres): 2
UTM: Zone-11 N3600980 E499884
Latitude/Longitude: 32.54620 / -117.00122
Elevation (feet): 445

County Summary:
San Diego

Quad Summary:
Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

ERS06R0001	ECOLOGICAL RESTORATION SERVICE - MAINTENANCE AND MONITORING OF VERNAL POOLS AND UPLAND VEGETATION AT ARNIE'S POINT, SAN DIEGO, CA: AREA A (YEAR 4) AND AREA B (YEAR 3), 2005-2006 HYDROLOGICAL YEAR 2006-XX-XX
FWS07D0001	U.S. FISH AND WILDLIFE SERVICE-CARLSBAD - USFWS CARLSBAD SPECIAL STATUS SPECIES DATABASE, AUGUST 2007 VERSION 2007-08-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71111
Key Quad: Imperial Beach (3211751)
Occurrence Number: 38

EO Index: 72021
Element Code: PMPOA4G010
Occurrence Last Updated: 2016-02-03

Scientific Name: *Orcuttia californica*
Common Name: California Orcutt grass

Listing Status: **Federal:** Endangered
State: Endangered

CNDDB Element Ranks: **Global:** G1
State: S1

Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
VERNAL POOLS.

Micro Habitat:
10-660 M.

Last Date Observed: 2003-04-16
Last Survey Date: 2003-04-16
Owner/Manager: CITY OF SAN DIEGO
Presence: Presumed Extant

Occurrence Type: Introduced Back into Native Hab./Range
Occurrence Rank: Unknown
Trend: Unknown

Location:
SOUTH OF STATE HWY 905 (OTAY MESA RD) BETWEEN INNOVATIVE DR AND HERITAGE RD, SW OF BROWN FIELD AIR STATION.

Detailed Location:
MAPPED AS 3 POLYGONS CONSISTING OF 5 POOLS BASED ON DIGITAL DATA SUBMITTED IN 2003 (DATA COLLECTED BY ROBERT MACALLER-RECON IN 2003). THE DIGITAL DATA INDICATES THAT THESE ARE CREATED VERNAL POOLS. SITE NAMES ARE J2W & J2S.

Ecological:
OTHER RARE PLANTS IN THESE CREATED POOLS ARE ERYNGIUM ARISTULATUM AND POGOGYNE NUDIUSCULA.

Threats:

General:
OBSERVED IN 5 BASINS IN 2003. NEED BETTER HABITAT AND POPULATION INFORMATION.

PLSS: T18S, R01W, Sec. 32, NE (S)
Accuracy: specific area
Area (acres): 1
UTM: Zone-11 N3603260 E499911
Latitude/Longitude: 32.56677 / -117.00094
Elevation (feet): 500

County Summary:
San Diego

Quad Summary:
Otay Mesa (3211658), Imperial Beach (3211751)

Sources:

SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 71112
Key Quad: Imperial Beach (3211751)
Occurrence Number: 39
EO Index: 72022
Element Code: PMPOA4G010
Occurrence Last Updated: 2016-02-08

Scientific Name: *Orcuttia californica*
Common Name: California Orcutt grass

Listing Status: **Federal:** Endangered
State: Endangered
CNDDB Element Ranks: **Global:** G1
State: S1
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

General Habitat:
VERNAL POOLS.

Micro Habitat:
10-660 M.

Last Date Observed: 2010-07-26
Last Survey Date: 2010-07-26
Owner/Manager: CITY OF SAN DIEGO, UNKNOWN
Presence: Presumed Extant
Occurrence Type: Introduced Back into Native Hab./Range
Occurrence Rank: Unknown
Trend: Unknown

Location:

NEAR HEADWATERS OF DENNERY CANYON, NORTH OF STATE HWY 905 & BETWEEN CORPORATE CENTER DR & HIDDEN TRAILS RD, SAN YSIDRO.

Detailed Location:

MAPPED AS 11 POLYGONS CONSISTING OF >50 POOLS. MAPPED ACCORDING TO DIGITAL DATA SUBMITTED IN 2003 (DATA MOSTLY FROM R. MACALLER- RECON IN 2003, SITE NAMES ARE J2W & J2S). DATA INDICATES THESE ARE CREATED VERNAL POOLS.

Ecological:

OTHER RARE PLANTS HERE INCLUDE ERYNGIUM ARISTULATUM & POGOGYNE NUDIUSCULA IN ALL POOLS; NAVARRETIA FOSSALIS IN 20 OF THE POOLS; MYOSURUS MINIMUS SSP. APUS IN 1 POOL. ALSO ASSOCIATED WITH PILULARIA AMERICANA AND PSILOCARPHUS BREVISSIMUS.

Threats:

General:

OBSERVED IN 52 BASINS IN 2003. "RARE" IN TWO LOCATIONS IN 2010. NEED BETTER HABITAT AND POPULATION INFORMATION.

PLSS: T18S, R01W, Sec. 29, SW (S)
Accuracy: specific area
Area (acres): 7
UTM: Zone-11 N3603813 E499321
Latitude/Longitude: 32.57175 / -117.00724
Elevation (feet): 515

County Summary:
San Diego

Quad Summary:
Imperial Beach (3211751)

Sources:

BUO10S0001	BUONACCORSI, T. - BUONACCORSI #1 SD #216540 2010-07-26
BUO10S0002	BUONACCORSI, T. - BUONACCORSI #2 RSA #767615 2010-07-26
SDG03D0001	CITY OF SAN DIEGO - DIGITAL DATA: VERNAL POOL AMPHIBIANS, SHRIMP, PLANTS - SAN DIEGO (2002-2003) 2003-XX-XX
SDG03R0001	CITY OF SAN DIEGO - CITY OF SAN DIEGO VERNAL POOL INVENTORY, 2002-2003 2003-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	73659	**EO Index:**	74682
Key Quad:	La Jolla (3211772)	**Element Code:**	PMPOA4G010
Occurrence Number:	43	**Occurrence Last Updated:**	2009-02-26

Scientific Name: *Orcuttia californica*

Common Name: California Orcutt grass

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank: 1B.1

Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

VERNAL POOLS.

Micro Habitat:

10-660 M.

Last Date Observed:	1994-05-19	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1994-05-19	**Occurrence Rank:**	Unknown
Owner/Manager:	DOD-MCAS MIRAMAR	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH OF ROSE CANYON AND NORTH OF THE RUNWAYS, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:

FOUND IN A SWALE WITHIN A LARGER VERNAL POOL. MAPPED BY CNDDB TO ENCOMPASS VERNAL POOLS IN "VERNAL POOL MANAGEMENT PLAN SERIES HHI+." ASSUMPTION MADE AT CNDDB THAT "HHI+" IS ACTUALLY "HH 1+".

Ecological:

OPEN FLAT SOIL. IN A SWALE WITHIN A LARGER VERNAL POOL. POGOGYNE ABRAMSII AND ERYNGIUM ARISTULATUM VAR. PARISHII, & NAVARRETIA FOSSALIS ALSO FOUND HERE.

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1994 HULL COLLECTION FOR NAVARRETIA FOSSALIS WHICH MENTIONS THAT NAVARRETIA FOSSALIS WAS "FOUND IN ASSOCIATION WITH ORCUTTIA CALIFORNICA". NEEDS FIELDWORK.

PLSS:	T15S, R03W, Sec. 14, NE (S)	**Accuracy:**	specific area	**Area (acres):**	1
UTM:	Zone-11 N3637184 E484990	**Latitude/Longitude:**	32.87268 / -117.16044	**Elevation (feet):**	400

County Summary:	**Quad Summary:**
San Diego	La Jolla (3211772)

Sources:

GEN06R0001	GENE STOUT AND ASSOCIATES & GEOMORPH INFORMATION SYSTEMS - INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN FOR MARINE CORPS AIR STATION MIRAMAR, CALIFORNIA 2006-2010. BIOLOGICAL RESOURCES. 2006-10-XX
HUL94S0002	HULL, C. - HULL #19V94A SDSU #3207 1994-05-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 73712
EO Index: 74683
Key Quad: La Jolla (3211772)
Element Code: PMPOA4G010
Occurrence Number: 44
Occurrence Last Updated: 2016-02-03

Scientific Name: *Orcuttia californica*
Common Name: California Orcutt grass

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_CRES-San Diego Zoo CRES Native Gene Seed Bank

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
VERNAL POOLS.

Micro Habitat:
10-660 M.

Last Date Observed: 2003-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-XX-XX
Occurrence Rank: Unknown
Owner/Manager: DOD-MCAS MIRAMAR
Trend: Unknown
Presence: Presumed Extant

Location:
JUST NORTH OF THE WEST END OF THE RUNWAYS, MARINE CORPS AIR STATION MIRAMAR.

Detailed Location:
MAPPED BY CNDDB ACCORDING TO A 1982 BEAUCHAMP MAP AROUND POOLS "HH 86" & "HH123".

Ecological:
LARGE VERNAL POOLS.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1982 BEAUCHAMP REPORT AND MAP WHICH MENTIONS THAT O. CALIFORNICA WAS FOUND IN THESE POOLS. ALSO OBSERVED SOMETIME DURING 2001-2003; NO POPULATION INFORMATION PROVIDED.

PLSS: T15S, R03W, Sec. 14, S (S)
Accuracy: specific area
Area (acres): 3
UTM: Zone-11 N3636618 E484894
Latitude/Longitude: 32.86757 / -117.16145
Elevation (feet): 400

County Summary:
San Diego

Quad Summary:
La Jolla (3211772)

Sources:

BEA82M0001	BEAUCHAMP, R. - APPENDIX 1 TO BEA82U0001, MAPS OF VERNAL POOLS ON MIRAMAR NAS 1982-XX-XX
BEA82U0001	BEAUCHAMP, R. - BOTANICAL SURVEY OF ENDANGERED, CANDIDATE OR OTHERWISE SENSITIVE PLANT TAXA IN THE VERNAL POOL SYSTEMS IN WITH PORTION OF MIRAMAR NAS 1982-07-30
BLA04R0001	BLACK, C. (ECOLOGICAL RESTORATION SERVICE) - VERNAL POOL DELINEATION, RARE PLANT AND FAIRY SHRIMP SURVEY REPORTS ON MIRAMAR VERNAL POOLS, 2000-2001 THROUGH 2002-03 FIELD SEASONS, COMPREHENSIVE FINDINGS 2004-06-XX

Search Results

Back Export Results

104 matches found. Click on scientific name for details

Search Criteria: Quad is one of [**3211762,3211761,3211751,3211771,3211772**]

Scientific Name | Common Name | Family | Lifeform | Blooming Period | Fed List | State List | Global Rank | State Rank | CA Rare Plant Rank | General Habitats | Micro Habitats | Lowest Elevation | Highest Elevation | CA Endemic | Date Added | Photo

Search:

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Abronia maritima	red sand-verbena	Nyctaginaceae	perennial herb	Feb-Nov	None	None	G4	S3?	4.2	©2003 Christopher L. Christie
Acanthomintha ilicifolia	San Diego thorn-mint	Lamiaceae	annual herb	Apr-Jun	FT	CE	G1	S1	1B.1	No Photo Available
Acmispon prostratus	Nuttall's acmispon	Fabaceae	annual herb	Mar-Jun(Jul)	None	None	G1G2	S1	1B.1	No Photo Available
Adolphia californica	California adolphia	Rhamnaceae	perennial deciduous shrub	Dec-May	None	None	G3	S2	2B.1	No Photo Available
Agave shawii var. *shawii*	Shaw's agave	Agavaceae	perennial leaf	Sep-May	None	None	G2G3T2	S1	2B.1	©2017 Keir Morse
Ambrosia chenopodiifolia	San Diego bur-sage	Asteraceae	perennial shrub	Apr-Jun	None	None	G2G3	S1	2B.1	No Photo Available
Ambrosia monogyra	singlewhorl burrobrush	Asteraceae	perennial shrub	Aug-Nov	None	None	G5	S2	2B.2	No Photo Available
Ambrosia pumila	San Diego ambrosia	Asteraceae	perennial rhizomatous herb	Apr-Oct	FE	None	G1	S1	1B.1	No Photo Available
Aphanisma blitoides	aphanisma	Chenopodiaceae	annual herb	Feb-Jun	None	None	G3G4	S2	1B.2	No Photo Available

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar manzanita	Ericaceae	perennial evergreen shrub	Jun-Apr	FE	None	G5T2	S2	1B.1	No Photo Available
Artemisia palmeri	San Diego sagewort	Asteraceae	perennial deciduous shrub	(Feb)May-Sep	None	None	G3?	S3?	4.2	No Photo Available
Asplenium vespertinum	western spleenwort	Aspleniaceae	perennial rhizomatous herb	Feb-Jun	None	None	G4	S4	4.2	No Photo Available
Astragalus deanei	Dean's milk-vetch	Fabaceae	perennial herb	Feb-May	None	None	G1	S1	1B.1	No Photo Available
Astragalus tener var. *titi*	coastal dunes milk-vetch	Fabaceae	annual herb	Mar-May	FE	CE	G2T1	S1	1B.1	No Photo Available
Atriplex coulteri	Coulter's saltbush	Chenopodiaceae	perennial herb	Mar-Oct	None	None	G3	S1S2	1B.2	No Photo Available
Atriplex pacifica	south coast saltscale	Chenopodiaceae	annual herb	Mar-Oct	None	None	G4	S2	1B.2	No Photo Available
Bergerocactus emoryi	golden-spined cereus	Cactaceae	perennial stem	May-Jun	None	None	G2G3	S2	2B.2	No Photo Available
Bloomeria clevelandii	San Diego goldenstar	Themidaceae	perennial bulbiferous herb	Apr-May	None	None	G2	S2	1B.1	No Photo Available
Brodiaea orcuttii	Orcutt's brodiaea	Themidaceae	perennial bulbiferous herb	May-Jul	None	None	G2	S2	1B.1	No Photo Available
Camissoniopsis lewisii	Lewis' evening-primrose	Onagraceae	annual herb	Mar-May(Jun)	None	None	G4	S4	3	No Photo Available
Ceanothus otayensis	Otay Mountain ceanothus	Rhamnaceae	perennial evergreen shrub	Jan-Apr	None	None	G1G2	S1	1B.2	No Photo Available
Ceanothus verrucosus	wart-stemmed ceanothus	Rhamnaceae	perennial evergreen shrub	Dec-May	None	None	G2	S2?	2B.2	No Photo Available
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	Asteraceae	annual herb	Jan-Aug	None	None	G5T1T2	S1	1B.1	No Photo Available
Chamaebatia australis	southern mountain	Rosaceae	perennial evergreen shrub	Nov-May	None	None	G4	S4	4.2	No Photo

	misery									Available
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct(Nov)	FE	CE	G4?T1	S1	1B.2	No Photo Available
▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Chorizanthe orcuttiana	Orcutt's spineflower	Polygonaceae	annual herb	Mar-May	FE	CE	G1	S1	1B.1	No Photo Available
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	Polygonaceae	annual herb	Apr-Jul	None	None	G5T3	S3	1B.2	No Photo Available
Cistanthe maritima	seaside cistanthe	Montiaceae	annual herb	(Feb)Mar-Jun(Aug)	None	None	G3G4	S3	4.2	No Photo Available
Clarkia delicata	delicate clarkia	Onagraceae	annual herb	Apr-Jun	None	None	G3	S3	1B.2	No Photo Available
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	Ericaceae	perennial evergreen shrub	Apr-Jun	None	None	G3T2	S2	1B.2	No Photo Available
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	None	None	G4	S4	4.2	No Photo Available
Corethrogyne filaginifolia var. *incana*	San Diego sand aster	Asteraceae	perennial herb	Jun-Sep	None	None	G4T1Q	S1	1B.1	No Photo Available
Cylindropuntia californica var. *californica*	snake cholla	Cactaceae	perennial stem	Apr-May	None	None	G3T2	S1	1B.1	No Photo Available
Deinandra conjugens	Otay tarplant	Asteraceae	annual herb	(Apr)May-Jun	FT	CE	G1	S1	1B.1	No Photo Available
Deinandra paniculata	paniculate tarplant	Asteraceae	annual herb	(Mar)Apr-Nov	None	None	G4	S4	4.2	No Photo Available
Dichondra occidentalis	western dichondra	Convolvulaceae	perennial rhizomatous herb	(Jan)Mar-Jul	None	None	G3G4	S3S4	4.2	No Photo Available
Dicranostegia orcuttiana	Orcutt's bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	(Mar)Apr-Jul(Sep)	None	None	G2G3	S1	2B.1	No Photo Available
Diplacus aridus	low bush monkeyflower	Phrymaceae	perennial evergreen shrub	Apr-Jul	None	None	G4	S3	4.3	No Photo Available
Dudleya attenuata ssp. *attenuata*	Orcutt's dudleya	Crassulaceae	perennial herb	May-Jul	None	None	G4T1T2	S1	2B.1	No Photo

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Dudleya blochmaniae ssp. *blochmaniae*	Blochman's dudleya	Crassulaceae	perennial herb	Apr-Jun	None	None	G3T2	S2	1B.1	No Photo Available
Dudleya brevifolia	short-leaved dudleya	Crassulaceae	perennial herb	Apr-May	None	CE	G1	S1	1B.1	No Photo Available
Dudleya variegata	variegated dudleya	Crassulaceae	perennial herb	Apr-Jun	None	None	G2	S2	1B.2	No Photo Available
Dudleya viscida	sticky dudleya	Crassulaceae	perennial herb	May-Jun	None	None	G2	S2	1B.2	No Photo Available
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	Asteraceae	perennial evergreen shrub	(Jul)Sep-Nov	None	None	G4T2?	S2	1B.1	No Photo Available
Eryngium aristulatum var. *parishii*	San Diego button-celery	Apiaceae	annual/perennial herb	Apr-Jun	FE	CE	G5T1	S1	1B.1	No Photo Available
Erysimum ammophilum	sand-loving wallflower	Brassicaceae	perennial herb	Feb-Jun	None	None	G2	S2	1B.2	No Photo Available
Erythranthe diffusa	Palomar monkeyflower	Phrymaceae	annual herb	Apr-Jun	None	None	G4	S3	4.3	No Photo Available
Euphorbia misera	cliff spurge	Euphorbiaceae	perennial shrub	(Oct)Dec-Aug	None	None	G5	S2	2B.2	No Photo Available
Ferocactus viridescens	San Diego barrel cactus	Cactaceae	perennial stem	May-Jun	None	None	G3?	S2S3	2B.1	No Photo Available
Frankenia palmeri	Palmer's frankenia	Frankeniaceae	perennial herb	May-Jul	None	None	G3?	S1	2B.1	No Photo Available
Geothallus tuberosus	Campbell's liverwort	Sphaerocarpaceae	ephemeral liverwort		None	None	G2	S2	1B.1	No Photo Available
Githopsis diffusa ssp. *filicaulis*	Mission Canyon bluecup	Campanulaceae	annual herb	Apr-Jun	None	None	G5T1Q	S1	3.1	No Photo Available
Grindelia hallii	San Diego gumplant	Asteraceae	perennial herb	May-Oct	None	None	G2	S2	1B.2	No Photo Available
Harpagonella palmeri	Palmer's grapplinghook	Boraginaceae	annual herb	Mar-May	None	None	G4	S3	4.2	No Photo

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
										Available
Hesperevax caulescens	hogwallow starfish	Asteraceae	annual herb	Mar-Jun	None	None	G3	S3	4.2	No Photo Available
Heterotheca sessiliflora ssp. *sessiliflora*	beach goldenaster	Asteraceae	perennial herb	Mar-Dec	None	None	G4T2T3	S1	1B.1	No Photo Available
Holocarpha virgata ssp. *elongata*	graceful tarplant	Asteraceae	annual herb	May-Nov	None	None	G5T3	S3	4.2	No Photo Available
Hordeum intercedens	vernal barley	Poaceae	annual herb	Mar-Jun	None	None	G3G4	S3S4	3.2	No Photo Available
Isocoma menziesii var. *decumbens*	decumbent goldenbush	Asteraceae	perennial shrub	Apr-Nov	None	None	G3G5T2T3	S2	1B.2	No Photo Available
Iva hayesiana	San Diego marsh-elder	Asteraceae	perennial herb	Apr-Oct	None	None	G3	S2	2B.2	No Photo Available
Juncus acutus ssp. *leopoldii*	southwestern spiny rush	Juncaceae	perennial rhizomatous herb	(Mar)May-Jun	None	None	G5T5	S4	4.2	No Photo Available
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	None	None	G4T2	S2	1B.1	No Photo Available
Lathyrus splendens	pride-of-California	Fabaceae	perennial herb	Mar-Jun	None	None	G4	S4	4.3	No Photo Available
Lepechinia cardiophylla	heart-leaved pitcher sage	Lamiaceae	perennial shrub	Apr-Jul	None	None	G3	S2S3	1B.2	No Photo Available
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	Brassicaceae	annual herb	Jan-Jul	None	None	G5T3	S3	4.3	No Photo Available
Leptosyne maritima	sea dahlia	Asteraceae	perennial herb	Mar-May	None	None	G2	S1S2	2B.2	No Photo Available
Lycium californicum	California box-thorn	Solanaceae	perennial shrub	Mar-Aug(Dec)	None	None	G4	S4	4.2	No Photo Available
Microseris douglasii ssp. *platycarpha*	small-flowered microseris	Asteraceae	annual herb	Mar-May	None	None	G4T4	S4	4.2	No Photo Available
Mobergia calculiformis	light gray lichen	Physciaceae	crustose lichen (saxicolous)		None	None	G3	S1	3	No Photo

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Monardella viminea	willowy monardella	Lamiaceae	perennial herb	Jun-Aug	FE	CE	G1	S1	1B.1	No Photo Available
Mucronea californica	California spineflower	Polygonaceae	annual herb	Mar-Jul(Aug)	None	None	G3	S3	4.2	No Photo Available
Myosurus minimus ssp. *apus*	little mousetail	Ranunculaceae	annual herb	Mar-Jun	None	None	G5T2Q	S2	3.1	No Photo Available
Nama stenocarpa	mud nama	Namaceae	annual/perennial herb	Jan-Jul	None	None	G4G5	S1S2	2B.2	No Photo Available
Navarretia fossalis	spreading navarretia	Polemoniaceae	annual herb	Apr-Jun	FT	None	G2	S2	1B.1	No Photo Available
Navarretia prostrata	prostrate vernal pool navarretia	Polemoniaceae	annual herb	Apr-Jul	None	None	G2	S2	1B.2	No Photo Available
Nemacaulis denudata var. *denudata*	coast woolly-heads	Polygonaceae	annual herb	Apr-Sep	None	None	G3G4T2	S2	1B.2	No Photo Available
Nemacaulis denudata var. *gracilis*	slender cottonheads	Polygonaceae	annual herb	(Mar)Apr-May	None	None	G3G4T3?	S2	2B.2	No Photo Available
Ophioglossum californicum	California adder's-tongue	Ophioglossaceae	perennial rhizomatous herb	Jan-Jun(Dec)	None	None	G4	S4	4.2	No Photo Available
Orcuttia californica	California Orcutt grass	Poaceae	annual herb	Apr-Aug	FE	CE	G1	S1	1B.1	No Photo Available
Ornithostaphylos oppositifolia	Baja California birdbush	Ericaceae	perennial evergreen shrub	Jan-Apr	None	CE	G3	S1	2B.1	No Photo Available
Orobanche parishii ssp. *brachyloba*	short-lobed broomrape	Orobanchaceae	perennial herb (parasitic)	Apr-Oct	None	None	G4?T4	S3	4.2	No Photo Available
Pentachaeta aurea ssp. *aurea*	golden-rayed pentachaeta	Asteraceae	annual herb	Mar-Jul	None	None	G4T3	S3	4.2	No Photo Available
Phacelia stellaris	Brand's star phacelia	Hydrophyllaceae	annual herb	Mar-Jun	None	None	G1	S1	1B.1	No Photo Available
Piperia cooperi	chaparral rein orchid	Orchidaceae	perennial herb	Mar-Jun	None	None	G3G4	S3S4	4.2	No Photo

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Pogogyne abramsii	San Diego mesa mint	Lamiaceae	annual herb	Mar-Jul	FE	CE	G1	S1	1B.1	No Photo Available
Pogogyne nudiuscula	Otay Mesa mint	Lamiaceae	annual herb	May-Jul	FE	CE	G1	S1	1B.1	No Photo Available
Quercus dumosa	Nuttall's scrub oak	Fagaceae	perennial evergreen shrub	Feb-Apr(May-Aug)	None	None	G3	S3	1B.1	No Photo Available
Ribes viburnifolium	Santa Catalina Island currant	Grossulariaceae	perennial evergreen shrub	Feb-Apr	None	None	G2?	S2?	1B.2	No Photo Available
Rosa minutifolia	small-leaved rose	Rosaceae	perennial deciduous shrub	Jan-Jun	None	CE	G2G3	SXC	2B.1	No Photo Available
Salvia munzii	Munz's sage	Lamiaceae	perennial evergreen shrub	Feb-Apr	None	None	G2	S2	2B.2	No Photo Available
Selaginella cinerascens	ashy spike-moss	Selaginellaceae	perennial rhizomatous herb		None	None	G3G4	S3	4.1	No Photo Available
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb	Jan-Apr(May)	None	None	G3	S2	2B.2	No Photo Available
Sidalcea neomexicana	salt spring checkerbloom	Malvaceae	perennial herb	Mar-Jun	None	None	G4	S2	2B.2	No Photo Available
Sphaerocarpos drewiae	bottle liverwort	Sphaerocarpaceae	ephemeral liverwort		None	None	G1	S1	1B.1	No Photo Available
Stemodia durantifolia	purple stemodia	Plantaginaceae	perennial herb	(Jan)Apr-Dec	None	None	G5	S2	2B.1	No Photo Available
Stipa diegoensis	San Diego County needle grass	Poaceae	perennial herb	Feb-Jun	None	None	G4	S4	4.2	No Photo Available
Streptanthus bernardinus	Laguna Mountains jewelflower	Brassicaceae	perennial herb	May-Aug	None	None	G3G4	S3S4	4.3	No Photo Available
Stylocline citroleum	oil neststraw	Asteraceae	annual herb	Mar-Apr	None	None	G3	S3	1B.1	No Photo Available
Suaeda esteroa	estuary seablite	Chenopodiaceae	perennial herb	(Jan-May)Jul-	None	None	G3	S2	1B.2	No Photo

				Oct						Available
Suaeda taxifolia	woolly seablite	Chenopodiaceae	perennial evergreen shrub	Jan-Dec	None	None	G4	S4	CA RARE PLANT RANK 4.2	No Photo Available
▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK		PHOTO
Tetracoccus dioicus	Parry's tetracoccus	Picrodendraceae	perennial deciduous shrub	Apr-May	None	None	G2G3	S2	1B.2	No Photo Available
Texosporium sancti-jacobi	woven-spored lichen	Caliciaceae	crustose lichen (terricolous)		None	None	G3	S2	3	©2021 Scot Loring
Tortula californica	California screw moss	Pottiaceae	moss		None	None	G2G3	S2?	1B.2	No Photo Available
Viguiera laciniata	San Diego County viguiera	Asteraceae	perennial shrub	Feb-Jun(Aug)	None	None	G4	S4	4.3	No Photo Available

Showing 1 to 104 of 104 entries

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Appendix H

Cultural Resources Assessment

9700 Research Drive
Irvine, California 92618
949.347.2780

Memorandum

June 7, 2021

To: Sara Giobbi, General Dynamics NASSCO

From: Barbara Bundy, PhD, RPA, Anchor QEA, LLC

cc: Adam Gale, Anchor QEA, LLC

Re: Cultural Resources Assessment
Floating Dry Dock and Waterfront Improvement Project

Introduction

General Dynamics NASSCO (NASSCO) is proposing the Floating Dry Dock Replacement and Waterfront Improvement Project (the Project; Figure 1) located at the NASSCO shipyard in San Diego, California. The Project requires a permit from the U.S. Army Corps of Engineers (Corps) under Section 404 of the Clean Water Act. The Corps must comply with Section 106 of the National Historic Preservation Act and Corps regulations at 33 Code of Federal Regulations (CFR) 325, Appendix C. Section 106 requires federal agencies to take into account the effects of their undertakings on historic properties. This memorandum assists the Corps in complying with Section 106 and applicable regulations.

Project Description

The Project is located at the NASSCO shipyard, at 2798 East Harbor Drive, in San Diego, California (Section 13 of Township 17 South, Range 3 West; latitude 32.689339 N, longitude -117.138958 W). The Project includes the following elements (Figure 2):

- Removal and replacement of the existing floating dry dock and construction of supporting infrastructure, including the following:
  - Removal of existing mooring dolphins and construction of four new dolphins supported with a total of 222 piling (in-water ground disturbance up to 100 feet below mean lower low water [MLLW])
  - Construction of a new catwalk and gangway supported by two concrete caps, each constructed on two concrete piles (in-water ground disturbance up to 100 feet below MLLW)
  - Modification to existing dry-dock approach pier, including 19 new fender piles (in-water ground disturbance up to 100 feet below MLLW)
- Repairs to the Repair Complex Wharf, including the following:
  - Replacement of the existing timber wharf with a larger, triangular-shaped wharf supported by concrete piles and protected by a pile-based wharf fender system (in-water ground disturbance up to 43 feet below MLLW)

  - Installation of a steel sheet-piled bulkhead supported by concrete piles and backfilled by placing gravel and compacted granular material on the existing slope to match the existing upland elevation (in-water ground disturbance up to 36 feet below MLLW)
- Improvements to the Repair Complex Wharf, including the following:
  - Repairs along approximately 2,450 linear feet of quay wall revetment, consisting of building up a new rock toe, overlaid with an approximate 9-inch layer of filter stone and 2-foot layer of quarter-ton rock riprap (in-water and shoreline ground disturbance of less than 1 foot)
- As-needed structural repair and/or replacement of selected piles at Berths 2, 3, 4, 5, 6, at Pier 12 and the floating dry-dock approach pier, and at the Berth 1 Platform (in-water ground disturbance up to 100 feet below MLLW)

Implementation of the Project would not expand the existing use of the Project site or result in changes to existing shipyard operations.

Regulatory Context

Under Section 106, the Corps is required to consider the effects of the permitted activity on historic properties. A historic property is any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP). Traditional Cultural Properties may also be historic properties. Under the Section 106 process, the Corps must consult with interested and affected Native American tribes and the State Historic Preservation Officer on potential impacts to cultural and historic resources.

To be eligible for inclusion in the NRHP, a historic property must be at least 50 years old, have significance, and retain integrity. Significance is defined as meeting one or more of the four NRHP criteria, and integrity is defined as a historic property's ability to convey its historic significance—in other words, its historic appearance and setting.

This memorandum assists the Corps with fulfilling the requirements of Section 106 and 33 CFR 325, Appendix C by recommending the following:

- The Area of Potential Effects (APE)
- Whether there are NRHP-eligible historic properties in the APE
- Whether the undertaking will adversely affect any NRHP-eligible historic properties

Natural and cultural resources in San Diego Bay are managed under the *San Diego Bay Integrated Natural Resources Management Plan* (Navy 2013). The plan indicates the completion of planning level surveys to identify significant and sensitive resources (including cultural resources) to meet regulatory requirements.

Area of Potential Effects

The recommended APE for the Project is the extent of ground disturbance (Figure 3). No changes to the Project setting or viewshed are expected. Modifications will occur to existing structures, but none are of historic age. No indirect effects are expected because the Project will not change patterns of use, circulation, or erosion. The horizontal extent of the APE is approximately 2.2 acres, and the vertical extent is 100 feet below MLLW.

Potential to Affect Historic Properties

Cultural Context

The Project is located in San Diego Bay, which is in the traditional territory of the Kumeyaay peoples (also known as Tipai-Ipai, formerly known as Kamia or Diegueno Mission Indians). At the time of European contact, the Kumeyaay lived in what is now southern California and Baja California, including the coastline from Mission Bay to lands south of Ensenada (Byrd and Raab 2007). Throughout the Holocene, Native American communities in the area were characterized at various times and places by "intensively maritime economies, seafaring, residential sedentism, and large-scale trade networks" (Byrd and Raab 2007:225). The Project area would have been an open water/subtidal zone traversed during on-water activities.

The Project area remained intertidal until the expansion of ship-building industries in the late 1930s. Figure 4 shows the Project area on U.S. Coast Survey nautical charts from 1918 to 2012. Dredging and filling to create uplands and deeper water in and adjacent to the Project area began around 1937 to 1938. Dredging and construction of a previous bulkhead occurred before 1958, based on an aerial photograph from that year (Photograph 1).

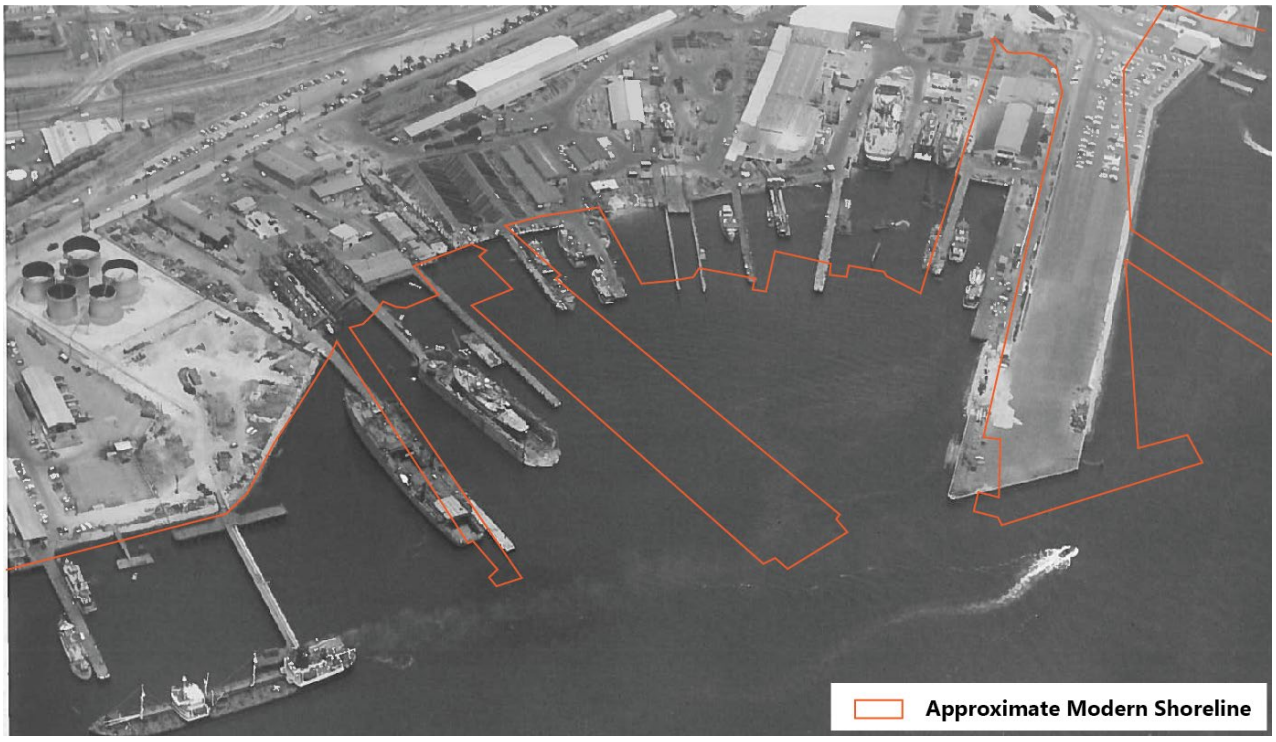
Ship repair activities have occupied the site since the 1930s. NASSCO began operations in the early 1960s, with a major renovation in the late 1970s and early 1980s. The pre-1958 bulkhead was likely replaced at that time. Table 1 lists construction dates for existing infrastructure that may be modified.

The bulkhead, Pier 12, and Berths 2 through 6 are less than 50 years old and are not historic properties. A pier in the location of Berths 1 and 2 were present as early as 1942; however, the original pier was a different shape than the existing pier: earlier versions were rectangular in shape, while the existing pier is trapezoidal. The trapezoidal shape appears on maps in 1973; it is likely that this structure was significantly renovated or replaced in 1972, when Berths 3 and 4 were added. Therefore, although the age of Berths 1 and 2 are unknown, and some individual elements such as piling may be older, the functional date of construction appears to be 1972.

A search of the California Historic Resources Information System was conducted in August 2020. The search revealed that no archaeological sites or historic structures have been recorded in the APE.

Two surveys have been conducted that overlap with the APE, but neither recorded historic properties in or near the APE (Dahl 2019; Welty 1913).

Photograph 1
1958 Aerial Photograph



Source: U.S. Army Corps of Engineers

Table 1
Construction Dates for Existing Infrastructure

Structure	Original Construction Date	Date of Major Modification
Bulkhead and Concrete Sills	1972	N/A
Repair Complex Wharf	1972	N/A
Pier 12 (complete demolition and rebuild of earlier Pier 12)	1979	1986
Berths 1 and 2	Unknown; likely circa 1972	N/A
Berths 3 and 4	Circa 1972	N/A
Berths 5 and 6	1980–1981	N/A
Dry Dock and Access	1983–1984	N/A

Sources: historicaerials.com, U.S. Geological Survey topographic maps, NASSCO records

Potential Historic Properties

Examination of nautical charts and Corps records reveal evidence of extensive dredging in the APE. Prior to historic activities, water depth was -3 to -12 feet below mean lower low water (MLLW) in the APE. After construction of the original bulkhead along the shoreline in the 1930s (Figure 2), it was -19 to -27 feet MLLW. The current depth is approximately -27 feet MLLW across the APE. Past maintenance dredging, most recently in 2018, was authorized to -37 feet MLLW. The extent of ground disturbance for pile installation will reach native sediments. However, the upper 25 to 34 feet have been removed by historic dredging. The deeper sediments that will be encountered have little likelihood to contain archaeological materials.

There are no structures older than 50 years in the APE; the existing infrastructure generally dates to the late 1970s and early 1980s. Under NRHP Criteria Consideration G, a property less than 50 years old can be eligible if it is of exceptional significance. A property can have exceptional significance if it is notable in context of other similar properties, if it has been the object of scholarly study, if it is fragile or short-lived, or if there is widespread recognition of its historical value (Sherfy and Luce 1998). The piers, berths, and bulkheads in the APE are of common construction and are not significantly associated with local, state, or national historical context. They have not been the object of scholarly study and are not ephemeral; therefore, the structures are recommended not NRHP-eligible.

Because the Project area is primarily in water, and potential for historic properties is low, no field survey was conducted.

Little Likelihood Analysis

Corps regulations in 33 CFR 325 3.b describe an initial review step that analyzes whether a proposed project has "little likelihood" to affect historic properties, as follows:

> b. In certain instances, the nature, scope, and magnitude of the work, and/or structures to be permitted may be such that there is little likelihood that a historic property exists or may be affected. Where the district engineer determines that such a situation exists, he will include a statement to this effect in the public notice. Three such situations are:
>
> (1) Areas that have been extensively modified by previous work. In such areas, historic properties that may have at one time existed within the permit area may be presumed to have been lost unless specific information indicates the presence of such a property (e.g., a shipwreck).
>
> (2) Areas which have been created in modern times. Some recently created areas, such as dredged material disposal islands, have had no human habitation. In such cases, it may be presumed that there is no potential

for the existence of historic properties unless specific information indicates the presence of such a property.

(3) Certain types of work or structures that are of such limited nature and scope that there is little likelihood of impinging upon a historic property even if such properties were to be present within the affected area.

The first and third situations are applicable to Project. For situation 1, the Project area has been extensively modified by documented previous dredging and remodeling of the landform. No specific information exists that might indicate that historic properties are still present. For situation 2, the nature and scope of the work is such that no structures will be modified or demolished for the Project, so the only potential effect is in-water ground disturbance.

Therefore, the nature, scope, and magnitude of the work is such that there is little likelihood of affecting historic properties.

Recommendations

It is recommended that the Corps determine that no historic properties will be affected by the Project. No further cultural resources research or field work is recommended.

References

Byrd, B.F., and L.M. Raab, 2007. "Prehistory of the Southern Bight: Models for a New Millennium." *California Prehistory*. Editors, T. Jones and K. Klar; pp. 215–227. New York, NY: Rowman & Littlefield.

Navy (U.S. Department of the Navy), 2013. *Integrated Natural Resources Management Plan*. Accessed July 15, 2020. Available at: https://pantheonstorage.blob.core.windows.net/environment/San-Diego-Bay-Integrated-Natural-Resources-Management-Plan_Sep2013.pdf.

Sherfy, Marcella, and W. Ray Luce, 1998. *Guidelines for Evaluating and Nominating Properties that Have Achieved Significance within the Past Fifty Years*. National Register of Historic Places Bulletin 22, U.S. Department of the Interior, Washington, DC.

Figures

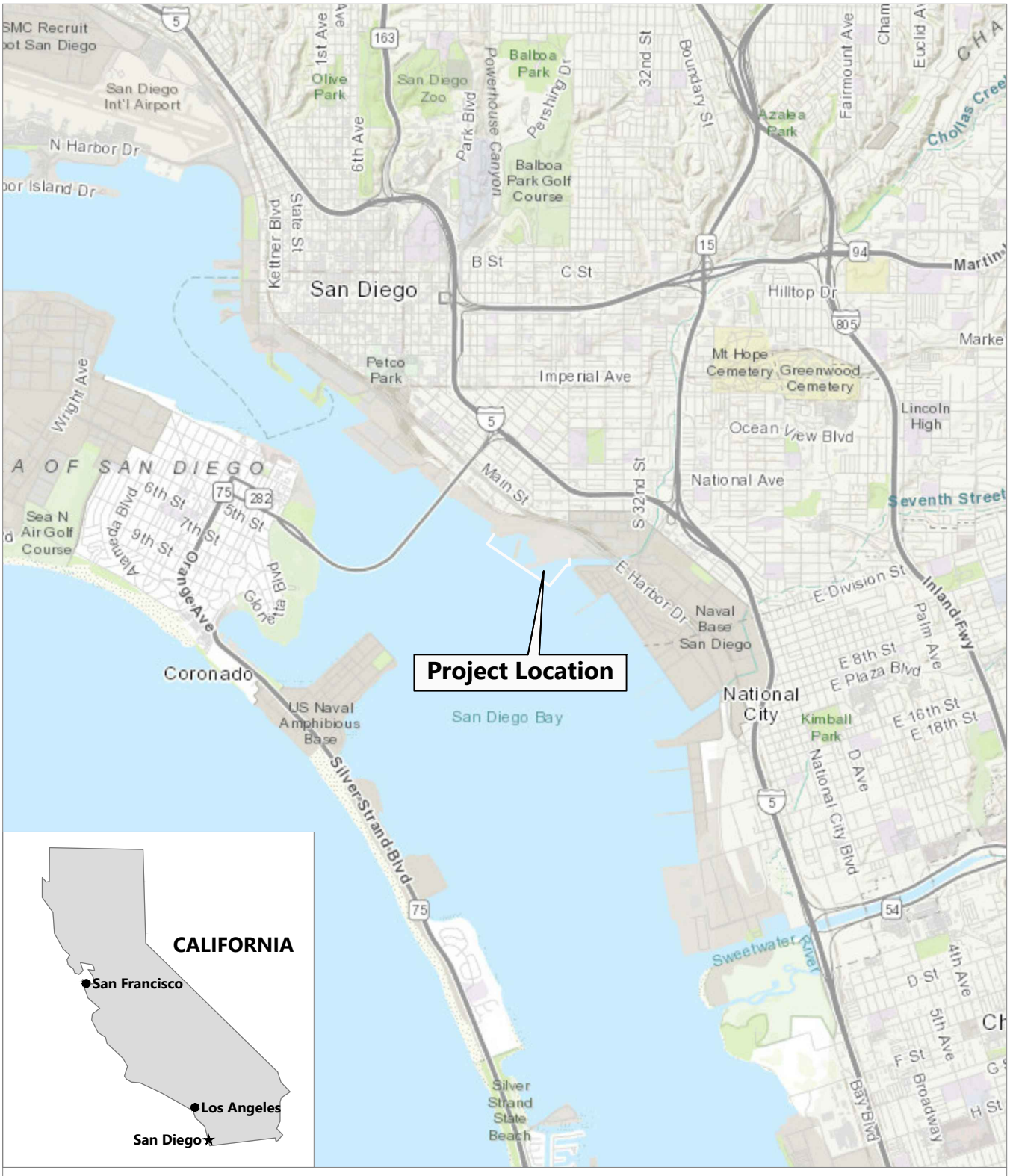


IMAGE SOURCE: ESRI
HORIZONTAL DATUM: California State Plane, Zone 6, North American Datum of 1983 (NAD83), U.S. Feet

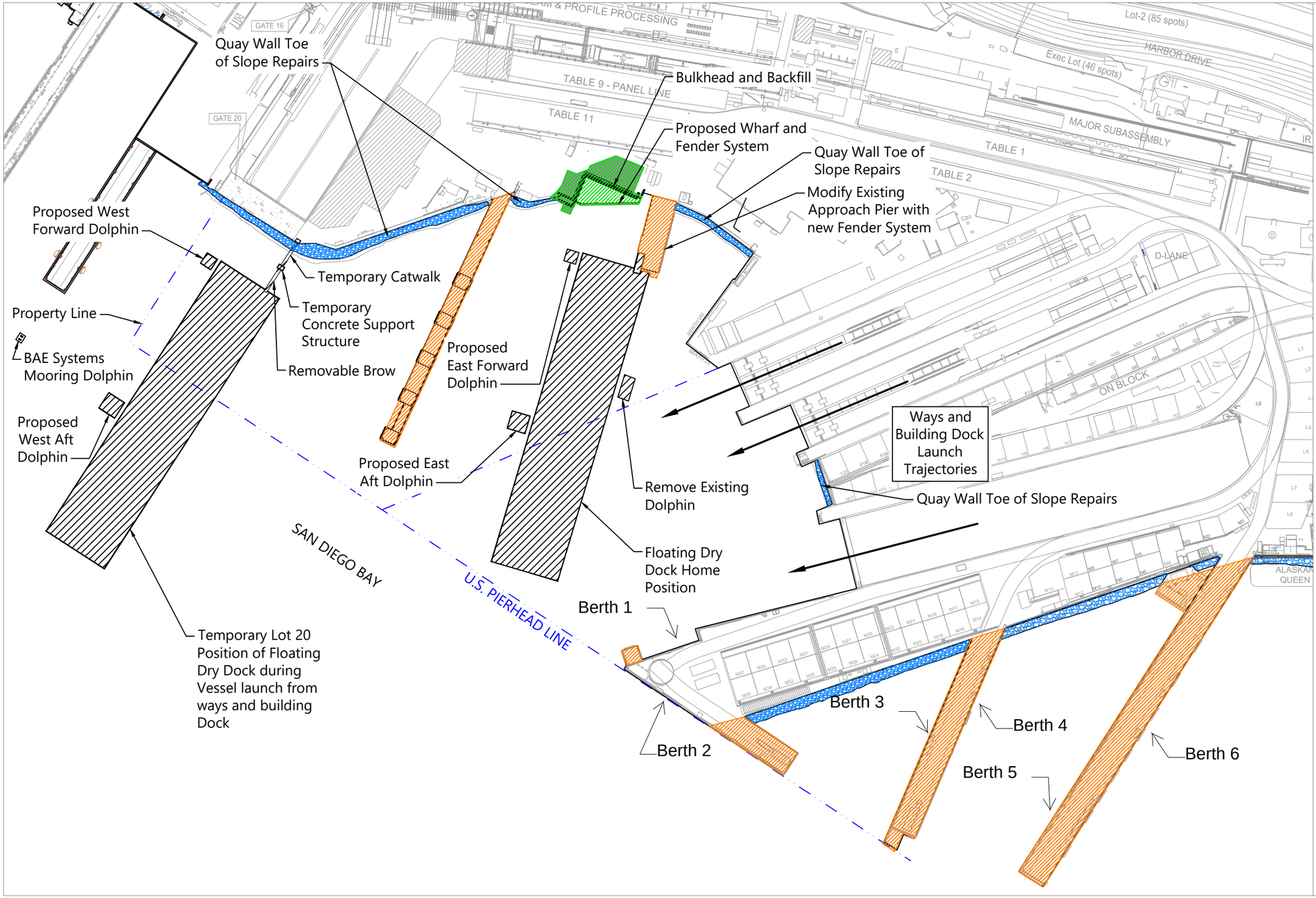
0 1
Miles

Publish Date: 2020/07/09 11:46 AM | User: bhurry
Filepath: K:\Projects\0496-General Dynamics NASSCO\Drydock Permitting and Mitigation Support\0496 RP-001 (Vicinity).dwg Figure 1

ANCHOR QEA

Figure 1
Vicinity Map

Cultural Resources Assessment
Floating Dry Dock and Waterfront Improvement Project



LEGEND:

- US Pierhead Line
- Dry Dock Improvements
- Structural Pile Repair and Replacement
- Quay Wall Toe of Slope Repairs
- Repair Complex Wharf Improvements

0 250
Feet

SOURCE: Upland Topography provided by Owner, Dated March 08, 2013; Verified by Environmental Data Solutions April 10-11, 2013, In SMA Area only.
HORIZONTAL DATUM: California State Plane, Zone VI,North American Datum of 1983 (NAD83), U.S. Survey Feet
VERTICAL DATUM: Mean Lower Low Water (MLLW)

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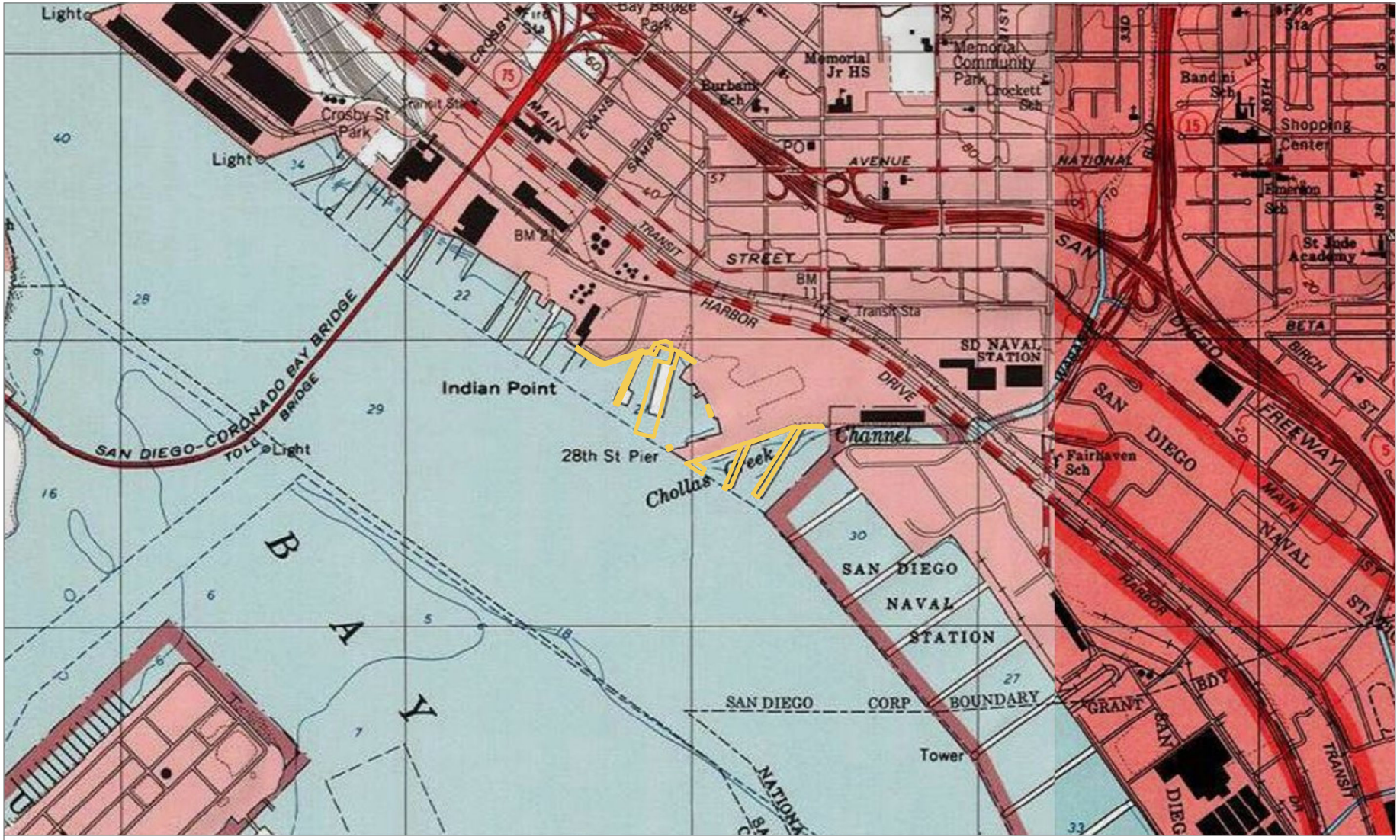
Filepath: K:\Projects\0496-General Dynamics NASSCO\Drydock Permitting and Mitigation Support\0496 RP-002.dwg Figure 2

ANCHOR QEA

Figure 2
Existing and Proposed Improvements

Floating Dry Dock and Waterfront Improvement Project
General Dynamics - NASSCO



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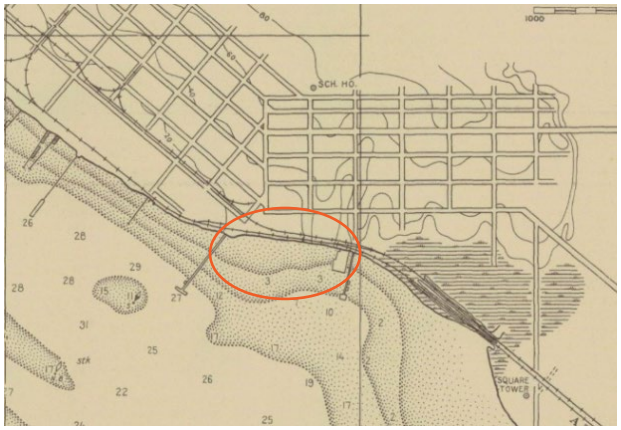
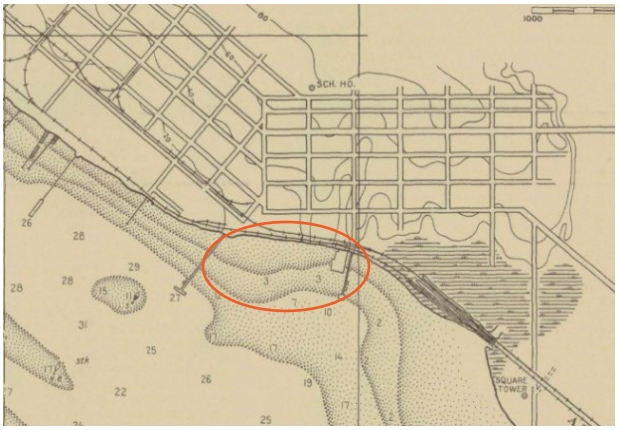
Filepath: Q:\Jobs\NASSCO\Maps\DryDockPermittingSupport\NASSCO_DryDock_CR_Fig3_APE.mxd

ANCHOR QEA

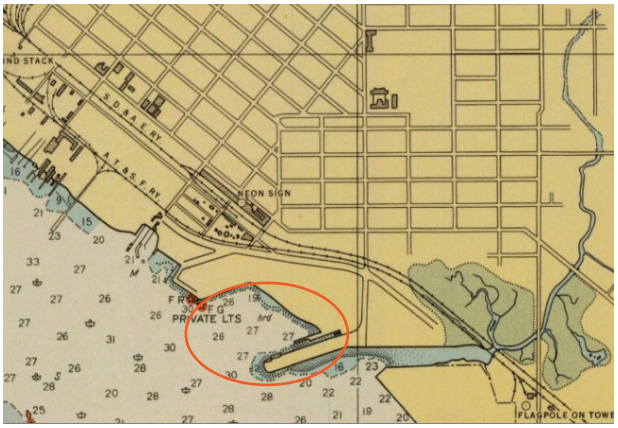
Figure 3
Recommended Area of Potential Effects
Cultural Resources Assessment
Floating Dry Dock and Waterfront Improvement Project



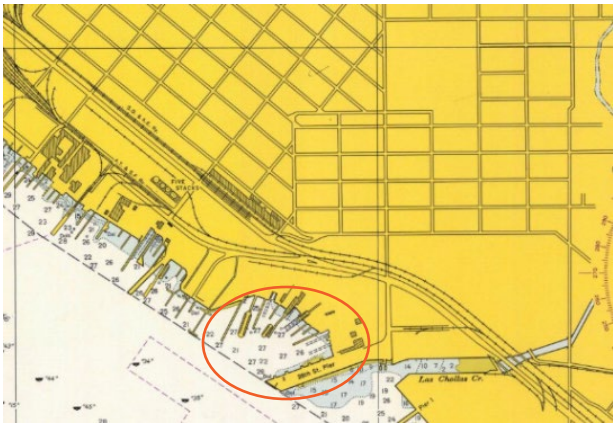
1918 San Diego Bay Nautical Chart



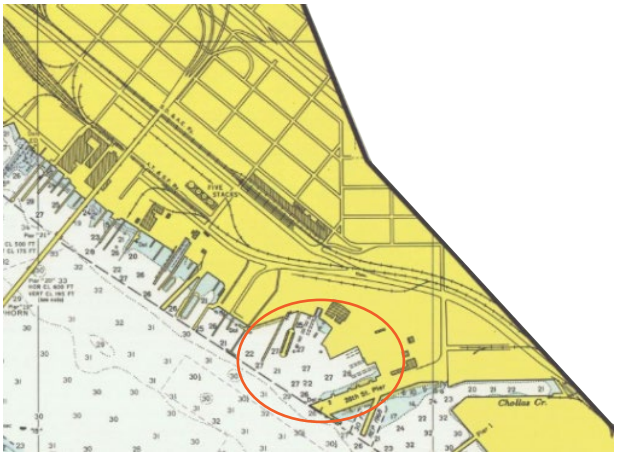
1928 San Diego Bay Nautical Chart



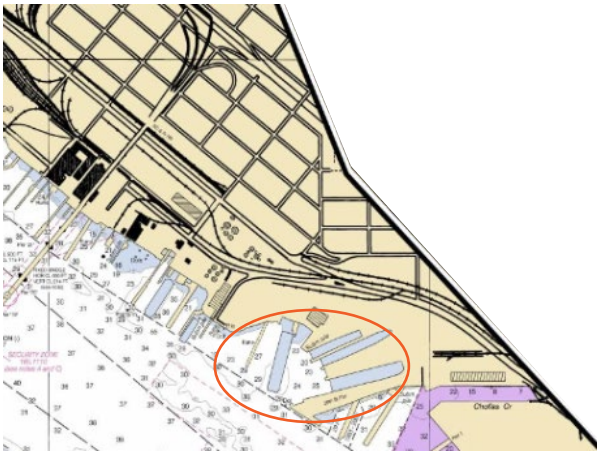
1941 San Diego Bay Nautical Chart



1966 North San Diego Bay Nautical Chart



1973 San Diego Bay Nautical Chart



2012 San Diego Bay Nautical Chart

Project Vicinity

Filepath: S:\PROJECTS\NASSCO\Drydock_Program_Support(#)\Permitting\Cultural Resources\NASSCO Dry Dock CR Fig4 - HistoricMaps.docx

ANCHOR QEA

Figure 4
Shoreline Development in North San Diego Bay
Cultural Resources Assessment
Floating Dry Dock and Waterfront Improvement Project

Appendix I

Geotechnical Investigation

GEOTECHNICAL INVESTIGATION
NEW LARGE FLOATING DRY DOCK
GENERAL DYNAMICS-NASSCO SHIPYARD
SAN DIEGO, CALIFORNIA

Prepared for
R.E. STAITE ENGINEERING, INC.
San Diego, California

Prepared by
TERRACOSTA CONSULTING GROUP, INC.
San Diego, California

Project No. 3109
August 10, 2020
Revised: August 12, 2020

TerraCosta Consulting Group

Geotechnical Engineering
Coastal Engineering
Maritime Engineering

Project No. 3109
August 10, 2020
Revised: August 12, 2020

Mr. Jim Maczko
R.E. STAITE ENGINEERING, INC.
2145 E. Belt Street
San Diego, California 92113

GEOTECHNICAL INVESTIGATION
NEW LARGE FLOATING DRY DOCK
GENERAL DYNAMICS-NASSCO SHIPYARD
SAN DIEGO, CALIFORNIA

Dear Mr. Maczko:

TerraCosta Consulting Group, Inc. (TerraCosta) is pleased to submit this report presenting the results of our geotechnical investigation and subsequent studies for the proposed improvements including a sheet piled bulkhead, wharf and fender system, dry dock approach pier fenders, dry dock mooring dolphins, catwalk support, and associated shoreline repairs, in support of a new large floating dry dock at the General Dynamics-NASSCO Shipyard in San Diego, California.

The accompanying report was prepared in general accordance with our Proposal No. 20012, dated April 14, 2020. With respect to the technical aspects of the project, this report presents the results of our field investigation, laboratory testing, and engineering analyses of the subsurface conditions at the site, as well as our conclusions and recommendations pertaining to the various geotechnical aspects of the proposed improvements.

We appreciate the opportunity to be of service and trust this information meets your needs. If you have any questions or require additional information, please give us a call.

Very truly yours,
TERRACOSTA CONSULTING GROUP, INC.

Matthew W. Eckert, Ph.D. Director of Engineering, R.C.E. 45171, R.G.E. 2316

Gregory A. Spaulding, Project Geologist P.G. 5892, C.E.G. 1863

MWE/GAS/jg
Attachments

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GEOTECHNICAL INVESTIGATION
NEW LARGE FLOATING DRY DOCK
GENERAL DYNAMICS-NASSCO SHIPYARD
SAN DIEGO, CALIFORNIA

1 INTRODUCTION AND PROJECT DESCRIPTION

The proposed project site is generally located within the northwest area of the General Dynamics-NASSCO Shipyard located at 2798 Harbor Drive, San Diego, California. As we understand, the existing NASSCO floating dry dock, "Builder," will ultimately be replaced by the proposed new large floating dry dock described herein. Builder is presently located east of Pier 12, south of Buildings 19 and 20, and between Berths 8 and 9. Figure 1, the Vicinity Map, indicates the approximate location of the subject site. A Site Plan is presented as Figures 2a and 2b.

As we understand, the proposed improvements will include construction of a sheet-pile bulkhead supported by precast concrete batter piles; a triangular-shaped wharf supported by octagonal vertical precast concrete piles and associated fender system; dry dock approach fenders; dry dock mooring dolphins; a catwalk support to access the floating dry dock while moored in its temporary position; and shoreline repairs between Berths 2 and 6. The shoreline improvements will consist of repairs to the existing rock revetment located within the area described. We also understand that landside improvements may also be proposed but are not a part of this study. The above improvements will facilitate the placement of a new 35,000-ton dry dock.

The design, construction, and dredging for this project are to be performed in accordance with the requirements of the most current California Building Code (CBC) applicable at the time of permitting and within the constraints identified in this report, as well as constraints imposed by any applicable permits.

Lastly, we understand that at the time of preparation of this report, no modification or refinements have been identified for the final design requirements. If, however, any additional site testing or design evaluation become necessary, appropriate changes will be made to this report, as warranted, and such changes will be submitted to the San Diego Unified Port District by General Dynamics-NASSCO for review and approval.

2 PURPOSE AND SCOPE OF INVESTIGATION

The purpose of this investigation is to provide geologic and geotechnical information to assist General Dynamics-NASSCO and their consultants in the design, dredging, and construction for the above-described project.

According to NASSCO's Request for Proposal (RFP), the project will include the following elements:

- Sheet-Pile Bulkhead: An approximately 293-foot-long steel sheet-pile bulkhead laterally supported by precast concrete batter piles will be constructed and the water area backfilled to an elevation that approximately matches the elevation of the existing pavement at the site.

- Wharf: The proposed wharf will be a triangular-shaped structure with a plan area of approximately 6,330 square feet supported by thirty four 24-inch octagonal vertical precast concrete piles. The deck thickness will be nominally 20 inches.

- Wharf Fender System: An approximately 140-foot-long piled fender system consisting of seventeen 14-inch square precast piles will be installed along the waterside edge of the proposed wharf. The deck level fender system will consist of rubber fender units, timber walers, and timber chocks supported by the fender piles.

- Dry Dock Approach Pier Fenders: The east side of the existing concrete approach pier that provides access to the dry dock will be protected by a 150-foot-long fender system consisting of eighteen 14-inch square P.C. fender piles, rubber fender units, timber walers, and timber chocks.

- Dry Dock Mooring Dolphins: Four concrete pile-supported mooring dolphins will be constructed as part of the dry dock project. Two of the dolphins will be constructed to secure the proposed dry dock in its permanent position, which will be located in the same general position as the existing dry dock. A second pair of dolphins will be constructed near the property boundary with BAE Systems to be used for temporary mooring of the new floating dry dock when ships are launched from Ways 4.

- Catwalk Support: A connecting catwalk and gangway system will be constructed near Gate 20 to access the floating dry dock while moored in its temporary position. The outboard end of the catwalk and the inboard end of the gangway will be supported by a concrete cap constructed on a pair of 16-inch round or square concrete piles.

- Shoreline Repairs: Approximately 950 lineal feet of exposed shoreline exists between Berths 2 and 6. The revetment is constructed from rock riprap and stacked slabs of concrete. Repairs to the revetment comprise a buildup of a new rock toe at approximate elevation 0 feet MLLW and overlay of the existing revetment slope with an approximate 9-inch layer of filter stone and 2-foot layer of 1/4-ton riprap rock.

SCOPE OF WORK

In accordance with NASSCO's RFP, TerraCosta performed the following scope of work:

- Reviewed readily available geotechnical reports, maps, literature, and other data pertinent to the NASSCO facility.

- Drilled, logged, and sampled seven offshore soil borings at the locations laid out in the RFP.

- Performed laboratory testing on select soil samples, including in-situ moisture content and dry density, direct shear, and gradation on the relatively undisturbed samples.

- Assessed faulting, general seismic conditions, and other geologic hazards affecting the area and their potential impact on the project, including:
  - Seismic response spectrum for use in design of new pile-supported concrete wharf.
  - Seismic design parameters, including soil profile types, seismic coefficients, near-source factors, etc., for design of structures.

- Performed geotechnical analyses and interpretation of collected data and provided descriptions of the different soil strata encountered.

- Prepared this report, which presents descriptions of field and laboratory procedures and equipment, maps of explorations, results of laboratory tests, and recommendations regarding design parameters for dredging, design of marine piles, and lateral earth pressures for the design of sheet-pile bulkheads.

We also performed the following scope of work for design input:

<u>For 16-inch Square PC Pile Capacity Curves</u>

- Prepared curves that provide ultimate axial compression capacity for a range of pile tip elevations and a range of existing sea bed elevations: Curves are provided for sea bed elevations of 0.0, -5, -10, -15, -20, and -25 feet (MLLW) with pile tip elevations from -20 to -70 feet in increments of 5 feet. The curves provide ultimate compression capacity in kips.

- Prepared curves that provide ultimate uplift capacity for a range of pile tip elevations and a range of existing sea bed elevations: Curves are provided for sea bed elevations of 0.0, -5, -10, -15, -20, and -25 feet (MLLW) with pile tip elevations from -20 to -70 feet in increments of 5 feet. The curves provide ultimate uplift (tension) capacity in kips, and indicate whether ultimate uplift capacities include weight of the pile.

<u>For 18-inch Square PC Pile Capacity Curves</u>

- Prepared curves that provide ultimate axial compression capacity for a range of pile tip elevations and a range of existing sea bed elevations: Curves are provided for sea bed elevations of 0.0, -5, -10, -15, -20, and -25 feet (MLLW) with pile tip elevations from -20 to -70 feet in increments of 5 feet. The curves provide ultimate compression capacity in kips.

- Prepared curves that provide ultimate uplift capacity for a range of pile tip elevations and a range of existing sea bed elevations: Curves are provided for sea bed elevations of 0.0, -5, -10, -15, -20, and -25 feet (MLLW) with pile tip elevations from -20 to -70 feet in increments of 5 feet. The curves provide ultimate uplift (tension) capacity in kips, and indicate whether ultimate uplift capacities include the weight of pile.

For 24-inch Octagonal PC Pile Capacity Curves

- Prepared curves that provide ultimate axial compression capacity for a range of pile tip elevations and a range of existing sea bed elevations: Curves are provided for sea bed elevations of -20, -30, -40, and -50 feet (MLLW) with pile tip elevations from -50 to -110 feet in increments of 10 feet. The curves provide ultimate compression capacity in kips.

- Prepared curves that provide ultimate uplift capacity for a range of pile tip elevations and a range of existing sea bed elevations: Curves are provided for sea bed elevations of -20, -30, -40, and -50 feet (MLLW) with pile tip elevations from -50 to -110 feet in increments of 10 feet. The curves provide ultimate uplift (tension) capacity in kips, and indicate whether ultimate uplift capacities include weight of the pile.

Other Design Recommendations

- Lateral load capacity for vertical piles assuming both fixed-head and free-head conditions (p-y curves).

- Information on how pile capacities are affected by proximity of piles to one another.

- Recommendations on pile jetting and impact on pile capacities if piles are jetted through clay layers.

- Dredged slope stability: Dredging near the northern property boundary near Gate 20 at the locations of mooring dolphins may be required in the future to create a sump for another floating dry dock. We understand that the invert of a dredged sump may be in the range of -55 to -60 feet. Recommended stable slopes for the different types of soils encountered from elevation -30 to -55 feet (MLLW) are provided.

3 PREVIOUS STUDIES, FIELD INVESTIGATION, AND LABORATORY TESTING

3.1 Previous Studies

The following studies, which were prepared for the project site, were reviewed:

- "Report Geotechnical Investigation, Module Assembly and Loadout Facility for National Steel and Shipbuilding Company, San Diego California," dated July 20, 1983, prepared by Dames & Moore.

- "Geotechnical Investigation for the Proposed NASSCO Floating Dry Dock and Mooring Facility," dated January 17, 1983, prepared by Woodward-Clyde Consultants.

In addition, we reviewed the following studies prepared by our firm for nearby projects:

- "Geotechnical Investigation, Pier 4 Replacement Project, BAE Systems San Diego Ship Repair, San Diego, California," dated October 18, 2011.

  The Pier 4 Replacement investigation included a geophysical evaluation of the subsurface shear wave velocity profile, which consisted of performing a refraction microtremor (ReMi™) survey. The ReMi technique uses recorded surface waves (Rayleigh waves) that are contained as background noise to develop a shear wave velocity profile of the site. The geophysical data from that survey was considered during the investigation for the subject project.

- "Geotechnical Investigation, Pier 1 North, Large Dry Dock, BAE Systems San Diego Ship Repair, San Diego, California," dated November 7, 2014.

- "Final Geotechnical Investigation, Pier 1 North, Large Dry Dock, BAE Systems San Diego Ship Repair, San Diego, California," dated October 13, 2015, revised January 22, 2016.

- "Geotechnical Investigation, Chollas Creek Quaywall Replacement, Naval Base San Diego, San Diego, California" dated June, 2020.

A complete list of documents reviewed is provided in the References section at the end of this report.

3.2 **Subsurface Investigation**

Our field investigation consisted of advancing, sampling, and logging a total of seven offshore borings to assess the underlying soil characteristics in the project area. Test borings were advanced from a spud barge operated by R.E. Staite between May 12 and 19, 2020. The approximate locations of our test borings are shown on the Site Plan (Figures 2a and 2b).

Borings were drilled by Pacific Drilling of San Diego, California, using a Marl M10 drill rig with 6-inch hollow-stem augers. Borings were advanced to depths ranging from 31.5 feet (B-1a) to 91.5 feet (B-2) below the mudline, to a maximum ground elevation of -116.5 (B-1b) feet MLLW. Samples were obtained from the test borings using both a 2-inch O.D. Standard Penetration Test sampler and a 3-inch O.D. "California Sampler." The samplers were advanced by driving them into the soil at the bottom of the drill hole using a 140-pound hammer falling 30 inches. Samples obtained from the borings were sealed in the field to preserve in-situ moisture, and transported to the laboratory for additional inspection and testing. The drilling operations were observed, and borings logged and soils classified, by a registered geologist from TerraCosta. Field logs of the materials encountered in the test borings were prepared based on visual examination of the materials, and on the action of the drilling and sampling equipment. The descriptions on the logs are based on our field observations, sample inspection, and laboratory test results. A Key to Excavation Logs is presented in Appendix A as Figure A-1, and final logs of test borings are presented as Figures A-2 through A-5.

3.3 **Laboratory Testing**

Representative samples of the soils encountered and collected during our field investigation were tested in the laboratory to aid in our evaluation of their engineering characteristics. Laboratory testing included moisture/density relationships, grain size distribution, hydrometer, liquid and plastic limit, and shear strength. Laboratory test results were used in conjunction with the results of our field program and our experience with similar materials to evaluate the strength and compressibility characteristics of soils at the site. Laboratory test results are presented in Appendix B.

4 EXISTING SURFACE CONDITIONS AND GEOLOGIC SETTING

The subject study area includes the area immediately westerly of and within the vicinity of the existing NASSCO dry dock "Builder"; the open water area between Builder and east of the 780-foot-long Pier 12; the open water area northwest of Builder adjacent to the existing pile-supported timber wharf, and east of the crane rail extension bridge; and the general area east of Pier 12, and west of the approximately 700-foot-long concrete pile-supported Pier 4. The subject study area extends bayward approximately 650 feet from the revetted shoreline located between Piers 4 and 12, near the approximate location of Boring B-1. A steel sheet-pile bulkhead extends approximately 150 feet west of Pier 4, where it intersects with the aforementioned revetted shoreline. The segment of shoreline west of Pier 12 and east of the existing timber wharf is also revetted. Although no specific measurements were taken, the revetment slopes appear to generally be inclined at approximate slopes ranging from 1:1 to 1.5:1 (horizontal to vertical). The dredge slopes for the existing dry dock basin range from 2.5:1 to 4:1 (horizontal to vertical).

4.1 Site Development

The project site is located along the eastern edge of San Diego Bay. The site as it existed in 1857 is shown on Figure 3a. Over time, the eastern edge of the bay at the site was developed. Figures 3a through 3d show the progression of site development. As illustrated in Figures 3a to 3d, the site was developed by reclaiming land and by building out over the historic mudflats.

4.2 Geologic and Geomorphic Setting

The project site is located within the Peninsular Ranges Geomorphic Province. Easterly of the site lies the dissected San Diego coastal plain, which abuts the San Ysidro and Jamul Mountains. Carved out along the westerly margin of Otay Mesa (and the San Diego coastal plain) is a series of coastal terraces formed at various sea level still stands during Pleistocene time. Regional uplift, faulting, and erosion have modified these distinctive erosional features. Over the last million years, the San Diego region is estimated to have risen at an average rate of about 5.5 inches per 1,000 years (Abbott, 1999). In the last 80,000 years, the rate of uplift has increased to nearly 12 inches per 1,000 years northwest of the Rose Canyon

fault zone, and approximately 18 inches per 1,000 years southwest of the Rose Canyon fault zone.

Conversely, these tectonic forces have also caused down-dropping of the region within San Diego Bay. Following the Rose Canyon fault zone southerly, tectonic forces are spread across three major faults (and quite possibly other unidentified faults) that underlie San Diego Bay. These faults (the Silver Strand, Coronado, and Spanish Bight Faults) are believed to transfer tectonic forces to the Descanso Fault, which extends from offshore of Point Loma and continues southerly into Mexico. The right step that occurs between the Rose Canyon and the Descanso fault zones creates a releasing bend that causes the rocks underlying the bay to be stretched and down-dropped to accommodate the movement caused by these tectonic forces. Typical movements along the faults that underlie the bay are observed to experience a significant vertical or normal component to their movement.

From the standpoint of the overall geologic structure, San Diego Bay is a down-dropped faulted trough lying just west of a stable hinterland-coastal plain. Bedrock on the east side of the zone has been slightly deformed as opposed to that on the west side. Faults to the east (i.e., La Nacion-Sweetwater Faults) display down-to-the-west normal displacement. The Rose Canyon system exhibits right-slip (lateral) displacement and is believed to represent a portion of the motion between the North American and Pacific Tectonic Plates. The normal faults that parallel the margins of the bay are likely a result of stretching, subsidence, and compaction of the sedimentary deposits within the San Diego Embayment.

4.3 **Site Geology**

The local surface geology in the site vicinity is shown on Figures 4a and 4b. Figure 4a shows the current interpretation of surface geology, whereas Figure 4b shows a previous interpretation of surface geology. To further illustrate site geology and subsurface conditions, we developed two generalized geologic cross sections (Figures 5 and 6) that traverse the site (see Figures 2a and 2b). A general description of site geology is presented below.

As illustrated on Figures 4a and 4b, during the previous century, an approximately 750-foot to 1,000-foot-wide strip of artificial fill was placed adjacent to the bayshore, inclusive of the existing landward portion of the NASSCO Shipyard. The fill was most likely derived by a

combination of dredging of the harbor floor and locally derived fill soils. The thickness of the fill is estimated to be very thin at its distal eastern edge. Based upon review of the aforementioned previous studies, the thickness toward the bay end likely reaches approximately 8 to 12 feet adjacent to the revetted shoreline, existing timber wharf, and crane rail extension bridge. Underlying the fill are young Holocene-age unconsolidated bay sediments that are generally known to extend to an elevation of approximately -32 feet MLLW in the vicinity of Borings B-5, B-6 and B-7. As subsidence occurred in the bay, sediment was flushed out of the uplands and was slowly deposited over older Pleistocene-age sediments, leaving the terrace deposits (including both the older and younger quaternary deposits) that mantle the coastal terraces around San Diego Bay.

Overlying the San Diego Formation are Quaternary-age terrace deposits. These nearshore marine and non-marine deposits are generally composed of interbedded fine- to medium-grained, poorly to moderately consolidated silts, sands, and conglomerate. The sands vary from well to poorly sorted.

The Quaternary-age deposits were deposited on wave cut platforms (terraces) eroded into the Pliocene-age San Diego Formation. This old surface is estimated to extend offshore to a depth locally in excess of 150 feet below present sea level. Where exposed inland, the San Diego Formation consists of semi-consolidated fossiliferous fine-grained yellow-white/gray sandstone, with lenses of well rounded cobble conglomerate. Reportedly, as the San Diego Formation extends southerly to Mexico, it reaches at least an estimated thickness of 300 feet. Based on the shear wave velocity profile from the Pier 4 Replacement Project, we estimate that the top of the San Diego Formation is near elevation -150 feet, MLLW.

Based upon review of Woodward-Clyde's 1983 Geotechnical Investigation, we understand that the dredging of the basin for the current floating dry dock (Builder) resulted in an excavation bottom of approximately –55 feet (MLLW). Since that time, other minor dredging operations have also taken place within the vicinity of the NASSCO shipyard. Within the area that was dredged, recent bay deposits generally form a relatively thin (approximately 3 to 7-foot-thick) veneer covering the previously dredged surface of the bay floor.

4.4 **Stratigraphy (Soil Conditions)**

The materials encountered within the depths explored consist of recent bay deposits, younger Quaternary-aged terrace deposits, and older Quaternary-aged terrace deposits. These deposits are in turn underlain by the San Diego Formation at depth.

Generalized geologic cross sections of the stratigraphic conditions within the general project area are presented on Figures 5 and 6, with the locations of those sections indicated on Figures 2a and 2b.

More detailed descriptions of the soil units encountered, from oldest to youngest, are presented below.

San Diego Formation: Based upon our 2011 geophysical study for the Pier 4 Replacement Project, located approximately 500 feet northwest of Boring B-2, the top of the San Diego Formation in the area of the new floating dry dock is estimated to be near elevation -150 feet MLLW. The San Diego Formation typically consists of yellow-brown to gray-brown, fine- to medium-grained, poorly to moderately indurated sands and siltstones. The San Diego Formation is described in the literature as being late Pliocene to early Pleistocene in age, covering an area from the southerly flanks of Mount Soledad south to Rosarito Beach in Baja California, Mexico.

Older Quaternary Deposits: The older terrace deposits generally consist of olive-brown to gray-brown, dense to very dense silty sands, stiff to hard sandy silts, clayey silts, and silty clays of varying plasticity. These deposits are likely partially derived from the underlying San Diego Formation and were encountered at depths ranging from approximately -60 feet (Borings B-5 through B-7) to -85 feet (Boring B-1) MLLW.

Younger Quaternary Deposits: Younger quaternary-aged terrace deposits cover much of San Diego's coastline and generally include a series of middle to late Pleistocene-age paralic deposits derived from the local formational soils. Within the study area, these deposits generally consist of interbedded, medium dense, red-brown to olive-brown sands, silty fine sands, fine sandy to clayey silts, silty to fine grained sandy clays, and isolated layers of highly plastic clays. These deposits were generally encountered at depths ranging from approximately -37 feet (Borings B-1 and B-2) to -55 feet MLLW

(Borings B-3 and B-5). Variations in the depths at which the younger Quaternary deposits were encountered are due to the aforementioned dredging that took place associated with development of the shoreline and shipyard. Borings B-5, B-6, and B-7 were advanced within the previously dredged area near the existing timber wharf and encountered the younger terrace deposits near elevation -32 feet MLLW.

Bay Deposits: Bay deposits encountered during our recent investigation generally consist of loose to medium dense, gray, micaceous silty sand with occasional shell fragments, gravels, and soft clayey silt lenses. These bay deposits generally form a relatively thin (3- to 4-foot-thick) veneer covering the previously dredged surface of the bay floor. Outside the limits of dredging in the vicinity of Borings B-5, B-6, and B-7, these bay deposits extended to an approximate elevation of -32 feet MLLW.

4.5 **Groundwater**

We estimate that, due to tidal fluctuations, transient (landside) groundwater highs in the area may periodically reach a maximum of +8 feet MLLW (+7.89 feet NAVD88), particularly along the western margins of the landward improvements within the NASSCO Shipyard.

4.6 **Faulting and Seismicity**

From a seismic standpoint, the site is located within a seismically active region that has experienced earthquakes in recent historic time. The site is located approximately 1,800 feet south-southeast of the Silver Strand Fault, which is considered active, having demonstrated fault activity during the last 10,000 years. Studies for the Coronado Bay Bridge (Kennedy and Clarke, 1999), as well as other studies, have identified numerous faults under San Diego Bay (Figures 7 and 8). Many of these faults express a normal component (up/down) of movement that is related to the extensional forces that caused the opening of San Diego Bay.

4.6.1 *Faulting at the Site*

The project area is located along the easterly margins of San Diego Bay and east of the Silver Strand fault segment of the Rose Canyon fault system (Figures 7 and 8). Numerous secondary fault strands have also been identified within this part of the bay (Legg and Weld, 1980). According to the Quaternary Fault and Fold Database, the northern terminus of two

secondary fault segments of the Silver Strand Fault trend toward the area occupied by Pier 12.

5 GEOLOGIC HAZARDS

5.1 Introduction

Each project may be exposed to risks associated with various geologic hazards. Many of those hazards are associated with the actions of earthquakes and faulting, as well as other hazards that may impact the proposed project. A brief description of the various geologic hazards and their impact on the project site is presented below.

5.2 Geologic Hazards Associated with Earthquakes

Geologic hazards generally associated with earthquakes include ground rupture, ground shaking, tsunamis, seiches, seismic-induced flooding, liquefaction, seismic-induced ground settlement, and seismic-induced slope instability. With respect to these hazards, we have the following comments.

5.2.1 *Ground Rupture*

An assessment of the potential risk and magnitude of potential fault rupture is beyond the scope of this report. However, a review of USGS and CGS maps indicates that a number of small faults exist underlying San Diego Bay. These smaller faults are likely related to the opening of the San Diego Embayment Graben and are interpreted as being Potentially Active (Figure 7). No known active faults are mapped as passing or trending through the site.

In addition, the site is located approximately 0.55 miles from the closest A-P zone (Figure 8). As such, the risk associated with ground rupture is considered low.

5.2.2 *Ground Shaking*

Historically, a number of larger earthquakes with magnitudes greater than 4.0 have occurred near the site within and around San Diego Bay. The most recent earthquake with magnitude 4.0 occurred in June 1985, with the epicenter located approximately 0.9 mile south of the site

on the Silver Strand Fault. The closest and largest historically documented earthquake is reported to have occurred approximately 3.2 miles from the site. That earthquake, reported to have occurred on May 27, 1862, had an interpreted magnitude of 5.9. Using the computer program EQSEARCH, which contains a database of historical earthquakes from 1800 to 2007, and a Soil Class D, we estimate the likely historic peak ground acceleration at the site to have been on the order of 0.33g. As such, the risk associated with ground shaking is considered very high.

5.2.3 *Tsunamis and Seiches*

Tsunamis and seiches are considered likely hazards at this project site. A review of the Tsunami Inundation Map for Emergency Planning for San Diego Bay, dated June 1, 2009, shows the site as lying within a tsunami inundation area (Figures 9a through 9c).

Recently, San Diego Bay experienced the effects of two tsunamis generated by large, distant earthquakes (the 2010 M8.8 Chilean earthquake and the 2011 M9.0 Japan earthquake). Measurements and observations indicated that areas around the bay experienced tsunami amplitudes on average of 2 feet (0.6 meter), with a maximum of approximately 3.9 feet (1.2 meters) observed at Shelter Island. Docks and boats in the bay experienced moderate damage caused by the unusually high current speeds within some of the basins associated with the water surface changes, estimated locally to be upwards of 12 to 15 knots. As such, the risk associated with tsunamis and seiches is considered high.

5.2.4 *Liquefaction*

Three key components are required for liquefaction to occur: liquefaction-susceptible soils, groundwater, and strong ground shaking. Soils susceptible to liquefaction are generally loose to medium dense sands and non-plastic silt deposits located below the water table. Some of the soil within the recent bay deposits and bay deposits are comprised of saturated loose to medium dense sands, non-plastic silts, and loose bay deposits. These soils are potentially liquefiable. However, the soils comprising the younger and older terrace deposits are not considered liquefiable.

5.2.5 *Lateral Spreading*

Lateral spreading is likely to occur within the recent bay deposits, the bay deposits, and some fill soils that surround the bay.

5.2.6 *Seismic-Induced Slope Instability*

Slopes comprised of recent bay deposits and bay deposits, some fill soils containing loose sands and soft clays may be subject to seismic-induced slope instability.

5.2.7 *Landslides*

A review of aerial photographs, published reports and geologic maps, and our site reconnaissance did not reveal any features indicative of ancient natural landslides on or adjacent to the proposed project site limits. In our opinion, the risk associated with landslides at the site is negligible.

6 RECOMMENDATIONS

6.1 Introduction

The methodology for the assessment of the axial pile capacities consisted of the following:

- Reviewed two Woodward-Clyde reports (January 1983 and April 1983) and their pile capacity relationships for specified tip elevations. These two reports provided different capacity curves for similar environments.

- Reviewed our reports and pile capacity assessments, and the results of our pile driving analyses (PDA) of indicator piles (TerraCosta, 2013).

- Developed a single stratigraphic subsurface model for our analyses from our subsurface exploration. We compared this model to the previous Woodward-Clyde reports and our report, and found general agreement in the general stratigraphic conditions at the site.

- Given the interbedded nature of the site conditions, we developed multiple subsurface strength models to explore the variability of estimated ultimate pile capacities. These models considered a sand model, a clay model, and an interbedded sand clay model. The pile analyses were carried out using the computer program APILE. While the sand and clay models do not necessarily reflect the interbedded nature of the site, the homogenous models did capture the trends in pile capacities indicated by the interbedded model. The difficulty of the interbedded model is that the vertical variation of the interbedded layers of the sands and clays varied across the site and, as such, using a more homogeneous model allows one to assess the upper and lower bounds of the results.

- Based on comparisons between these various strength models, we then compared the results to the Woodward-Clyde capacity relationships, TerraCosta's capacity relationships, and the PDA results. As such, based on our assessment of the pile capacity curves using our stratigraphic model and the sand model strengths, with limits on skin friction and end-bearing that we developed for this project, we then developed the pile capacity curves presented below.

6.2 16-inch Square PC Pile Capacity Curves

Figure 10 provides estimates of the ultimate axial compression capacities of a 16-inch square precast concrete pile in kips for sea bed elevations of 0.0 feet, -5.0 feet, -10.0 feet, -15 feet, -20 feet, and -25.0 feet MLLW with pile tip elevations from -20 feet to -90 feet.

Figure 11 provides ultimate uplift capacities of a 16-inch square precast concrete pile for sea bed elevations of 0.0 feet, -5.0 feet, -10.0 feet, -15 feet, -20 feet, and -25 feet (MLLW) with pile tip elevations from -20 feet to -90 feet in kips. The curves do not include the weight of the pile in the uplift capacity estimate.

6.3 18-inch Square PC Pile Capacity Curves

Figure 12 provides estimated ultimate axial compression capacities of an 18-inch square precast concrete pile for sea bed elevations of 0.0 feet, -5.0 feet, -10.0 feet, -15 feet, -20 feet, and -25.0 feet (MLLW) with pile tip elevations from -20 feet to -90 feet in kips.

Figure 13 provides estimated ultimate axial pile capacities of an 18-inch square precast concrete pile for sea bed elevations of 0.0 feet, -5.0 feet, -10.0 feet, -15 feet, -20 feet, and -25 feet (MLLW) with pile tip elevations from -20 feet to -90 feet in kips. The weight of the pile is not included in the uplift capacity estimate.

6.4 **24-inch Octagonal PC Pile Capacity Curves**

Figure 14 provides estimated ultimate axial compression for a 24-inch octagonal precast concrete pile for sea bed elevations of -20 feet, -30 feet, -40 feet, and -50 feet (MLLW) with pile tip elevations from -50 feet to -110 feet in increments of 10 feet. The curves provide the ultimate compression capacity in kips.

Figure 15 provides ultimate uplift capacities for a 24-inch octagonal precast concrete pile for sea bed elevations of -20 feet, -30 feet, -40 feet, and -50 feet (MLLW) with pile tip elevations from -50 feet to -110 feet. The curves provide the ultimate uplift (tension) capacity in kips. The ultimate uplift capacities do not include the weight of the pile.

6.5 **Other Pile Recommendations**

Piles located greater than three pile diameters apart have no reduction in uplift or axial pile capacities.

Piles may be installed by jetting to within 10 feet of final tip elevations, then driven.

The site contains interbedded clay layers. As such, we recommend that piles installed by jetting to within 10 feet of the final tip elevation, then driven. The estimated ultimate pile capacity should be reduced by 10 percent.

6.6 **Lateral Load Capacity for Vertical Piles**

Estimated ultimate lateral load capacities for the vertical piles are presented in Table 1.

6.7 **Dredged Slope Stability**

We recommend that slopes dredged between elevations 0 and -15 feet MLLW have a maximum inclination of 1 unit vertical to 5 units horizontal.

We recommend that slopes dredged between elevations -15 and -25 feet MLLW have a maximum inclination of 1 unit vertical to 4 units horizontal.

We recommend that slopes dredged between elevations -25 and -55 feet MLLW have a maximum inclination of 1 unit vertical to 3 units horizontal.

6.8 **Response Spectra Design Input**

California Building Code response spectra for the Maximum Considered Earthquake and for the Design Earthquake are presented in Table 2.

6.9 **Sheet-Pile Bulkhead Adjacent to New Concrete Wharf**

A new sheet-pile bulkhead is to be constructed along the northerly limits of the proposed concrete wharf that will replace the existing timber wharf. This sheet-pile bulkhead is to be restrained by a series of both batter and vertical concrete piles. We understand that the sheet-pile bulkhead will be backfilled with gravel below elevation +3 feet (MLLW) and with compacted granular material above elevation +3 feet MLLW.

Given the proposed backfill materials, we recommend the following lateral pressures for design:

- For that portion of the wall backfilled with gravel, we recommend an equivalent fluid pressure of 45 pcf above the water table and 23 pcf for a restrained wall condition; and for an active wall condition, an equivalent fluid pressure of 28 pcf above the water table and 14 pcf below the water table. These pressures do not include hydrostatic pressures due to water.

- For that portion of the wall backfilled with compacted granular material, we recommend an equivalent fluid pressure of 60 pcf above the water table and 30 pcf for a restrained wall condition; and for an active wall condition, an equivalent fluid pressure of 38 pcf above the water table and 19 pcf below the water table. These pressures do not include hydrostatic pressures due to water.

- For surcharge loadings for an area wide load of 240 psf, we recommend a uniform pressure of 120 psf for a restrained wall condition and 72 psf for an active wall condition.
- For design purposes, we recommend using a maximum tidal lag of 3 feet.
- For soils that front the toe of the proposed sheet-pile bulkhead, we recommend the following:
    - From elevation -10 to -18 feet MLLW, the total unit weight of soil is 100 pcf and the soil has an undrained strength of 100 psf. For drained conditions, the soil has an effective angle of friction of 22 degrees.
    - From elevation -18 to -32 feet MLLW, the total unit weight of soil is 110 pcf and the soil has an effective angle of friction of 28 degrees.
    - From elevation -32 feet MLLW and below, the soil has a total unit weight of 125 pcf and an undrained strength of 3,000 psf. For drained conditions, the soil has an effective friction angle of 35 degrees.

7 LIMITATIONS

Professional judgments presented herein are based partly on our evaluation of the technical information gathered, partly on our understanding of the proposed construction, and partly on our general experience in the geotechnical field. We have observed only a small portion of the pertinent soil and subsurface conditions at the proposed project site. The recommendations made herein are based on the assumption that soil conditions do not deviate appreciably from those found during our field investigation. If the plans for site development are changed, or if variations or undesirable geotechnical conditions are encountered during construction, the geotechnical engineer should be consulted for further recommendations.

This firm does not practice or consult in the field of safety engineering. We do not direct the contractor's operations, and we cannot be responsible for the safety of other than our own personnel on the site; therefore, the safety of others is the responsibility of the contractor. The contractor should notify the owner if he considers any of the recommended actions presented herein to be unsafe.

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TABLE 1

ULTIMATE LATERAL LOAD CAPACITY OF PILES[(1)], KIPS
FREE HEAD CONDITION[(2)]

Mud Elevation (feet, MLLW)	16-inch Square	18-inch Square	24-inch Octagonal
0	10.2	12.6	NA
-5	8	9.8	NA
-10	6.4	8.0	NA
-15	5.4	6.7	NA
-20	4.7	5.7	NA
-25	4.1	5.2	12.2
-30	NA	NA	11.0
-35	NA	NA	10.0
-40	NA	NA	9.1
-45	NA	NA	8.4
-50	NA	NA	7.7
-55	NA	NA	7.2

Notes:

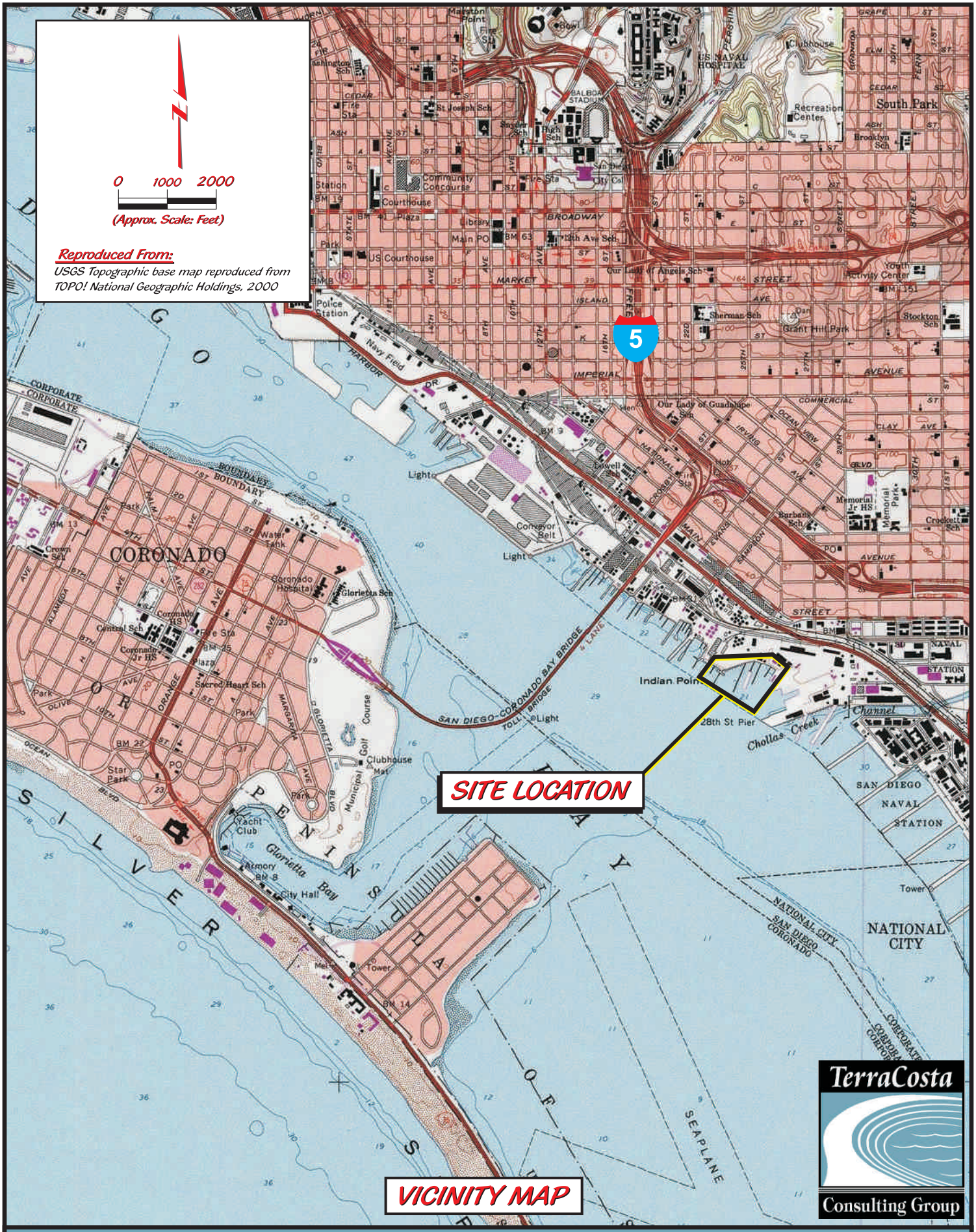
1. Lateral load capacities are based on an ultimate moment capacity of 160 kip-ft, 200 kip-ft, and 550 kip-ft for the 16–inch, 18-inch, and 24-inch piles, respectively.

2. For the fixed head condition, multiply the ultimate lateral capacity by 1.3 for the 16-inch and 18-inch piles, and by 1.6 for the 24-inch pile.

TABLE 2

RECOMMENDED RESPONSE SPECTRA

Period (seconds)	10% in 50 years Spectral Acceleration (g)	50% in 50 years Spectral Acceleration (g)
0.000	0.295	0.077
0.05	0.353	0.088
0.10	0.502	0.124
0.15	0.607	0.156
0.20	0.642	0.176
0.25	0.665	0.187
0.30	0.671	0.190
0.35	0.650	0.182
0.4	0.612	0.170
0.45	0.578	0.160
0.5	0.549	0.151
0.6	0.490	0.134
0.8	0.411	0.111
1.0	0.351	0.093
1.50	0.262	0.065
2.0	0.200	0.046
3.0	0.132	0.028
4.0	0.096	0.020
5.0	0.078	0.015



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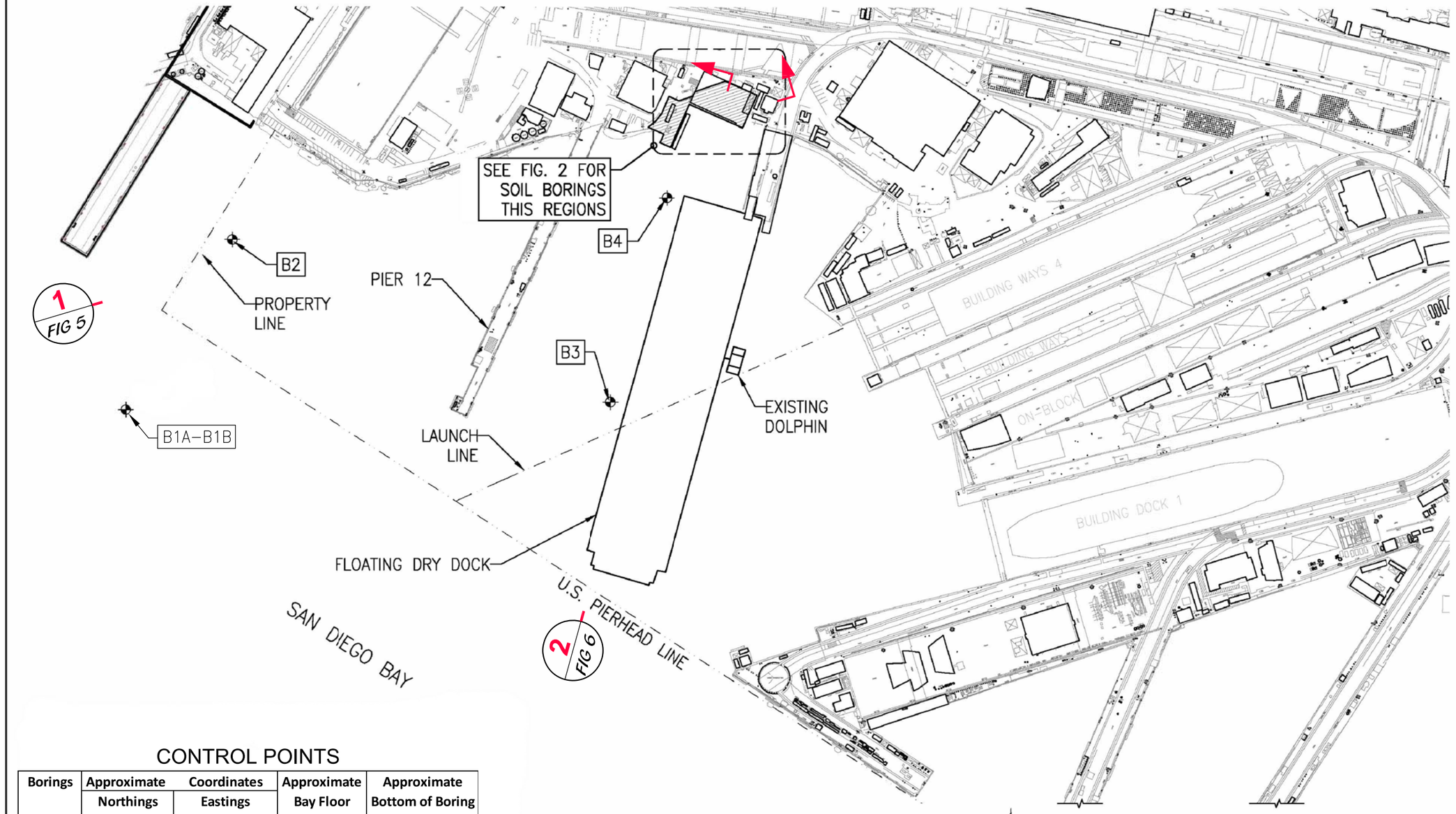
Project Name: NASSCO Floating Dry Dock | Project No. 3109 | Figure 1



CONTROL POINTS

Borings	Approximate Coordinates		Approximate Bay Floor Elevation	Approximate Bottom of Boring Elevation
	Northings	Eastings		
B1A	6286709	1831516	-33.6	-65.1
B1B	6286676	1831540	-33.6	-116.6
B2	6286930	1831874	-25.1	-116.6
B3	6287731	1831535	-45.0	-110.5
B4	6287863	1831956	-51.7	-116.2

PROPOSED DOLPHIN LOCATIONS

OVERALL SITE PLAN

DATE: 01/16/20

JOB NO. 20-2750

TRITON ENGINEERS, INC.
2400 Kettner Blvd, Suite 237
San Diego, CA 92101 USA
ph: 619.231.1250

GENERAL DYNAMICS NASSCO
NEW FLOATING DRY DOCK PROJECT

SOIL BORINGS

FIG. NO. 1

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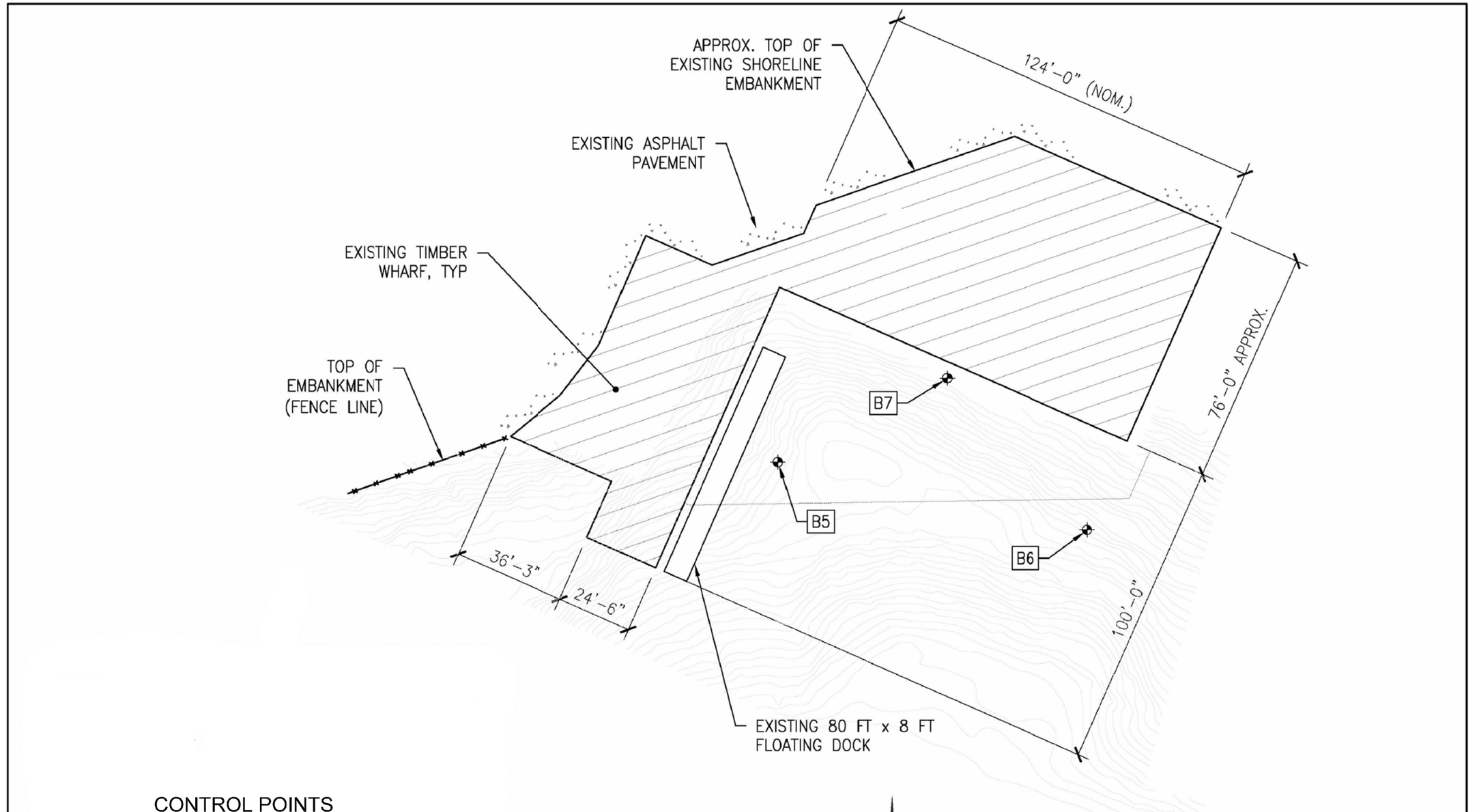

CONTROL POINTS

Borings	Approximate Coordinates		Approximate Bay Floor Elevation	Approximate Bottom of Boring Elevation
	Northings	Eastings		
B5	6287905	1832107	-15.0	-70.0
B6	6288006	1832081	-21.5	-72.0
B7	6287960	1832131	-96.0	-71.0

AREA OF TIMBER WHARF

TIMBER WHARF SITE PLAN

TerraCosta Consulting Group

DATE: 01/16/20

JOB NO. 20-2750

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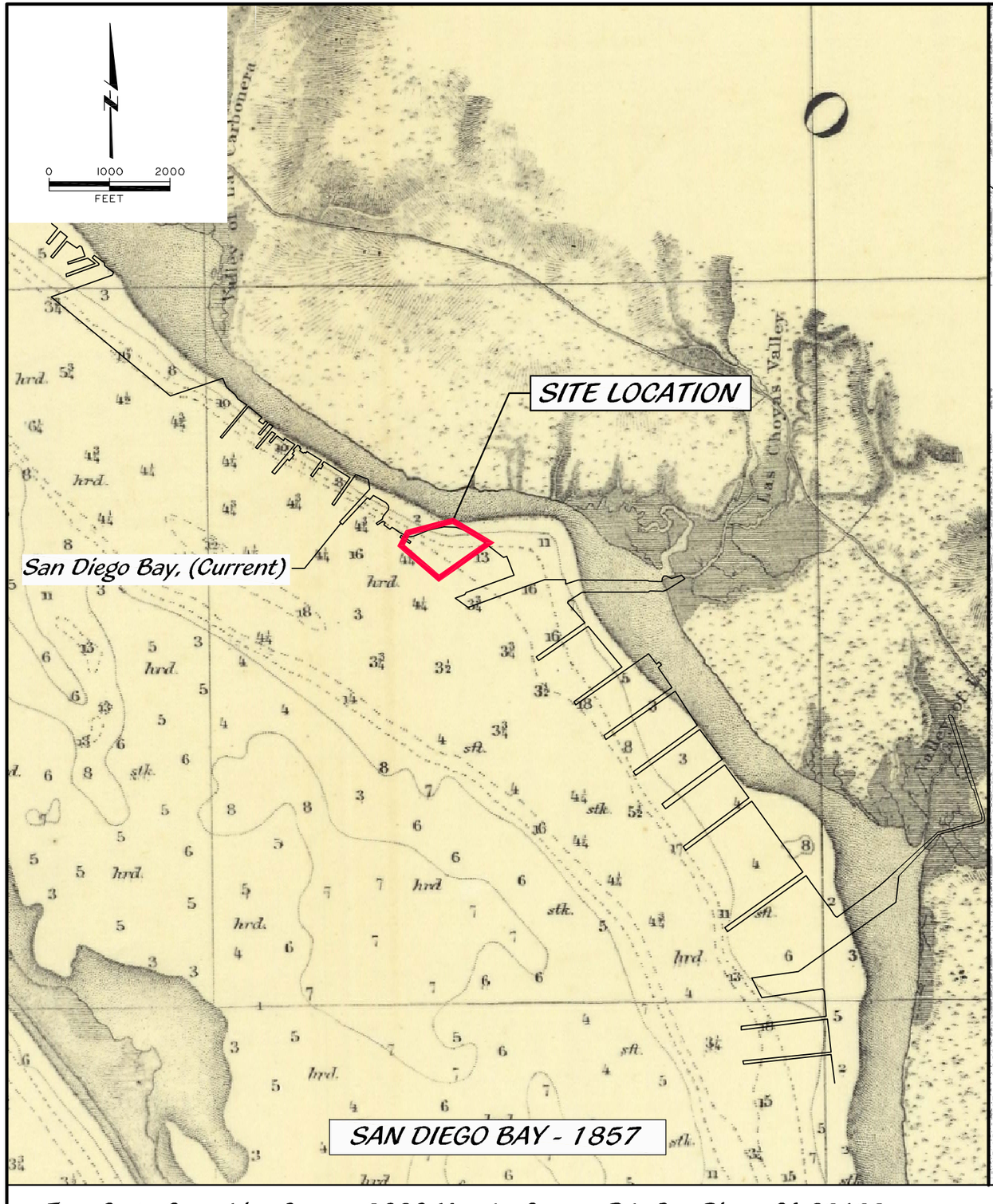
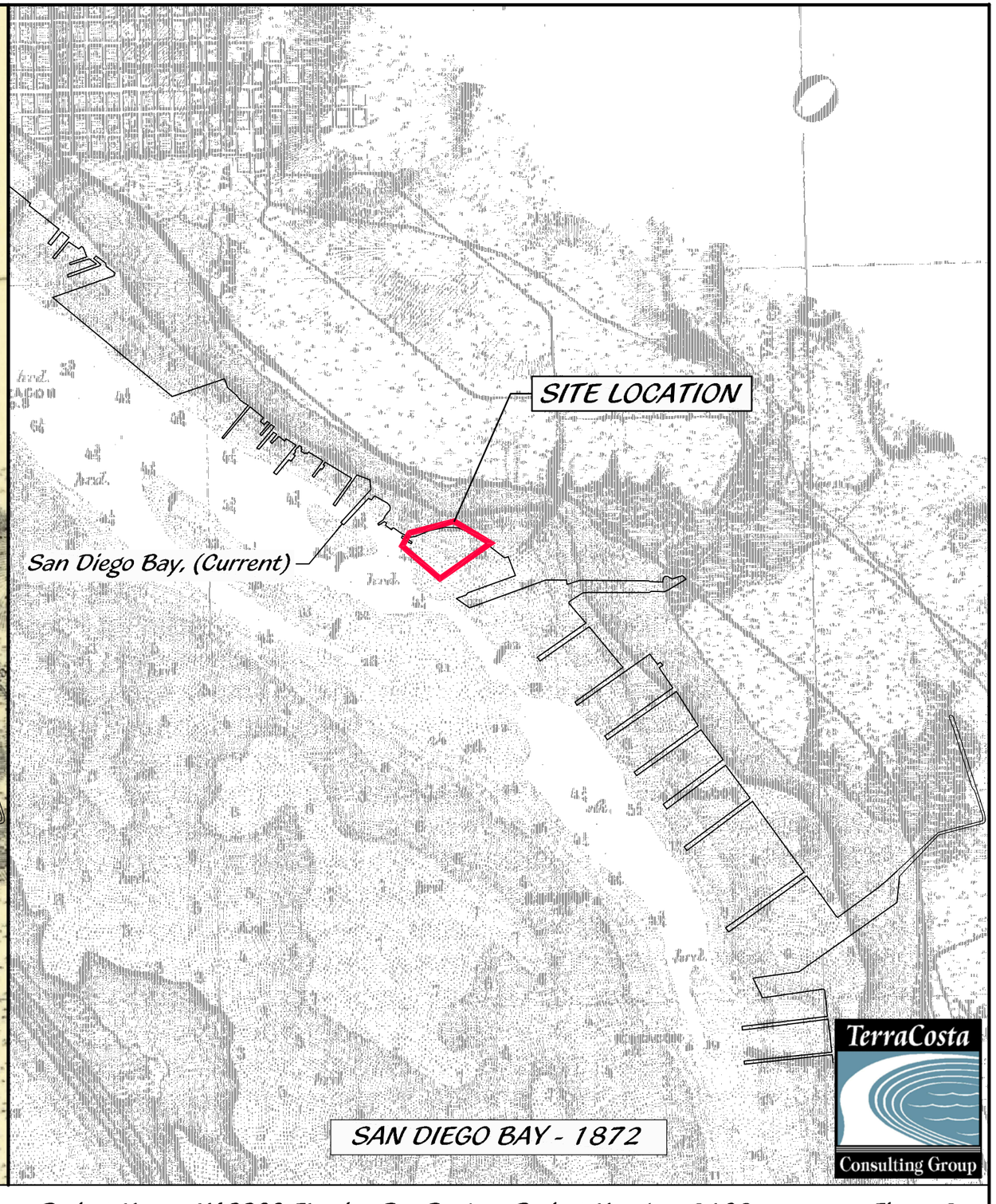
2400 Kettner Blvd, Suite 237
San Diego, CA 92101 USA
ph: 619.231.1250

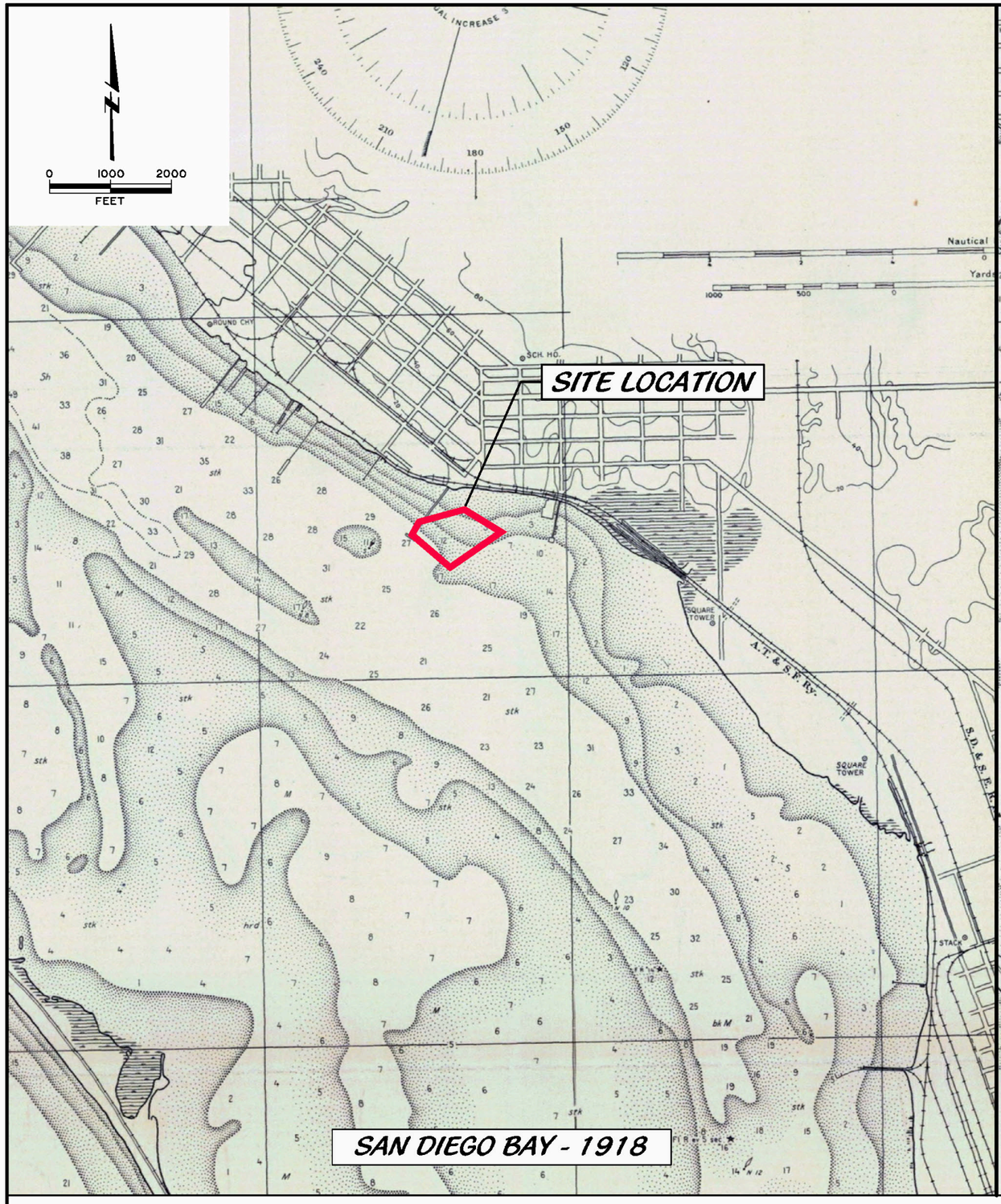
GENERAL DYNAMICS NASSCO
NEW FLOATING DRY DOCK PROJECT

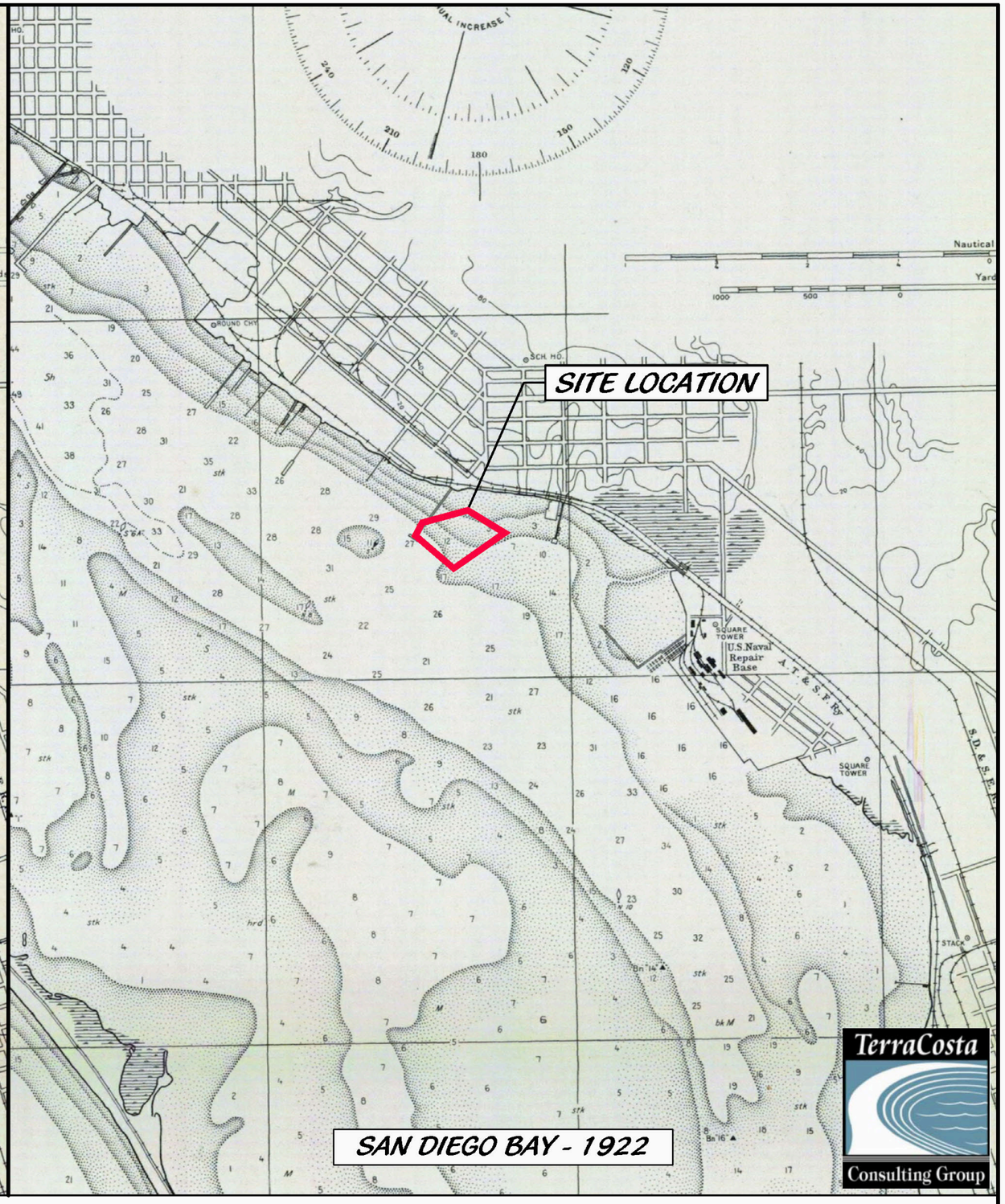
SOIL BORINGS

FIG. NO. 2

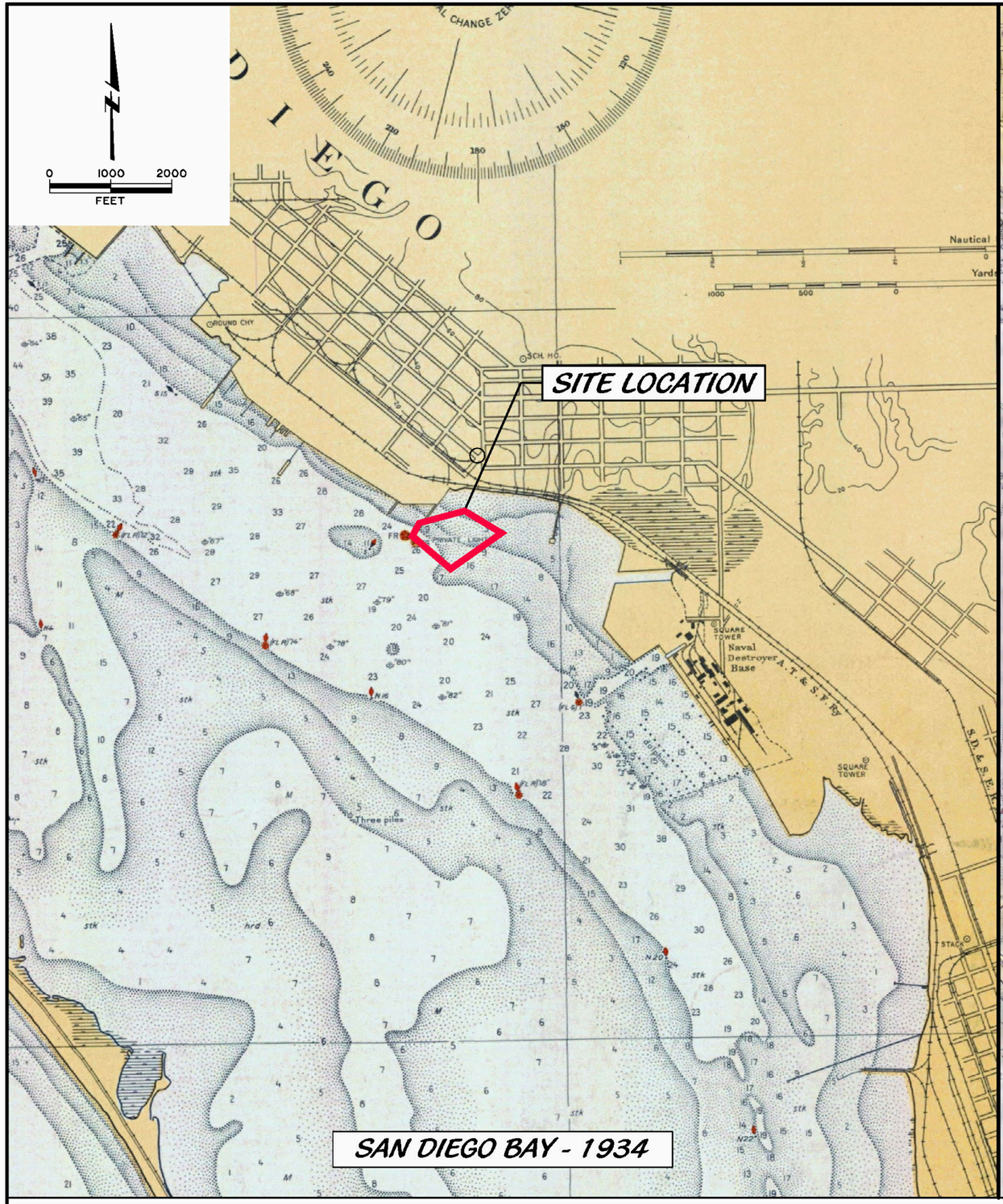

0
1000
2000
FEET
SITE LOCATION
San Diego Bay, (Current)
Las Chorras Valley
SAN DIEGO BAY - 1857

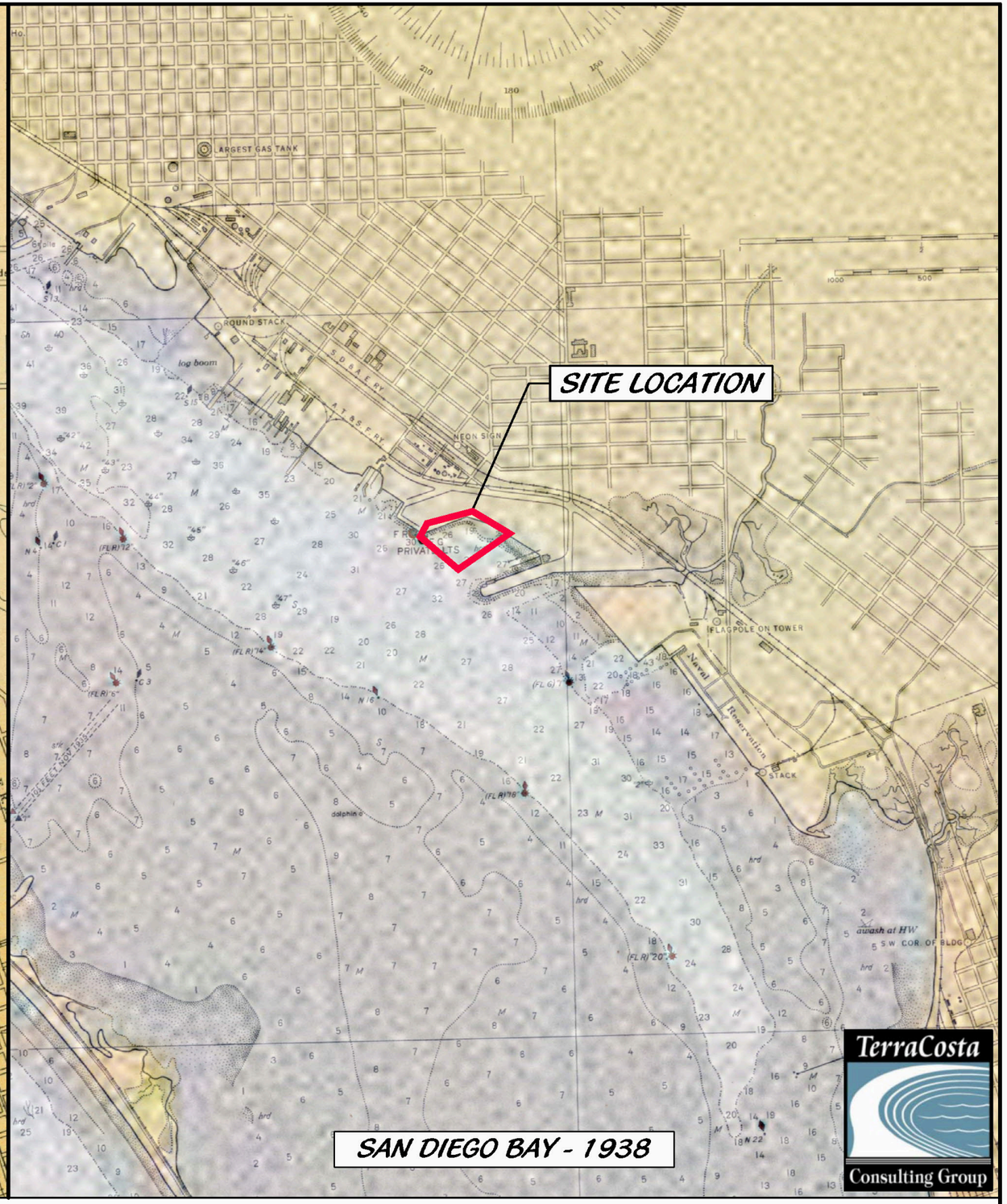

SITE LOCATION
San Diego Bay, (Current)
SAN DIEGO BAY - 1872
TerraCosta
Consulting Group

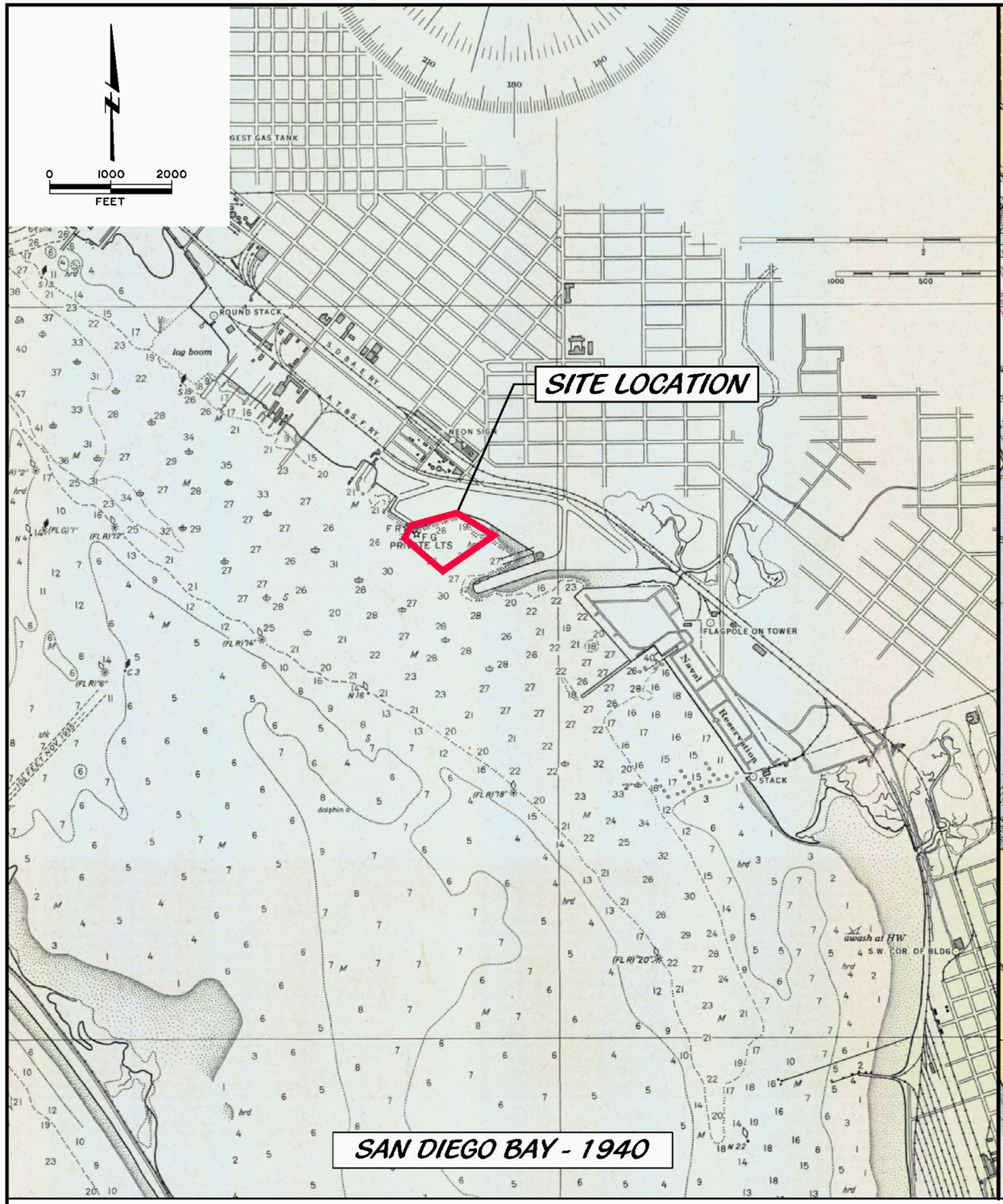


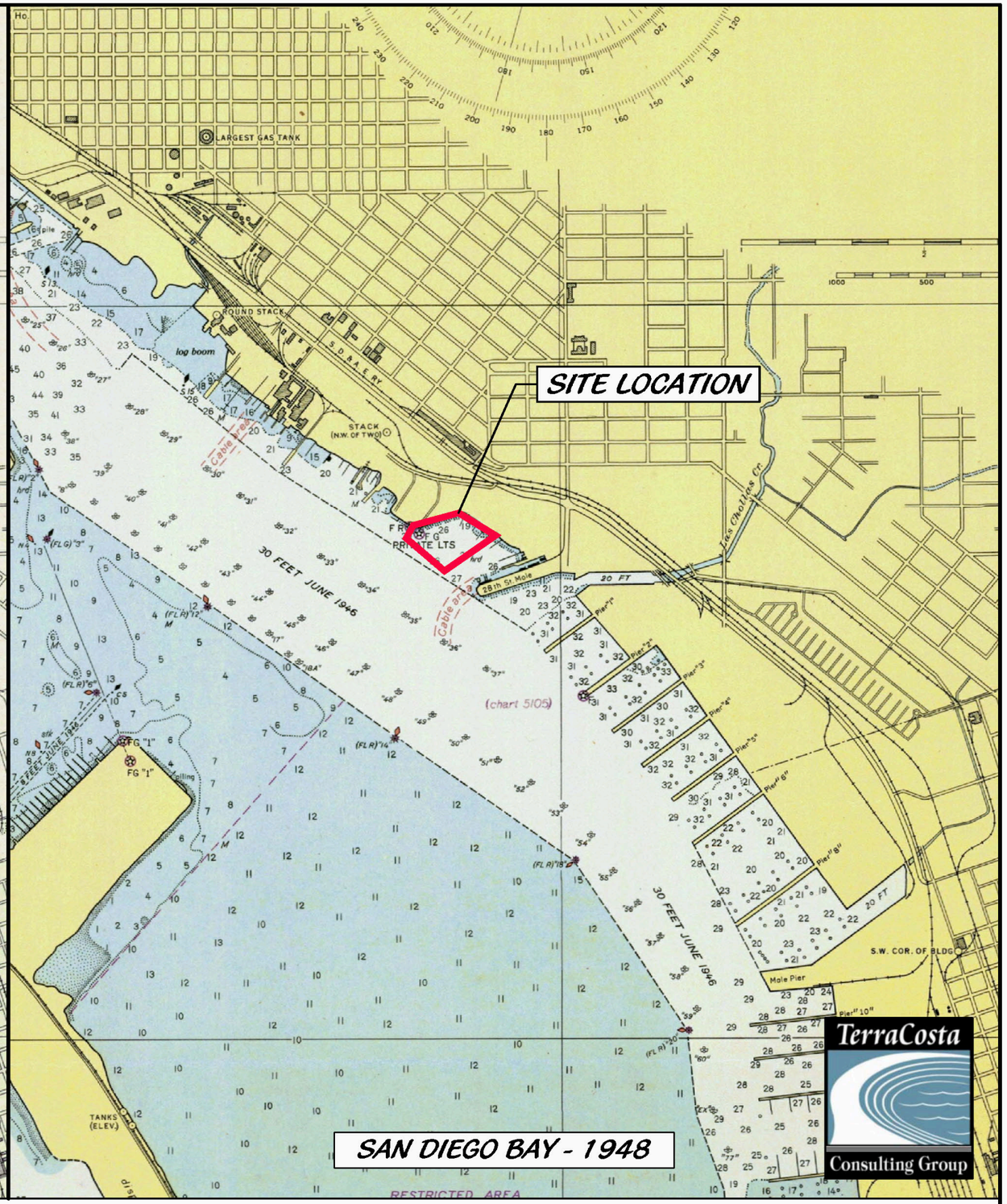


TerraCosta Consulting Group - 3890 Murphy Canyon Rd., San Diego, CA 92123 • Project Name: NASSCO Floating Dry Dock - Project Number: 3109 • Figure 3b


N
0
1000
2000
FEET
SITE LOCATION
SAN DIEGO BAY - 1934
Nautical
Yards
SQUARE TOWER
Naval Destroyer Base
A.T. & S.F. Ry
S.D. & S.E. Ry
ROUND CHY
SCH. HO.
Three piles
STACK


SITE LOCATION
SAN DIEGO BAY - 1938
LARGEST GAS TANK
ROUND STACK
log boom
NEON SIGN
A.T. & S.F. Ry
S.D.S.F. Ry
FLAGPOLE ON TOWER
Naval Reservation
STACK
awash at HW
SW COR OF BLDG
TerraCosta
Consulting Group





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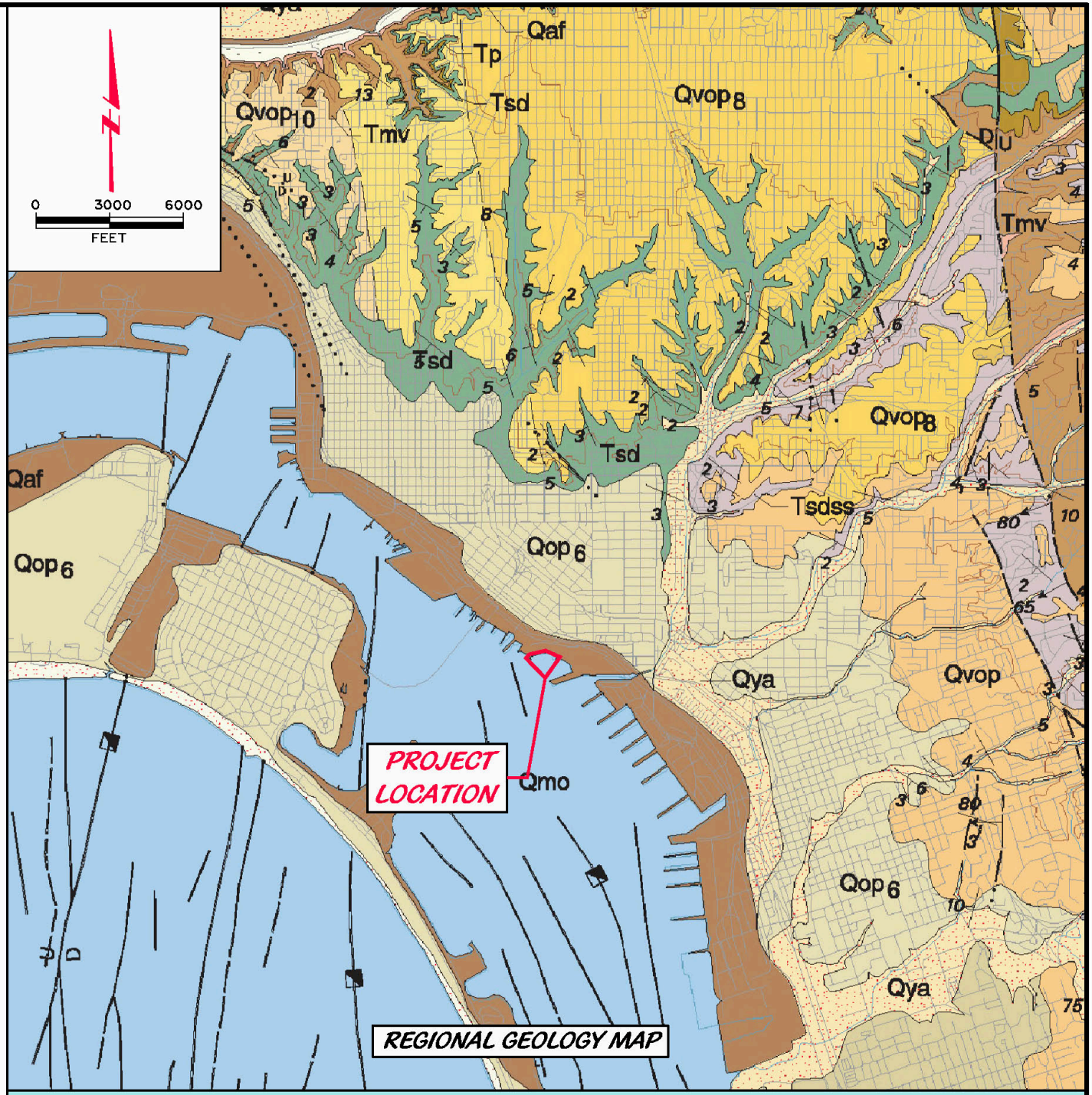
REFERENCE:

Reproduced from: "Geologic Map of the San Diego 30' x 60' Quadrangle, California," compiled by M.P. Kennedy & Siang S. Tan, dated 2005 (digital map)

LEGEND:

Qaf	Artificial Fill
Qmo	Marine Deposits
Qya	Young Alluvial Deposits
Qop6	Old Paralic Deposits
Qvop	Very Old Paralic Deposits
Tsd	San Diego Formation
Tp	Pomerado Conglomerate
Tmv	Mission Valley Formation
Kcs	Cabrillo Formation
Kuo	Undivided Rocks of the Rosario Group



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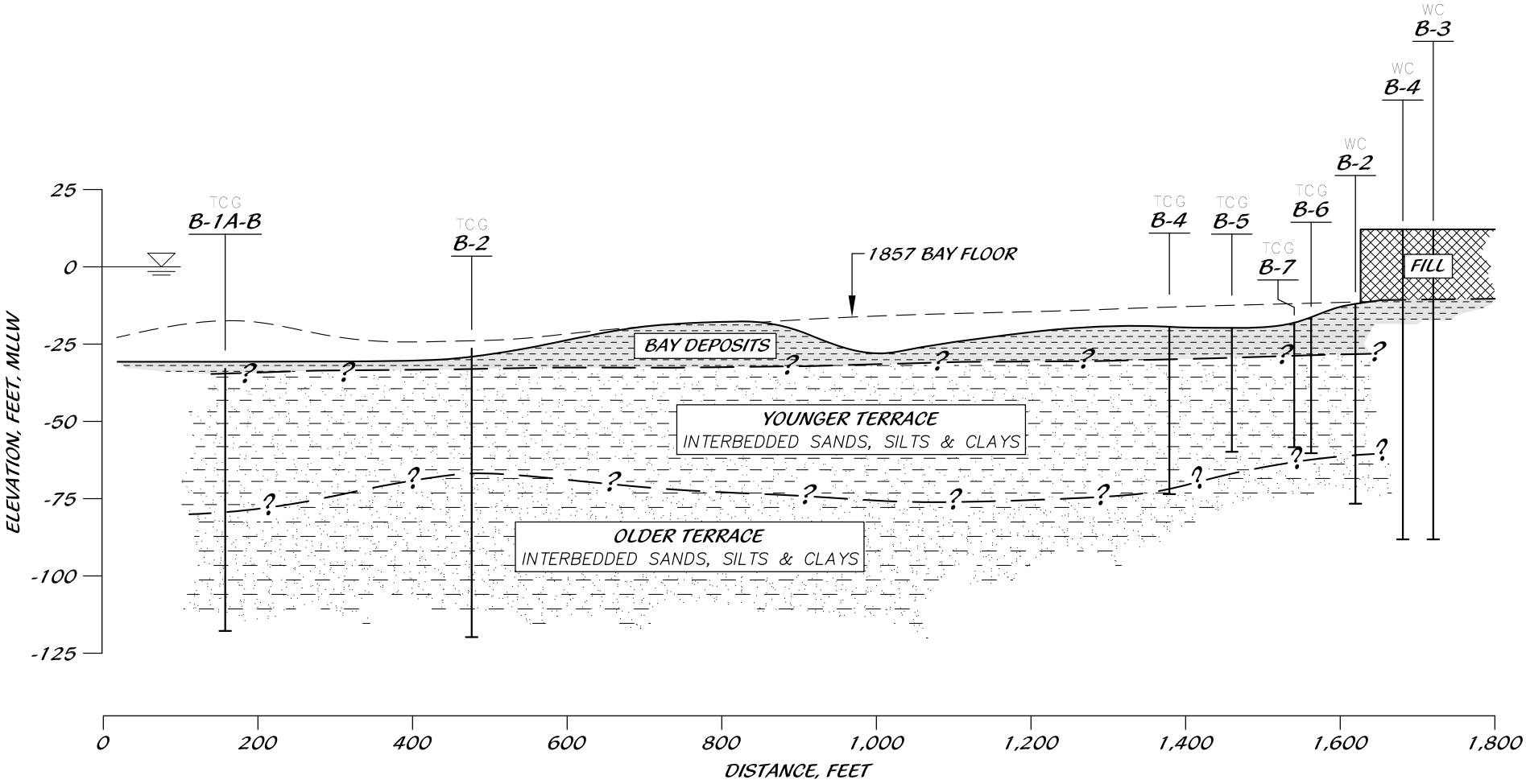
Project: NASSCO Floating Dry Dock • Project No.: 3109 • Figure 4a

Project Name: NASSCO Floating Dry Dock | Project No. 3109 | Figure 4b



CROSS SECTION 1

SCALE: 1"=200' HORIZ., 1"=50' VERT. -

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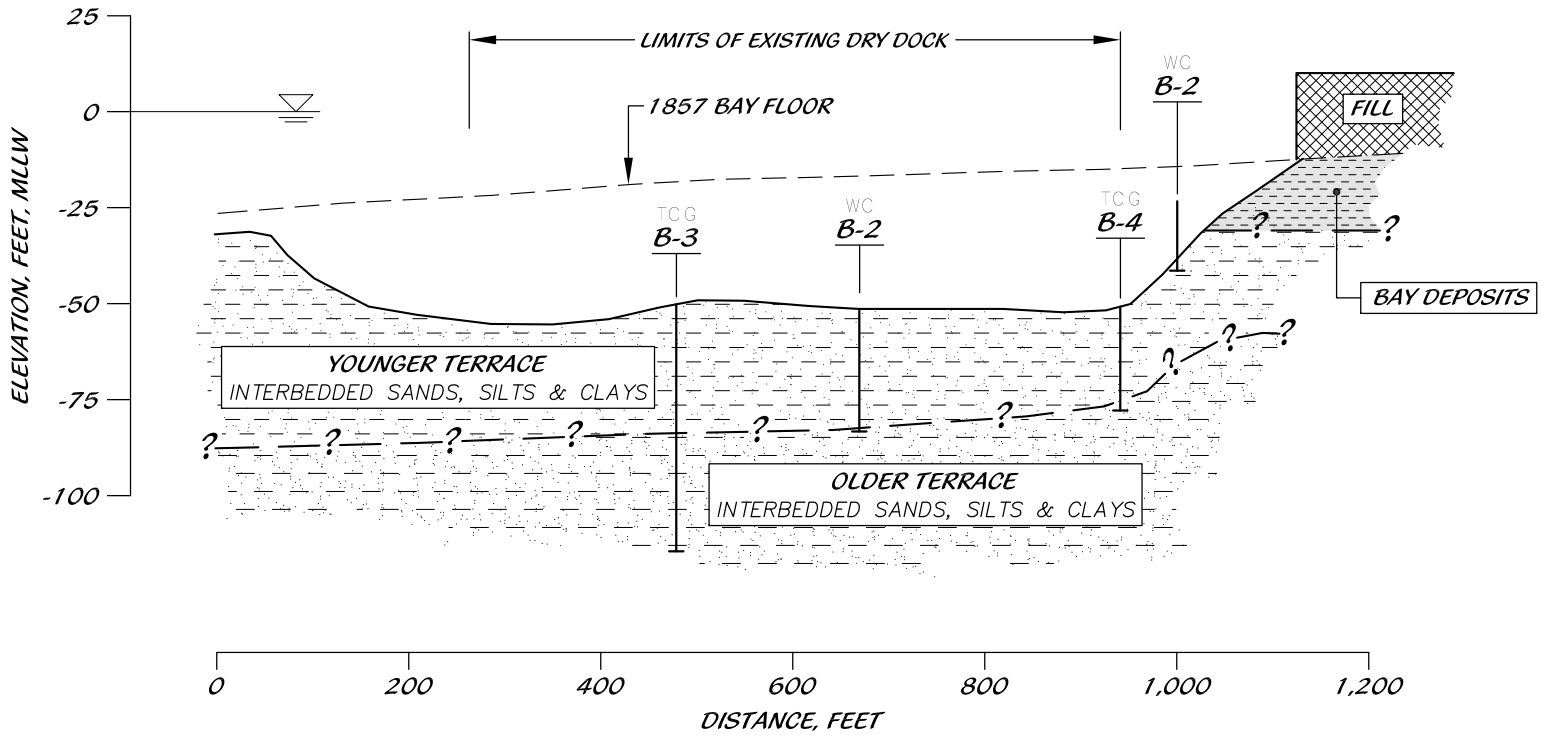
FIGURE NUMBER 5

PROJECT NAME
NASSCO FLOATING
DRY DOCK

PROJECT NUMBER 3109

CROSS SECTION



CROSS SECTION 2

SCALE: 1"=200' HORIZ., 1"=50' VERT. -

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FIGURE NUMBER
6

PROJECT NAME
NASSCO FLOATING DRY DOCK

PROJECT NUMBER
3109

CROSS SECTION

LEGEND

FAULT - HOLOCENE/LATEST PLEISTOCENE

FAULT - LATE QUATERNARY

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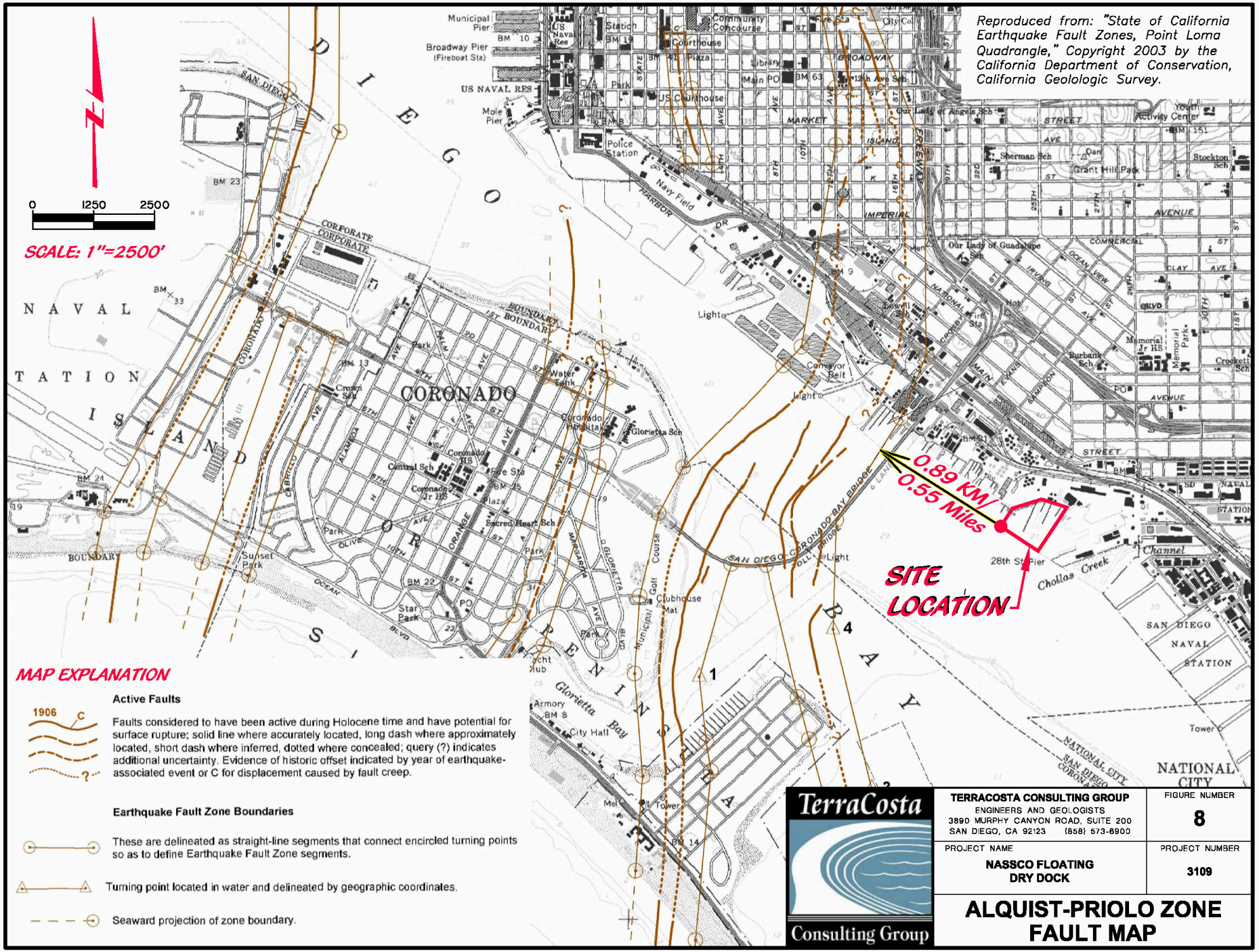
FIGURE NUMBER
7

PROJECT NAME
NASSCO FLOATING DRY DOCK

PROJECT NUMBER
3109

FAULT MAP



MAP EXPLANATION

Active Faults

1906 C

Faults considered to have been active during Holocene time and have potential for surface rupture; solid line where accurately located, long dash where approximately located, short dash where inferred, dotted where concealed; query (?) indicates additional uncertainty. Evidence of historic offset indicated by year of earthquake-associated event or C for displacement caused by fault creep.

Earthquake Fault Zone Boundaries

These are delineated as straight-line segments that connect encircled turning points so as to define Earthquake Fault Zone segments.

Turning point located in water and delineated by geographic coordinates.

Seaward projection of zone boundary.

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FIGURE NUMBER
8

PROJECT NAME
NASSCO FLOATING DRY DOCK

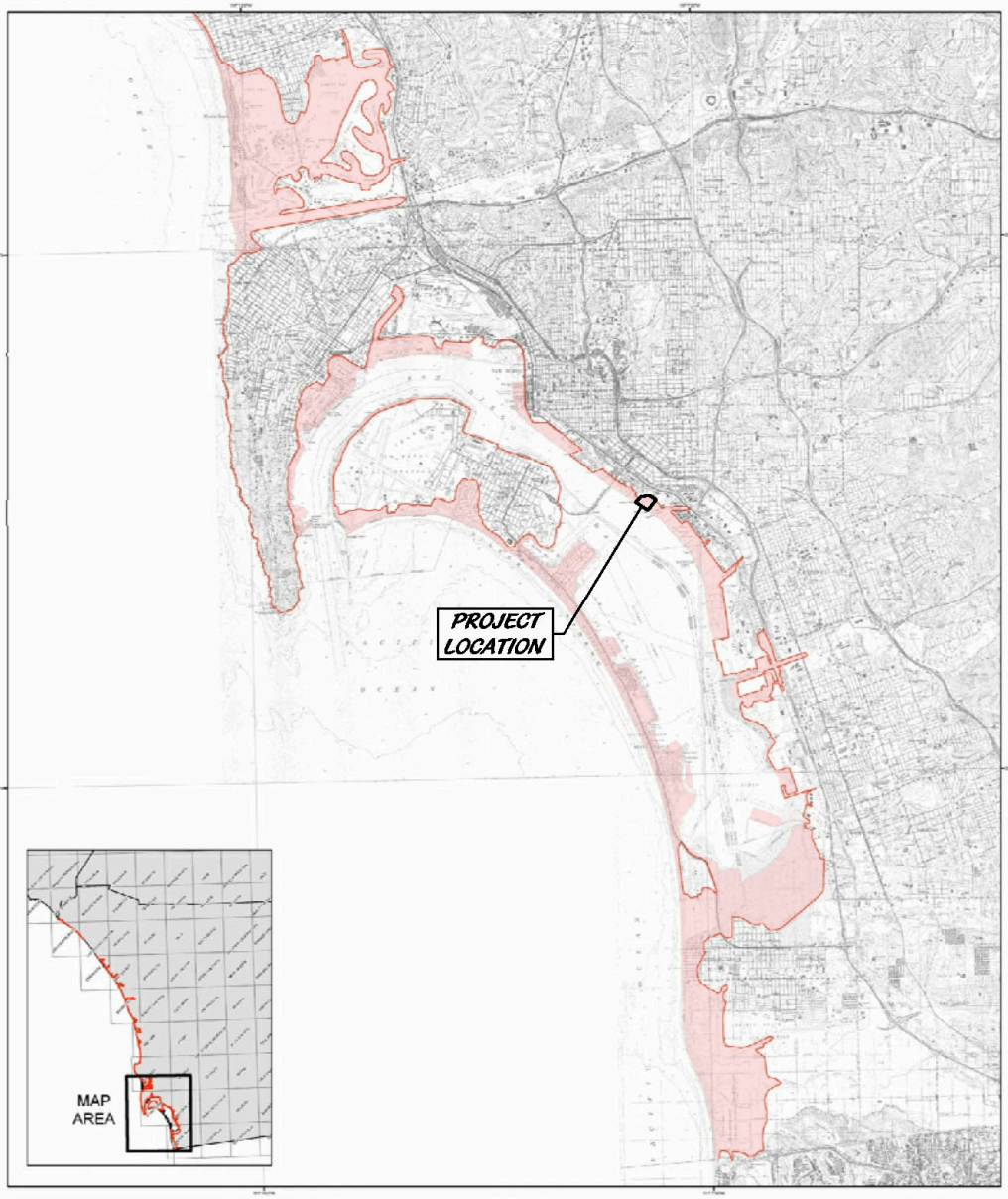
PROJECT NUMBER
3109

ALQUIST-PRIOLO ZONE FAULT MAP

California Emergency Management Agency
California Geological Survey
University of Southern California

Tsunami Inundation Map for Emergency Planning
San Diego Bay

State of California
County of San Diego



TSUNAMI INUNDATION MAP FOR EMERGENCY PLANNING

State of California ~ County of San Diego

SAN DIEGO BAY

June 1, 2009

SCALE 1:52,000

METHOD OF PREPARATION

Initial tsunami modeling was performed by the University of Southern California (USC) Tsunami Research Center funded through the California Emergency Management Agency (CalEMA) by the National Tsunami Hazard Mitigation Program. The tsunami modeling process utilized the MOST (Method of Splitting Tsunami) computational program (Version 0), which allows for wave evolution over a variable bathymetry and topography used for the inundation mapping (Titov and Gonzalez, 1997; Titov and Synolakis, 1998).

The bathymetric/topographic data that were used in the tsunami models consist of a series of nested grids. Near-shore grids with a 3-arc-second (~ to 90-meters) resolution or higher, were adjusted to 'Mean High Water' sea-level conditions, representing a conservative sea level for the intended use of the tsunami modeling and mapping.

A suite of tsunami source events was selected for modeling, representing realistic local and distant earthquakes and hypothetical extreme undersea, near-shore landslides (Table 1). Local tsunami sources that were considered include offshore reverse/thrust faults, restraining bends on strike-slip fault zones and large submarine landslides capable of significant seafloor displacement and tsunami generation. Distant tsunami sources that were considered include great subduction zone events that are known to have occurred historically (1960 Chile and 1964 Alaska earthquakes) and others which can occur around the Pacific Ocean 'Ring of Fire.'

In order to enhance the result from the 75- to 90-meter inundation grid data, a method was developed utilizing higher-resolution digital topographic data (3- to 10-meters resolution) that better defines the location of the maximum inundation line (U.S. Geological Survey, 1993; Intermap, 2003; NOAA, 2004). The location of the enhanced inundation line was determined by using digital imagery and terrain data on a GIS platform with consideration given to historic inundation information (Lander, et al., 1993). This information was verified, where possible, by field work coordinated with local county personnel.

The accuracy of the inundation line shown on these maps is subject to limitations in the accuracy and completeness of available terrain and tsunami source information, and the current understanding of tsunami generation and propagation phenomena as expressed in the models. Thus, although an attempt has been made to identify a credible upper bound to inundation at any location along the coastline, it remains possible that actual inundation could be greater in a major tsunami event.

This map does not represent inundation from a single scenario event. It was created by combining inundation results for an ensemble of source events affecting a given region (Table 1). For this reason, all of the inundation region in a particular area will not likely be inundated during a single tsunami event.

References:

Intermap Technologies, Inc. 2003, Intermap product handbook and quick start guide: Intermap NEXTmap document on 5-meter resolution data, 157 p.

Lander, J.F., Lockridge, P.A., and Kozuch, M.J., 1993, Tsunamis Affecting the West Coast of the United States 1806-1992: National Geophysical Data Center Key to Geophysical Record Documentation No. 29, NOAA, NESDIS, NGDC, 242 p.

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Titov, V.V., and Synolakis, C.E., 1998, Numerical modeling of tidal wave runup: Journal of Waterways, Port, Coastal and Ocean Engineering, ASCE, 124 (4), pp 157-171.

U.S. Geological Survey, 1993, Digital Elevation Models: National Mapping Program, technical instructions, Data Users Guide 5, 48 p.

Table 1. Tsunami sources modeled for the San Diego County coastline.

Sources (M = moment magnitude used in modeled event)		Areas of Inundation Map Coverage and Sources Used		
		Dana Point	Oceanside	San Diego
Local Sources	Coronado Thrust Fault		X	X
	Coseine Fault	X	X	X
	Coronado Bank Fault			X
	Lasuen Knoll Fault	X		X
	San Clemente Fault Bend Region			X
	San Clemente Island Fault			X
	San Mateo Thrust Fault	X	X	
	Coronado Canyon Landslide #1			X
Distant Sources	Cascadia Subduction Zone #3 (M9.2)	X		X
	Central Aleutians Subduction Zone#1 (M9.2)	X	X	X
	Central Aleutians Subduction Zone#2 (M9.2)	X		X
	Central Aleutians Subduction Zone#3 (M9.2)	X	X	X
	Chile North Subduction Zone (M9.4)	X		X
	1960 Chile Earthquake (M9.3)	X		X
	1952 Kamchatka Earthquake (M9.0)	X		
	1964 Alaska Earthquake (M9.2)	X	X	X
	Japan Subduction Zone #2 (M8.8)	X		X
	Kuril Islands Subduction Zone #2 (M8.8)	X		X
	Kuril Islands Subduction Zone #1 (M8.8)	X		X
	Kuril Islands Subduction Zone #4 (M8.8)	X		X

MAP EXPLANATION

Tsunami Inundation Line

Tsunami Inundation Area

PURPOSE OF THIS MAP

This tsunami inundation map was prepared to assist cities and counties in identifying their tsunami hazard. It is intended for local jurisdictional, coastal evacuation planning uses only. This map, and the information presented hereon, is not a legal document and does not meet disclosure requirements for real estate transactions nor for any other regulatory purpose.

The inundation map has been compiled with best currently available scientific information. The inundation line represents the maximum considered tsunami runup from a number of extreme, yet realistic, tsunami sources. Tsunamis are rare events, due to a lack of known occurrences in the historical record, this map includes no information about the probability of any tsunami affecting any area within a specific period of time.

Please refer to the following websites for additional information on the construction and/or intended use of the tsunami inundation map:

State of California Emergency Management Agency, Earthquake and Tsunami Program: http://www.oes.ca.gov/WebPageoeswebsite.nsf/ContentBtnEC518BA2159317688525741F005E8C607OpenDocument

University of Southern California – Tsunami Research Center: http://www.usc.edu/dept/tsunami/2005/index.php

State of California Geological Survey tsunami information: http://www.conservation.ca.gov/cgs/geologic_hazards/tsunami/index.htm

National Oceanic and Atmospheric Agency Center for Tsunami Research (MOST model): http://nctr.pmel.noaa.gov/time/background/models.html

MAP BASE

Topographic base maps prepared by U.S. Geological Survey as part of the 7.5-minute Quadrangle Map Series (originally 1:24,000 scale). Tsunami inundation line boundaries may reflect updated digital orthophotographic and topographic data that can differ significantly from contours shown on the base map.

DISCLAIMER

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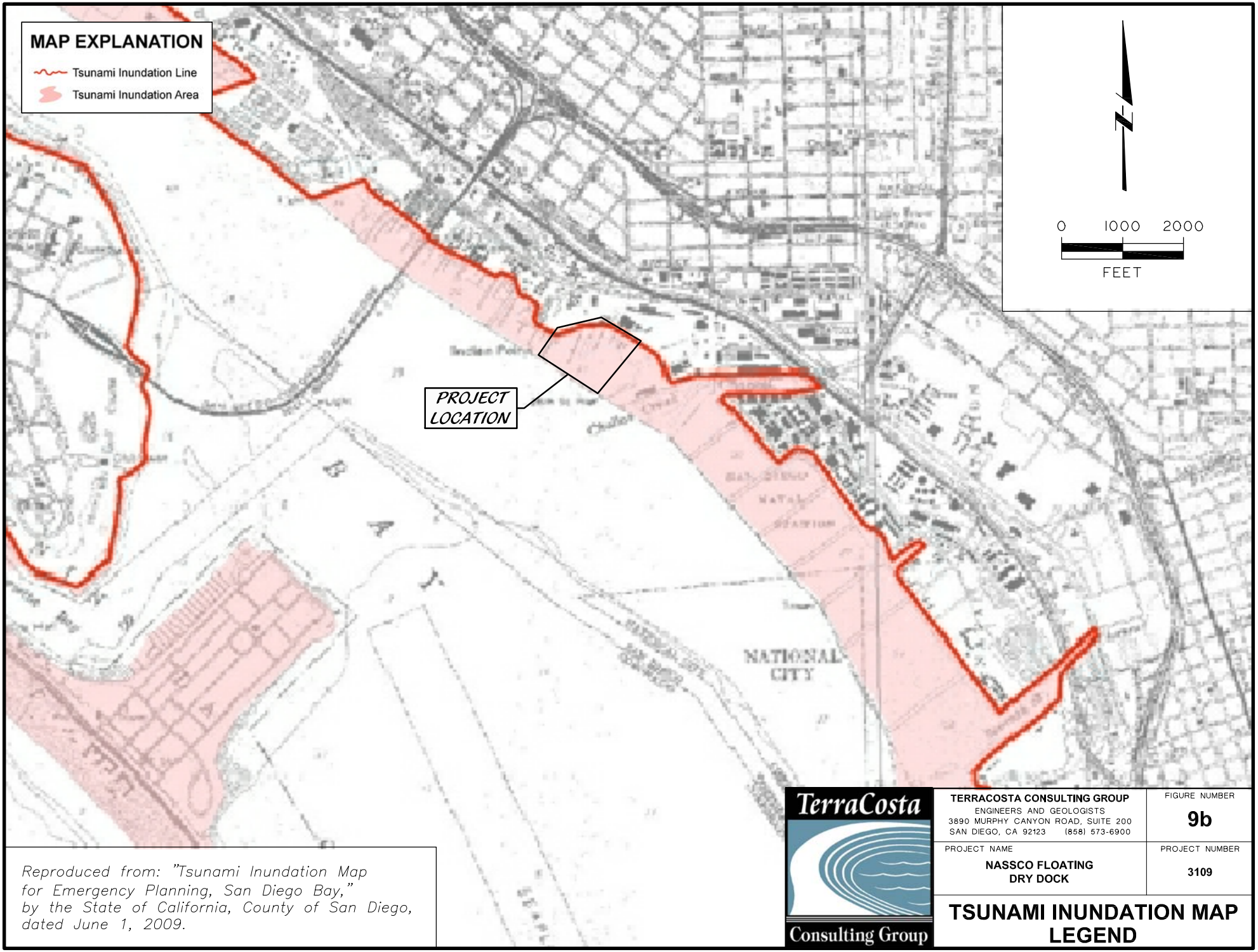
TerraCosta Consulting Group

FIGURE NUMBER
9a

PROJECT NUMBER
3109

TSUNAMI INUNDATION MAP SAN DIEGO BAY



Reproduced from: "Tsunami Inundation Map for Emergency Planning, San Diego Bay," by the State of California, County of San Diego, dated June 1, 2009.

TerraCosta Consulting Group

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ENGINEERS AND GEOLOGISTS
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FIGURE NUMBER
9b

PROJECT NAME
NASSCO FLOATING DRY DOCK

PROJECT NUMBER
3109

TSUNAMI INUNDATION MAP LEGEND

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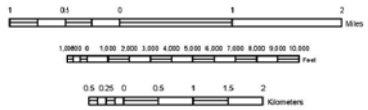
TSUNAMI INUNDATION MAP FOR EMERGENCY PLANNING

State of California ~ County of San Diego

SAN DIEGO BAY

June 1, 2009

SCALE 1:52,000



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	Coronado Bank Fault			X
	Lasuen Knoll Fault	X		X
	San Clemente Fault Bend Region			X
	San Clemente Island Fault			X
	San Mateo Thrust Fault	X	X	
	Coronado Canyon Landslide #1			X
Distant Sources	Cascadia Subduction Zone #3 (M9.2)	X		X
	Central Aleutians Subduction Zone#1(M8.9)	X	X	X
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	Kuril Islands Subduction Zone #2 (M8.8)	X		X
	Kuril Islands Subduction Zone #3 (M8.8)	X		X
	Kuril Islands Subduction Zone #4 (M8.8)	X		X

Cal EMA

CGS CALIFORNIA GEOLOGICAL SURVEY

USC UNIVERSITY OF SOUTHERN CALIFORNIA

MAP EXPLANATION

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Tsunami Inundation Area

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TerraCosta Consulting Group

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SAN DIEGO, CA 92123 (858) 573-6900

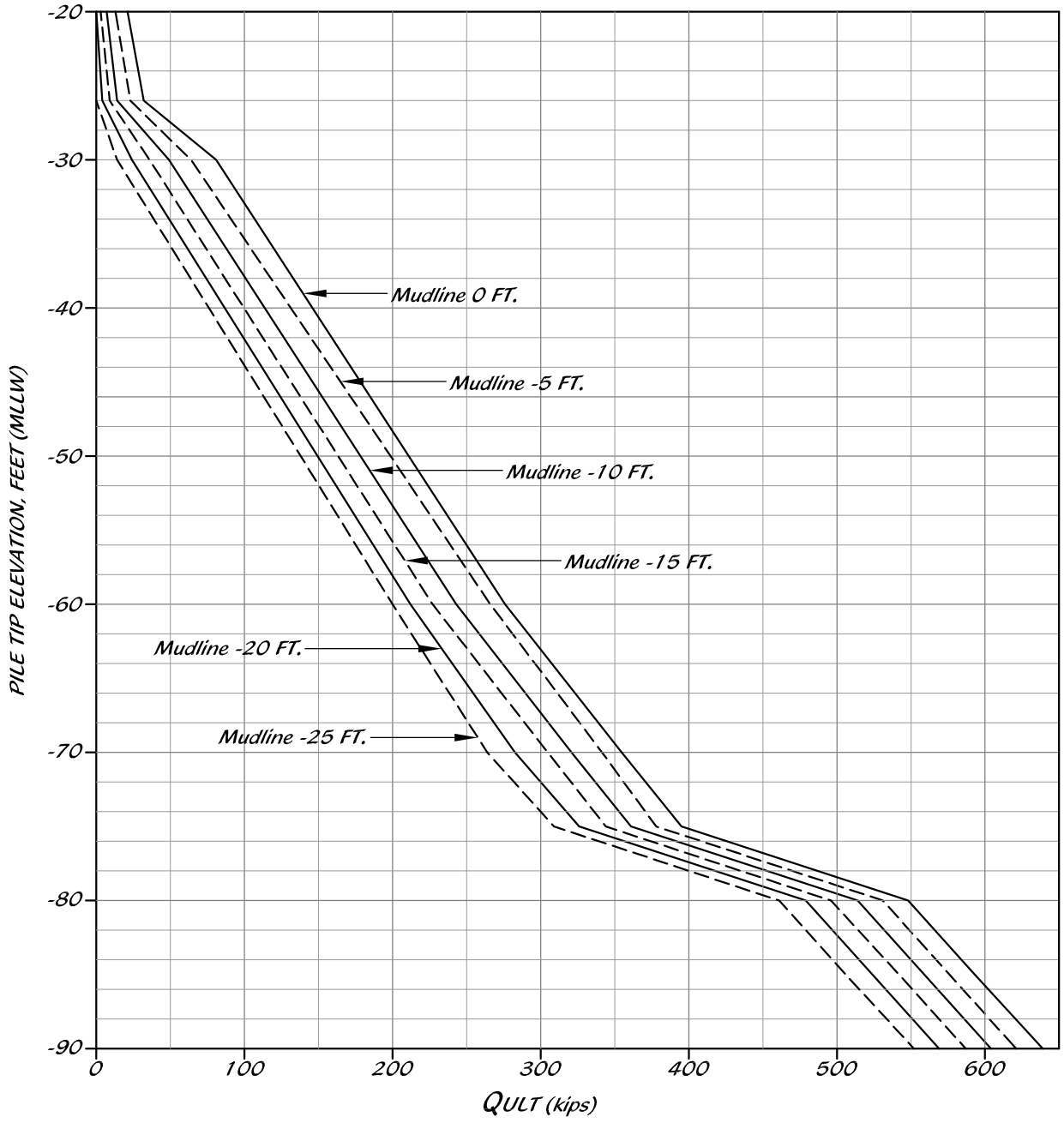
FIGURE NUMBER **9c**

PROJECT NAME **NASSCO FLOATING DRY DOCK**

PROJECT NUMBER **3109**

TSUNAMI INUNDATION MAP LEGEND

ESTIMATED ULTIMATE AXIAL COMPRESSION CAPACITY OF 16-INCH SQUARE CONCRETE PILE



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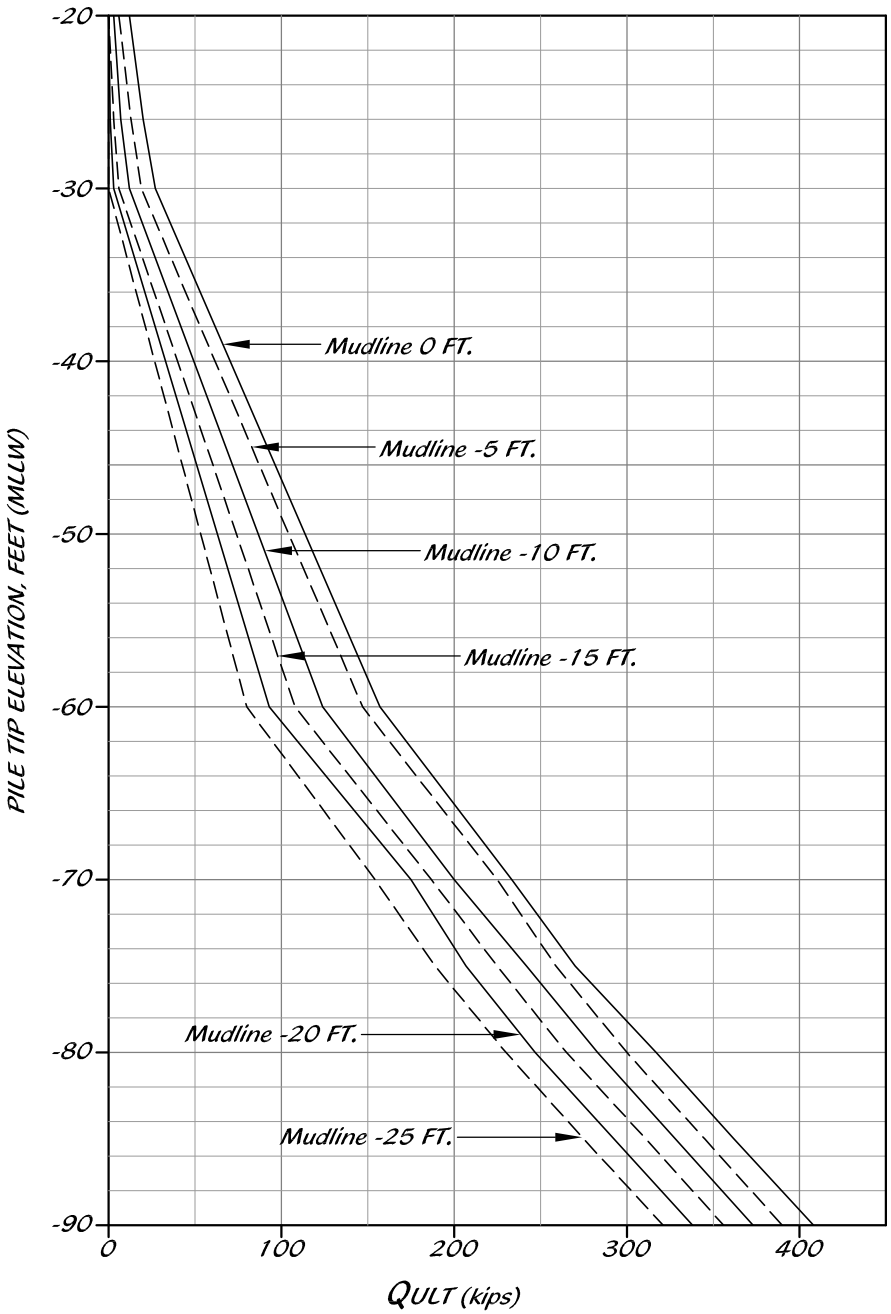
TERRACOSTA CONSULTING GROUP ENGINEERS AND GEOLOGISTS 3890 MURPHY CANYON ROAD, SUITE 200 SAN DIEGO, CA 92123 (858) 573-6900	FIGURE NUMBER 10
PROJECT NAME NASSCO FLOATING DRY DOCK	PROJECT NUMBER 3109
ESTIMATED ULTIMATE AXIAL COMPRESSION CAPACITY OF 16-INCH SQUARE CONCRETE PILE	

ESTIMATED ULTIMATE UPLIFT CAPACITY OF 16-INCH SQUARE CONCRETE PILE



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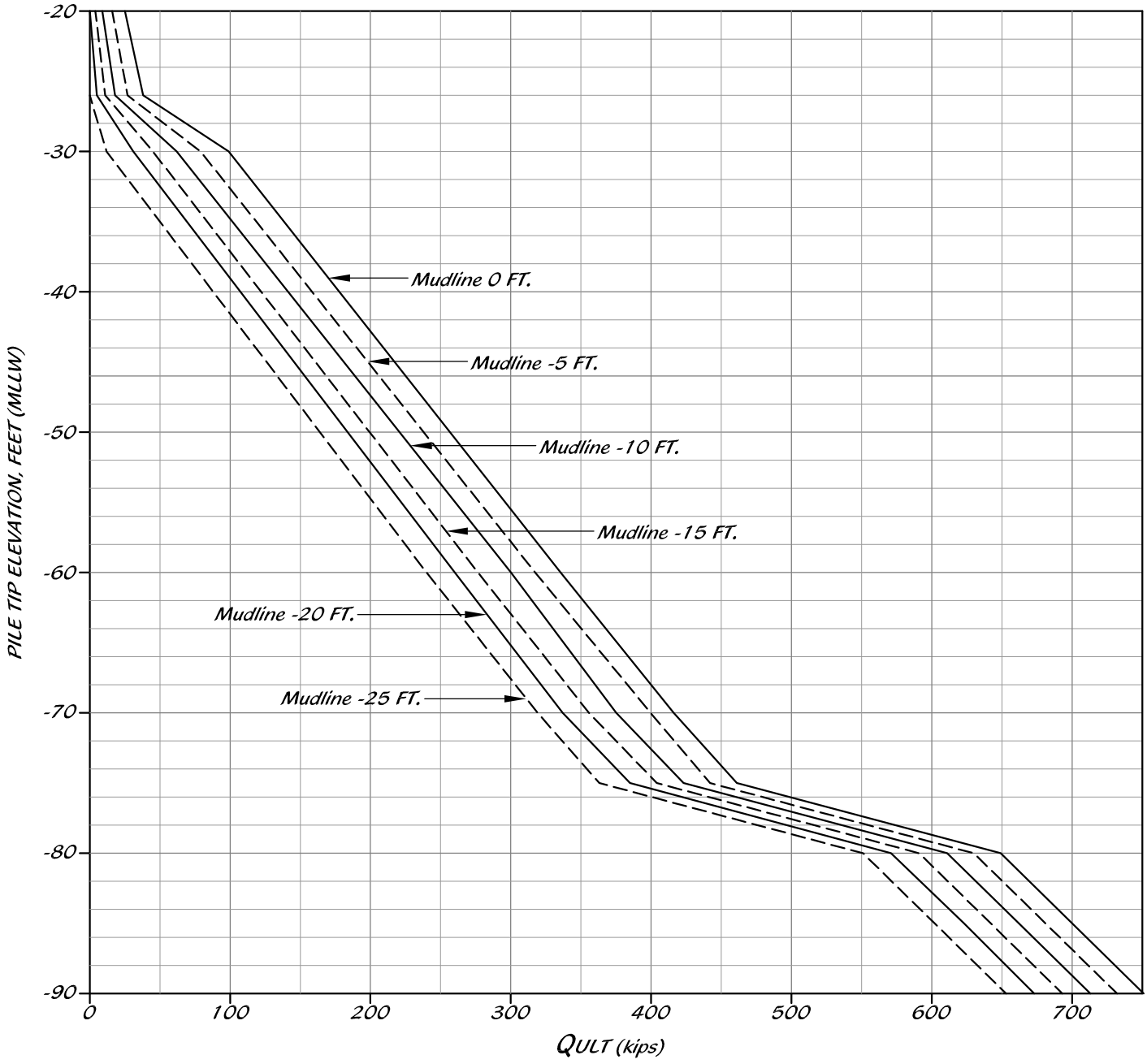
TERRACOSTA CONSULTING GROUP ENGINEERS AND GEOLOGISTS 3890 MURPHY CANYON ROAD, SUITE 200 SAN DIEGO, CA 92123 (858) 573-6900	FIGURE NUMBER 11
PROJECT NAME NASSCO FLOATING DRY DOCK	PROJECT NUMBER 3109
ESTIMATED ULTIMATE UPLIFT CAPACITY OF 16-INCH SQUARE CONCRETE PILE	

ESTIMATED ULTIMATE AXIAL COMPRESSION CAPACITY OF 18-INCH SQUARE CONCRETE PILE



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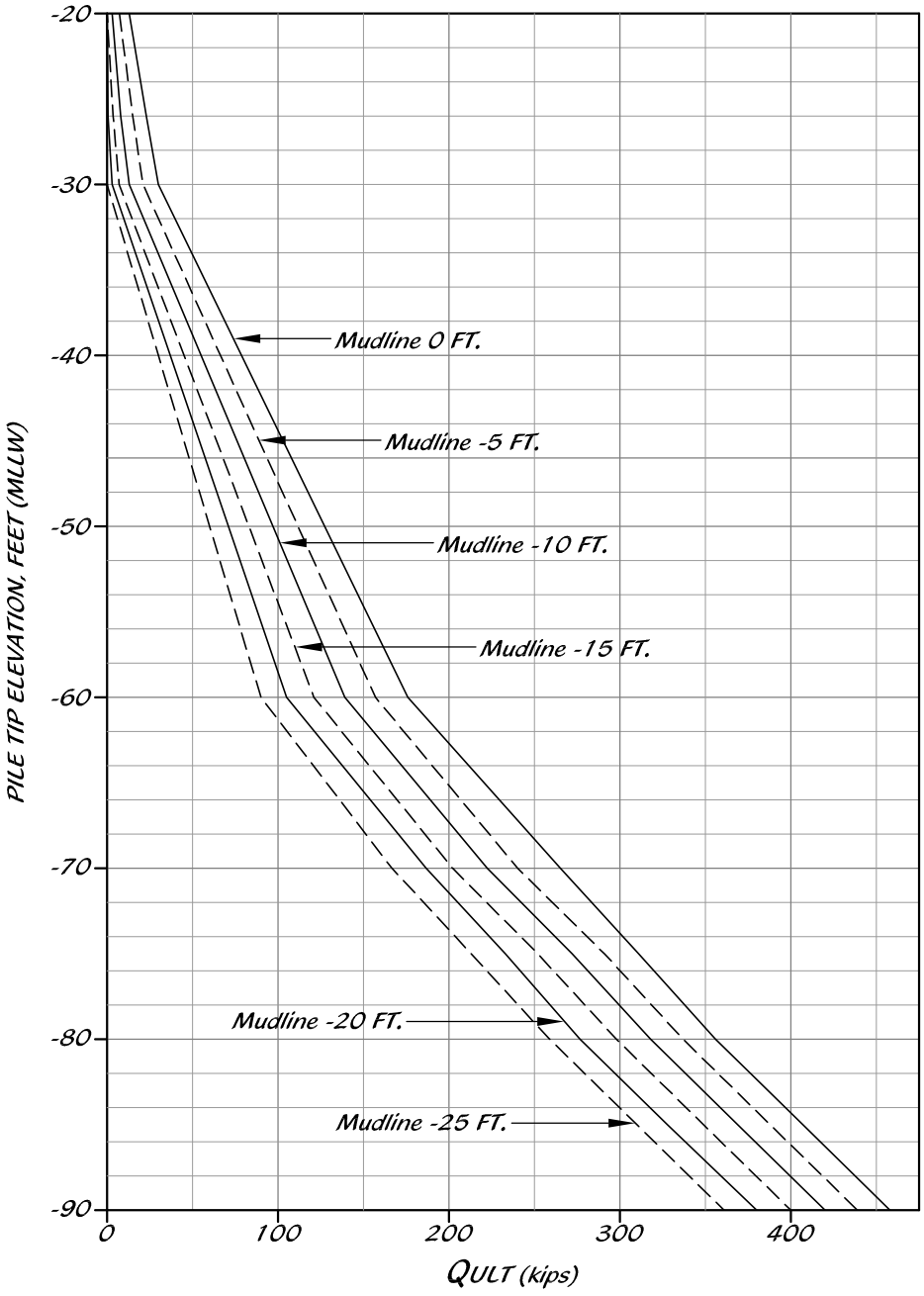
	PROJECT NAME NASSCO FLOATING DRY DOCK	PROJECT NUMBER 3109
	ESTIMATED ULTIMATE AXIAL COMPRESSION CAPACITY OF 18-INCH SQUARE CONCRETE PILE	

ESTIMATED ULTIMATE UPLIFT CAPACITY OF 18-INCH SQUARE CONCRETE PILE



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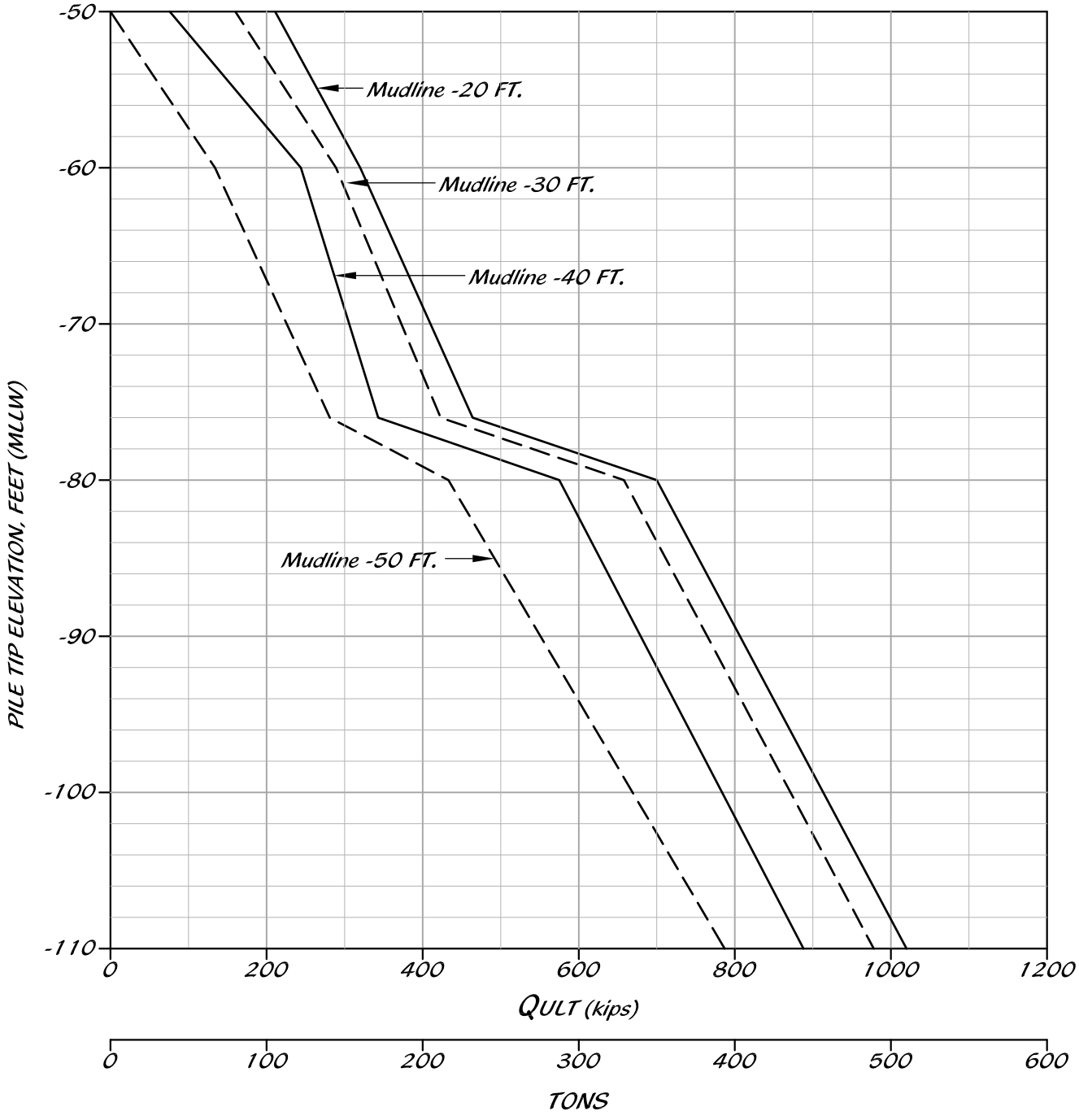
PROJECT NAME NASSCO FLOATING DRY DOCK	PROJECT NUMBER 3109
ESTIMATED ULTIMATE UPLIFT CAPACITY OF 18-INCH SQUARE CONCRETE PILE	

ESTIMATED ULTIMATE AXIAL COMPRESSION CAPACITY OF 24-INCH OCTAGONAL CONCRETE PILE



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	PROJECT NAME NASSCO FLOATING DRY DOCK	PROJECT NUMBER 3109
	ESTIMATED ULTIMATE AXIAL COMPRESSION CAPACITY OF 24-INCH OCTAGONAL CONCRETE PILE	

ESTIMATED ULTIMATE UPLIFT CAPACITY OF 24-INCH OCTAGONAL CONCRETE PILE

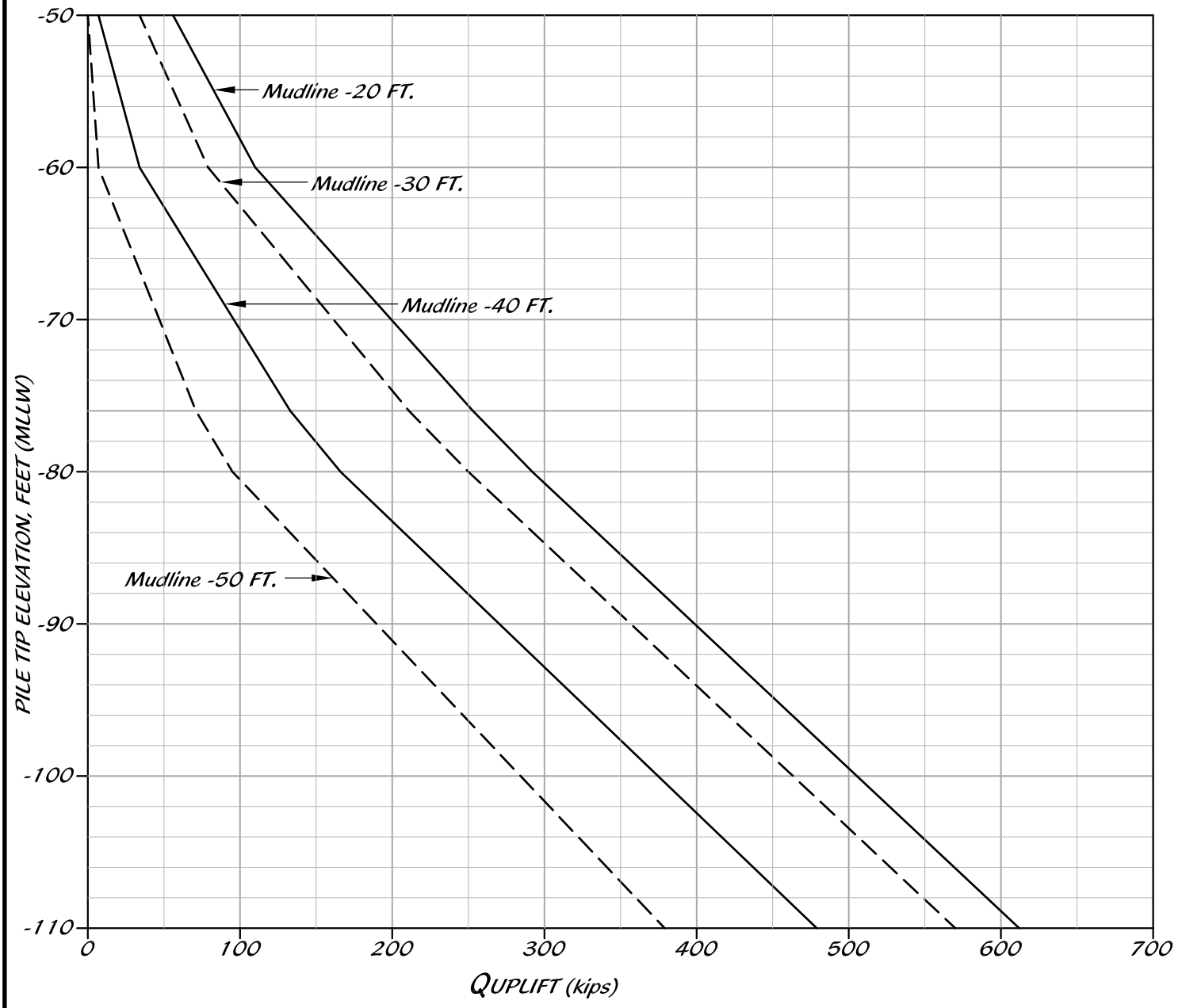

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FIGURE NUMBER
15

PROJECT NAME
NASSCO FLOATING
DRY DOCK

PROJECT NUMBER
3109

ESTIMATED ULTIMATE UPLIFT CAPACITY OF 24-INCH OCTAGONAL CONCRETE PILE

APPENDIX A

LOGS OF EXCAVATIONS

TerraCosta Consulting Group

LOG OF TEST BORING

PROJECT NAME: NASSCO FLOATING DRY DOCK	PROJECT NUMBER: 3109	BORING: B-1A	
SITE LOCATION: SAN DIEGO, CA	START: 5/19/2020	FINISH: 5/19/2020	SHEET NO.: 1 of 2
DRILLING COMPANY: Pacific Drilling	DRILLING METHOD: Hollow Stem Auger	LOGGED BY: M. Martinez	CHECKED BY: G. Spaulding
DRILLING EQUIPMENT: Marl M10	BORING DIA. (in): 6"	TOTAL DEPTH (ft): 31.5	GROUND ELEV (ft): -33.6
SAMPLING METHOD: CAL/SPT	NOTES: 6286708.61E, 1831515.56N		DEPTH/*ELEV.* GROUND WATER (ft): ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									MUD LINE - Auger weight sank ~ 3 feet below mud line. BAY DEPOSITS **SANDY SILT TO SILTY SAND (ML/SM)**, soft to loose, saturated, dark gray, fine grained sand, medium plasticity
5	-35								
	-40	S	1	24					YOUNGER TERRACE DEPOSITS **SILTY SAND (SM)**, medium dense, moist, gray-brown, mottled with orange, fine grained sand, finely laminated with black silt, micaceous
10	-45	S	2	58					- Becomes very dense
15	-50	S	3	23					- Flowing sands - No recovery due to flowing sands

TerraCosta Consulting Group, Inc.
3890 Murphy Canyon Road, Suite 200
San Diego, California 92123

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.

FIGURE A-2 a

LOG OF TEST BORING

PROJECT NAME: NASSCO FLOATING DRY DOCK	PROJECT NUMBER: 3109	BORING: B-1A	
SITE LOCATION: SAN DIEGO, CA	START: 5/19/2020	FINISH: 5/19/2020	SHEET NO.: 2 of 2
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									YOUNGER TERRACE DEPOSITS
	-55								
		S	4	37					- Becomes dark gray with some subrounded cobble
25									**CLAYEY SAND TO SANDY CLAY (SC/CL)**, very dense, moist, light gray-brown, fine grained sand, abundant subrounded fine gravel
	-60								
		S	5	50/3"					
30									- Practical drilling refusal
	-65								
									Boring terminated at 31.5 feet below mud line.
35									
	-70								

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FIGURE A-2 b

TCG_METRIC_LOG(3) 3109.GPJ GDCLOGMT.GDT 7/16/20

LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-1B
SITE LOCATION SAN DIEGO, CA	**START** 5/19/2020	**FINISH** 5/19/2020	**SHEET NO.** 1 of 5
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 83	**GROUND ELEV (ft)** -33.6	**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a
SAMPLING METHOD CAL/SPT	**NOTES** 6286676.30N, 1831539.97E		

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									MUD LINE After reaching refusal in B-1A at ~ -65.1 feet, the barge was rotated ~ 10 feet northwest. Advanced augers to approximate refusal depth prior to resuming sampling.
	-35								
5									
	-40								
10									
	-45								
15									
	-50								

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FIGURE A-3 a

LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-1B
SITE LOCATION SAN DIEGO, CA	**START** 5/19/2020	**FINISH** 5/19/2020	**SHEET NO.** 2 of 5
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 83	**GROUND ELEV (ft)** -33.6	**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a
SAMPLING METHOD CAL/SPT	**NOTES** 6286676.30N, 1831539.97E		

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
25	-55								
	-60								
30	-65								YOUNGER TERRACE DEPOSITS **LOW PLASTICITY CLAY (CL)**, hard, moist, dark gray-brown, fine grained sand, texturally gradational, occasional interbeds of oxidized fine grained sand
		S	6	29					
35	-70								**LOW PLASTICITY CLAY (CL)**, hard, moist, light gray mottled w/ orange, lenses to zones of oxidized fine to medium grained sand
		C	7	52					

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FIGURE A-3 b

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LOG OF TEST BORING

PROJECT NAME: NASSCO FLOATING DRY DOCK	PROJECT NUMBER: 3109	BORING: B-1B	
SITE LOCATION: SAN DIEGO, CA	START: 5/19/2020	FINISH: 5/19/2020	SHEET NO.: 3 of 5
DRILLING COMPANY: Pacific Drilling	DRILLING METHOD: Hollow Stem Auger	LOGGED BY: M. Martinez	CHECKED BY: G. Spaulding
DRILLING EQUIPMENT: Marl M10	BORING DIA. (in): 6"	TOTAL DEPTH (ft): 83	GROUND ELEV (ft): -33.6
SAMPLING METHOD: CAL/SPT	NOTES: 6286676.30N, 1831539.97E		DEPTH/*ELEV.* GROUND WATER (ft): ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									YOUNGER TERRACE DEPOSITS
	-75								
45									
	-80								
									LOW PLASTICITY CLAY (CL), hard, moist, reddish-brown, fine to medium grained sand
		S	8	38					
50									
	-85								
									OLDER TERRACE DEPOSITS **SILTY SAND TO CLAYEY SAND (SM/SC)**, very dense, wet, gray-brown, fine to medium grained sand, trace coarse grained sand, gradationally interlayered, micaceous
55									
	-90								
		D	9	50/3"					

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FIGURE A-3 c

LOG OF TEST BORING

PROJECT NAME: NASSCO FLOATING DRY DOCK	PROJECT NUMBER: 3109	BORING: B-1B	
SITE LOCATION: SAN DIEGO, CA	START: 5/19/2020	FINISH: 5/19/2020	SHEET NO.: 4 of 5
DRILLING COMPANY: Pacific Drilling	DRILLING METHOD: Hollow Stem Auger	LOGGED BY: M. Martinez	CHECKED BY: G. Spaulding
DRILLING EQUIPMENT: Marl M10	BORING DIA. (in): 6"	TOTAL DEPTH (ft): 83	GROUND ELEV (ft): -33.6
SAMPLING METHOD: CAL/SPT	NOTES: 6286676.30N, 1831539.97E		DEPTH/*ELEV.* GROUND WATER (ft): ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									OLDER TERRACE DEPOSITS
	-95								
65									**SILTY SAND(SM)**, dense, moist, dark brown, fine to medium grained, occasional lenses (1") of fine grained sandy clay, micaceous
	-100								
		S	10	34					
70									
	-105								**SILTY SAND TO SILTY CLAY (SM/CL)**, very dense to hard, moist, dark gray to reddish-brown, fine grained sand, interlayered (1-1.5"), micaceous
75									
	-110								
		S	11	61					

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FIGURE A-3 d

LOG OF TEST BORING

PROJECT NAME: NASSCO FLOATING DRY DOCK	PROJECT NUMBER: 3109	BORING: B-1B	
SITE LOCATION: SAN DIEGO, CA	START: 5/19/2020	FINISH: 5/19/2020	SHEET NO.: 5 of 5
DRILLING COMPANY: Pacific Drilling	DRILLING METHOD: Hollow Stem Auger	LOGGED BY: M. Martinez	CHECKED BY: G. Spaulding
DRILLING EQUIPMENT: Marl M10	BORING DIA. (in): 6"	TOTAL DEPTH (ft): 83	GROUND ELEV (ft): -33.6
SAMPLING METHOD: CAL/SPT	NOTES: 6286676.30N, 1831539.97E		DEPTH/*ELEV.* GROUND WATER (ft): ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
	-115								OLDER TERRACE DEPOSITS
85	-120								Boring terminated at 83 feet below mud line.
90	-125								
95	-130								

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FIGURE A-3 e

LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-2
SITE LOCATION SAN DIEGO, CA	**START** 5/18/2020	**FINISH** 5/18/2020	**SHEET NO.** 1 of 5
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 91.5	**GROUND ELEV (ft)** -25.06
SAMPLING METHOD CAL/SPT	**NOTES** 6286929.96E, 1831873.77N		**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									MUD LINE - Auger weight sank ~ 6.5 feet below mud line. BAY DEPOSITS **SANDY SILT TO SILTY SAND (ML/SM)**, soft to loose, saturated, dark gray, fine grained sand, poorly consolidated
5	-30								
10	-35								**SILT (ML)**, very soft, saturated, black, medium plasticity, micaceous YOUNGER TERRACE DEPOSITS **SILTY SAND (SM)**, very dense, wet, gray, fine grained sand, consolidated, micaceous
15	-40	◯	1	50/3"					

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FIGURE A-4 a

LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-2
SITE LOCATION SAN DIEGO, CA	**START** 5/18/2020	**FINISH** 5/18/2020	**SHEET NO.** 2 of 5
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 91.5	**GROUND ELEV (ft)** -25.06
SAMPLING METHOD CAL/SPT	**NOTES** 6286929.96E, 1831873.77N		**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									YOUNGER TERRACE DEPOSITS
		S	2	22					**CLAYEY SAND TO SANDY CLAY (SC/CL)**, medium dense to very stiff, saturated, reddish-brown to gray-brown, fine to medium grained sand, manganese nodules
25	-50								
		C	3	28	107.5	20.7	PI GS DS		**LOW PLASTICITY CLAY (CL)**, very stiff, wet, light olive-gray mottled w/ orange, fine grained sand, weathered, micaceous
									LOW PLASTICITY CLAY (CL), very stiff, moist, light reddish-brown, fine to medium grained sand
30	-55	S	4	24					
									- Becomes medium stiff, reddish-brown to gray-brown
35	-60	S	5	14					

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FIGURE A-4 b

LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-2
SITE LOCATION SAN DIEGO, CA	**START** 5/18/2020	**FINISH** 5/18/2020	**SHEET NO.** 3 of 5
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 91.5	**GROUND ELEV (ft)** -25.06
SAMPLING METHOD CAL/SPT	**NOTES** 6286929.96E, 1831873.77N		**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									YOUNGER TERRACE DEPOSITS
									OLDER TERRACE DEPOSITS **SILTY SAND (SM)**, very dense, saturated, light gray-brown, fine to medium grained sand, gradationally interlayered zones of clayey sand
			6	81	113.3	15.4	PI GS DS		
45	-70								
			7	50					
50	-75								**SANDY CLAY TO CLAYEY SAND (CL/SC)**, hard to dense, moist, gray-brown, fine to medium grained sand
			8	31					
55	-80								**SILTY SAND (SM)**, very dense, saturated, light gray-brown, fine to medium grained sand, gradationally interlayered zones of clayey sand
			9	37					

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FIGURE A-4 c

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LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-2
SITE LOCATION SAN DIEGO, CA	**START** 5/18/2020	**FINISH** 5/18/2020	**SHEET NO.** 4 of 5
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 91.5	**GROUND ELEV (ft)** -25.06	**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a
SAMPLING METHOD CAL/SPT	**NOTES** 6286929.96E, 1831873.77N		

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									OLDER TERRACE DEPOSITS
		S	10	20					- Becomes medium dense
65	-90								
		S	11	51					- Becomes very dense, wet, gray-brown, fine to medium grained sand, micaceous
70	-95								
		S	12	71					- Disregard, sloughed recovery
									SANDY SILT TO SILTY SAND (ML/SM), very dense, moist, gray-brown with trace reddish-brown, fine grained sand, well consolidated, trace shell fragments, micaceous
75	-100								
		S	13	53					
									SILTY SAND (SM), dense, moist, gray-brown, fine grained sand, laminated with light brown fine grained sand

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FIGURE A-4 d

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LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-2
SITE LOCATION SAN DIEGO, CA	**START** 5/18/2020	**FINISH** 5/18/2020	**SHEET NO.** 5 of 5
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 91.5	**GROUND ELEV (ft)** -25.06
SAMPLING METHOD CAL/SPT	**NOTES** 6286929.96E, 1831873.77N		**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									OLDER TERRACE DEPOSITS
		S	14	42					
85	-110								**SILT (ML)**, hard, moist, gray-brown to reddish-brown, fine grained sand, moderately plastic, micaceous
		C	15	50/5"					
90	-115								Boring terminated at 91.5 feet below mud line.
95	-120								

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FIGURE A-4 e

LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-3
SITE LOCATION SAN DIEGO, CA	**START** 5/15/2020	**FINISH** 5/15/2020	**SHEET NO.** 1 of 4
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 69.5	**GROUND ELEV (ft)** -45.01	**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a
SAMPLING METHOD CAL/SPT	**NOTES** 6287731.28E, 1831535.31N		

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									MUD LINE BAY DEPOSITS **SANDY SILT TO SILTY SAND (ML/SM)**, soft to loose, saturated, dark gray, fine grained sand, poorly consolidated
5	-50								
10	-55								YOUNGER TERRACE DEPOSITS **CLAYEY SAND (SC)**, dense, wet, olive-brown to light gray, fine grained sand, interlayered, some subrounded gravel
		S	1	23					
15	-60								**SILT (ML)**, very stiff, moist, gray-brown to reddish-brown, gradationally interlayered clayey fine to medium grained sand
		S	2	20					

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FIGURE A-5 a

LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-3
SITE LOCATION SAN DIEGO, CA	**START** 5/15/2020	**FINISH** 5/15/2020	**SHEET NO.** 2 of 4
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 69.5	**GROUND ELEV (ft)** -45.01
SAMPLING METHOD CAL/SPT	**NOTES** 6287731.28E, 1831535.31N		**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									YOUNGER TERRACE DEPOSITS
		S	3	32					**SILTY SAND (SM)**, dense, wet, light brown to gray, fine to medium grained sand, trace coarse grained sand, moderately consolidated
25	-70								
		S	4	19					**SILTY CLAY TO CLAYEY SILT (CL/ML)**, very stiff, moist, gray-brown to reddish-brown, slightly plastic
30	-75								
		C	5	44					**SILTY SAND (SM)**, very dense, moist,reddish-brown to gray-brown, fine grained sand, laminated w/ black silt
35	-80								
		S	6	20					OLDER TERRACE DEPOSITS **CLAYEY SAND TO SANDY CLAY (SC/CL)**, medium dense to very stiff, moist, gray mottled w/ orangish-brown, fine grained sand, micaceous

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FIGURE A-5 b

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LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-3
SITE LOCATION SAN DIEGO, CA	**START** 5/15/2020	**FINISH** 5/15/2020	**SHEET NO.** 3 of 4
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 69.5	**GROUND ELEV (ft)** -45.01
SAMPLING METHOD CAL/SPT	**NOTES** 6287731.28E, 1831535.31N		**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									OLDER TERRACE DEPOSITS
		C	7	27					**LOW TO HIGH PLASTICITY CLAY (CL/CH)**, very stiff, wet, gray mottled w/ orange, fine grained sand, high plasticity, trace shell fragments
45	-90								
		S	8	21					**LOW PLASTICITY CLAY (CL)**, very stiff, moist, dark gray mottled w/ orange, fine grained sand
50	-95								
		C	9	50/4.5"					**SILTY SAND (SM)**, very dense, wet, yellowish-brown to gray-brown, fine to medium grained sand, consolidated, micaceous
55	-100								
		S	10	30					**SILT (ML)**, hard, moist, dark gray-brown, fine grained sand, micaceous

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FIGURE A-5 c

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LOG OF TEST BORING

PROJECT NAME: NASSCO FLOATING DRY DOCK	PROJECT NUMBER: 3109	BORING: B-3	
SITE LOCATION: SAN DIEGO, CA	START: 5/15/2020	FINISH: 5/15/2020	SHEET NO.: 4 of 4
DRILLING COMPANY: Pacific Drilling	DRILLING METHOD: Hollow Stem Auger	LOGGED BY: M. Martinez	CHECKED BY: G. Spaulding
DRILLING EQUIPMENT: Marl M10	BORING DIA. (in): 6"	TOTAL DEPTH (ft): 69.5	GROUND ELEV (ft): -45.01
SAMPLING METHOD: CAL/SPT	NOTES: 6287731.28E, 1831535.31N		DEPTH/*ELEV.* GROUND WATER (ft): ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									OLDER TERRACE DEPOSITS
		S	11	36					**SILTY SAND TO CLAYEY SAND (SM/SC)**, dense, moist, gray-brown, fine grained sand, micaceous
65	-110								
									SILT (ML), very stiff, moist, gray-brown, fine grained sand, micaceous
		S	12	33					
70	-115								Boring terminated at 69.5 feet below mud line.
75	-120								

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FIGURE A-5 d

TCG_METRIC_LOG(3) 3109.GPJ GDCLOGMT.GDT 7/16/20

LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-4
SITE LOCATION SAN DIEGO, CA	**START** 5/14/2020	**FINISH** 5/14/2020	**SHEET NO.** 1 of 4
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 64.5	**GROUND ELEV (ft)** -51.65	**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a
SAMPLING METHOD CAL/SPT	**NOTES** 6287862.82E, 1831956.49N		

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									MUD LINE - Auger weight sank ~ 3 feet below mudline. BAY DEPOSITS **SANDY SILT TO SILTY SAND (ML/SM)**, soft to loose, saturated, dark gray, fine grained sand, poorly consolidated
	-55								
5									
									YOUNGER TERRACE DEPOSITS **LOW PLASTICITY CLAY (CL)**, very stiff, wet, olive-brown mottled w/ orange, fine grained sand
	-60	S	1	15					
10									
									HIGH PLASTICITY CLAY (CH), very stiff, wet, gray-brown, fine grained sand
	-65	C	2	50					**SILTY SAND (SM)**, very dense, wet, gray-brown to light brown, fine to medium grained sand, interlayered w/ black silt
15									
	-70	S	3	50					

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FIGURE A-6 a

LOG OF TEST BORING

PROJECT NAME: NASSCO FLOATING DRY DOCK	PROJECT NUMBER: 3109	BORING: B-4	
SITE LOCATION: SAN DIEGO, CA	START: 5/14/2020	FINISH: 5/14/2020	SHEET NO.: 2 of 4
DRILLING COMPANY: Pacific Drilling	DRILLING METHOD: Hollow Stem Auger	LOGGED BY: M. Martinez	CHECKED BY: G. Spaulding
DRILLING EQUIPMENT: Marl M10	BORING DIA. (in): 6"	TOTAL DEPTH (ft): 64.5	GROUND ELEV (ft): -51.65
SAMPLING METHOD: CAL/SPT	NOTES: 6287862.82E, 1831956.49N		DEPTH/*ELEV.* GROUND WATER (ft): ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									YOUNGER TERRACE DEPOSITS
									SILTY CLAY TO CLAYEY SAND (CL/SC), hard to dense, moist, reddish-brown, fine to medium grained sand, gradationally interlayered
	-75	S	4	34					
25									OLDER TERRACE DEPOSITS
									SANDY TO CLAYEY SILT (ML/MH), very stiff, moist, olive-gray to reddish-brown, fine grained sand, gradationally interlayered, micaceous
	-80	S	5	21					
30									
									SANDY SILT TO SANDY CLAY (ML/CL),hard, moist, dark gray-brown, fine grained sand, slightly plastic, gradationally interlayered, micaceous
	-85	S	6	35					
35									
									SILT (ML), very stiff, moist, olive-gray, fine grained sand, occasional lenses of light gray fine grained sandy clay
	-90	S	7	22					

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FIGURE A-6 b

TCG_METRIC_LOG(3) 3109.GPJ GDCLOGMT.GDT 7/16/20

LOG OF TEST BORING

PROJECT NAME: NASSCO FLOATING DRY DOCK	PROJECT NUMBER: 3109	BORING: B-4	
SITE LOCATION: SAN DIEGO, CA	START: 5/14/2020	FINISH: 5/14/2020	SHEET NO.: 3 of 4
DRILLING COMPANY: Pacific Drilling	DRILLING METHOD: Hollow Stem Auger	LOGGED BY: M. Martinez	CHECKED BY: G. Spaulding
DRILLING EQUIPMENT: Marl M10	BORING DIA. (in): 6"	TOTAL DEPTH (ft): 64.5	GROUND ELEV (ft): -51.65
SAMPLING METHOD: CAL/SPT	NOTES: 6287862.82E, 1831956.49N		DEPTH/*ELEV.* GROUND WATER (ft): ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									OLDER TERRACE DEPOSITS
	-95	S	8	22					**SILT (ML)**, very stiff, moist, light olive-gray, fine grained sand, micaceous, mottled
45									
	-100	S	9	40					**SILTY SAND (SM)**, dense, moist, gray, fine to medium grained sand, interlayered oxidized sand
50									
	-105	S	10	9					- No sample recovery due to flowing sands
55									
	-110	S	11	57					- Becomes very dense, wet, gray-brown, gradationally interlayered, finely laminated with black silt

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FIGURE A-6 c

TCG_METRIC_LOG(3) 3109.GPJ GDCLOGMT.GDT 7/16/20

LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-4
SITE LOCATION SAN DIEGO, CA	**START** 5/14/2020	**FINISH** 5/14/2020	**SHEET NO.** 4 of 4
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 64.5	**GROUND ELEV (ft)** -51.65
SAMPLING METHOD CAL/SPT	**NOTES** 6287862.82E, 1831956.49N		**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									OLDER TERRACE DEPOSITS
	-115	S	12	35					
65									Boring terminated at 64.5 feet below mud line.
	-120								
70									
	-125								
75									
	-130								

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FIGURE A-6 d

TCG_METRIC_LOG(3) 3109.GPJ GDCLOGMT.GDT 7/16/20

LOG OF TEST BORING

PROJECT NAME	PROJECT NUMBER	BORING
NASSCO FLOATING DRY DOCK	3109	**B-5**

SITE LOCATION	START	FINISH	SHEET NO.
SAN DIEGO, CA	5/13/2020	5/13/2020	1 of 3

DRILLING COMPANY	DRILLING METHOD	LOGGED BY	CHECKED BY
Pacific Drilling	Hollow Stem Auger	M. Martinez	G. Spaulding

DRILLING EQUIPMENT	BORING DIA. (in)	TOTAL DEPTH (ft)	GROUND ELEV (ft)	DEPTH/*ELEV.* GROUND WATER (ft)
Marl M10	6"	55	-15.05	▼ n/a

SAMPLING METHOD: CAL/SPT

NOTES: 6287905.24E, 1832107.26N

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									MUD LINE - Auger weight sank ~ 5 feet below mudline. <u>BAY DEPOSITS</u> **SANDY SILT TO SILTY SAND (ML/SM)**, soft to loose, saturated, dark gray, fine grained sand, poorly consolidated
5	-20								
10	-25	S	1	Push					
									SILT (ML), saturated, medium stiff, dark gay, fine grained sand, slightly plastic, some fractured shell, micaceous
15	-30	C	2	5					
									<u>YOUNGER TERRACE DEPOSITS</u> **SILTY SAND (SM)**, medium, moist, dense, olive-brown to light brown, fine grained sand, micaceous

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FIGURE A-7 a

LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-5
SITE LOCATION SAN DIEGO, CA	**START** 5/13/2020	**FINISH** 5/13/2020	**SHEET NO.** 2 of 3
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 55	**GROUND ELEV (ft)** -15.05
SAMPLING METHOD CAL/SPT	**NOTES** 6287905.24E, 1832107.26N		**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
			3	16					YOUNGER TERRACE DEPOSITS
25	-40		4	21	94.2	28.2	PI GS DS		**HIGH PLASTICITY CLAY (CH)**, very stiff, moist, olive-gray mottled w/ orange, fine grained sand
30	-45		5	12					
35	-50		6	29					**HIGH PLASTICITY CLAY (CH)**, very stiff, moist, olive-gray w/ orange, laminated

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FIGURE A-7 b

TCG_METRIC_LOG(3) 3109.GPJ GDCLOGMT.GDT 7/16/20

LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-5
SITE LOCATION SAN DIEGO, CA	**START** 5/13/2020	**FINISH** 5/13/2020	**SHEET NO.** 3 of 3
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 55	**GROUND ELEV (ft)** -15.05	**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a
SAMPLING METHOD CAL/SPT	**NOTES** 6287905.24E, 1832107.26N		

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
			7	30					YOUNGER TERRACE DEPOSITS **SILTY SAND TO CLAYEY SAND (SM/SC)**, medium dense, wet, olive-gray, fine to medium grained sand, abundant fractured gravel
45	-60		8	44					OLDER TERRACE DEPOSITS **SILTY SAND (SM)**, dense, wet, olive-gray, fine to medium grained sand
									CLAYEY SAND TO SILT (SC/ML), dense to hard, moist, reddish-brown to olive-brown, fine to medium grained sand, gradationally interlayered, silt interlayers are micaceous
50	-65		9	44					
55	-70								Boring terminated at 55 feet below mud line.

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FIGURE A-7 c

LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-6
SITE LOCATION SAN DIEGO, CA	**START** 5/13/2020	**FINISH** 5/13/2020	**SHEET NO.** 1 of 3
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 50.5	**GROUND ELEV (ft)** -21.5
SAMPLING METHOD CAL/SPT	**NOTES** 6288006.06E, 1832081.3N		**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									MUD LINE - Auger weight sank ~ 2 feet below mudline. <u>BAY DEPOSITS</u> **SANDY SILT TO SILTY SAND (ML/SM)**, soft to loose, saturated, dark gray, fine grained sand, poorly consolidated
5	-25								
10	-30	C	1	7					
									<u>YOUNGER TERRACE DEPOSITS</u> **SANDY CLAY TO CLAYEY SAND (CL/SC)**, medium stiff, moist, olive-brown, fine grained sand
15	-35	S	2	9					
									LOW TO HIGH PLASTICITY CLAY (CL/CH), stiff, wet, gray-brown, fine grained sand, isolated lenses of clayey sand w/ abundant fractured shell
	-40	S	3	14					

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FIGURE A-8 a

TCG_METRIC_LOG(3) 3109.GPJ GDCLOGMT.GDT 7/16/20

LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-6
SITE LOCATION SAN DIEGO, CA	**START** 5/13/2020	**FINISH** 5/13/2020	**SHEET NO.** 2 of 3
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 50.5	**GROUND ELEV (ft)** -21.5
SAMPLING METHOD CAL/SPT	**NOTES** 6288006.06E, 1832081.3N		**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									YOUNGER TERRACE DEPOSITS
	-45								
25		C	4	29					- Becomes moist, very stiff, olive-gray with reddish-brown, fine grained, finely laminated, mottled
	-50								
30		S	5	25					**LOW PLASTICITY CLAY (CL)**, very stiff, moist, gray-brown w/ orange, fine grained sand, trace fractured shell, oxidation along discontinuous partings and fractures
	-55								**HIGH PLASTICITY CLAY TO ELASTIC SILT (CH/MH)**, very stiff, wet, olive-gray, fine grained sand, micaceous
35		C	6	21					
	-60								**CLAYEY SAND (SC)**, dense, moist, reddish-brown, fine to medium grained sand, indurated, trace manganese modules
		S	7	31					OLDER TERRACE DEPOSITS

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FIGURE A-8 b

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LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-6
SITE LOCATION SAN DIEGO, CA	**START** 5/13/2020	**FINISH** 5/13/2020	**SHEET NO.** 3 of 3
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 50.5	**GROUND ELEV (ft)** -21.5
SAMPLING METHOD CAL/SPT	**NOTES** 6288006.06E, 1832081.3N		**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
									OLDER TERRACE DEPOSITS
									SANDY SILT TO SANDY CLAY (ML/CL), hard, moist, dark gray, fine grained sand, micaceous
	-65								
45		C	8	31	91.4	28.5	PI GS DS		
									SILT (ML), very stiff, moist, dark olive-gray, fine grained sand, finely laminated with light brown silt, micaceous
	-70								
50		S	9	23					
									Boring terminated at 50.5 feet below mud line.
	-75								
55									
	-80								

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FIGURE A-8 c

TCG_METRIC_LOG(3) 3109.GPJ GDCLOGMT.GDT 7/16/20

LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-7
SITE LOCATION SAN DIEGO, CA	**START** 5/12/2020	**FINISH** 5/12/2020	**SHEET NO.** 1 of 4
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 61.5	**GROUND ELEV (ft)** -9.6	**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a
SAMPLING METHOD CAL/SPT	**NOTES** 6287960.32E, 1832130.75N		

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
	-10								MUD LINE - Auger weight sank ~ 5 feet below mudline. <u>BAY DEPOSITS</u> **SANDY SILT TO SILTY SAND (ML/SM)**, soft to loose, saturated, dark gray, fine grained sand, poorly consolidated
5	-15								
									SILTY SAND (SM), loose, saturated, dark gray, fine to medium grained sand, some fractured shell, trace gravel
10	-20	S	1	5					
									SILTY SAND (SM), loose, wet, olive-gray, fine grained sand, trace clay, micaceous
15	-25	C	2	9					

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FIGURE A-9 a

LOG OF TEST BORING

PROJECT NAME NASSCO FLOATING DRY DOCK		**PROJECT NUMBER** 3109	**BORING** B-7
SITE LOCATION SAN DIEGO, CA	**START** 5/12/2020	**FINISH** 5/12/2020	**SHEET NO.** 2 of 4
DRILLING COMPANY Pacific Drilling	**DRILLING METHOD** Hollow Stem Auger	**LOGGED BY** M. Martinez	**CHECKED BY** G. Spaulding
DRILLING EQUIPMENT Marl M10	**BORING DIA. (in)** 6"	**TOTAL DEPTH (ft)** 61.5	**GROUND ELEV (ft)** -9.6	**DEPTH/*ELEV.* GROUND WATER (ft)** ▼ n/a
SAMPLING METHOD CAL/SPT	**NOTES** 6287960.32E, 1832130.75N		

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
	-30	S	3	6					BAY DEPOSITS
									YOUNGER TERRACE DEPOSITS **LOW PLASTICITY CLAY (CL)**, very stiff, moist, olive-gray to gray-brown, fine grained sand, oxidation along discontinuous parting and fractures
25	-35	C	4	24	98.7	26.2	PI GS DS		
30	-40	S	5	14					**LOW PLASTICITY CLAY (CL)**, stiff, moist, olive-brown, fine grained sand, slightly plastic
35	-45	S	6	15					- Oxidation along discontinuous partings and fractures
									CLAYEY SAND TO SANDY CLAY (SC/CL), medium dense to very stiff, moist, olive-gray to gray-brown, fine grained sand, micaceous

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FIGURE A-9 b

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LOG OF TEST BORING

PROJECT NAME	PROJECT NUMBER	BORING
NASSCO FLOATING DRY DOCK	3109	B-7

SITE LOCATION	START	FINISH	SHEET NO.
SAN DIEGO, CA	5/12/2020	5/12/2020	3 of 4

DRILLING COMPANY	DRILLING METHOD	LOGGED BY	CHECKED BY
Pacific Drilling	Hollow Stem Auger	M. Martinez	G. Spaulding

DRILLING EQUIPMENT	BORING DIA. (in)	TOTAL DEPTH (ft)	GROUND ELEV (ft)	DEPTH/*ELEV.* GROUND WATER (ft)
Marl M10	6"	61.5	-9.6	▼ n/a

SAMPLING METHOD	NOTES
CAL/SPT	6287960.32E, 1832130.75N

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
	-50	S	7	21					YOUNGER TERRACE DEPOSITS
									SANDY SILT TO SANDY CLAY (SM/CL), medium dense to very stiff, moist, fine to medium grained sand, interlayered, moderately plastic
45	-55	S	8	26					
									OLDER TERRACE DEPOSITS **LOW PLASTICITY CLAY (CL)**, hard, moist, reddish-brown to gray-brown
50	-60	S	9	39					
									CLAYEY SAND TO SANDY CLAY (SC/CL), moist, hard, olive-gray, fine grained
55	-65	S	10	25					**LOW PLASTICITY CLAY (CL)**, hard, saturated, light brown, fine grained sand, occasional lenses of medium grained sand

TerraCosta Consulting Group, Inc.
3890 Murphy Canyon Road, Suite 200
San Diego, California 92123

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.

FIGURE A-9 c

TCG_METRIC_LOG(3) 3109.GPJ GDCLOGMT.GDT 7/16/20

LOG OF TEST BORING

PROJECT NAME: NASSCO FLOATING DRY DOCK	PROJECT NUMBER: 3109	BORING: B-7	
SITE LOCATION: SAN DIEGO, CA	START: 5/12/2020	FINISH: 5/12/2020	SHEET NO.: 4 of 4
DRILLING COMPANY: Pacific Drilling	DRILLING METHOD: Hollow Stem Auger	LOGGED BY: M. Martinez	CHECKED BY: G. Spaulding
DRILLING EQUIPMENT: Marl M10	BORING DIA. (in): 6"	TOTAL DEPTH (ft): 61.5	GROUND ELEV (ft): -9.6
SAMPLING METHOD: CAL/SPT	NOTES: 6287960.32E, 1832130.75N		DEPTH/*ELEV.* GROUND WATER (ft): ▼ n/a

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
	-70	◯	11	31					OLDER TERRACE DEPOSITS
65	-75								Boring terminated at 61.5 feet below mud line.
70	-80								
75	-85								

TerraCosta Consulting Group, Inc.
3890 Murphy Canyon Road, Suite 200
San Diego, California 92123

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FIGURE A-9 d

TCG_METRIC_LOG(3) 3109.GPJ GDCLOGMT.GDT 7/16/20

LOG OF TEST BORING

PROJECT NAME: NASSCO FLOATING DRY DOCK	PROJECT NUMBER: 3109	BORING: **LEGEND**	
SITE LOCATION: SAN DIEGO, CA	START: 5/11/2020	FINISH: 5/19/2020	SHEET NO.: 1 of 2
DRILLING COMPANY: Pacific Drilling	DRILLING METHOD: Hollow Stem Auger	LOGGED BY: M. Martinez	CHECKED BY: G. Spaulding
DRILLING EQUIPMENT: Marl M10	BORING DIA. (in): 6"	TOTAL DEPTH (ft): 40	GROUND ELEV (ft):	DEPTH/*ELEV.* GROUND WATER (ft): ▼ n/a
SAMPLING METHOD: CAL/SPT	NOTES:		

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION

5

10

15

KEY TO EXCAVATION LOGS

WATER TABLE MEASURED AT TIME OF DRILLING

OTHER TESTS

CC	Confined Compression	ppm	parts per million of VOCs*
CL	Chloride Content	R	Resistivity
CS	Consolidation	RV	R-Value
DS	Direct Shear	SA	Sieve Analysis
EI	Expansion Index	SE	Sand Equivalent
GS	Grain Size Analysis	SF	Sulfate
LC	Laboratory Compaction	SG	Specific Gravity
pH	Hydrogen Ion	SW	Swell
PI	Plasticity Index		

PENETRATION RESISTANCE (BLOWS/ft)

Number of blows required to advance the sampler 1 foot.

California Sampler blow counts can be converted to equivalent SPT blow counts by using an end-area conversion factor of 0.67 when using a 140-pound hammer and a 30-inch drop.

SAMPLE TYPE

C ("California Sampler") - An 18-inch-long, 2-1/2-inch I.D., 3-inch O.D., thick-walled sampler. The sampler is lined with eighteen 2-3/8-inch I.D. brass rings. Relatively undisturbed, intact soils samples are retained in the brass rings.

S ("SPT") - a.k.a. Standard Penetration Test, an 18-inch-long, 2-inch O.D., 1-3/8-inch I.D. drive sampler.

(CONTINUED)

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3890 Murphy Canyon Road, Suite 200
San Diego, California 92123

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED.

FIGURE A-1 a

TCG_METRIC_LOG(3) 3109.GPJ GDCLOGMT.GDT 7/16/20

LOG OF TEST BORING

PROJECT NAME: NASSCO FLOATING DRY DOCK	PROJECT NUMBER: 3109	BORING: **LEGEND**	
SITE LOCATION: SAN DIEGO, CA	START: 5/11/2020	FINISH: 5/19/2020	SHEET NO.: 2 of 2
DRILLING COMPANY: Pacific Drilling	DRILLING METHOD: Hollow Stem Auger	LOGGED BY: M. Martinez	CHECKED BY: G. Spaulding
DRILLING EQUIPMENT: Marl M10	BORING DIA. (in): 6"	TOTAL DEPTH (ft): 40	GROUND ELEV (ft):	DEPTH/*ELEV.* GROUND WATER (ft): ▼ n/a
SAMPLING METHOD: CAL/SPT	NOTES:		

DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	SAMPLE NO.	PENETRATION RESISTANCE (BLOWS/ft)	DRY DENSITY (pcf)	MOISTURE (%)	OTHER TESTS	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION
25									
30									
35									

KEY TO EXCAVATION LOGS

(CONTINUED)

NOTES ON FIELD INVESTIGATION

Borings were advanced using a truck-mounted Marl M10 drill rig with a 6-inch hollow-stem auger.

Standard Penetration Tests (SPT) and California Samplers (CAL) were used to obtain soil samples. The SPT were driven into the soil at the bottom of the borings with a 140-pound hammer falling 30 inches. When the samplers were withdrawn from the boring, the samples were removed, visually classified, sealed in plastic containers, and taken to the laboratory for detailed inspection.

Classifications are based upon the Unified Soil Classification System and include color, moisture, and consistency. Field descriptions have been modified to reflect results of laboratory inspection where deemed appropriate. At the completion of drilling, all borings were sealed per state and local standards.

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San Diego, California 92123

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FIGURE A-1 b

TCG_METRIC_LOG(3) 3109.GPJ GDCLOGMT.GDT 7/16/20

APPENDIX B

LABORATORY TEST RESULTS

TerraCosta Consulting Group

wood.
9177 Sky Park Court, San Diego, CA 92123
Phone: 858-278-3600 Fax: 858-278-5300

Particle Size Distribution/Soil Classification

ASTM D6913 & ASTM D7928

Project Name:	NASSCO Floating Dry Dock	Lab #:	33679
Project #:	5015-19-0002.13		
Sampled By:	MM	Date Sampled:	5/18/2020
Tested By:	MG/LC/BL	Date Tested:	6/10 - 6/12/2020
Reviewed By:	M. Gibson	Date Reviewed:	6/12/2020

Sample Location: B-2 @ 26.5'

Soil Type: Sandy Lean Clay, CL

Particle Size Distribution, Lab #33679

Sieve Size	Sieve Opening/ Particle Size (mm)	Percent Passing
4"	101.60	100
3-1/2"	88.90	100
3"	76.20	100
2"	50.80	100
1-1/2"	38.10	100
1"	25.40	100
3/4"	19.00	100
1/2"	12.70	100
3/8"	9.51	100
#4	4.76	100
#10	2.00	100
#20	0.841	99.3
#40	0.420	96.4
#60	0.250	93.2
#100	0.149	88.0
#140	0.105	80.3
#200	0.074	64.0
Hydrometer Test Result	0.0477	36.31
	0.0343	32.40
	0.0220	28.50
	0.0128	26.16
	0.0091	25.37
	0.0065	23.76
	0.0046	22.20
	0.0033	20.53
	0.0014	15.44

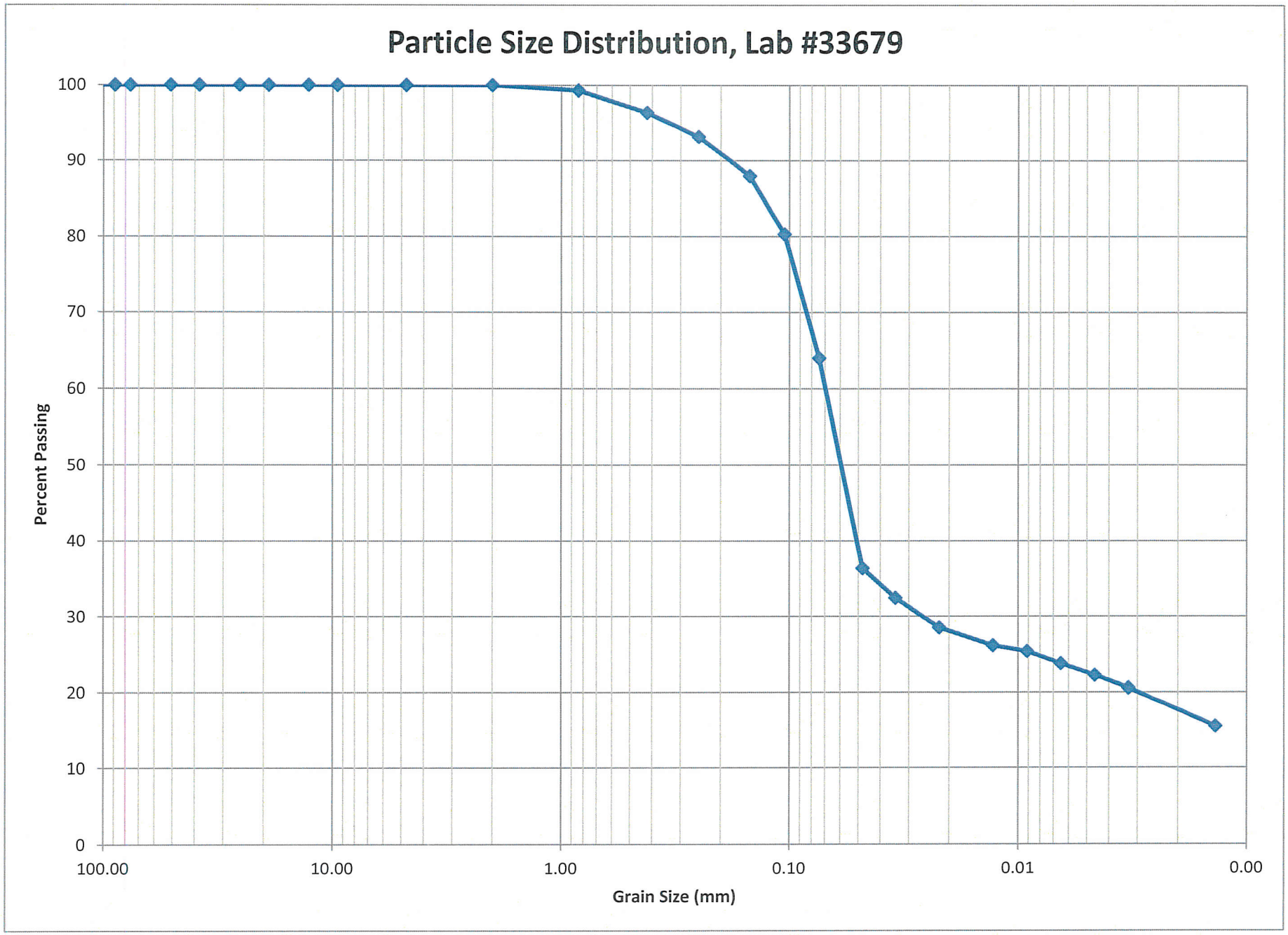
Plasticity Index (ASTM D4318)	
Liquid Limit:	29.8
Plastic Limit:	22.5
Plasticity Index:	7.3

Soil Classification Method	
ASTM D2487:	X
ASTM D2488:	

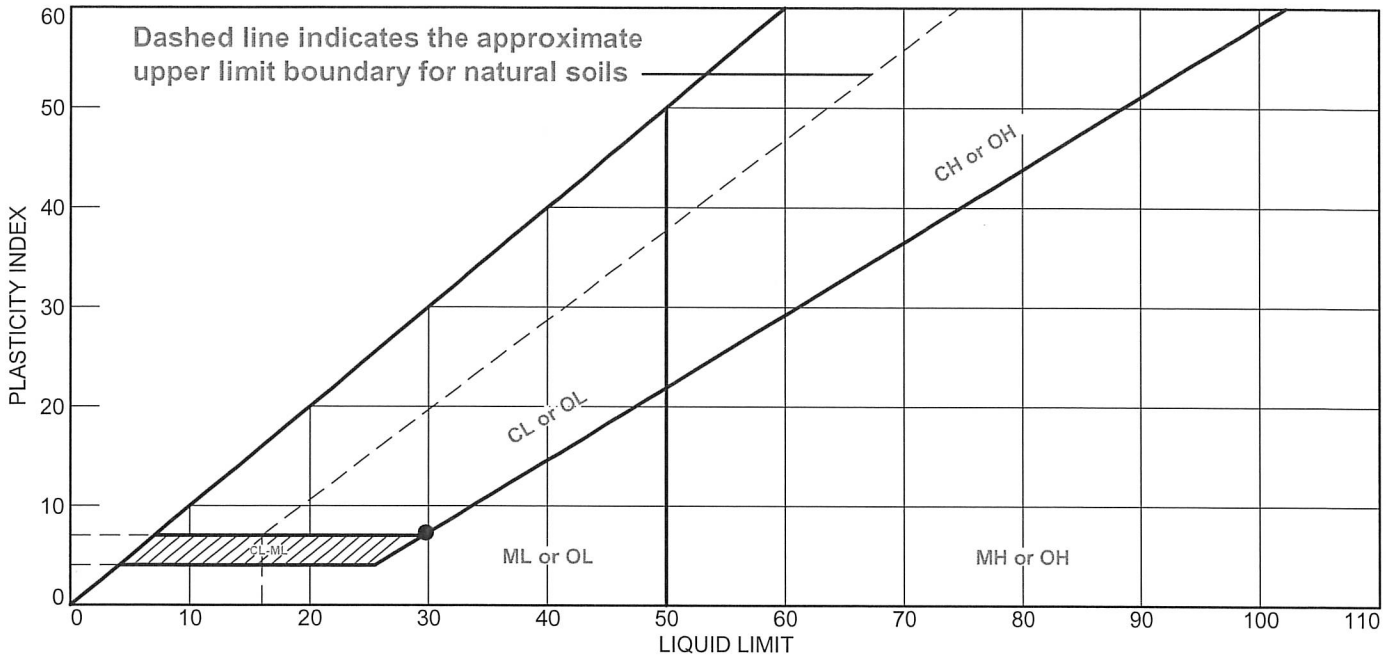
Moisture & Density Results	
As-Received Moisture %:	20.7
Wet Density (pcf):	129.8
Dry Density (pcf):	107.5

Reviewed By: _____

David C. Wilson, P.E. C54734
Senior Principal Engineer


Particle Size Distribution, Lab #33679
Percent Passing
100
90
80
70
60
50
40
30
20
10
0
100.00
10.00
1.00
0.10
0.01
0.00
Grain Size (mm)

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	(#33679)	29.8	22.5	7.3			

Project No. 5015190002.13 **Client:** TerraCosta Consulting Group, Inc.

Project: #3109: NASSCO Floating Dry Dock

Sample Number: B2 **Depth:** 26.5'

Remarks:

amec

Figure #33679

Tested By: MG **Checked By:** LC

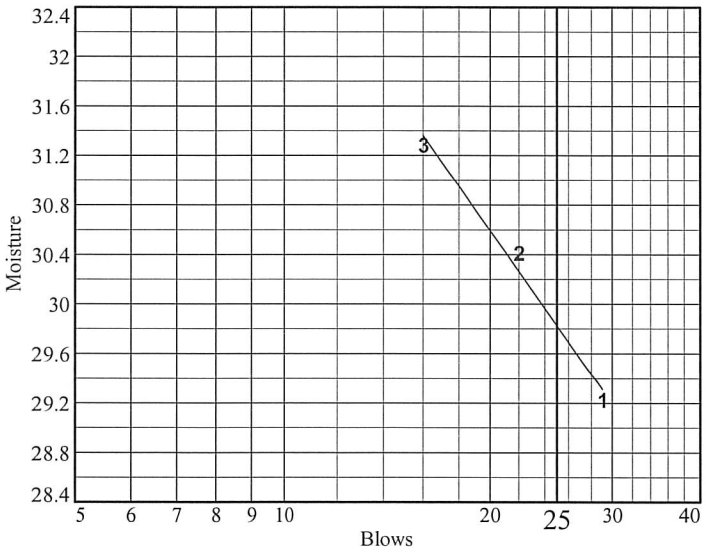
LIQUID AND PLASTIC LIMIT TEST DATA

6/11/2020

Client: TerraCosta Consulting Group, Inc.
Project: #3109: NASSCO Floating Dry Dock
Project Number: 5015190002.13
Depth: 26.5' **Sample Number:** B2
Material Description: (#33679)
Tested by: MG **Checked by:** LC

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	26.52	26.24	24.81			
Dry+Tare	23.79	23.53	22.31			
Tare	14.45	14.62	14.32			
# Blows	29	22	16			
Moisture	29.2	30.4	31.3			



Liquid Limit= 29.8
Plastic Limit= 22.5
Plasticity Index= 7.3

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	21.05	19.29			
Dry+Tare	19.78	17.79			
Tare	14.22	11.03			
Moisture	22.8	22.2			

wood.

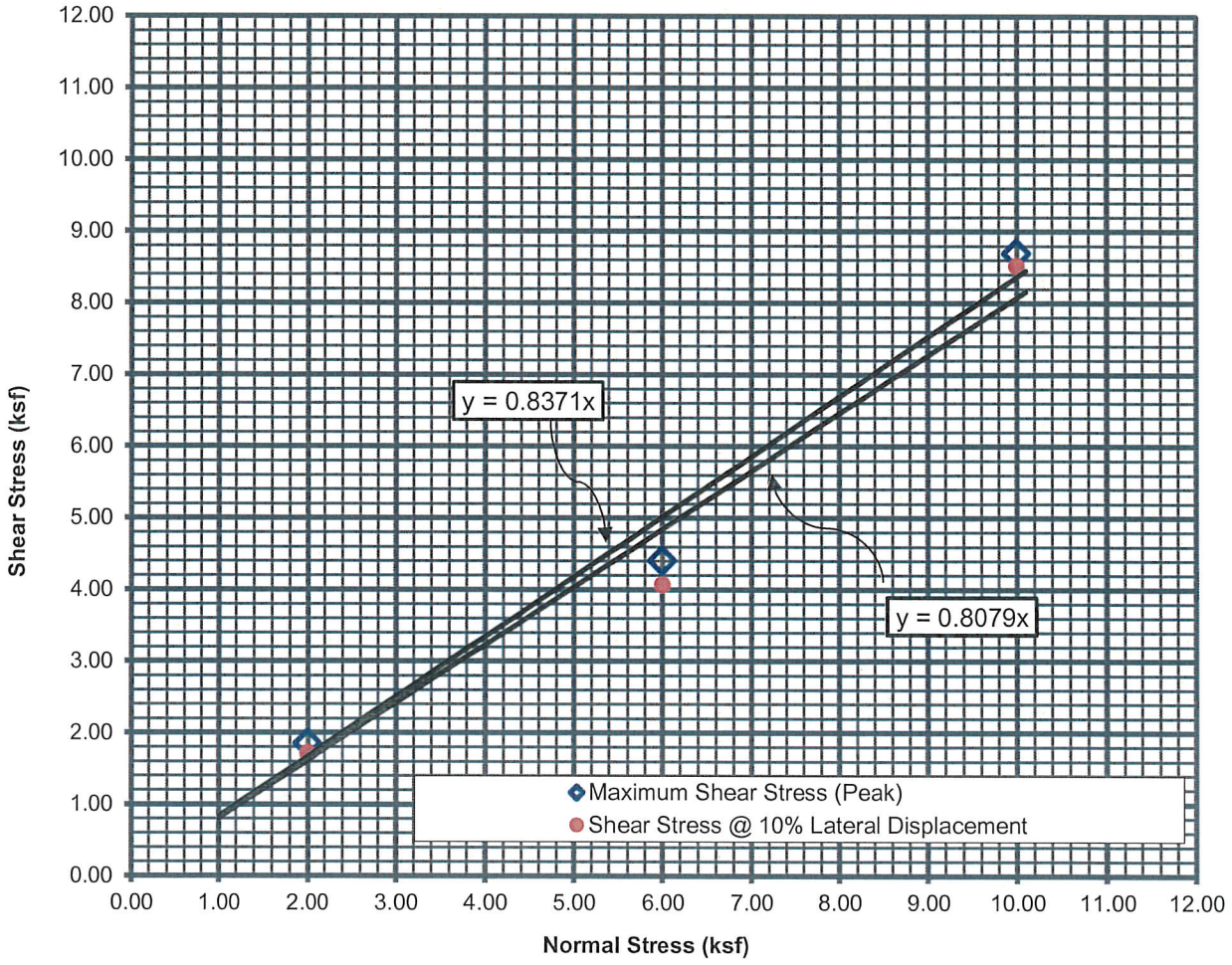
DIRECT SHEAR TEST

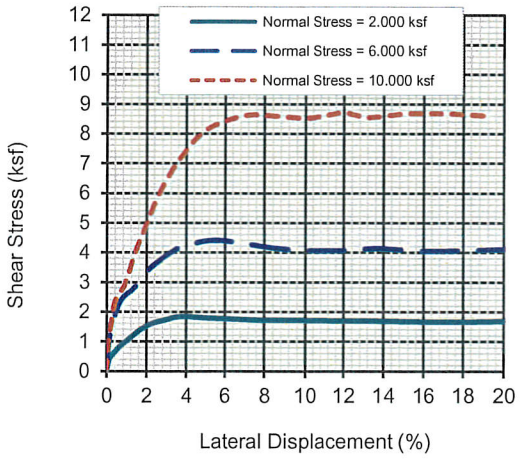
(AASHTO-T236)

Project Name:	Terracosta - NASSCO Floating Dry Dock					*Project No.:*	5015-19-0002.13
Boring No.:	B-2	*Sample No.:*	33679	*Depth:*	26.5'	*Date:*	6/2/2020
Soil Description:	Sandy Lean Clay, CL					*Tested By:*	M. Gibson

			Before Consolidation			After Consolidation		
			Load 1	Load 2	Load 3	Load 1	Load 2	Load 3
Normal Stress, ksf: 2.000, 6.000, 10.000		Wt of Soil & Ring, gr:	200.56	200.35	201.89	200.17	199.45	200.10
		Weight of Ring, gr:	45.71	46.90	45.65	45.71	46.90	45.65
Shear Rate, in/min: 0.02		Ring Diameter, in:	2.412	2.410	2.412	2.412	2.410	2.412
		Height of Sample, in:	1.003	0.987	0.996	0.998	0.972	0.989
As-Received Moisture:	20.7%	Tare No.:				43	113	352
Saturated:	Yes	Wet Weight and Tare, gr:				234.36	232.01	226.69
Intact/Undisturbed:	Yes	Dry Weight and Tare, gr:				207.47	206.11	202.24
Notes:		Tare Weight, gr:				80.58	82.41	77.00
		Moisture Content, %:	20.7%	20.7%	20.7%	21.2%	20.9%	19.5%
		Wet Density, pcf:	128.7	129.8	130.8	129.0	131.1	130.2
		Dry Density, pcf:	106.6	107.6	108.4	106.5	108.4	108.9

Load 1 (KSF): 2.000				Load 2 (KSF): 6.000				Load 3 (KSF): 10.000			
Shear Deflec -tion (in)	Lateral Displace -ment (%)	Load Ring Reading	Shear Stress (KSF)	Shear Deflec -tion (in)	Lateral Displace -ment (%)	Load Ring Reading	Shear Stress (KSF)	Shear Deflec -tion (in)	Lateral Displace -ment (%)	Load Ring Reading	Shear Stress (KSF)
0.003	0.1	54	0.414	0.002	0.1	104	0.798	0.002	0.1	114	0.875
0.009	0.4	82	0.629	0.005	0.2	170	1.304	0.006	0.2	221	1.696
0.016	0.7	110	0.844	0.011	0.5	258	1.980	0.011	0.5	313	2.402
0.028	1.2	145	1.113	0.019	0.8	322	2.471	0.022	0.9	381	2.924
0.041	1.7	183	1.404	0.033	1.4	365	2.801	0.035	1.5	437	4.022
0.056	2.3	212	1.627	0.049	2.0	398	3.366	0.049	2.0	484	4.974
0.070	2.9	225	1.727	0.066	2.7	422	3.770	0.063	2.6	521	5.925
0.082	3.4	237	1.819	0.078	3.2	436	4.006	0.087	3.6	566	7.083
0.095	3.9	242	1.857	0.096	4.0	450	4.241	0.121	5.0	606	8.111
0.105	4.4	239	1.834	0.131	5.4	460	4.409	0.168	7.0	625	8.600
0.123	5.1	235	1.803	0.171	7.1	453	4.292	0.202	8.4	625	8.600
0.182	7.6	226	1.734	0.202	8.4	445	4.157	0.241	10.0	622	8.523
0.240	10.0	224	1.719	0.242	10.0	440	4.073	0.270	11.2	626	8.626
0.297	12.3	222	1.703	0.286	11.9	440	4.073	0.290	12.0	629	8.703
0.331	13.7	222	1.703	0.332	13.8	444	4.140	0.320	13.3	623	8.549
0.381	15.8	219	1.680	0.381	15.8	439	4.056	0.364	15.1	628	8.677
0.432	17.9	218	1.673	0.435	18.0	440	4.073	0.413	17.1	628	8.677
0.488	20.2	222	1.703	0.489	20.3	443	4.123	0.464	19.3	625	8.600
Max. Shear Stress, ksf:			1.857				4.409				8.703
Lat.Displmt@Max Stress,%.:			3.9				5.4				12.0





Boring No.:	B-2
Sample No.:	33679
Sample Depth :	26.5'
Soil Type:	Sandy Lean Clay, CL
Sample Conditions:	Saturated; Intact
Shear Rate:	0.02
As-Received Dry Density (PCF):	107.5
As- Received Moisture Content (%):	20.7

	◇	●
Cohesion (PSF):	0	0
Friction Angle (Degrees):	40	39

wood.	DIRECT SHEAR TEST	Project No.
	Terracosta	5015-19-0002.13
	NASSCO Floating Dry Dock	

wood.
9177 Sky Park Court, San Diego, CA 92123
Phone: 858-278-3600 Fax: 858-278-5300

Particle Size Distribution/Soil Classification

ASTM D6913 & ASTM D7928

Project Name:	NASSCO Floating Dry Dock	Lab #:	33680
Project #:	5015-19-0002.13		
Sampled By:	MM	Date Sampled:	5/18/2020
Tested By:	MG/LC/BL	Date Tested:	6/10 - 6/12/2020
Reviewed By:	M. Gibson	Date Reviewed:	6/12/2020

Sample Location: B-2 @ 41.5'

Soil Type: Silty Sand, SM

Particle Size Distribution, Lab #33680

Sieve Size	Sieve Opening/ Particle Size (mm)	Percent Passing
4"	101.60	100
3-1/2"	88.90	100
3"	76.20	100
2"	50.80	100
1-1/2"	38.10	100
1"	25.40	100
3/4"	19.00	100
1/2"	12.70	100
3/8"	9.51	100
#4	4.76	99.4
#10	2.00	95.7
#20	0.841	86.9
#40	0.420	77.8
#60	0.250	66.7
#100	0.149	53.3
#140	0.105	41.2
#200	0.074	32.2
Hydrometer Test Result	0.0496	25.22
	0.0359	19.37
	0.0231	15.71
	0.0135	12.79
	0.0096	11.69
	0.0068	10.91
	0.0048	10.54
	0.0034	9.35
	0.0014	6.77

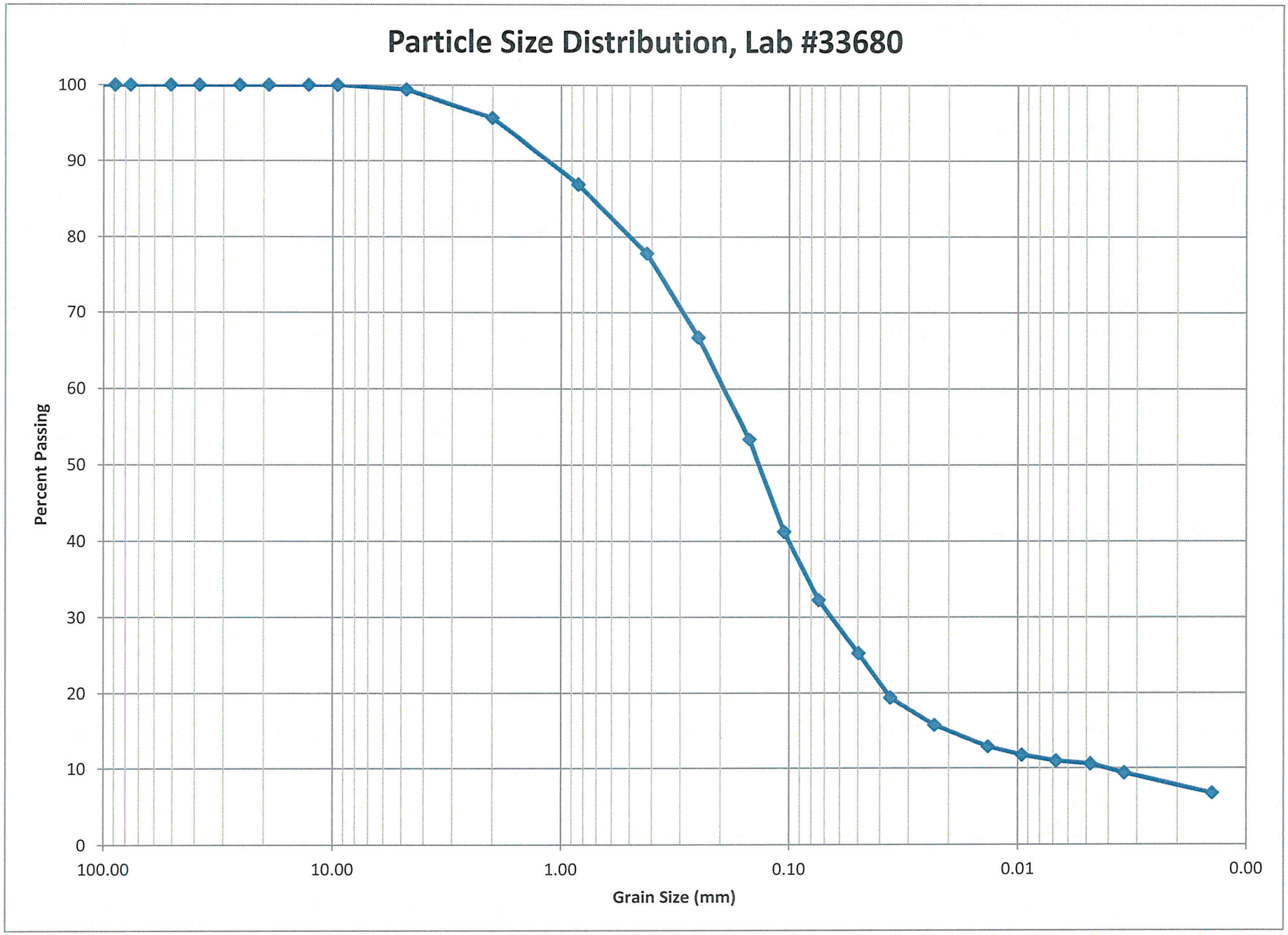
Plasticity Index (ASTM D4318)	
Liquid Limit:	NV
Plastic Limit:	NP
Plasticity Index:	--

Soil Classification Method	
ASTM D2487:	X
ASTM D2488:	

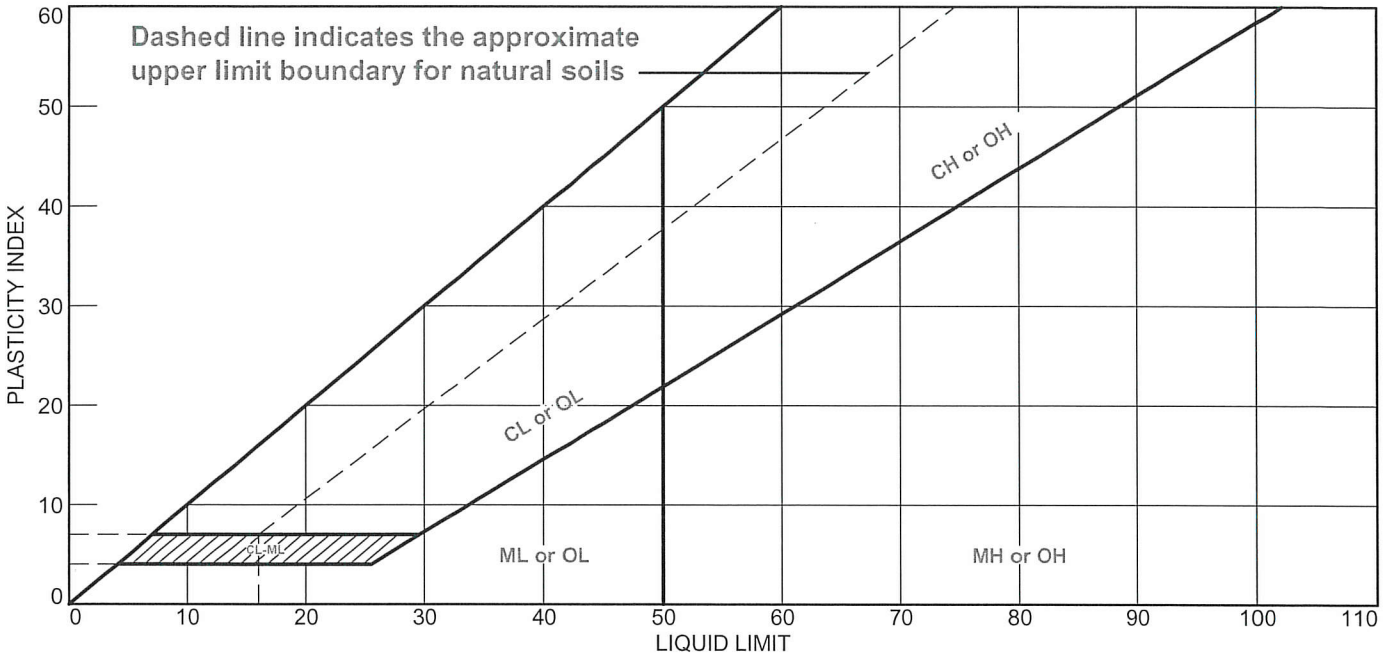
Moisture & Density Results	
As-Received Moisture %:	15.4
Wet Density (pcf):	130.7
Dry Density (pcf):	113.3

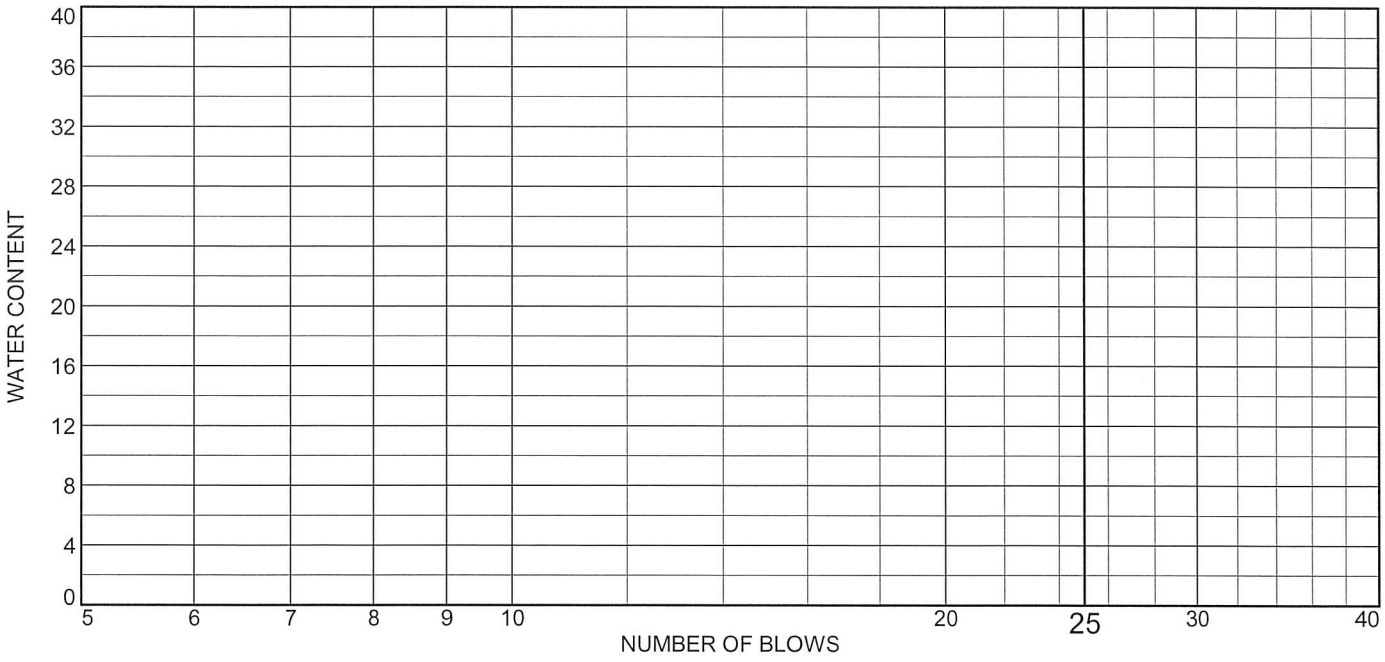
Reviewed By: _____

David C. Wilson, P.E. C54734
Senior Principal Engineer


Particle Size Distribution, Lab #33680
Percent Passing
100
90
80
70
60
50
40
30
20
10
0
100.00
10.00
1.00
0.10
0.01
0.00
Grain Size (mm)

LIQUID AND PLASTIC LIMITS TEST REPORT





	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	(#33680)	NV	NP	NP			

Project No. 5015190002.13 **Client:** TerraCosta Consulting Group, Inc.

Project: #3109: NASSCO Floating Dry Dock

Sample Number: B2 **Depth:** 41.5'

Remarks:

● Sample slid in bowl, surface tearing; tried addign water/ With some surfcae tearing, was able to effictively test = 7 drops

amec

Figure #33680

Tested By: MG **Checked By:** LC DW

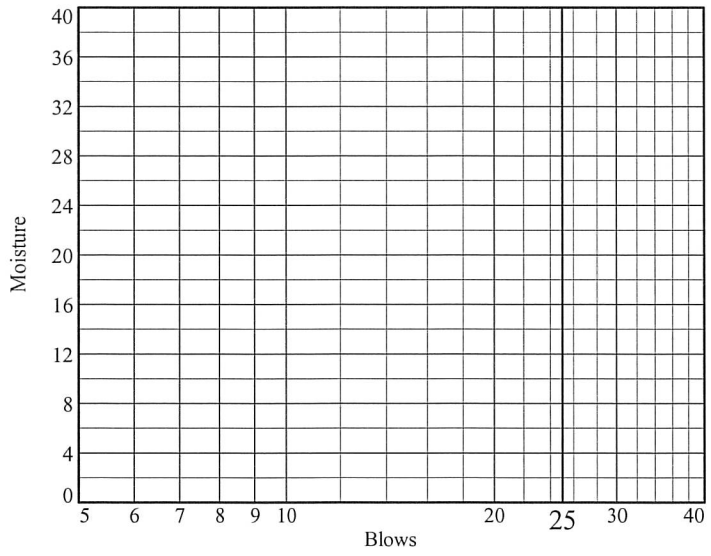
LIQUID AND PLASTIC LIMIT TEST DATA

6/11/2020

Client: TerraCosta Consulting Group, Inc.
Project: #3109: NASSCO Floating Dry Dock
Project Number: 5015190002.13
Depth: 41.5' **Sample Number:** B2
Material Description: (#33680)
Tested by: MG **Checked by:** LC
Testing Remarks: Sample slid in bowl, surface tearing; tried addign water/ With some surfcae tearing, was able to effictively test = 7 drops

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare						
Dry+Tare						
Tare						
# Blows						
Moisture						



Liquid Limit= NV
Plastic Limit= NP
Plasticity Index= NP

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare					
Dry+Tare					
Tare					
Moisture					

wood.

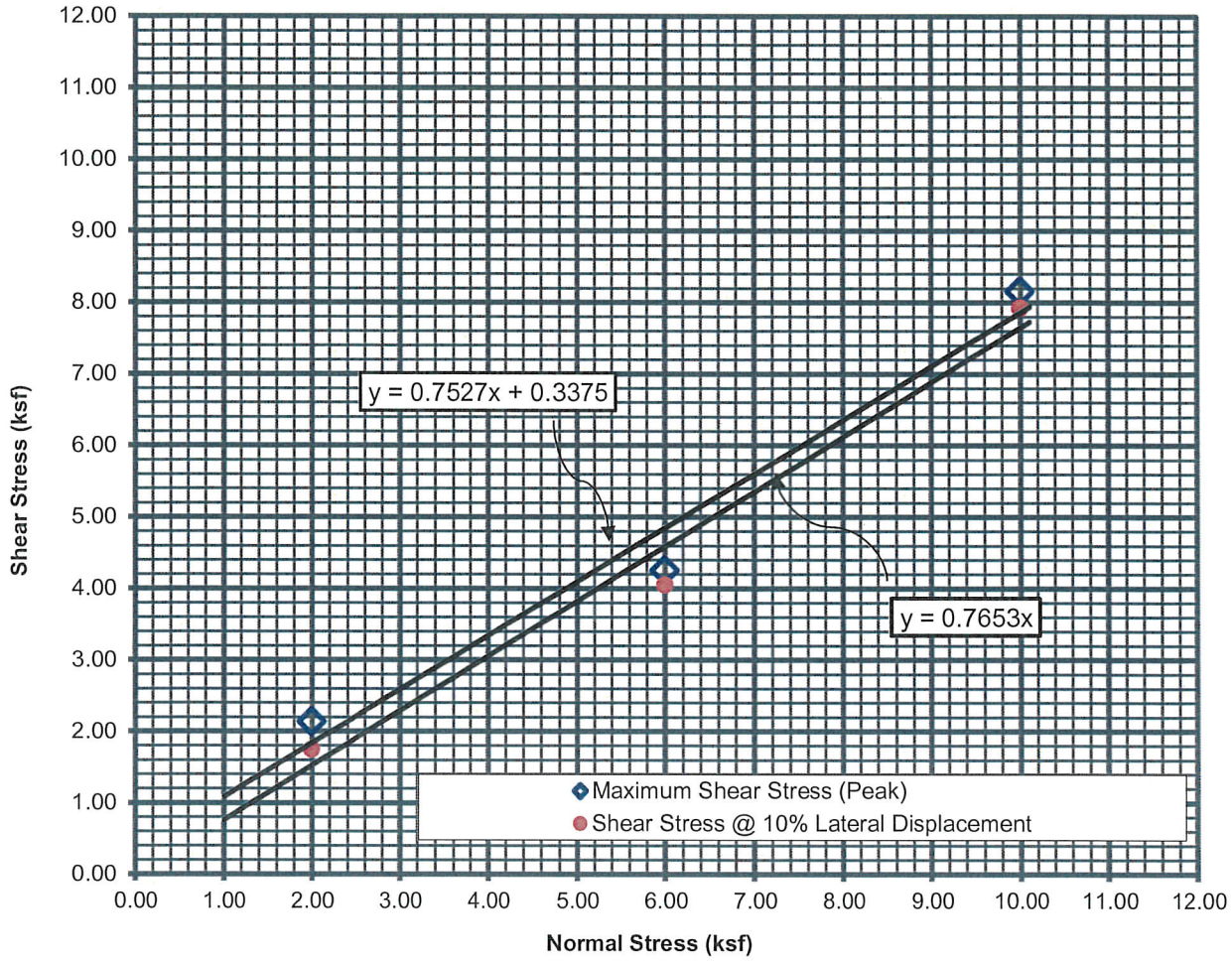
DIRECT SHEAR TEST

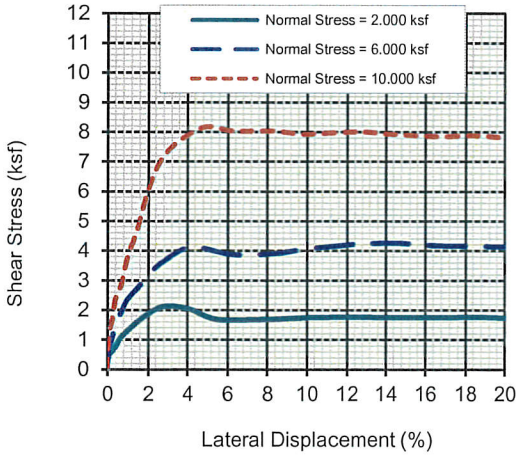
(AASHTO-T236)

Project Name:	Terracosta - NASSCO Floating Dry Dock					*Project No.:*	5015-19-0002.13
Boring No.:	B-2	*Sample No.:*	33680	*Depth:*	41.5'	*Date:*	6/4/2020
Soil Description:	Silty Sand, SM					*Tested By:*	B. Lewis/M. Gibson

			Before Consolidation			After Consolidation		
			Load 1	Load 2	Load 3	Load 1	Load 2	Load 3
Normal Stress, ksf:		Wt of Soil & Ring, gr:	200.33	202.46	204.66	201.04	202.25	204.79
2.000, 6.000, 10.000		Weight of Ring, gr:	45.83	46.21	46.03	45.83	46.21	46.03
Shear Rate, in/min:		Ring Diameter, in:	2.412	2.412	2.414	2.412	2.412	2.414
0.02		Height of Sample, in:	0.995	0.995	1.003	0.989	0.990	0.997
As-Received Moisture:	15.4%	Tare No.:				90	122	45
Saturated:	Yes	Wet Weight and Tare, gr:				222.28	225.85	229.35
Intact/Undisturbed:	Yes	Dry Weight and Tare, gr:				197.36	200.43	203.88
Notes:		Tare Weight, gr:				81.18	80.81	80.16
		Moisture Content, %:	15.4%	15.4%	15.4%	21.4%	21.3%	20.6%
		Wet Density, pcf:	129.5	130.9	131.6	130.8	131.4	132.5
		Dry Density, pcf:	112.2	113.5	114.1	107.7	108.4	109.9

Load 1 (KSF): 2.000				Load 2 (KSF): 6.000				Load 3 (KSF): 10.000			
Shear Deflec -tion (in)	Lateral Displace -ment (%)	Load Ring Reading	Shear Stress (KSF)	Shear Deflec -tion (in)	Lateral Displace -ment (%)	Load Ring Reading	Shear Stress (KSF)	Shear Deflec -tion (in)	Lateral Displace -ment (%)	Load Ring Reading	Shear Stress (KSF)
0.002	0.1	60	0.460	0.002	0.1	87	0.668	0.002	0.1	148	1.136
0.010	0.4	100	0.767	0.006	0.2	139	1.067	0.006	0.2	218	1.673
0.016	0.7	141	1.082	0.009	0.4	186	1.427	0.010	0.4	309	2.371
0.029	1.2	188	1.443	0.016	0.7	248	1.903	0.017	0.7	375	2.878
0.042	1.7	229	1.757	0.024	1.0	308	2.363	0.025	1.0	427	3.854
0.056	2.3	263	2.018	0.036	1.5	358	2.747	0.035	1.5	473	4.628
0.066	2.7	276	2.118	0.050	2.1	389	3.214	0.048	2.0	522	5.951
0.077	3.2	279	2.141	0.066	2.7	413	3.618	0.062	2.6	560	6.928
0.100	4.1	265	2.033	0.101	4.2	443	4.123	0.082	3.4	586	7.597
0.127	5.3	224	1.719	0.151	6.3	428	3.871	0.118	4.9	608	8.163
0.152	6.3	218	1.673	0.200	8.3	430	3.905	0.152	6.3	603	8.034
0.202	8.4	222	1.703	0.240	10.0	439	4.056	0.201	8.3	603	8.034
0.243	10.1	228	1.750	0.299	12.4	449	4.224	0.240	10.0	599	7.931
0.295	12.2	232	1.780	0.330	13.7	451	4.258	0.300	12.4	602	8.008
0.348	14.4	229	1.757	0.356	14.8	451	4.258	0.348	14.4	599	7.931
0.401	16.6	229	1.757	0.401	16.6	446	4.174	0.401	16.6	596	7.854
0.447	18.5	231	1.773	0.449	18.6	445	4.157	0.450	18.7	597	7.880
0.500	20.7	226	1.734	0.503	20.9	443	4.123	0.502	20.8	592	7.751
Max. Shear Stress, ksf:			2.141				4.258				8.163
Lat.Displmt@Max Stress,%.:			3.2				13.7				4.9





Boring No.:	B-2
Sample No.:	33680
Sample Depth :	41.5'
Soil Type:	Silty Sand, SM
Sample Conditions:	Saturated; Intact
Shear Rate:	0.02
As-Received Dry Density (PCF):	113.3
As- Received Moisture Content (%):	15.4

	◇	●
Cohesion (PSF):	337	0
Friction Angle (Degrees):	37	37

wood.	DIRECT SHEAR TEST	Project No.
	Terracosta	5015-19-0002.13
	NASSCO Floating Dry Dock	

wood.
9177 Sky Park Court, San Diego, CA 92123
Phone: 858-278-3600 Fax: 858-278-5300

Particle Size Distribution/Soil Classification

ASTM D6913 & ASTM D7928

Project Name:	NASSCO Floating Dry Dock	Lab #:	33681
Project #:	5015-19-0002.13		
Sampled By:	MM	Date Sampled:	5/18/2020
Tested By:	MG/LC/BL	Date Tested:	6/10 - 6/12/2020
Reviewed By:	M. Gibson	Date Reviewed:	6/12/2020

Sample Location: B-5 @ 25'

Soil Type: Fat Clay, CH

Particle Size Distribution, Lab #33681

Sieve Size	Sieve Opening/ Particle Size (mm)	Percent Passing
4"	101.60	100
3-1/2"	88.90	100
3"	76.20	100
2"	50.80	100
1-1/2"	38.10	100
1"	25.40	100
3/4"	19.00	100
1/2"	12.70	100
3/8"	9.51	100
#4	4.76	99.1
#10	2.00	98.4
#20	0.841	97.6
#40	0.420	97.2
#60	0.250	96.7
#100	0.149	95.6
#140	0.105	94.3
#200	0.074	90.7
Hydrometer Test Result	0.0371	64.66
	0.0275	59.14
	0.0183	53.01
	0.0110	46.88
	0.0080	43.20
	0.0057	40.78
	0.0041	37.02
	0.0030	34.52
	0.0013	29.30

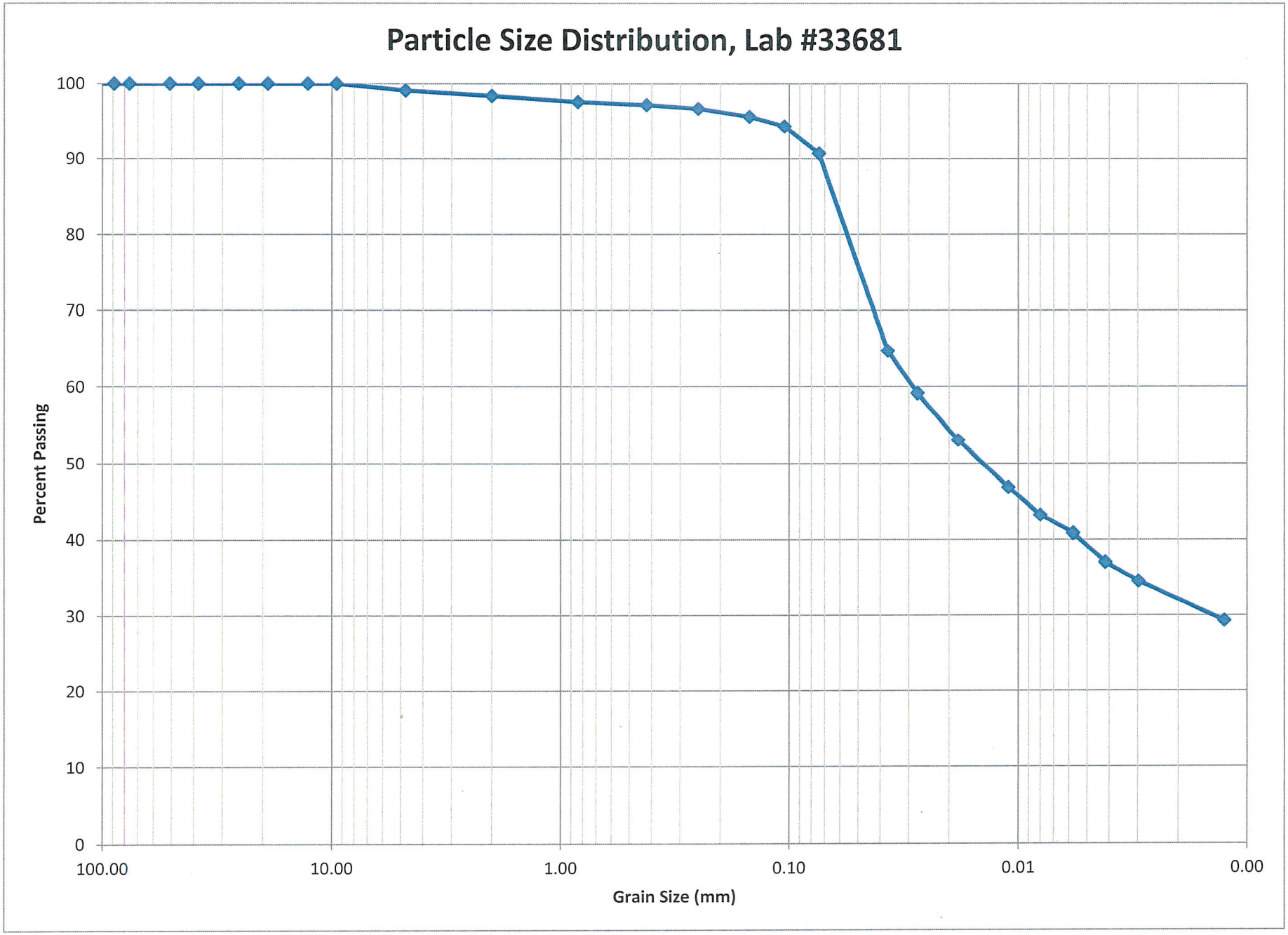
Plasticity Index (ASTM D4318)	
Liquid Limit:	67.3
Plastic Limit:	24.7
Plasticity Index:	42.6

Soil Classification Method	
ASTM D2487:	X
ASTM D2488:	

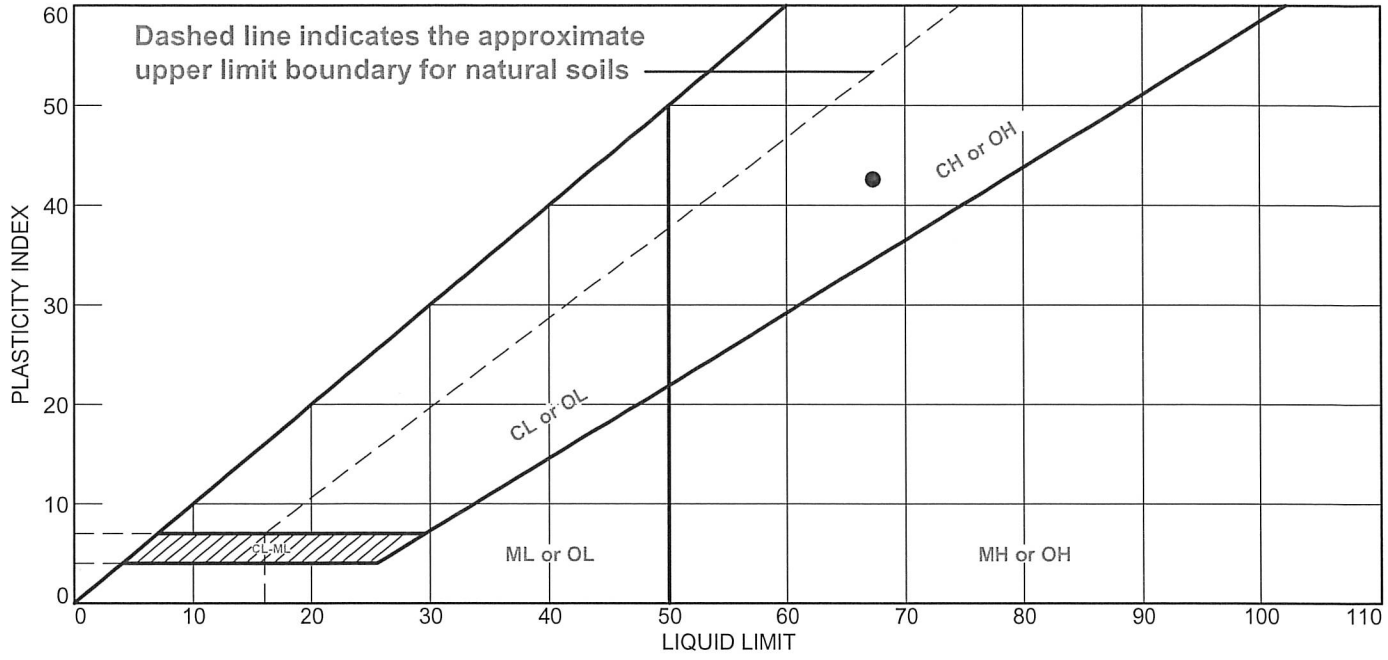
Moisture & Density Results	
As-Received Moisture %:	28.2
Wet Density (pcf):	120.8
Dry Density (pcf):	94.2

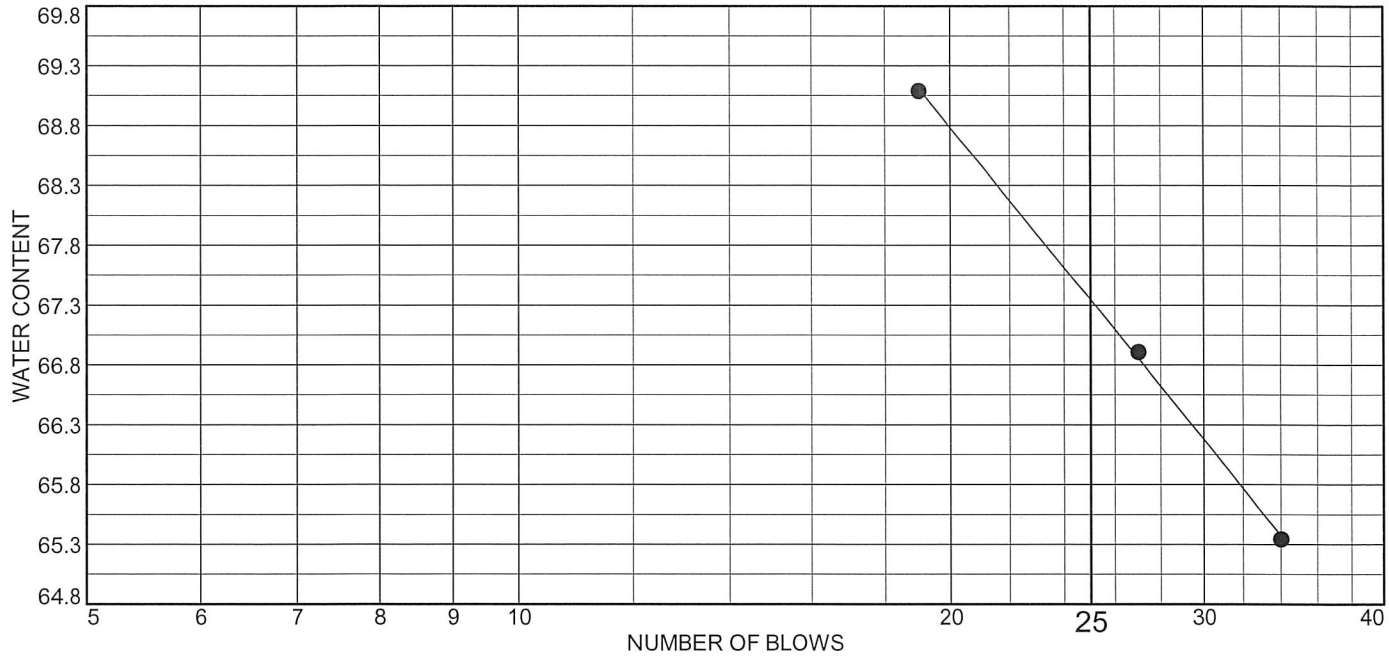
Reviewed By: _____

David C. Wilson, P.E. C54734
Senior Principal Engineer


Particle Size Distribution, Lab #33681
Percent Passing
100
90
80
70
60
50
40
30
20
10
0
100.00
10.00
1.00
0.10
0.01
0.00
Grain Size (mm)

LIQUID AND PLASTIC LIMITS TEST REPORT





	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	(#33681)	67.3	24.7	42.6			

Project No. 5015190002.13 **Client:** TerraCosta Consulting Group, Inc.

Project: #3109: NASSCO Floating Dry Dock

Sample Number: B5 **Depth:** 25'

Remarks:

amec

Figure #33681

Tested By: MG **Checked By:** LC

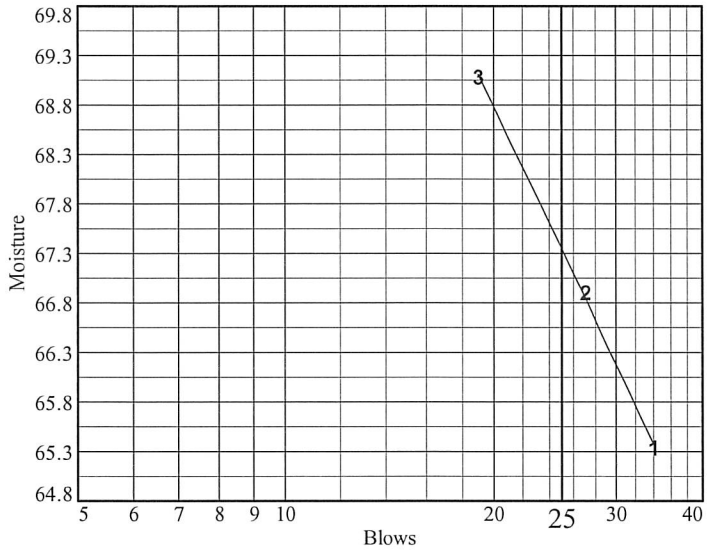
LIQUID AND PLASTIC LIMIT TEST DATA

6/11/2020

Client: TerraCosta Consulting Group, Inc.
Project: #3109: NASSCO Floating Dry Dock
Project Number: 5015190002.13
Depth: 25'
Sample Number: B5
Material Description: (#33681)
Tested by: MG
Checked by: LC

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	21.93	23.69	23.47			
Dry+Tare	18.97	19.99	19.76			
Tare	14.44	14.46	14.39			
# Blows	34	27	19			
Moisture	65.3	66.9	69.1			



Liquid Limit= 67.3
Plastic Limit= 24.7
Plasticity Index= 42.6

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	17.93	18.65			
Dry+Tare	16.57	17.12			
Tare	11.04	10.94			
Moisture	24.6	24.8			

wood.

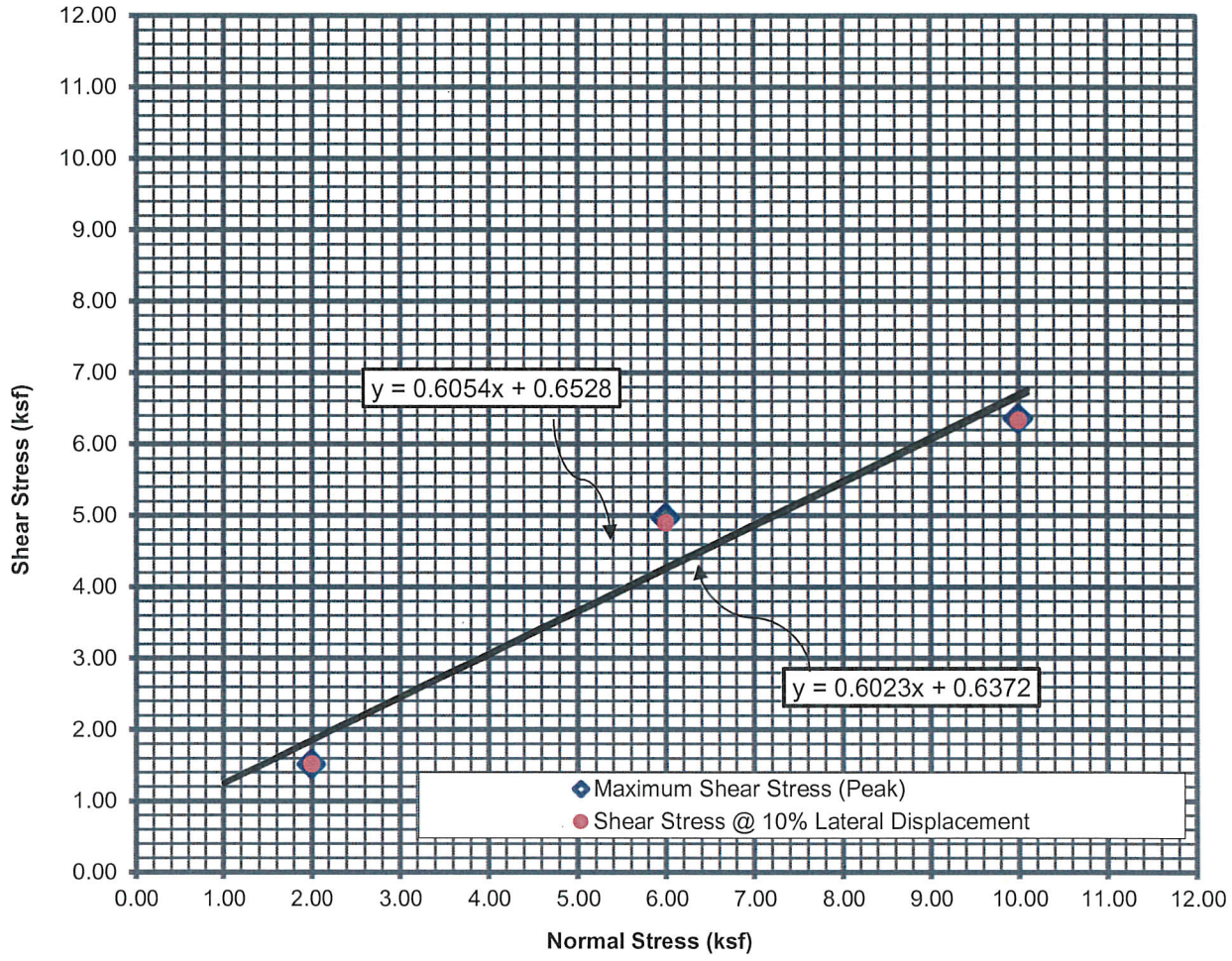
DIRECT SHEAR TEST

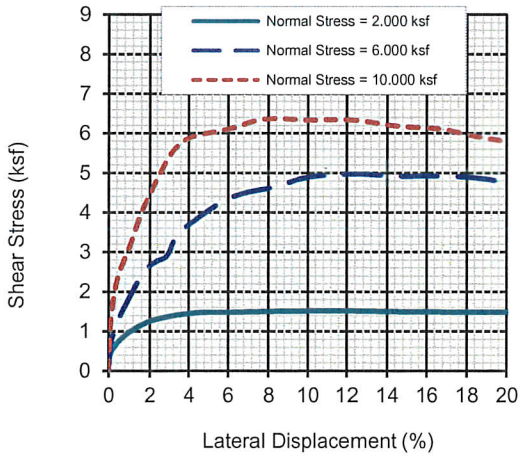
(AASHTO-T236)

Project Name:	Terracosta - NASSCO Floating Dry Dock					*Project No.:*	5015-19-0002.13
Boring No.:	B-5	*Sample No.:*	33681	*Depth:*	25'	*Date:*	6/5/2020
Soil Description:	Fat Clay, CH					*Tested By:*	B. Lewis/M. Gibson

		Before Consolidation			After Consolidation		
		Load 1	Load 2	Load 3	Load 1	Load 2	Load 3
Normal Stress, ksf:	Wt of Soil & Ring, gr:	193.57	193.19	188.51	192.74	192.87	187.22
2.000, 6.000, 10.000	Weight of Ring, gr:	46.74	46.11	45.98	46.74	46.11	45.98
Shear Rate, in/min:	Ring Diameter, in:	2.412	2.411	2.413	2.412	2.411	2.413
0.02	Height of Sample, in:	1.002	1.011	0.999	0.986	0.994	0.984
As-Received Moisture: 28.2%	Tare No.:				87A	97	Z-11
Saturated: Yes	Wet Weight and Tare, gr:				263.08	208.03	220.62
Intact/Undisturbed: Yes	Dry Weight and Tare, gr:				230.95	180.55	189.98
Notes:	Tare Weight, gr:				118.71	76.56	85.29
	Moisture Content, %:	28.2%	28.2%	28.2%	28.6%	26.4%	29.3%
	Wet Density, pcf:	122.2	121.4	118.9	123.5	123.2	119.6
	Dry Density, pcf:	95.3	94.7	92.7	96.0	97.4	92.5

Load 1 (KSF): 2.000				Load 2 (KSF): 6.000				Load 3 (KSF): 10.000			
Shear Deflec -tion (in)	Lateral Displace -ment (%)	Load Ring Reading	Shear Stress (KSF)	Shear Deflec -tion (in)	Lateral Displace -ment (%)	Load Ring Reading	Shear Stress (KSF)	Shear Deflec -tion (in)	Lateral Displace -ment (%)	Load Ring Reading	Shear Stress (KSF)
0.002	0.1	55	0.422	0.003	0.1	91	0,698	0.002	0.1	128	0.982
0.009	0.4	88	0.675	0.008	0.3	139	1.067	0.005	0.2	214	1.642
0.017	0.7	111	0.852	0.014	0.6	183	1.404	0.009	0.4	280	2.149
0.025	1.0	129	0.990	0.024	1.0	238	1.826	0.015	0.6	338	2.594
0.039	1.6	153	1.174	0.034	1.4	291	2.233	0.026	1.1	387	3.181
0.053	2.2	168	1.289	0.045	1.9	337	2.586	0.037	1.5	429	3.888
0.068	2.8	178	1.366	0.056	2.3	360	2.762	0.050	2.1	466	4.510
0.083	3.4	185	1.420	0.070	2.9	381	2.924	0.065	2.7	490	5.128
0.098	4.1	190	1.458	0.082	3.4	402	3.433	0.079	3.3	508	5.591
0.119	4.9	194	1.489	0.100	4.1	420	3.736	0.100	4.1	520	5.899
0.149	6.2	194	1.489	0.148	6.1	458	4.376	0.150	6.2	529	6.131
0.200	8.3	197	1.512	0.203	8.4	475	4.662	0.190	7.9	538	6.362
0.242	10.0	198	1.519	0.243	10.1	481	4.896	0.243	10.1	537	6.337
0.299	12.4	198	1.519	0.300	12.4	484	4.974	0.297	12.3	537	6.337
0.351	14.6	196	1.504	0.351	14.6	482	4.922	0.351	14.6	531	6.182
0.403	16.7	195	1.496	0.400	16.6	482	4.922	0.404	16.8	528	6.105
0.449	18.6	194	1.489	0.448	18.6	480	4.871	0.451	18.7	520	5.899
0.500	20.7	194	1.489	0.504	20.9	476	4.679	0.500	20.7	514	5.745
Max. Shear Stress, ksf:			1.519				4.974				6.362
Lat.Displmt@Max Stress,%.:			10.0				12.4				7.9





Boring No.:	B-5
Sample No.:	33681
Sample Depth :	25'
Soil Type:	Fat Clay, CH
Sample Conditions:	Saturated; Intact
Shear Rate:	0.02
As-Received Dry Density (PCF):	94.2
As- Received Moisture Content (%):	28.2

	◇	●
Cohesion (PSF):	653	637
Friction Angle (Degrees):	31	31

wood.	DIRECT SHEAR TEST	Project No.
	Terracosta	5015-19-0002.13
	NASSCO Floating Dry Dock	

wood.
9177 Sky Park Court, San Diego, CA 92123
Phone: 858-278-3600 Fax: 858-278-5300

Particle Size Distribution/Soil Classification

ASTM D6913 & ASTM D7928

Project Name:	NASSCO Floating Dry Dock	Lab #:	33682
Project #:	5015-19-0002.13		
Sampled By:	MM	Date Sampled:	5/18/2020
Tested By:	MG/LC/BL	Date Tested:	6/10 - 6/12/2020
Reviewed By:	M. Gibson	Date Reviewed:	6/12/2020

Sample Location: B-6 @ 44'

Soil Type: Lean Clay, CL

Particle Size Distribution, Lab #33682

Sieve Size	Sieve Opening/ Particle Size (mm)	Percent Passing
4"	101.60	100
3-1/2"	88.90	100
3"	76.20	100
2"	50.80	100
1-1/2"	38.10	100
1"	25.40	100
3/4"	19.00	100
1/2"	12.70	100
3/8"	9.51	100
#4	4.76	100
#10	2.00	100
#20	0.841	99.7
#40	0.420	99.5
#60	0.250	99.1
#100	0.149	98.4
#140	0.105	96.3
#200	0.074	90.9
Hydrometer Test Result	0.0351	65.73
	0.0280	53.10
	0.0195	40.47
	0.0121	30.13
	0.0086	27.80
	0.0063	23.21
	0.0045	21.44
	0.0032	20.51
	0.0014	7.61

Plasticity Index (ASTM D4318)	
Liquid Limit:	42.5
Plastic Limit:	27.2
Plasticity Index:	15.3

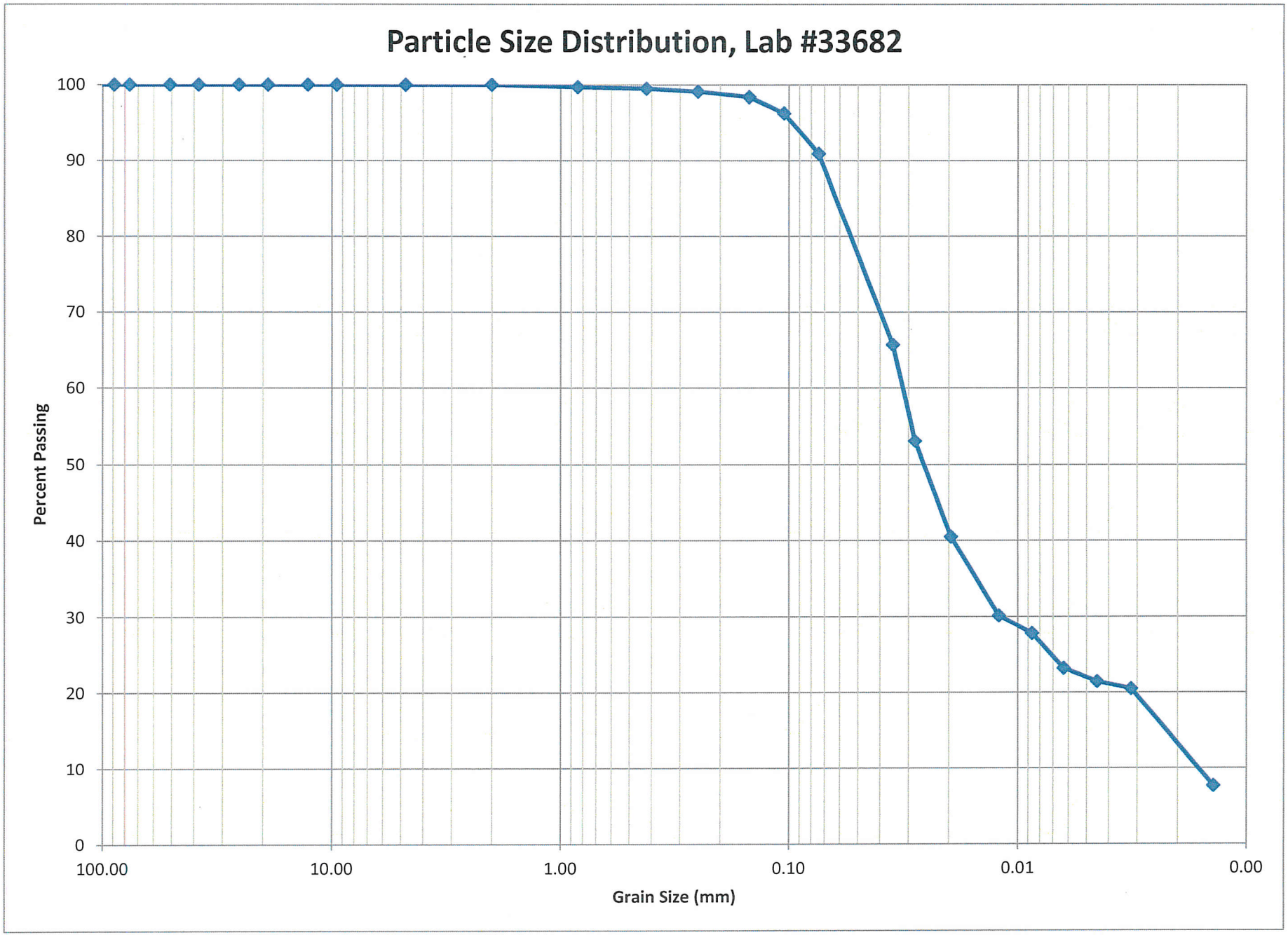
Soil Classification Method	
ASTM D2487:	X
ASTM D2488:	

Moisture & Density Results	
As-Received Moisture %:	28.5
Wet Density (pcf):	117.5
Dry Density (pcf):	91.4

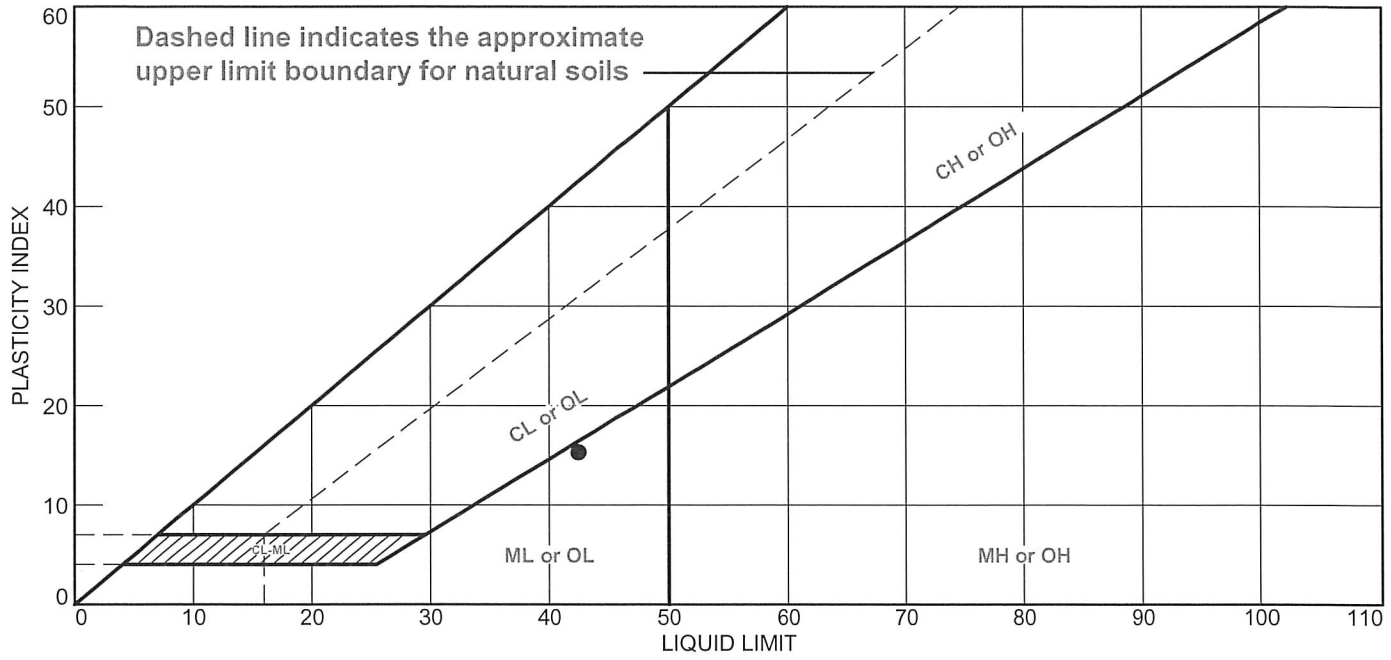
Reviewed By: _____

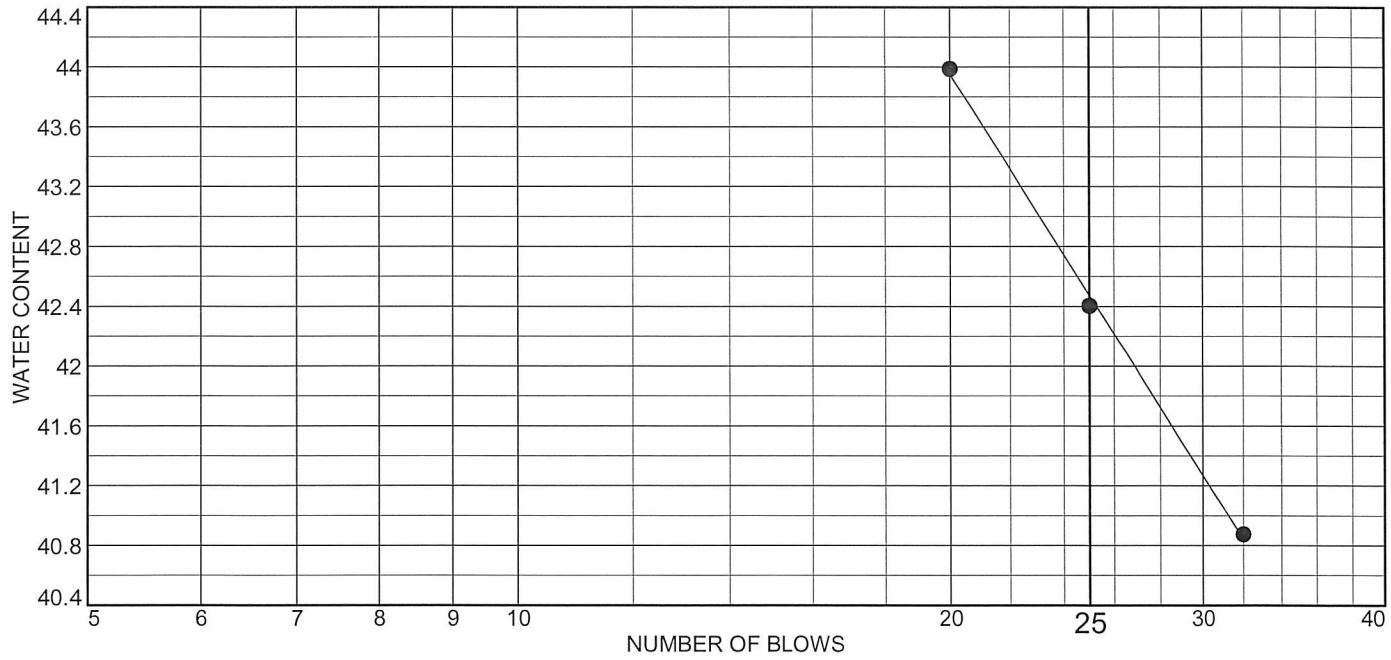
David C. Wilson, P.E. C54734
Senior Principal Engineer

Particle Size Distribution, Lab #33682



LIQUID AND PLASTIC LIMITS TEST REPORT





	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	(#33682)	42.5	27.2	15.3			

Project No. 5015190002.13 **Client:** TerraCosta Consulting Group, Inc.

Project: #3109: NASSCO Floating Dry Dock

Sample Number: B6 **Depth:** 44'

Remarks:

amec

Figure #33682

Tested By: MG **Checked By:** LC

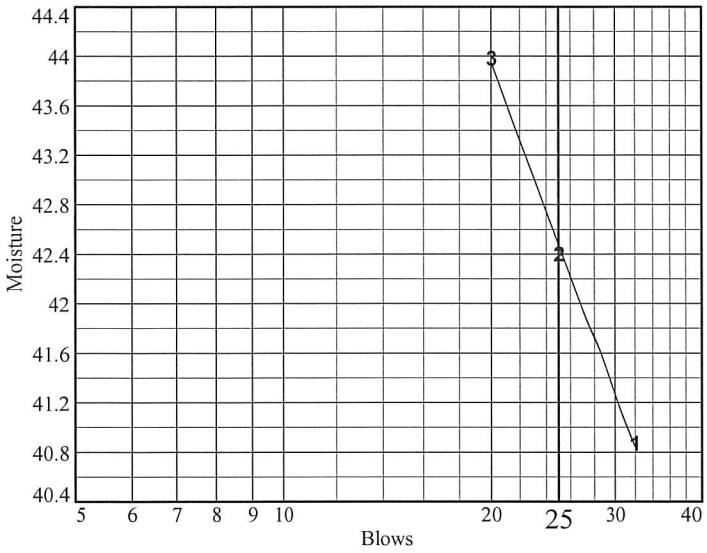
LIQUID AND PLASTIC LIMIT TEST DATA

6/11/2020

Client: TerraCosta Consulting Group, Inc.
Project: #3109: NASSCO Floating Dry Dock
Project Number: 5015190002.13
Depth: 44'
Sample Number: B6
Material Description: (#33682)
Tested by: MG
Checked by: LC

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	23.80	22.97	22.34			
Dry+Tare	21.09	20.43	19.67			
Tare	14.46	14.44	13.6			
# Blows	32	25	20			
Moisture	40.9	42.4	44.0			



Liquid Limit= 42.5
Plastic Limit= 27.2
Plasticity Index= 15.3

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	19.14	17.02			
Dry+Tare	17.43	15.70			
Tare	11.09	10.87			
Moisture	27.0	27.3			

wood.

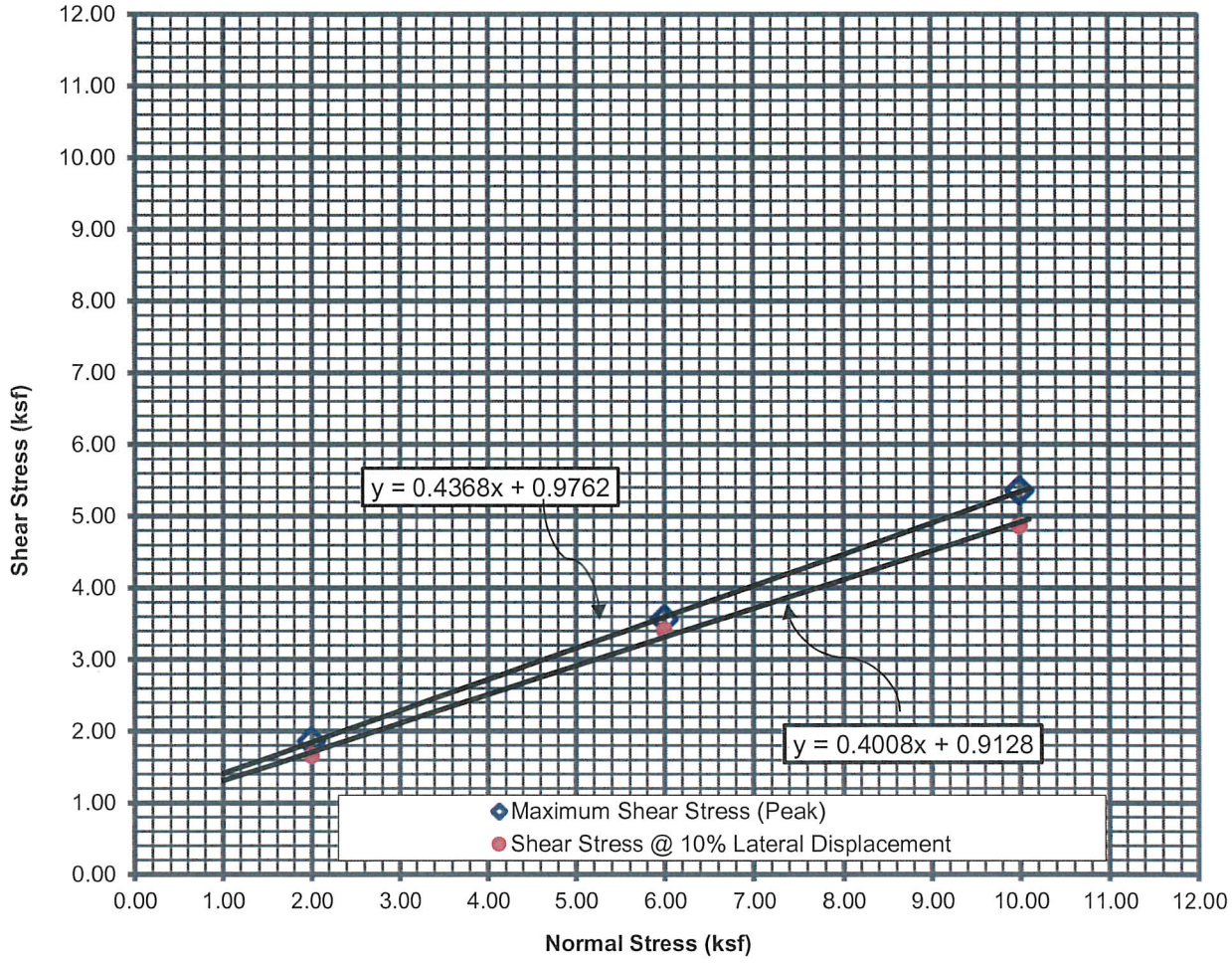
DIRECT SHEAR TEST

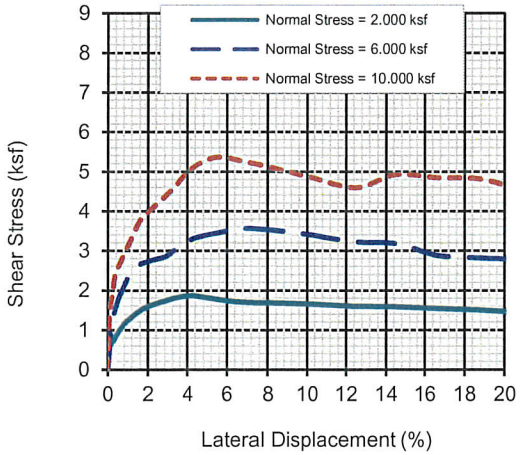
(AASHTO-T236)

Project Name:	Terracosta - NASSCO Floating Dry Dock					*Project No.:*	5015-19-0002.13
Boring No.:	B-6	*Sample No.:*	33682	*Depth:*	44'	*Date:*	6/9/2020
Soil Description:	Lean Clay, CL					*Tested By:*	M. Gibson

		Before Consolidation			After Consolidation		
		Load 1	Load 2	Load 3	Load 1	Load 2	Load 3
Normal Stress, ksf:	Wt of Soil & Ring, gr:	190.00	183.59	185.53	190.66	182.17	183.75
2.000, 6.000, 10.000	Weight of Ring, gr:	46.02	45.61	45.77	46.02	45.61	45.77
Shear Rate, in/min:	Ring Diameter, in:	2.411	2.414	2.415	2.411	2.414	2.415
0.02	Height of Sample, in:	1.006	0.988	0.995	1.002	0.967	0.965
As-Received Moisture: 28.5%	Tare No.:				87	15A	43
Saturated: Yes	Wet Weight and Tare, gr:				216.11	217.15	208.04
Intact/Undisturbed: Yes	Dry Weight and Tare, gr:				182.55	182.33	174.74
Notes:	Tare Weight, gr:				76.65	83.23	75.95
	Moisture Content, %:	28.5%	28.5%	28.5%	31.7%	35.1%	33.7%
	Wet Density, pcf:	119.4	116.2	116.8	120.5	117.5	118.9
	Dry Density, pcf:	92.9	90.5	90.9	91.5	87.0	88.9

Load 1 (KSF): 2.000				Load 2 (KSF): 6.000				Load 3 (KSF): 10.000			
Shear Deflec -tion (in)	Lateral Displace -ment (%)	Load Ring Reading	Shear Stress (KSF)	Shear Deflec -tion (in)	Lateral Displace -ment (%)	Load Ring Reading	Shear Stress (KSF)	Shear Deflec -tion (in)	Lateral Displace -ment (%)	Load Ring Reading	Shear Stress (KSF)
0.002	0.1	70	0.537	0.002	0.1	76	0.583	0.002	0.1	182	1.397
0.007	0.3	99	0.760	0.004	0.2	143	1.097	0.005	0.2	238	1.826
0.012	0.5	121	0.928	0.011	0.5	219	1.680	0.009	0.4	311	2.386
0.020	0.8	151	1.159	0.020	0.8	278	2.133	0.016	0.7	356	2.732
0.030	1.2	176	1.351	0.033	1.4	337	2.586	0.028	1.2	392	3.265
0.042	1.7	200	1.535	0.052	2.2	359	2.755	0.040	1.7	423	3.787
0.056	2.3	216	1.657	0.070	2.9	374	2.870	0.058	2.4	445	4.157
0.070	2.9	228	1.750	0.088	3.7	385	3.147	0.078	3.2	469	4.561
0.084	3.5	238	1.826	0.107	4.4	396	3.332	0.102	4.2	488	5.076
0.106	4.4	243	1.865	0.136	5.6	404	3.467	0.132	5.5	499	5.359
0.154	6.4	224	1.719	0.165	6.8	410	3.568	0.165	6.8	495	5.257
0.200	8.3	220	1.688	0.202	8.4	407	3.517	0.197	8.2	489	5.102
0.242	10.0	217	1.665	0.242	10.0	401	3.416	0.243	10.1	480	4.871
0.296	12.3	210	1.611	0.300	12.4	390	3.231	0.302	12.5	471	4.595
0.350	14.5	207	1.588	0.351	14.6	387	3.181	0.349	14.5	482	4.922
0.399	16.6	202	1.550	0.400	16.6	377	2.893	0.403	16.7	479	4.845
0.452	18.8	197	1.512	0.451	18.7	368	2.824	0.450	18.7	478	4.819
0.502	20.8	189	1.450	0.501	20.8	363	2.785	0.500	20.7	469	4.561
Max. Shear Stress, ksf:			1.865				3.568				5.359
Lat.Displmt@Max Stress,%.:			4.4				6.8				5.5





Boring No.:	B-6
Sample No.:	33682
Sample Depth :	44'
Soil Type:	Lean Clay, CL
Sample Conditions:	Saturated; Intact
Shear Rate:	0.02
As-Received Dry Density (PCF):	91.4
As- Received Moisture Content (%):	28.5

	◇	●
Cohesion (PSF):	976	913
Friction Angle (Degrees):	24	22

wood.	DIRECT SHEAR TEST	Project No.
	Terracosta	5015-19-0002.13
	NASSCO Floating Dry Dock	

wood.
9177 Sky Park Court, San Diego, CA 92123
Phone: 858-278-3600 Fax: 858-278-5300

Particle Size Distribution/Soil Classification

ASTM D6913 & ASTM D7928

Project Name:	NASSCO Floating Dry Dock	Lab #:	33683
Project #:	5015-19-0002.13		
Sampled By:	MM	Date Sampled:	5/18/2020
Tested By:	MG/LC/BL	Date Tested:	6/10 - 6/12/2020
Reviewed By:	M. Gibson	Date Reviewed:	6/12/2020

Sample Location: B-7 @ 25'

Soil Type: Sandy Lean Clay, CL

Particle Size Distribution, Lab #33683

Sieve Size	Sieve Opening/ Particle Size (mm)	Percent Passing
4"	101.60	100
3-1/2"	88.90	100
3"	76.20	100
2"	50.80	100
1-1/2"	38.10	100
1"	25.40	100
3/4"	19.00	100
1/2"	12.70	100
3/8"	9.51	100
#4	4.76	100
#10	2.00	99.6
#20	0.841	99.4
#40	0.420	99.2
#60	0.250	97.9
#100	0.149	87.6
#140	0.105	67.2
#200	0.074	50.0
Hydrometer Test Result	0.0477	33.34
	0.0345	28.32
	0.0220	26.16
	0.0128	24.37
	0.0091	22.58
	0.0065	21.81
	0.0046	19.61
	0.0033	18.85
	0.0014	15.97

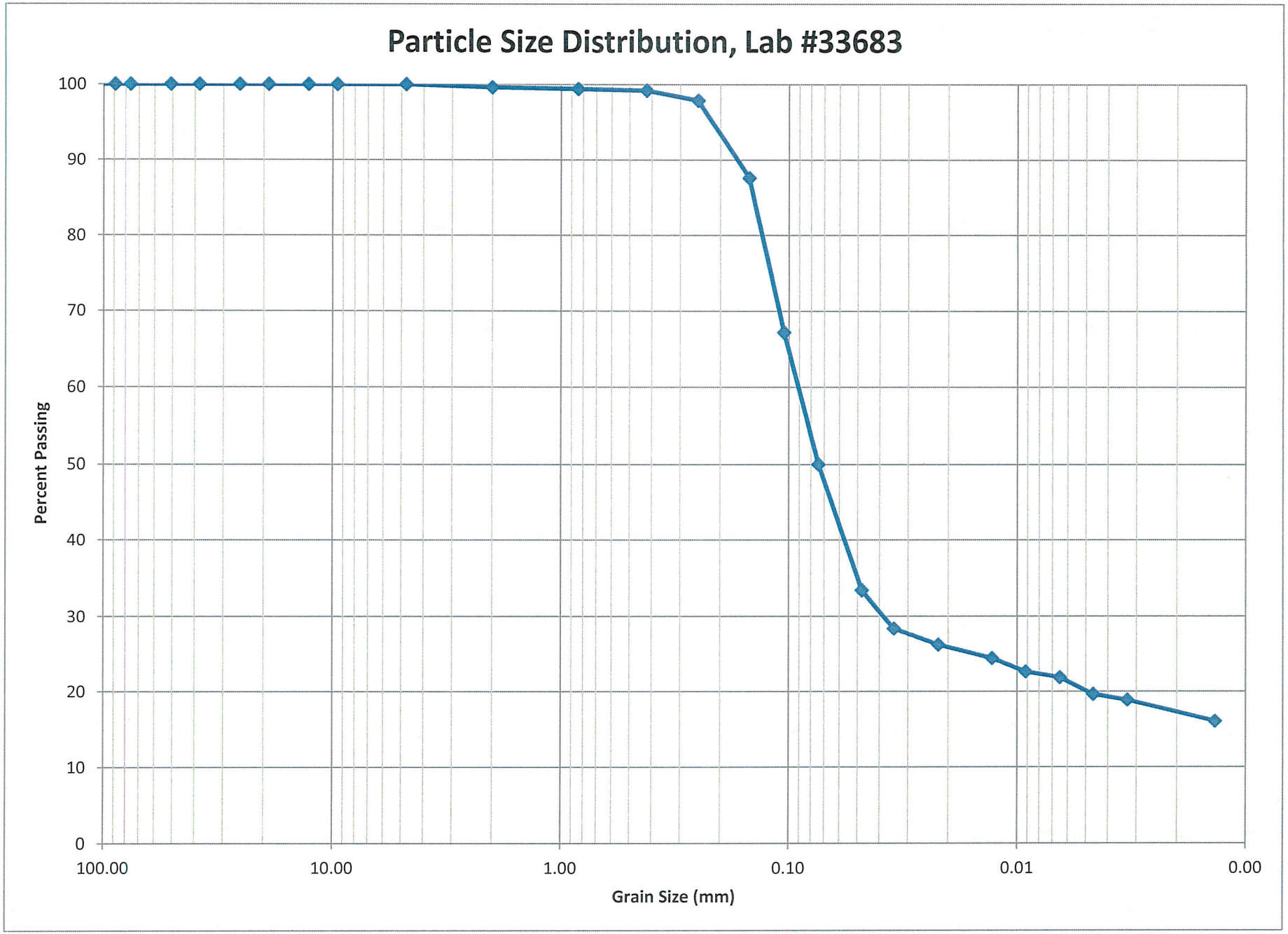
Plasticity Index (ASTM D4318)	
Liquid Limit:	32.9
Plastic Limit:	23
Plasticity Index:	9.9

Soil Classification Method	
ASTM D2487:	X
ASTM D2488:	

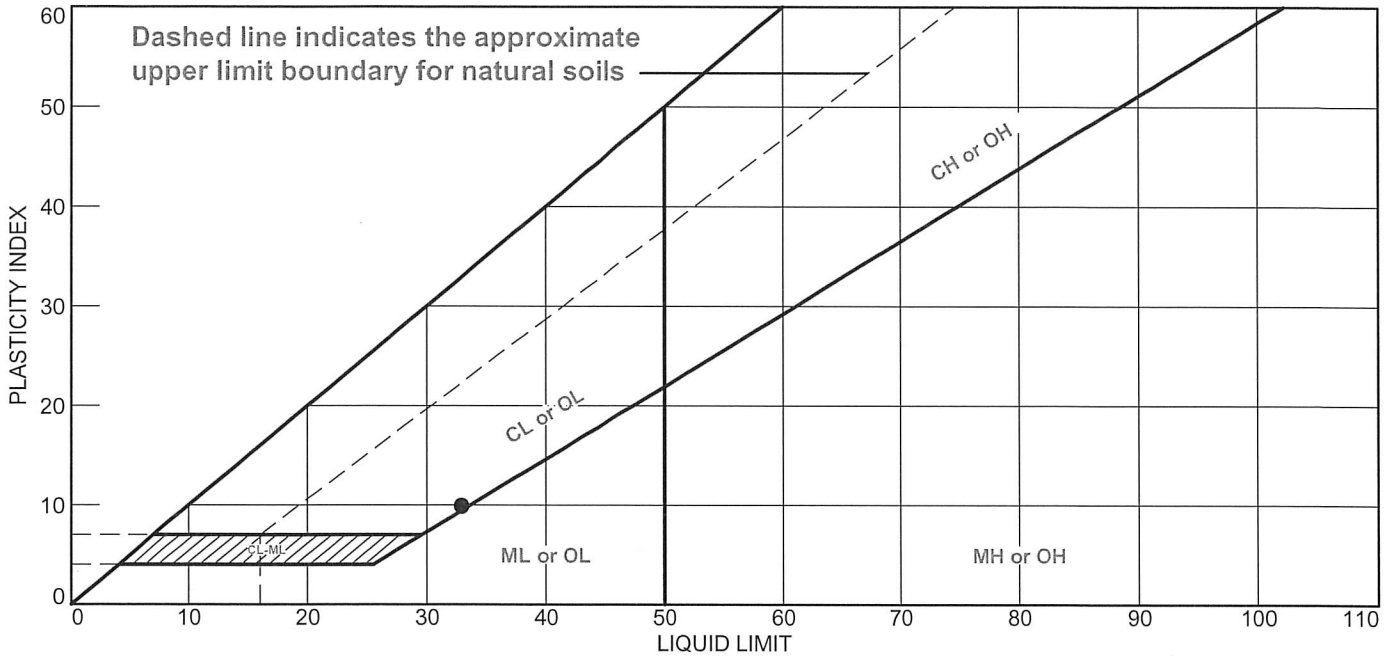
Moisture & Density Results	
As-Received Moisture %:	26.2
Wet Density (pcf):	124.6
Dry Density (pcf):	98.7

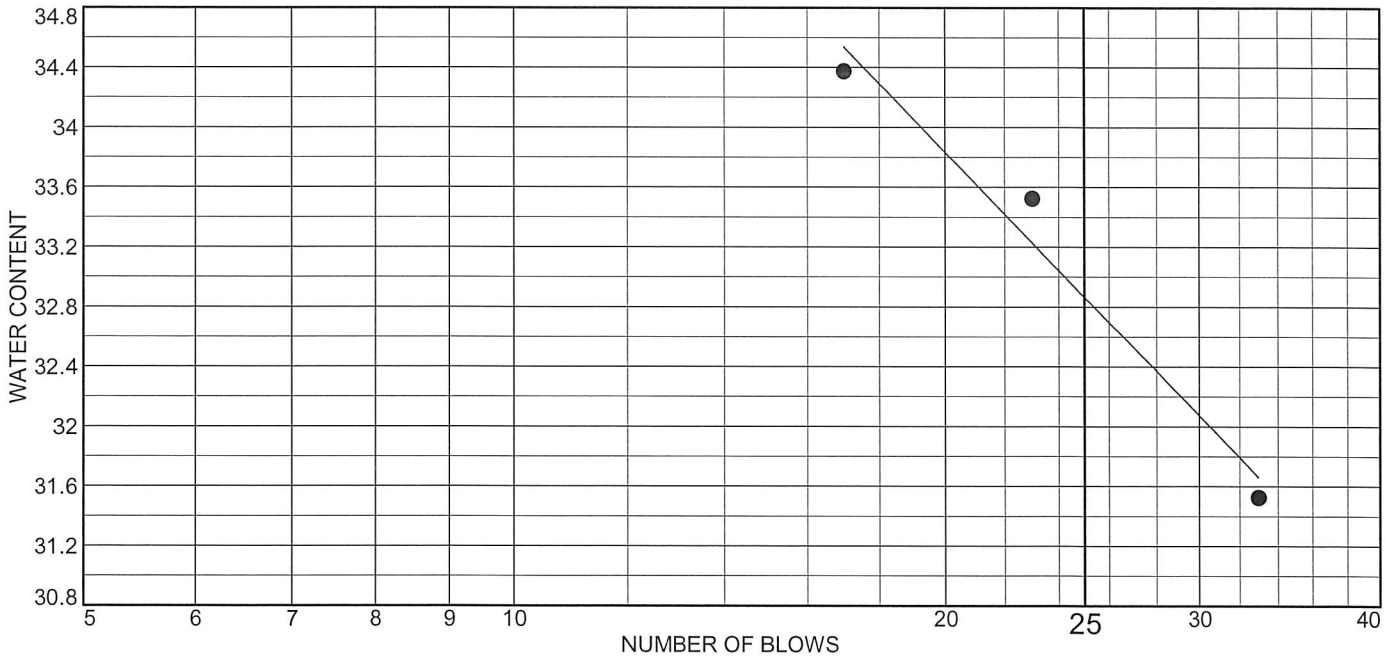
Reviewed By: _____

David C. Wilson, P.E. C54734
Senior Principal Engineer


Particle Size Distribution, Lab #33683
Percent Passing
100
90
80
70
60
50
40
30
20
10
0
100.00
10.00
1.00
0.10
0.01
0.00
Grain Size (mm)

LIQUID AND PLASTIC LIMITS TEST REPORT





	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	(#33683)	32.9	23.0	9.9			

Project No. 5015190002.13 **Client:** TerraCosta Consulting Group, Inc.

Project: #3109: NASSCO Floating Dry Dock

Sample Number: B7 **Depth:** 25'

Remarks:

amec

Figure #33683

Tested By: MG **Checked By:** LC

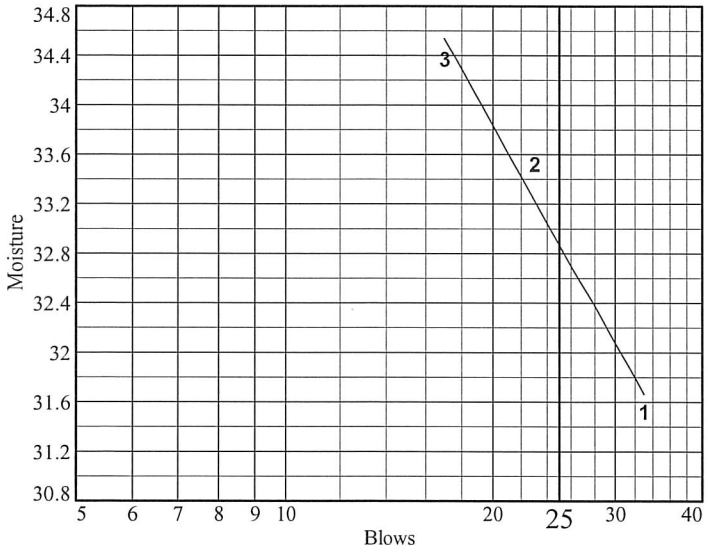
LIQUID AND PLASTIC LIMIT TEST DATA

6/11/2020

Client: TerraCosta Consulting Group, Inc.
Project: #3109: NASSCO Floating Dry Dock
Project Number: 5015190002.13
Depth: 25'
Sample Number: B7
Material Description: (#33683)
Tested by: MG
Checked by: LC

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	24.82	23.74	23.79			
Dry+Tare	22.32	21.39	21.37			
Tare	14.39	14.38	14.33			
# Blows	33	23	17			
Moisture	31.5	33.5	34.4			



Liquid Limit= 32.9
Plastic Limit= 23.0
Plasticity Index= 9.9

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	18.44	18.06			
Dry+Tare	17.03	16.77			
Tare	11.01	11.08			
Moisture	23.4	22.7			

wood.

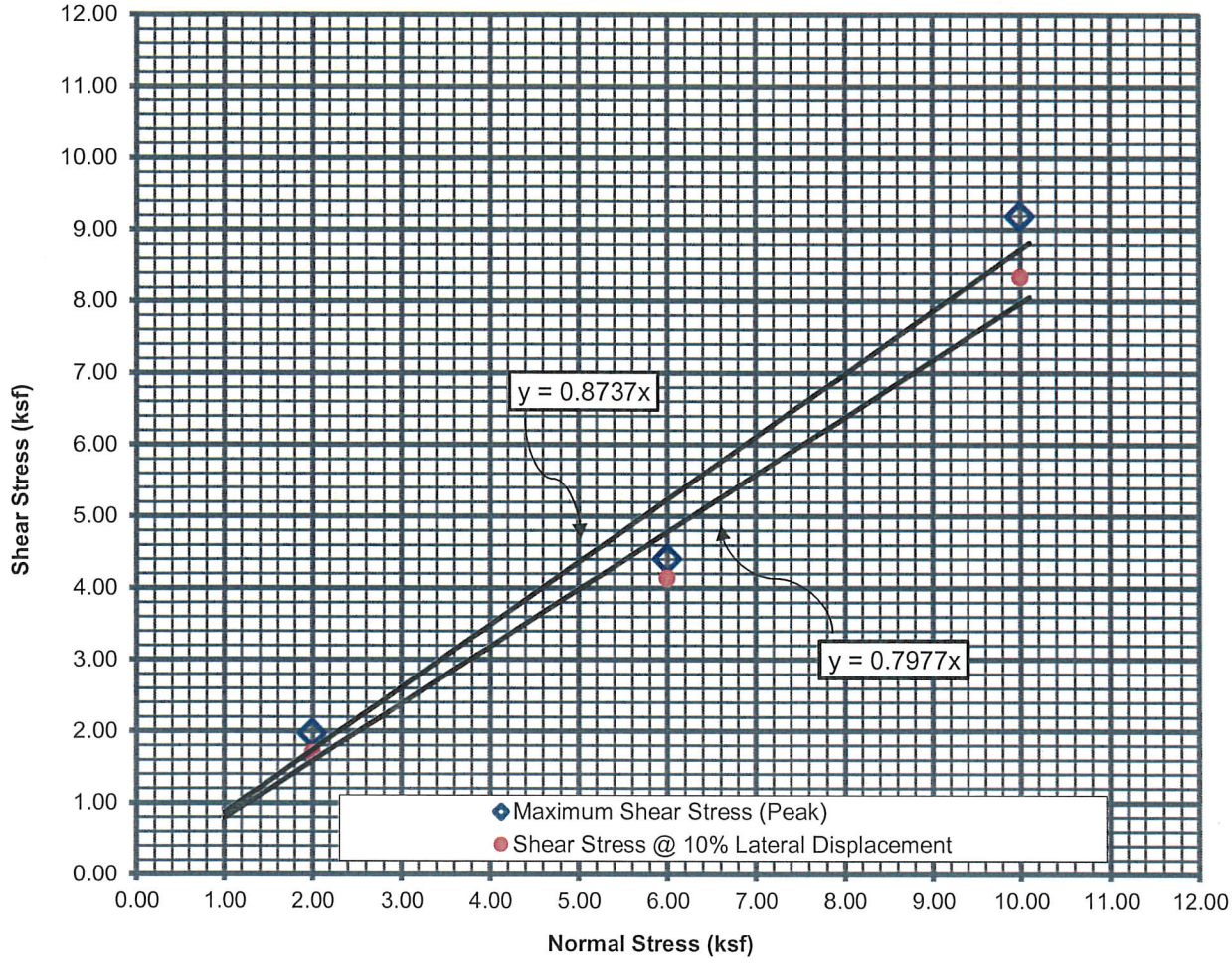
DIRECT SHEAR TEST

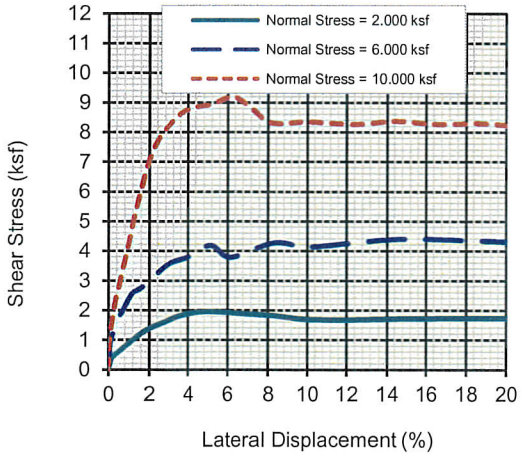
(AASHTO-T236)

Project Name:	Terracosta - NASSCO Floating Dry Dock					*Project No.:*	5015-19-0002.13
Boring No.:	B-7	*Sample No.:*	33683	*Depth:*	25'	*Date:*	6/10/2020
Soil Description:	Sandy Lean Clay, CL					*Tested By:*	B. Lewis

		Before Consolidation			After Consolidation		
		Load 1	Load 2	Load 3	Load 1	Load 2	Load 3
Normal Stress, ksf: 2.000, 6.000, 10.000	Wt of Soil & Ring, gr:	197.22	198.07	187.48	195.98	196.63	182.57
	Weight of Ring, gr:	45.69	46.52	40.98	45.69	46.52	40.98
Shear Rate, in/min: 0.02	Ring Diameter, in:	2.411	2.413	2.417	2.411	2.413	2.417
	Height of Sample, in:	1.009	1.018	0.978	0.999	0.987	0.927
As-Received Moisture: 26.2%	Tare No.:				51	8	17
Saturated: Yes	Wet Weight and Tare, gr:				222.48	217.76	206.15
Intact/Undisturbed: Yes	Dry Weight and Tare, gr:				191.54	187.81	179.03
Notes:	Tare Weight, gr:				76.91	76.38	76.06
	Moisture Content, %:	26.2%	26.2%	26.2%	27.0%	26.9%	26.3%
	Wet Density, pcf:	125.3	124.0	124.4	125.5	126.7	126.8
	Dry Density, pcf:	99.3	98.3	98.6	98.9	99.9	100.4

Load 1 (KSF): 2.000				Load 2 (KSF): 6.000				Load 3 (KSF): 10.000			
Shear Deflec -tion (in)	Lateral Displace -ment (%)	Load Ring Reading	Shear Stress (KSF)	Shear Deflec -tion (in)	Lateral Displace -ment (%)	Load Ring Reading	Shear Stress (KSF)	Shear Deflec -tion (in)	Lateral Displace -ment (%)	Load Ring Reading	Shear Stress (KSF)
0.004	0.2	51	0.391	0.002	0.1	109	0.836	0.002	0.1	145	1.113
0.010	0.4	73	0.560	0.006	0.2	167	1.281	0.007	0.3	276	2.118
0.019	0.8	100	0.767	0.011	0.5	217	1.665	0.013	0.5	373	2.862
0.028	1.2	127	0.975	0.020	0.8	281	2.156	0.024	1.0	447	4.191
0.040	1.7	163	1.251	0.029	1.2	336	2.578	0.035	1.5	508	5.591
0.053	2.2	190	1.458	0.040	1.7	362	2.778	0.054	2.2	581	7.468
0.066	2.7	210	1.611	0.058	2.4	392	3.265	0.080	3.3	619	8.446
0.078	3.2	228	1.750	0.074	3.1	412	3.602	0.101	4.2	633	8.806
0.095	3.9	246	1.888	0.097	4.0	424	3.804	0.125	5.2	638	8.934
0.121	5.0	257	1.972	0.124	5.1	447	4.191	0.151	6.3	648	9.191
0.161	6.7	248	1.903	0.149	6.2	423	3.787	0.171	7.1	636	8.883
0.200	8.3	238	1.826	0.200	8.3	452	4.275	0.197	8.2	614	8.317
0.242	10.0	222	1.703	0.242	10.0	444	4.140	0.243	10.1	615	8.343
0.300	12.4	220	1.688	0.298	12.4	452	4.275	0.302	12.5	612	8.266
0.351	14.6	225	1.727	0.328	13.6	457	4.359	0.348	14.4	616	8.368
0.398	16.5	226	1.734	0.364	15.1	460	4.409	0.401	16.6	612	8.266
0.450	18.7	226	1.734	0.400	16.6	459	4.393	0.450	18.7	613	8.291
0.499	20.7	227	1.742	0.500	20.7	453	4.292	0.500	20.7	609	8.188
Max. Shear Stress, ksf:			1.972				4.409				9.191
Lat.Displmt@Max Stress,%.:			5.0				15.1				6.3





Boring No.:	B-7
Sample No.:	33683
Sample Depth :	25'
Soil Type:	Sandy Lean Clay, CL
Sample Conditions:	Saturated; Intact
Shear Rate:	0.02
As-Received Dry Density (PCF):	98.7
As- Received Moisture Content (%):	26.2

	◇	●
Cohesion (PSF):	0	0
Friction Angle (Degrees):	41	39

wood.	DIRECT SHEAR TEST	Project No.
	Terracosta	5015-19-0002.13
	NASSCO Floating Dry Dock	

Appendix J

Construction Noise and Vibration Calculations

Construction Source Noise Prediction Model

Location/Threshold	Distance to Nearest Receptor in feet	Combined Predicted Noise Level (L_{eq} dBA)
Daytime Threshold	268	75.0
Single-family residence	1180	62.1

Equipment	Reference Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Crane	85	0.16
Excavator	85	0.4
Impact Pile Driver	95	0.2
Flat Bed Truck	84	0.4

Ground Type	hard
Source Height	8
Receiver Height	5
Ground Factor[2]	0.00

Predicted Noise Level [3]	L_{eq} dBA at 50 feet[3]
Crane	77.0
Excavator	81.0
Impact Pile Driver	88.0
Flat Bed Truck	80.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
89.6

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

[2] Based on Table 4-26 from the Federal Transit Noise and Vibration Impact Assessment, 2018 (pg 86).

[3] Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2018 (pg 176 and 177).

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2018: pg 86); and

D = Distance from source to receiver.

Construction Source Noise Prediction Model

Location/Threshold	Distance to Nearest Receptor in feet	Combined Predicted Noise Level (L_{eq} dBA)
Evening threshold	578	60.0
Nighttime threshold	770	57.5
Single-family residence	1180	53.8

Equipment	Reference Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Flat Bed Truck	84	0.4
Pumps	77	0.5
Welder / Torch	73	0.4

Ground Type	hard
Source Height	8
Receiver Height	5
Ground Factor[2]	0.00

Predicted Noise Level [3]	L_{eq} dBA at 50 feet[3]
Flat Bed Truck	80.0
Pumps	74.0
Welder / Torch	69.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
81.3

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

[2] Based on Table 4-26 from the Federal Transit Noise and Vibration Impact Assessment, 2018 (pg 86).

[3] Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2018 (pg 176 and 177).

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2018: pg 86); and

D = Distance from source to receiver.

Equipment Description	Acoustical Usage Factor (%)	Spec 721.560 Lmax @ 50ft (dBA slow)	Actual Measured Lmax @ 50ft (dBA slow)	No. of Actual Data Samples (count)	Spec 721.560 LmaxCalc	Spec 721.560 Leq	Distance	Actual Measured LmaxCalc	Actual Measured Leq
Auger Drill Rig	20	85	84	36	79.0	72.0	100	78.0	71.0
Backhoe	40	80	78	372	74.0	70.0	100	72.0	68.0
Bar Bender	20	80	na	0	74.0	67.0	100		
Blasting	na	94	na	0	88.0		100		
Boring Jack Power Unit	50	80	83	1	74.0	71.0	100	77.0	74.0
Chain Saw	20	85	84	46	79.0	72.0	100	78.0	71.0
Clam Shovel (dropping)	20	93	87	4	87.0	80.0	100	81.0	74.0
Compactor (ground)	20	80	83	57	74.0	67.0	100	77.0	70.0
Compressor (air)	40	80	78	18	74.0	70.0	100	72.0	68.0
Concrete Batch Plant	15	83	na	0	77.0	68.7	100		
Concrete Mixer Truck	40	85	79	40	79.0	75.0	100	73.0	69.0
Concrete Pump Truck	20	82	81	30	76.0	69.0	100	75.0	68.0
Concrete Saw	20	90	90	55	84.0	77.0	100	84.0	77.0
Crane	16	85	81	405	79.0	71.0	100	75.0	67.0
Dozer	40	85	82	55	79.0	75.0	100	76.0	72.0
Drill Rig Truck	20	84	79	22	78.0	71.0	100	73.0	66.0
Drum Mixer	50	80	80	1	74.0	71.0	100	74.0	71.0
Dump Truck	40	84	76	31	78.0	74.0	100	70.0	66.0
Excavator	40	85	81	170	79.0	75.0	100	75.0	71.0
Flat Bed Truck	40	84	74	4	78.0	74.0	100	68.0	64.0
Front End Loader	40	80	79	96	74.0	70.0	100	73.0	69.0
Generator	50	82	81	19	76.0	73.0	100	75.0	72.0
Generator (<25KVA, VMS si	50	70	73	74	64.0	61.0	100	67.0	64.0
Gradall	40	85	83	70	79.0	75.0	100	77.0	73.0
Grader	40	85	na	0	79.0	75.0	100		
Grapple (on Backhoe)	40	85	87	1	79.0	75.0	100	81.0	77.0
Horizontal Boring Hydr. Jac	25	80	82	6	74.0	68.0	100	76.0	70.0
Hydra Break Ram	10	90	na	0	84.0	74.0	100		
Impact Pile Driver	20	95	101	11	89.0	82.0	100	95.0	88.0
Jackhammer	20	85	89	133	79.0	72.0	100	83.0	76.0
Man Lift	20	85	75	23	79.0	72.0	100	69.0	62.0
Mounted Impact Hammer (	20	90	90	212	84.0	77.0	100	84.0	77.0
Pavement Scarafier	20	85	90	2	79.0	72.0	100	84.0	77.0
Paver	50	85	77	9	79.0	76.0	100	71.0	68.0
Pickup Truck	40	55	75	1	49.0	45.0	100	69.0	65.0
Pneumatic Tools	50	85	85	90	79.0	76.0	100	79.0	76.0
Pumps	50	77	81	17	71.0	68.0	100	75.0	72.0
Refrigerator Unit	100	82	73	3	76.0	76.0	100	67.0	67.0
Rivit Buster/chipping gun	20	85	79	19	79.0	72.0	100	73.0	66.0
Rock Drill	20	85	81	3	79.0	72.0	100	75.0	68.0
Roller	20	85	80	16	79.0	72.0	100	74.0	67.0
Sand Blasting (Single Nozzle	20	85	96	9	79.0	72.0	100	90.0	83.0
Scraper	40	85	84	12	79.0	75.0	100	78.0	74.0
Shears (on backhoe)	40	85	96	5	79.0	75.0	100	90.0	86.0
Slurry Plant	100	78	78	1	72.0	72.0	100	72.0	72.0
Slurry Trenching Machine	50	82	80	75	76.0	73.0	100	74.0	71.0
Soil Mix Drill Rig	50	80	na	0	74.0	71.0	100		
Tractor	40	84	na	0	78.0	74.0	100		
Vacuum Excavator (Vac-tru	40	85	85	149	79.0	75.0	100	79.0	75.0
Vacuum Street Sweeper	10	80	82	19	74.0	64.0	100	76.0	66.0
Ventilation Fan	100	85	79	13	79.0	79.0	100	73.0	73.0
Vibrating Hopper	50	85	87	1	79.0	76.0	100	81.0	78.0
Vibratory Concrete Mixer	20	80	80	1	74.0	67.0	100	74.0	67.0
Vibratory Pile Driver	20	95	101	44	89.0	82.0	100	95.0	88.0
Warning Horn	5	85	83	12	79.0	66.0	100	77.0	64.0
Welder / Torch	40	73	74	5	67.0	63.0	100	68.0	64.0

Source:
FHWA Roadway Construction Noise Model, January 2006. Table 9.1
U.S. Department of Transportation
CA/T Construction Spec. 721.560

Distance Propagation Calculations for Stationary Sources of Ground Vibration

KEY: Orange cells are for input.

Grey cells are intermediate calculations performed by the model.

Green cells are data to present in a written analysis (output).

STEP 1: Determine units in which to perform calculation.

— If vibration decibels (VdB), then use Table A and proceed to Steps 2A and 3A.

— If peak particle velocity (PPV), then use Table B and proceed to Steps 2B and 3B.

STEP 2A: Identify the vibration source and enter the reference vibration level (VdB) and distance.

STEP 3A: Select the distance to the receiver.

Table A. Propagation of vibration decibels (VdB) with distance

Noise Source/ID	Reference Noise Level			Attenuated Noise Level at Receptor		
	vibration level (VdB)	@	distance (ft)	vibration level (VdB)	@	distance (ft)
Impact Pile Driver	112	@	25	79.8	@	295
Vibratory Pile Driver	105	@	26	78.1		205

The Lv metric (VdB) is used to assess the likelihood for vibration to result in human annoyance.

STEP 2B: Identify the vibration source and enter the reference peak particle velocity (PPV) and distance.

STEP 3B: Select the distance to the receiver.

Table B. Propagation of peak particle velocity (PPV) with distance

Noise Source/ID	Reference Noise Level			Attenuated Noise Level at Receptor		
	vibration level (PPV)	@	distance (ft)	vibration level (PPV)	@	distance (ft)
Impact Pile Driver	1.518	@	25	0.49	@	53
Vibratory Pile Driver	0.730	@	25	0.50		32

The PPV metric (in/sec) is used for assessing the likelihood for the potential of structural damage.

Notes:

Computation of propagated vibration levels is based on the equations presented on pg. 185 of FTA 2018. Estimates of attenuated vibration levels do not account for reductions from intervening underground barriers or other underground structures of any type, or changes in soil type.

Federal Transit Association (FTA). 2018 (September). Transit Noise and Vibration Impact Assessment Manual. FTA Report No. 0123. Washington, D.C. Accessed: December 20, 2020. Page Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf

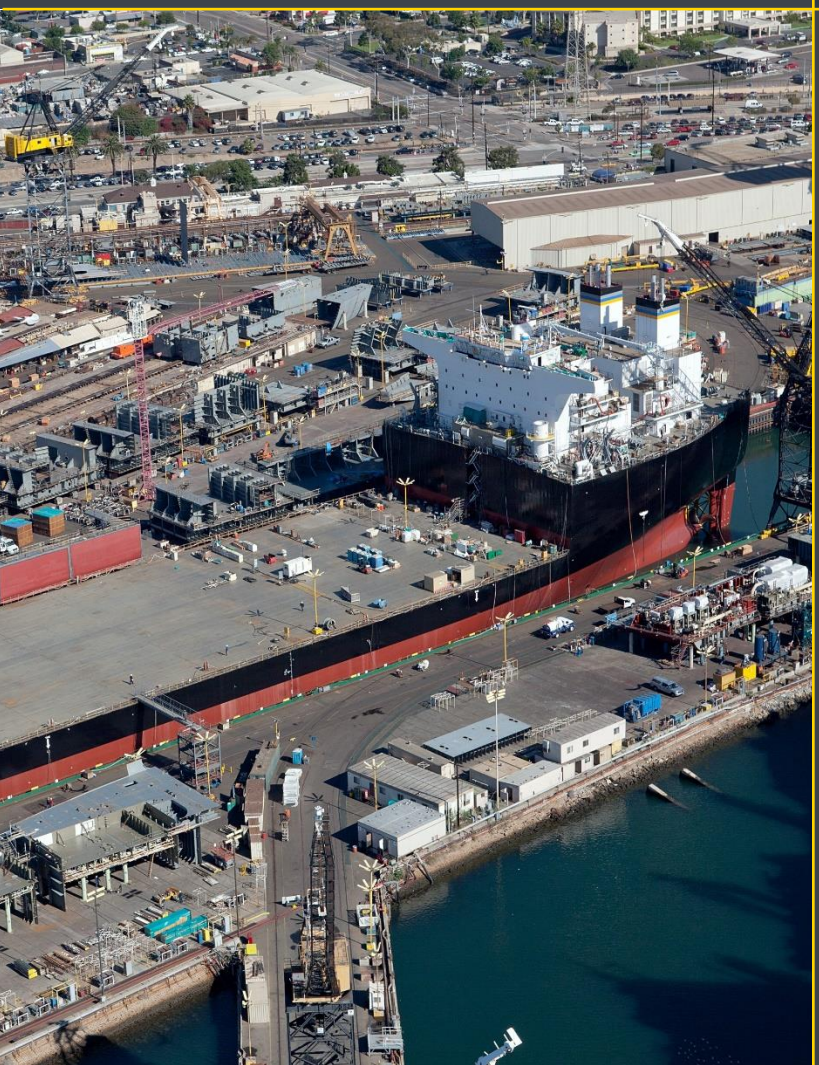
Appendix K

Transportation Impact Study

Transportation Impact Study

NASSCO Floating Dry dock and Waterfront Improvement Project

March 23, 2023



Prepared For:

PORT of SAN DIEGO

ASCENT ENVIRONMENTAL

Prepared By:

Intersecting Metrics

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Table 1: Proposed Project Construction Trip Generation 7

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1.0 Introduction

The purpose of this Transportation Impact Study (TIS) is to identify and document any significant transportation related impacts associated with the NASSCO Floating Dry dock and Waterfront Improvement Project (Proposed Project), and to recommend mitigation measures for identified impacts, as necessary.

1.1 Project Description

General Dynamics NASSCO (NASSCO) is proposing a series of repairs and improvements to be conducted within their shipyard located within San Diego, CA. The Proposed Project includes the following elements:

- *Removal and Replacement of the existing floating dry dock and construction of supporting infrastructure* - The current floating dry dock, built in 1983, has reached the end of its useful life and would be replaced with a new floating dry dock of similar characteristics and the same functionality. Supporting infrastructure consisting of replacement mooring dolphins, utilities, and reconfiguration of the existing approach pier are required in order to comply with current standards and code.
- *Improvements to the Repair Complex Wharf* - The Repair Complex Wharf is landward of the existing and proposed floating dry dock. Currently, the wharf provides limited laydown and space for offices. However, it is in disrepair and must be replaced in order to fully use this area of the facility. As part of the Project, NASSCO is proposing Repair Complex Wharf Improvements in order to maximize the storage and laydown capabilities in this area of the facility.
- *Repairs to the quay wall toe of slope along stretches of shoreline throughout the NASSCO leasehold* - The Proposed Project would also repair the failed revetment and exposed shoreline present throughout the NASSCO leasehold, including shoreline segments from Lot 20 to Pier 12, floating dry dock approach pier to Berth 8, Ways to Building Dock, Berth 2 to Berth 3, Berth 4 to Berth 5, and Berth 6 to Navy Base Quay Wall. Proposed repairs include placement of stabilizing material (mostly rock riprap) to address existing damage and prevent future damage from wave action, in order to maintain existing safe operation of the NASSCO shipyard.
- *As-needed structural repair and/or replacement of selected piles* – The Proposed Project includes programmatic repair and/or replacement of damaged piles that support Berths 2, 3, 4, 5, 6, and Pier 12 and the floating dry dock approach pier and the Berth 1 Platform. The proposed repairs are necessary to restore the structural integrity of these piers, extend their service lives, and provide safe mooring berths for new construction and repair vessels.

The regional Project Location is displayed in Figure 1-1. The specific locations of the Proposed Project elements, described above, are provided in Figure 1-2.

It should be noted that the implementation of the Proposed Project would not expand the existing use of the current site or result in any changes to NASSCO's existing operations.

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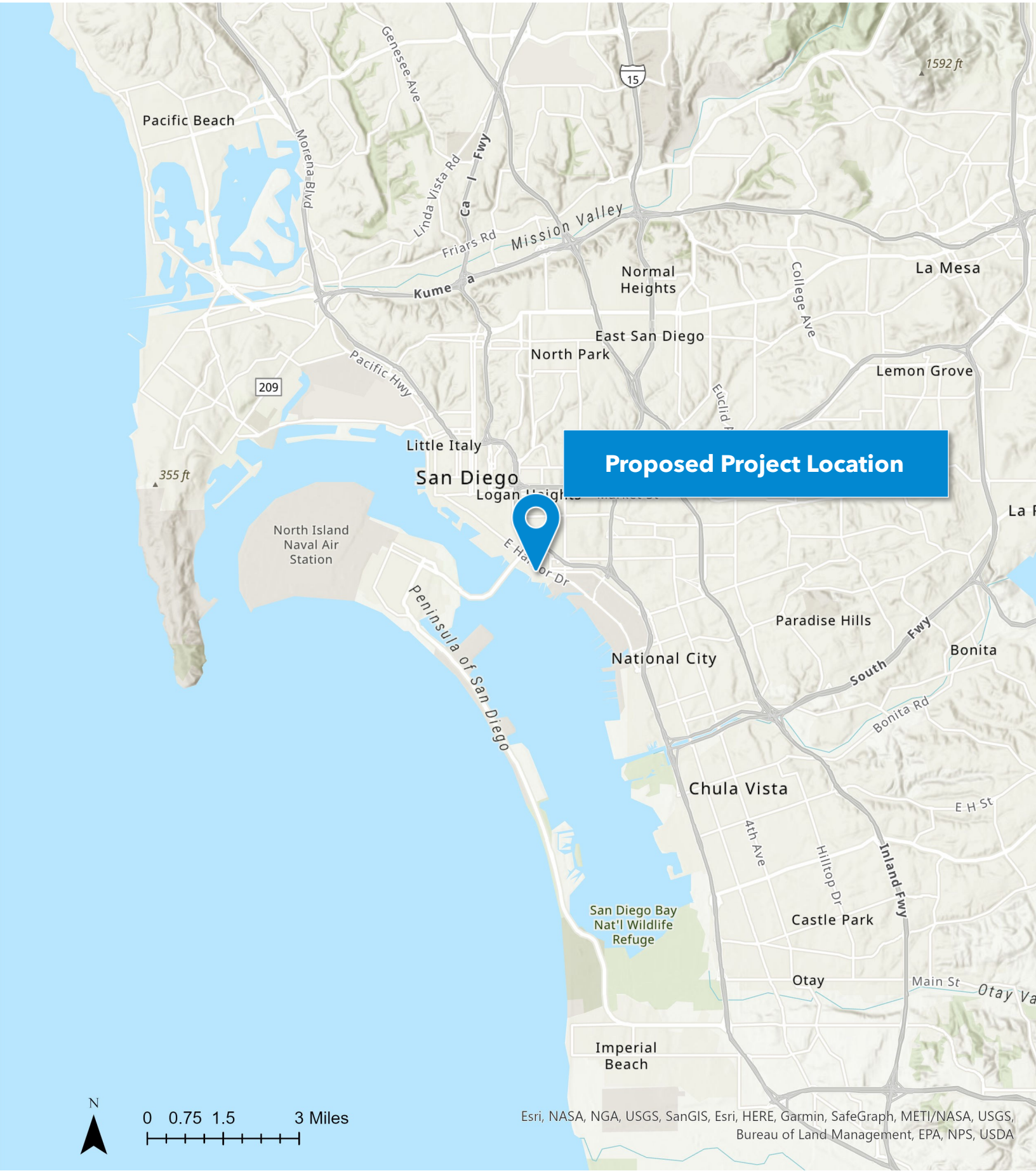
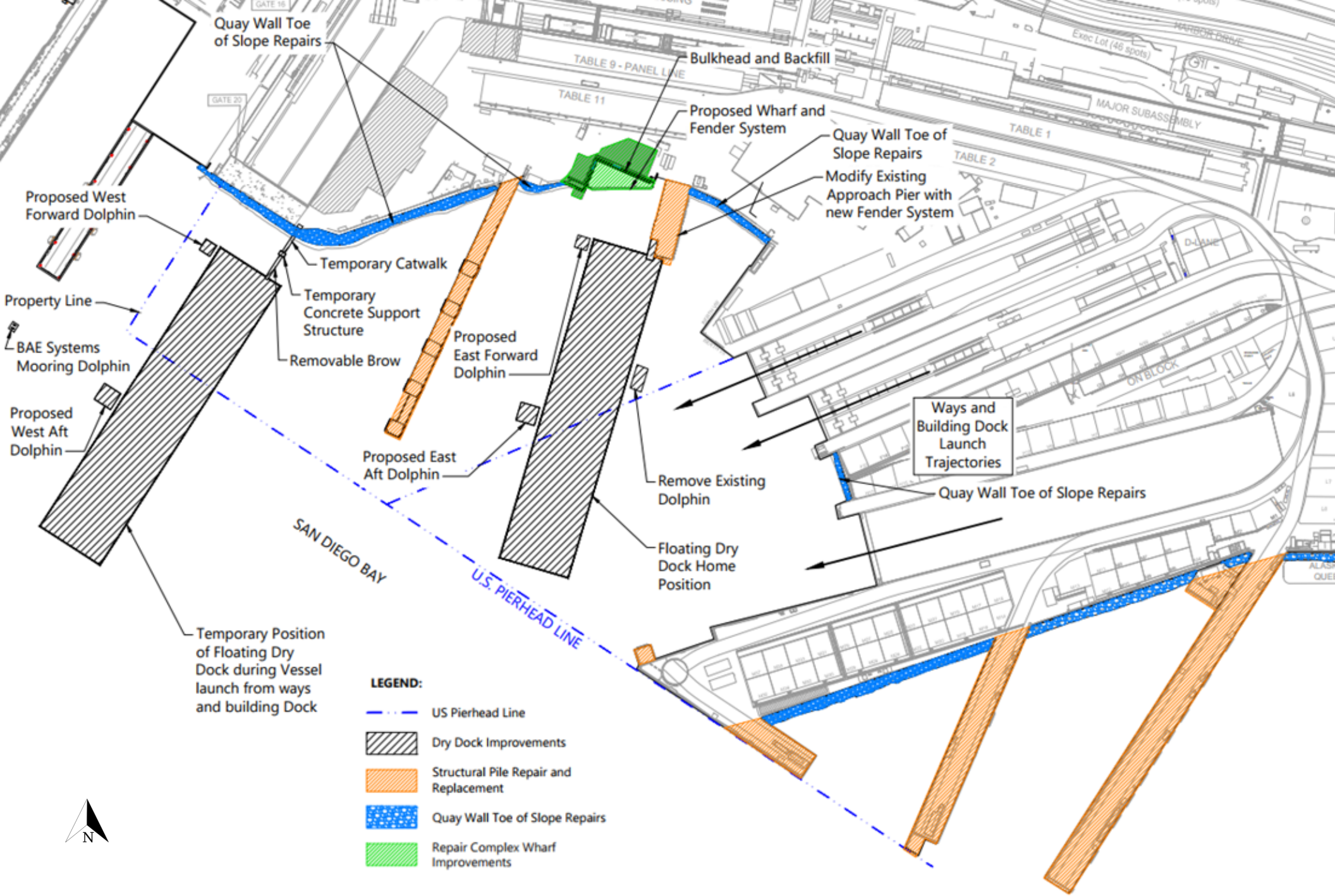


NASSCO Floating Dry dock and Waterfront Improvement Project

Figure 1-1

Regional Location


Quay Wall Toe of Slope Repairs
Bulkhead and Backfill
Proposed Wharf and Fender System
Quay Wall Toe of Slope Repairs
Modify Existing Approach Pier with new Fender System
Proposed West Forward Dolphin
Temporary Catwalk
Temporary Concrete Support Structure
Removable Brow
Property Line
BAE Systems Mooring Dolphin
Proposed East Forward Dolphin
Proposed West Aft Dolphin
Proposed East Aft Dolphin
Remove Existing Dolphin
Ways and Building Dock Launch Trajectories
Quay Wall Toe of Slope Repairs
SAN DIEGO BAY
U.S. PIERHEAD LINE
Floating Dry Dock Home Position
Temporary Position of Floating Dry Dock during Vessel launch from ways and building Dock
LEGEND:
US Pierhead Line
Dry Dock Improvements
Structural Pile Repair and Replacement
Quay Wall Toe of Slope Repairs
Repair Complex Wharf Improvements
N

1.2 Report Organization

Following this Introduction chapter, this report is organized into the following sections:

2.0 *Analysis Methodology* – This chapter describes the methodologies and standards utilized to analyze and identify the transportation related impacts associated with the Proposed Project.

3.0 *Transportation Related Impacts and Mitigation* – This chapter derives and analyzes the projected Vehicle Miles Traveled (VMT) that will be generated by the Proposed Project. This chapter also identifies if the Proposed Project related VMT would create significant project related impacts, as it relates to the standards outlined in the California Environmental Quality Act (CEQA). Finally, the chapter provides recommendations for mitigation measures to reduce the identified transportation related impacts to less than significant levels, if necessary, and evaluates the feasibility of the proposed mitigation measures.

4.0 *Construction Related Impacts and Mitigation* - This chapter evaluates the potential transportation related impacts that may be associated with the construction of the Proposed Project. Recommendations for mitigation measures to reduce any identified transportation related impacts to less than significant levels, are provided, if necessary.

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2.0 Analysis Methodology and Threshold

2.1 Background (SB-743)

On September 27, 2013, Governor Edmund G. Brown, Jr. signed SB-743 into law, starting a process that is expected to fundamentally change the way transportation impact analysis is conducted under CEQA. Within the State's CEQA Guidelines, these changes will include elimination of auto delay, level of service (LOS), and similar measurements of vehicular roadway capacity and traffic congestion as the basis for determining significant impacts.

On December 2018, the Resources Agency certified and adopted the CEQA Guidelines update package, which included the California Natural Resources Agency Guidelines for the Implementation of the California Environmental Quality Act. As a result, the California Governor's Office of Planning and Research (OPR) updated and released the Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) in December 2018[1]. According to the updated guidelines, lead agencies will have until July 1, 2020 to comply with the updated CEQA revision.

2.2 Analysis Guidelines and Significance Thresholds

In response to the implementation of SB-743, the District recommends using the standards and thresholds outlined in the ORP Technical Advisory to determine transportation related impacts. For land use development projects that have trip-making characteristics like an employment trip, such as the Proposed Project's shipyards, OPR recommends using VMT/employee to determine if a project has a significant transportation related impact.

VMT/Employee includes all vehicle-based person trips grouped and summed to the work location of individuals on the trip. This includes all trips, not just work-related trips. The VMT for each work location is then summed for all work locations in a particular Traffic Analysis Zone (TAZ) and then divided by the total number of employees of that census tract to arrive at the VMT/Employee. OPR suggest that a Proposed Project that generates a VMT/Employee great than 85 percent of the average existing regional VMT/Employee may indicate a significant transportation impact.

Analysis Tool

The SANDAG Series 14 Activity Based Model (ABM2+) was utilized for this effort to determine the Proposed Project related VMT/Employee. The ABM2+ is a travel demand forecasting model that incorporates census data and travel surveys to inform the algorithms of the model's projections. It uses a simulated population, based on existing and projected demographics, to match residents to employment and forecasts the daily travel on the regional transportation network. In addition, the model is able to track the daily travel of individuals in the simulated population, including origins, destinations, travel distances and mode choices. The Series 14 ABM2+ has four (4) forecast scenarios: 2016, 2025, 2035, and 2050.

Additional information regarding the background, data sources and methodologies used within the ABM2+ can be found through the following resource:
https://www.sandag.org/index.asp?subclassid=120&fuseaction=home.subclasshome

[1] https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf

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3.0 Transportation Impact & Mitigation

This chapter derives and analyzes the projected VMT/Employee that will be generated by the Proposed Project. This chapter also identifies if the Proposed Project related VMT/Employee would create significant project related impact, as it relates to the standards outlined in the California Environmental Quality Act (CEQA) and the draft Guidelines. Finally, the chapter provides recommendations for mitigation measures that may reduce the Proposed Project's impacts to less than significant levels, and evaluates the feasibility of the proposed mitigation measures, if necessary.

3.1 Trip Generation

The improvements included within the Proposed Project are only rehabilitating existing facilities that already exist on the Proposed Project site. The improvements will not expand or add any new facilities or infrastructure onto the Proposed Project Site. Therefore, the Proposed Project is not anticipated to change the number of employees that access the NASSCO facilities on a daily basis, nor are they anticipated to increase the number of deliveries, vendors, or other services to the facility. Therefore, the implementation of the Proposed Project is not anticipated to increase or change the travel patterns within the area nor is it anticipated to increase or affect the VMT/Employee or overall daily VMT in which the NASSCO facility currently generates. As such, implementation of the Proposed Project will have a less than significant transportation related impact.

3.2 Parking

As noted in the previous section, the improvements included within the Proposed Project are not anticipated to change the number of employees that access the NASSCO facilities on a daily basis. As such, no additional parking demand is anticipated with the implementation of the Proposed Project. Therefore, implementation of the Proposed Project will have a less than significant parking related impact.

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4.0 Construction Analysis

Construction of the various project components is anticipated to occur as follows:

- Floating Dry Dock Replacement and Modification: January 2023 to September 2024
- Repair Complex Wharf Improvements: September 2024 to July 2025
- Quay Wall Revetment Repairs (Berths 2-5): January 2024 to February 2024
- As-needed Quay Wall Revetment Repairs (additional 1,500 linear feet): January 2025 to December 2027 (500 linear feet per year)
- Structural Pile Repair and Replacement: January 2024 to January 2034 (100 piles per year as needed)

Construction activities would occur 24 hours per day and seven days per week, in a manner consistent with the City of San Diego Noise Ordinance (Section 21.0104 of the San Diego Municipal Code). Construction work during night-time hours (between 7:00 p.m. and 7:00 a.m.) would be limited to project deliveries, formwork, welding, and other activities that would not generate disturbing, excessive, or offensive noise. Pile driving activities would only be conducted during daylight hours.

4.1 Construction Trip Generation

The daily number of NASSCO employees that access the Proposed Project site is not anticipated to change during Proposed Project construction. It is anticipated that approximately 10 construction workers would be present on the construction site each day, including one tug operator, two crane operators, one foreman, two oilers, and four laborers. Construction activities are anticipated to generate approximately 11 truck trips per day, during peak times, for miscellaneous materials and equipment loading. The majority of contractor equipment, materials and personnel will be mobilized and demobilized from the project site via barge or water access.

Table 1 displays the daily and peak hour trip generation that is anticipated to be associated with Proposed Project construction. To be conservative, it is assumed that all construction workers would drive their own vehicles to the Proposed Project site and arrive during the AM peak hour and depart during the PM peak hour. It is assumed that truck trips would occur throughout the typical workday and outside of the typical commute peak hours.

Table 1: Proposed Project Construction Trip Generation

Use	Units	Daily Trip Generation Rate	PCE	ADT	AM Peak Hour		PM Peak Hour	
					In	Out	In	Out
Construction Worker	10	3 trips per worker	1.0	30	10	0	0	10
Truck Trips	11	2 trip per truck	3.0	66	0	0	0	0
			Total	*6	10	0	0	10

Note
PCE: Passenger Car Equivalent – since the truck size is not known at this time, the maximum rate of 3.0 was selected.

Construction VMT Analysis

Construction workers VMT is not newly generated; instead, it is redistributed throughout the network based on their travel to different work sites each day; therefore, they are not generating new VMT each day, only redistributing it. It is important to note that construction traffic is temporary and not expected to significantly increase VMT or permanently degrade operations of a roadway facility. This redistribution is considered to be nominal and momentary. Additionally, per OPR's Technical Advisory, SB 743's intent is to plan for "long term climate goals"[2], so projects with temporary affects to VMT and the transportation system are not deemed to be significant. Consequently, it is assumed that the transportation impacts would be less than significant during the construction of the Proposed Project.

4.2 Construction Parking

Contractors will be required to park within the limits of the project site in designated equipment and material staging areas. Construction workers would park in designated spaces within proximity to the project site and the contractor may elect to have high occupancy vehicles transporting construction workers on and off site daily. As noted in Section 4.1, 10 construction workers are anticipated to access the site on a daily basis. As such, the anticipated parking demand during Proposed Project construction would be a maximum of 10 parking spaces.

No parking lots will be used for construction staging or laydown. Designated areas (existing) at or near the construction site will be utilized for staging or laydown.

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[2] Page 10 of OPR's *Technical Advisory* states "Based on OPR's extensive review of the applicable research, and in light of an assessment by the California Air Resources Board quantifying the need for VMT reduction in order to meet the State's long-term climate goals...."