

City of Escondido Channel Maintenance Activities

Draft Supplemental Mitigated Negative Declaration

Case No. ENV 20-0004
State Clearinghouse No. 2012121063
(Previous Case File No. ENV 12-0001)

Prepared for:



Environmental Programs Division
201 North Broadway
Escondido, CA 92025
Contact: Alicia Appel
(760) 839-6315

Prepared by:

ICF
525 B Street, Suite 1700
San Diego, CA 92101
Contact: Tanya Jones

October 2020



CITY OF ESCONDIDO
 PLANNING DIVISION
 201 NORTH BROADWAY
 ESCONDIDO, CA 92025-2798
 (760) 839-4671

NOTICE OF INTENT TO ADOPT A SUPPLEMENTAL MITIGATED NEGATIVE DECLARATION

CASE NO.: ENV 20-0004 Channel Maintenance Activities “RGP 94 – Channel Maintenance Program Implementation and Renewal Project”

SCH NO.: 2012121063 (Original Number)

DATE ISSUED: October 26, 2020

PUBLIC REVIEW PERIOD: October 29, 2020 – November 30, 2020

LOCATION: The proposed project would occur at 87 Channel Maintenance Sites throughout the City of Escondido, California in the Carlsbad and San Dieguito watersheds.

PROJECT DESCRIPTION: The City has ongoing needs to effectively perform routine operations and maintenance (O&M) activities for flood control, the management of sediment deposition, and to avoid potential vector control issues at 87 storm water facilities (constructed and natural) at various locations throughout the city. A final Initial Study/Mitigated Negative Declaration (IS/MND) was adopted for the 2013 Channel Maintenance Activities (City File No. ENV 12-0001), and an addendum to the Final IS/MND was prepared and adopted in 2014. The current Channel Maintenance Activities Project RGP 94 expired in May 2020. The project involves extending the existing Regional General Permit (RGP) 94 for the City of Escondido Channel Maintenance Activities project and amending this permit to add an additional 24 facility locations, expand a current facility location (already included in the RGP), as well as include additional work activities. The amended permit would allow the City of Escondido to conduct operations and maintenance activities to occur at a total of 87 existing concrete and earthen storm water facilities/sites (24 new maintenance sites and 63 previously approved maintenance sites that are currently authorized). The proposed project would establish routine maintenance activities to be performed at all facility locations, compensatory mitigation requirements, and general reporting requirements. The goals of the proposed project are to maintain facility locations for long-term sustainability and public safety. Facilities requiring maintenance are located on privately owned parcels or on City easements or rights-of-way. Access to structures for O&M activities generally would be provided from the nearest public roadway.

APPLICANT: City of Escondido, Alicia Appel (760) 839-6315 or aappel@escondido.org

An Initial Study has been prepared to assess this project as required by the California Environmental Quality Act (CEQA) and Guidelines, Ordinances and Regulations of the City of Escondido. The Initial Study and Draft Supplemental Mitigated Negative Declaration (IS/MND) are on file in the City of Escondido Planning Division and can be viewed on the City of Escondido web site (*Active Development Projects*) at: <https://www.escondido.org/channel-maintenance-activities.aspx>. Further information may be obtained by contacting the Planning Division, Jay Paul, telephone (760) 839-4537 or email at jpaul@escondido.org.

FINDINGS: The findings of this review are that the Initial Study identified effects related to biological resources, cultural/tribal cultural resources, and hydrology and water quality that might be potentially significant. Design and minimization measures, revisions in the project plans, and/or mitigation measures agreed to by the applicant would provide mitigation to a point where potential impacts are reduced to a less than significant level. A Zoning Administrator meeting to adopt the final IS/MND has not yet been scheduled. The Zoning Administrator notices and agendas, along with corresponding staff reports are posted on the City’s web site at least 72 hours prior to the hearing date, and are available at: <https://www.escondido.org/zoning-administrator.aspx>.

Mike Strong, Director of Community Development

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
APE	Area of Potential Effect
BMPs	best management practices
CalEEMod	California Emissions Estimator Model
CAGN	coastal California gnatcatcher
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGF	California Fish and Game Code
CH ₄	methane
City	City of Escondido
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CRHR	California Register of Historical Resources
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibels
DPM	diesel particulate matter
EDI	Escondido Disposal, Inc.
ESA	Endangered Species Act
GHGs	greenhouse gases
GIS	Geographic Information Systems
HAs	Hydrologic Areas
HMP	Habitat Management Plan
HUs	Hydrologic Units
IS	initial study
LBVI	least Bell's vireo
LCFS	Low-Carbon Fuel Standard
L _{eq}	equivalent noise level
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MHCP	Multiple Habitat Conservation Program
MND	mitigated negative declaration
MSCP	Multiple Species Conservation Plan
MT	metric tons
N ₂ O	nitrous oxide
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service

NO _x	nitrogen oxides
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O ₃	ozone
O&M	operations and maintenance
OHWM	Ordinary High Water Mark
PM10	particulate matter less than 10 microns
PM2.5	particulate matter less than 2.5 microns
PPV in/sec	peak particle velocity in inches per second
PRC	Public Resources Code
RAQS	Regional Air Quality Strategy
RGP	existing Regional General Permit
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCIC	South Coastal Information Center
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SHPO	State Historic Preservation Officer
SO ₂	sulfur dioxide
TAC	toxic air contaminants
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service

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INITIAL STUDY

1. Project Title	Channel Maintenance Activities – RGP 94 – Channel Maintenance Program Implementation & Renewal Project
2. Lead Agency Name and Address	City of Escondido Environmental Programs Division 201 N. Broadway Escondido, CA 92025
3. Contact Persons and Phone Numbers	Alicia Appel, Environmental Programs Manager (760) 839-6315 201 North Broadway Escondido, CA 92025-2798
4. Project Location:	City of Escondido, San Diego County, CA
5. Project Sponsor's Name and Address	<i>City of Escondido</i> <i>Alicia Appel, Environmental Programs Manager, (760) 839-6315</i> <i>Elisa Marrone, AICP, Environmental Programs Specialist, (760) 839-4075</i> <i>201 North Broadway,</i> <i>Escondido, CA 92025-2798</i>
6. General Plan Designation	Multiple citywide - Please refer to the attached project description.
7. Zoning	Multiple citywide - Please refer to the attached project description.
8. Description of Project:	Flood Control Channel Maintenance Program Activities Implementation and Renewal Project to include ongoing maintenance of 63 sites/facilities and the addition of 24 flood control sites/facilities for a total of 87 sites. Please refer to the attached project description.
9. Surrounding Land Uses and Setting:	Varies citywide - Please refer to the attached project description.
10. Other Public Agencies Whose Approval is Required:	U.S. Army Corps of Engineers – Regional General Permit U.S. Fish and Wildlife Service – Section 7 Informal Consultation Regional Water Quality Control Board – 401 Water Quality Certification California Department of Fish and Game – Streambed Alteration Agreement
11. Tribal Consultation. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has this consultation begun?	Four Native American tribes (Rincon, San Luis Rey, Soboba and Mesa Grande) were mailed notification regarding the proposed project in conformance with Assembly Bill 52. The Rincon and San Luis Rey tribes responded requesting formal consultation. Formal consultation was conducted with representatives from Rincon and San Luis Rey on June 17, 2020.

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SECTION 1. INTRODUCTION AND OVERVIEW

I. OVERVIEW

The City of Escondido (City), as the lead agency under the California Environmental Quality Act (CEQA), has prepared this Supplemental Initial Study (IS) and Mitigated Negative Declaration (MND) to evaluate the potential environmental effects associated with the proposed renewal of the existing Regional General Permit (RGP) 94 for the City of Escondido Channel Maintenance Activities Project and an amendment to this permit to add an additional 24 facility locations, expand a current facility location (already included in the RGP), and perform additional work activities. The current Channel Maintenance Activities Project RGP 94 expires in May 2020.

This section includes a brief overview of the requirements pursuant to CEQA, proposed project's previous environmental documentation, the scope of the environmental analysis, and the document's organizational structure and content.

II. REQUIREMENTS AND PURPOSE OF AN INITIAL STUDY/MITIGATED NEGATIVE DELCARATION

The preparation of an IS/MND is governed by two principal sets of laws: CEQA Statute (Public Resources Code [PRC] §21000 et seq.) and the State CEQA Guidelines (California Code of Regulations §15000 et seq.). Specifically, State CEQA Guidelines Section 15063 ("Initial Study") and Sections 15070–15075 ("Negative Declaration Process") guide the process for the preparation of an IS/MND. Where appropriate and supportive to an understanding of the issues, reference is made either to the statute, the State CEQA Guidelines, or appropriate case law.

This Supplemental IS/MND, as required by State CEQA Guidelines Section 15071, contains (1) a brief description of the proposed project, (2) the proposed project location, (3) a proposed finding that the proposed project will not have a significant effect on the environment, (4) a copy of the IS documenting support for the findings, and (5) all mitigation measures to be implemented.

III. BACKGROUND AND PREVIOUS ENVIRONMENTAL DOCUMENTATION

The City owns and operates a Municipal Separate Storm Sewer System (MS4) infrastructure that includes various facilities associated with flood control and drainage throughout Escondido, San Diego County, California. Pursuant to the City's Mobility and Infrastructure Element of the General Plan update (2012), Storm Drain Policy 14.11 requires that the City "maintain flood control channels and storm drains through periodic dredging, repair, desilting and clearing to prevent losses in effective use." As identified in this Policy, the City has ongoing needs to effectively perform routine operations and maintenance (O&M) activities for flood control and the management of sediment deposition on 63 facilities (constructed and natural) at various locations throughout the city. A final Initial Study/Mitigated Negative Declaration was adopted for the 2013 Channel Maintenance Activities (City File No. ENV 12-0001; City of Escondido 2013), herein referred to as the 2013 MND ENV 12-0001. An addendum to the Final IS/MND was prepared and adopted (City of Escondido

2014), herein referred to as the 2014 Addendum ENV 12-0001. The 2013 MND and 2014 Addendum can be viewed at: <http://www.escondido.org/active-projects.aspx>.

Since that time, the City has identified 24 additional facility locations, the need to expand a current facility location (already included in the RPG 94 permits), and additional work activities. Work activities include the excavation of accumulated sediment and herbaceous vegetation within concrete channels and earthen streams/creeks, excavation and clearing of culvert inlets and outlets within a specified radius, removal of nonnative trees within specified facility locations, the trimming of native shrub and tree cover that inhibit positive flow and create debris jams, and the excavation of accumulated sediment and vegetation within a specified basin. Additional work activities would include one-time native tree removal to gain access and/or allow positive flows to occur at specific facility locations and the repairs of existing hardscaped facilities. The project also includes minor repairs to segments of concrete-lined channels or riprap-lined segments that will not result in the modification of the character, size, or scope of the original fill design. Additionally, these repairs will be limited to either current or new RGP sites. Lastly, to mitigate for the functional loss of habitat within jurisdictional waters associated with this additional work as well as leave a surplus that will be available for future RGP 94 renewals and future public works projects, the City is also proposing to rehabilitate and enhance a 10.93-acre mitigation site located within Kit Carson Park.

Due to changes to the project and the extended period of time that has passed between adoption of the 2013 MND ENV 12-0001 and the 2014 Addendum ENV 12-0001, the City has prepared this Supplemental IS/MND to evaluate the potential impacts that would occur as a result of the inclusion of 24 more facility locations, expansion of a current facility location, and proposed additional work activities.

2013 MND ENV 12-0001

The City's 2013 MND ENV 12-0001 (State Clearinghouse No. 2012121063) evaluated the impacts from routine O&M activities for flood control and the management of sediment deposition on approximately 76 acres of land among 63 flood control and storm drainage facilities (constructed and natural) throughout Escondido.

The environmental analysis identified several mitigation measures to address and mitigate potentially significant impacts related to appropriate permits from various agencies that were required to perform the necessary work, along with appropriate mitigation for impacts on sensitive resources/habitat areas. The RGP program consolidates all required environmental permits from applicable resource agencies into one application for a five-year period. Overall, the RGP is the City's five-year plan for maintenance and protection of environmental resources for each site and provides the foundation for the City's multi-agency permit application project. The frequency with which maintenance activities would be conducted is site-specific and varies by structure and location. The Final MND was adopted by City Council on March 13, 2013 (Resolution No. 2013-24) and a Notice of Determination (NOD) filed with the San Diego County Clerk/Recorder and State Clearinghouse.

2014 Addendum ENV 12-0001

In 2014, the City's Public Works Department identified that trees in certain areas and in limited circumstances, would need to be trimmed between a 7- and 13-foot height in order to accommodate certain mechanical equipment. Therefore, an Addendum was prepared to refine a Biological Resources Mitigation Measure (BIO-15) to accommodate appropriate access and working area, as

well as to refine language regarding trimming/pruning of mature trees with language that more accurately represents the intended purpose of the measure, which is to maintain the overall health and appearance of native mature trees.

2015 Lake and Streambed Alteration Agreement

The California Department of Fish and Wildlife (CDFW) filed a Notice of Determination with the State Clearinghouse in August 2015 to execute a Lake and Streambed Alteration Agreement, pursuant to Section 1602 of the California Fish and Game Code (CFGC) (#1600-2013-0066-R5). Covered project activities included dredging and excavating concrete and earthen channels and basins, clearing culverts and associated inlet and outlet structures, clearing and trimming vegetation, and clearing and grading access roads. Various methods and types of equipment were identified for use, including manual hand tools, mechanical hand tools, a grader, backhoe, excavator, skid steer, and front-end loader. Project activities affected 74.24 acres of stream habitat, which, at the time of notification submittal, consisted of 0.81 acre of Tier 1 resources (native habitats growing within earthen facilities or non-serviceable concrete facilities), 0.59 acre of Tier II resources (nonnative habitats and unvegetated areas occurring within earthen facilities or non-serviceable concrete facilities), 1.10 acre of Tier III resources (vegetated areas occurring within serviceable concrete facilities), and 71.74 acres of Tier IV resources (unvegetated areas occurring within serviceable concrete facilities). Serviceable concrete facilities are those that have intact concrete linings and do not support mature native trees or shrubs.

Previous Environmental Documents Incorporated by Reference

In accordance with Section 15150 of the State CEQA Guidelines, the City's 2013 MND ENV 12-0001 and 2014 Addendum ENV 12-0001 are hereby incorporated by reference into this Supplemental IS/MND where referenced specially and are available for public review at the City of Escondido Planning Department at 201 N Broadway, Escondido, California 92025.

IV. REQUIREMENTS AND PURPOSE FOR SUPPLEMENTAL INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Pursuant to Section 15162(a) of the State CEQA Guidelines, when a previous environmental document has been adopted/certified, no subsequent environmental document may be required for a project unless the City determines, on the basis of substantial evidence, that one or more of the following conditions are met:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

- (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
- (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
- (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

According to the State CEQA Guidelines (Section 15163), the Lead Agency may choose to prepare a supplement to an environmental document rather than a subsequent environmental document if:

- Any of the conditions described in State CEQA Guidelines Section 15162 would require the preparation of a subsequent environmental document, and
- Only minor additions or changes would be necessary to make the previous environmental document adequately apply to the project in the changed situation.

Based on the requirements above, the City has determined that a Supplemental IS/MND is the most appropriate environmental document due to the changes to the project and the extended period of time that has passed between certification/adoption of both the 2013 MND and the 2014 Addendum.

In addition, the supplemental document need contain only the information necessary to make the previous environmental document adequate for the project as revised. A supplemental document shall also be given the same kind of notice and public review as is given to the original document, and the supplemental document may be circulated by itself without recirculating the previous draft or final document. When the agency decides whether to approve the project, the decision-making body shall consider the previous environmental document as revised by the supplemental document.

Pursuant to Section 15367 of the State CEQA Guidelines, the City is the lead agency for the proposed project. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project. The City, as the lead agency, will have the authority for project approval and adoption of the accompanying environmental documentation.

Based on the environmental checklist form prepared for the proposed project and the supporting environmental analysis, the proposed project would have no impact or a less-than-significant impact on the following topical environmental areas: aesthetics, agricultural and forestry resources, air quality, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, land use and planning, mineral resources, noise, population and house, public services, recreation, transportation, utilities, and wildfire.

The proposed project has the potential to have new or more severe impacts than those analyzed under the City's 2013 MND ENV 12-001 and 2014 Addendum ENV 12-0001 unless the recommended mitigation measures are incorporated into the proposed project in the following environmental areas: biological resources, cultural resources, hydrology and water quality, and tribal cultural resources.

According to the State CEQA Guidelines (Section 15163), it is appropriate to prepare a Supplemental IS/MND for the proposed project because only minor additions or changes would be necessary to make the previous IS/MND adequate to address impacts associated with the proposed project.

V. ENVIRONMENTAL ISSUES ADDRESSED

This Supplemental IS/MND evaluates the proposed project's effects on the following resource topics.

- Aesthetics
- Biological Resources
- Geology and Soils
- Hydrology and Water Quality
- Noise
- Recreation
- Utilities and Service Systems
- Agriculture and Forestry Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Land Use and Planning
- Population and Housing
- Transportation
- Wildfire
- Air Quality
- Energy
- Hazards and Hazardous Materials
- Mineral Resources
- Public Services
- Tribal Cultural Resources
- Mandatory Findings of Significance

The environmental setting and impact analysis discussion for each of these topics is provided in Section 3, *Environmental Checklist*, of this document.

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SECTION 2. PROJECT DESCRIPTION

I. BACKGROUND

As the current Channel Maintenance Activities Project RGP 94 permit expired in May 2020, the City is requesting the renewal of the existing RGP 94 permit and amendment of this permit to add an additional 24 facility locations, expand a current facility location (already included in the RGP), as well as include additional work activities. The renewed permit would allow the City to conduct O&M activities at 87 existing concrete and earthen storm water facilities.

The O&M activities performed at the 63 facilities under the current RGP would remain the same (with the expansion of one site). See Appendix A for a description of the maintenance activities for the current RGP facilities.

II. PROJECT OBJECTIVES

The goals and objectives of the proposed project are to maintain facility locations for long-term flood control, public safety, and protection of water quality. The proposed project establishes routine maintenance activities to be performed at all facility locations, compensatory mitigation requirements, and general reporting requirements. The City is responsible for maintaining the existing facility locations to ensure adequate flood control capacity and avoid potential vector control issues.

The City is proposing the minimum maintenance footprints necessary to ensure that the existing facility locations function as originally designed, as well as maintain positive hydraulic flow.

III. OPERATIONS AND MAINTENANCE ACTIVITIES

As stated above, the City is proposing to conduct O&M activities at 24 new maintenance sites and 63 previously approved maintenance sites that are currently authorized by the 2015 RGP 94. Figures 2-1 and 2-2 depict the regional location and project vicinity as well as the 63 facilities covered under the current RGP 94 and the 24 newly proposed facilities. Table 2-1 summarizes the location, maintenance activities to be implemented, and features of the 24 new sites. Figure 2-3 shows the location of each new site. The types of facilities that would be added as new facilities under RGP 94 are listed below and include:

- Earthen streams/creeks and storm water channels with hydrologic regimes ranging from ephemeral to perennial;
- Concrete bottom channels with hydrologic regimes of ephemeral and intermittent;
- Culverts and their associated inlets and outlets; and
- A storm water basin.

The following work activities would be conducted at the facility locations:

- Accumulated sediment and herbaceous vegetation within concrete channels and earthen streams/creeks will be excavated to allow for positive flow;
- Culvert inlets and outlets will be excavated and cleared within a specified radius;
- Nonnative trees will be removed within specified facility locations;
- One-time native tree removal to gain access and/or allow for positive flows will occur at specific facility locations (either cut at stump, leaving root in place or root and all removal depending on its location);
- Native shrub and tree cover that inhibit positive flow and create debris jams will be trimmed; and
- Accumulated sediment and vegetation within a basin will be excavated.

Facilities requiring maintenance are located on privately owned parcels or on City easements or rights-of-way (Figure 2-3). All work done on private land would be completed with appropriate permission from the landowners. Access to structures for O&M activities would typically be from the nearest public roadway. Most sites would be accessed without impacting the surrounding areas, which would include either development (i.e., private homeowner landscaping) or disturbed habitat. One site (E-58 Reidy Creek Golf Course) will require access points through upland native habitat as shown on Figure 2-3, Sheets 20 and 21. All O&M activities would be completed during normal business hours (7:30 a.m. to 6:00 p.m.), Monday through Friday.

To mitigate for the functional loss of habitat within jurisdictional waters associated with this additional work as well as leave a surplus that will be available for future RGP 94 renewals and future public works projects, the City is also proposing to rehabilitate and enhance a 10.93-acre mitigation site located within Kit Carson Park.

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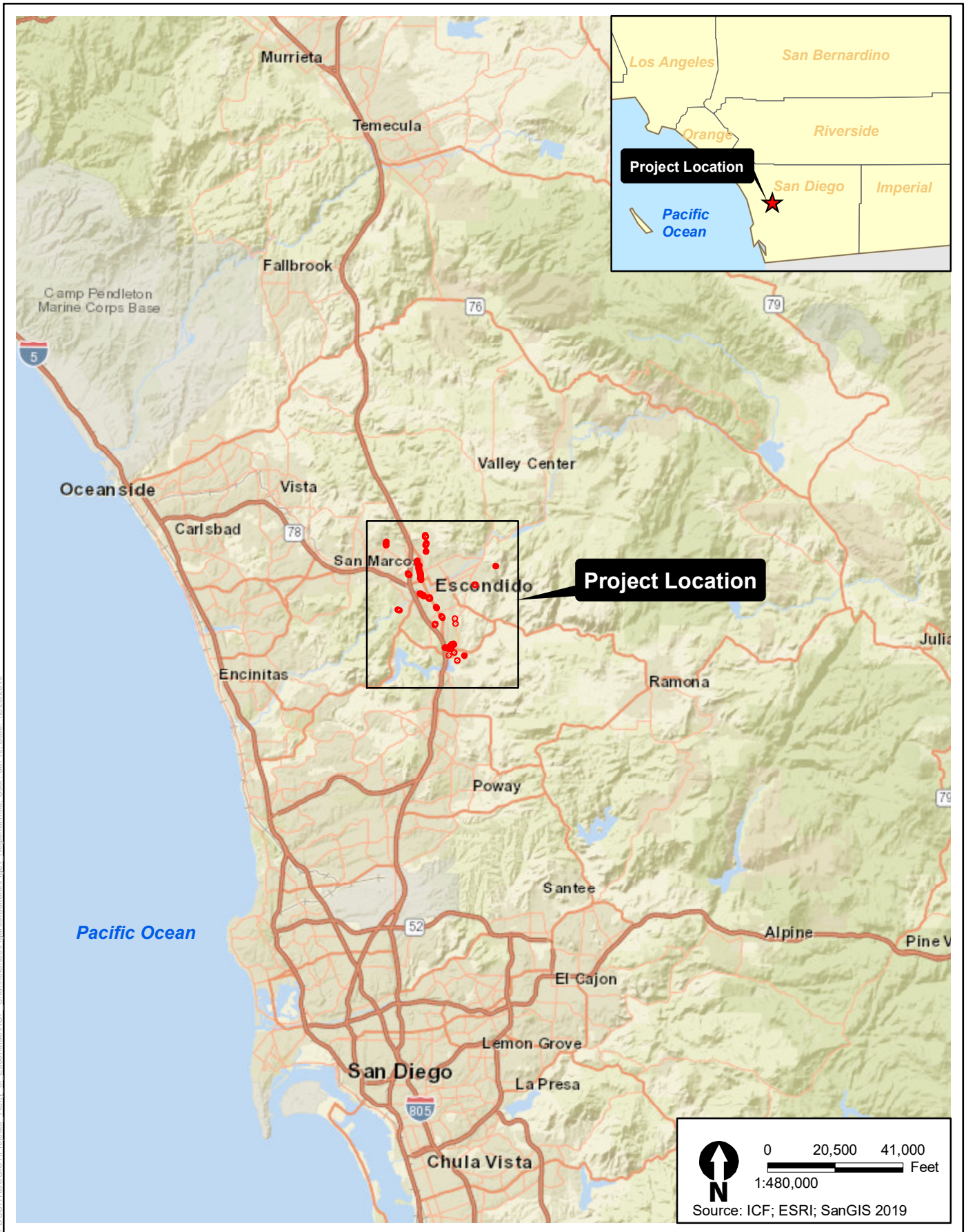
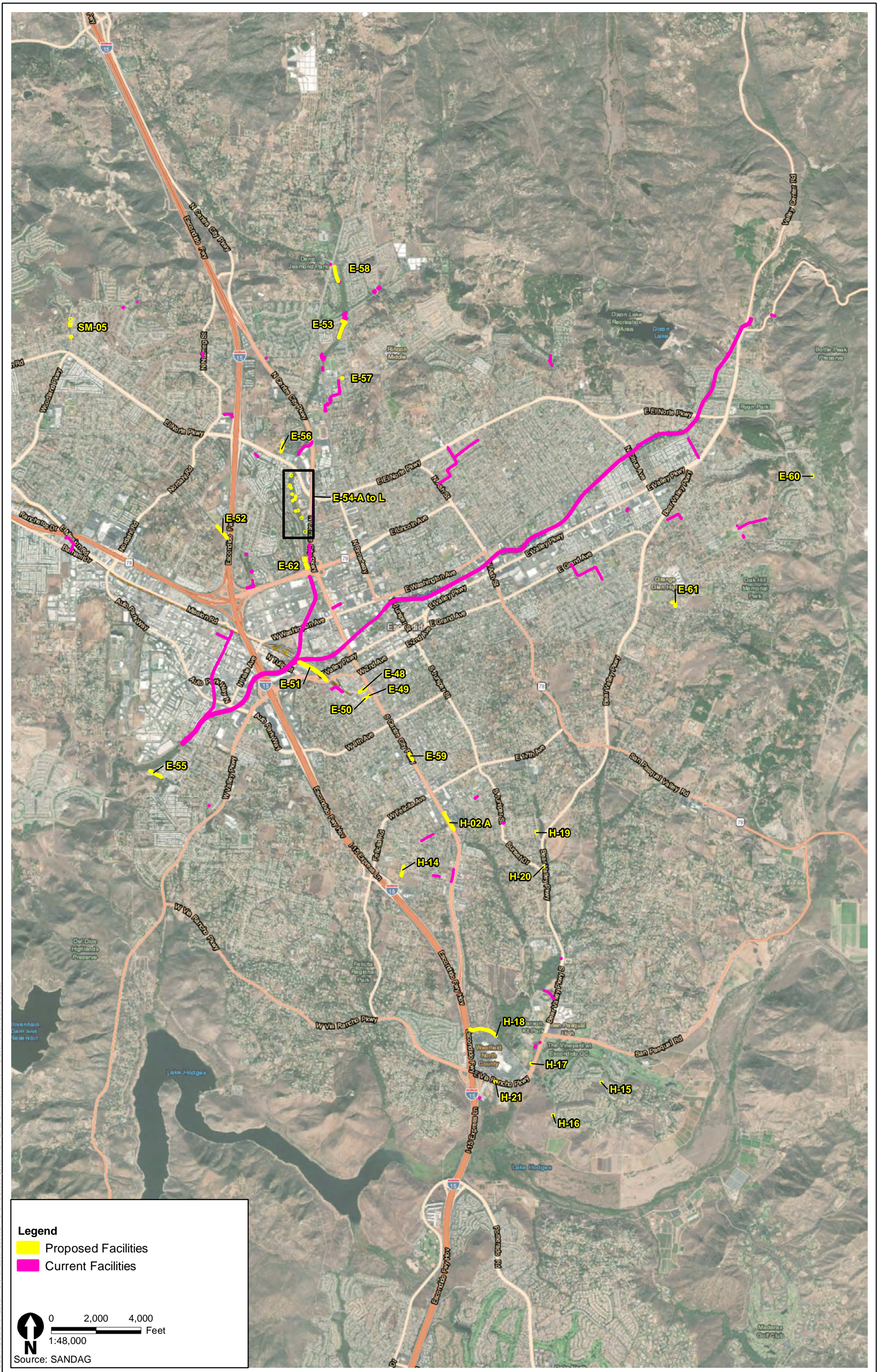


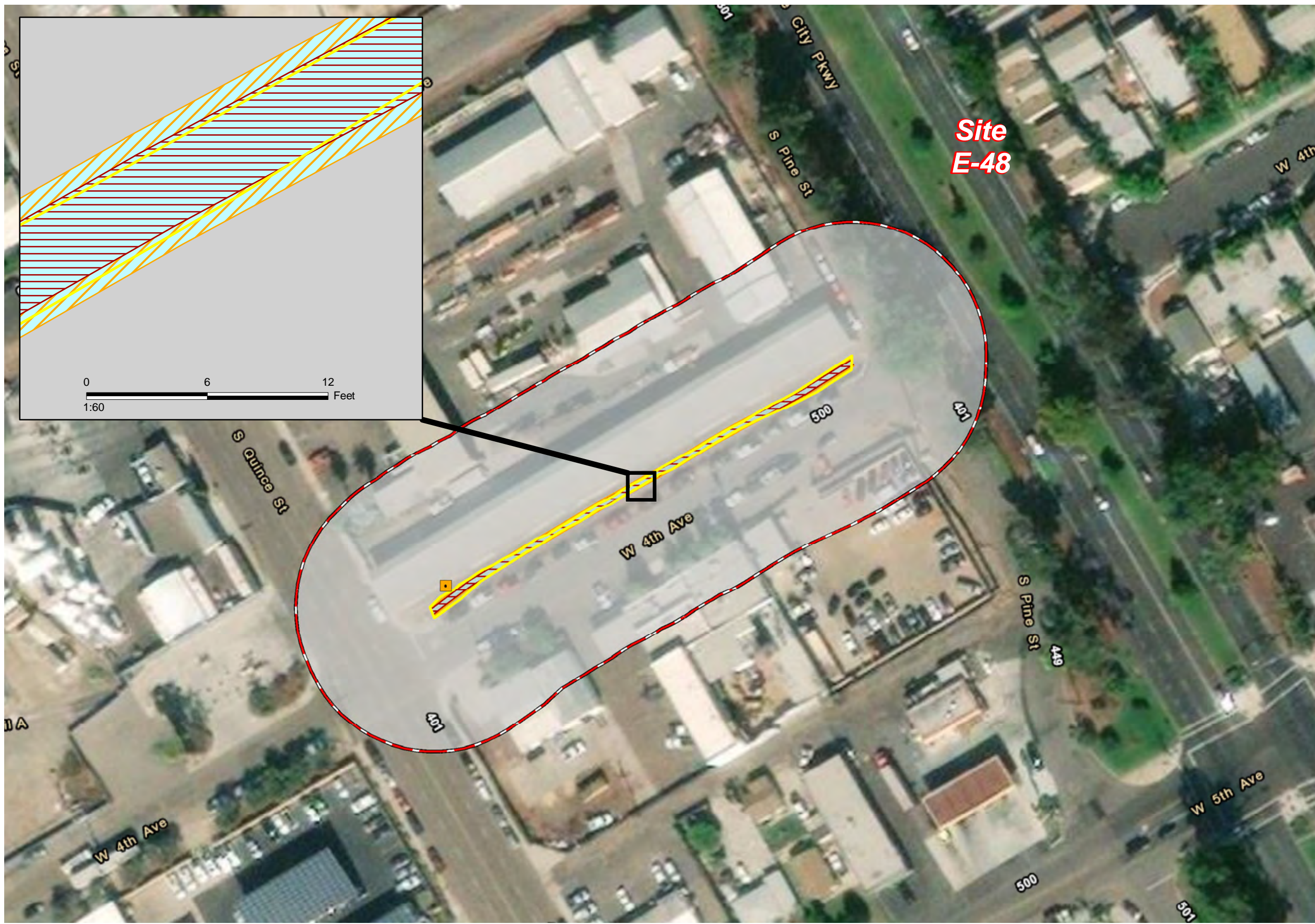
Figure 2-1
Regional Vicinity
Escondido RGP 94 Channel Maintenance Project



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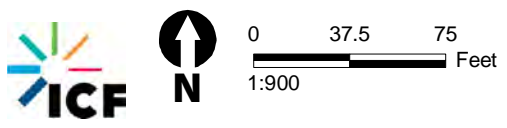
Figure 2-2
Project Vicinity
Escondido RGP 94 Channel Maintenance Project

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- Legend**
- Inlet
 - Maintenance Sites
 - 100-ft Buffer
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Unvegetated Channel
 - Urban / Developed

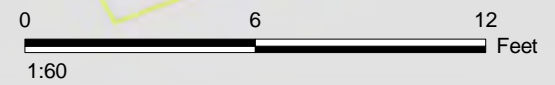
Source: City of Escondido; ICF 2019



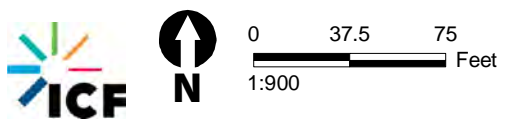
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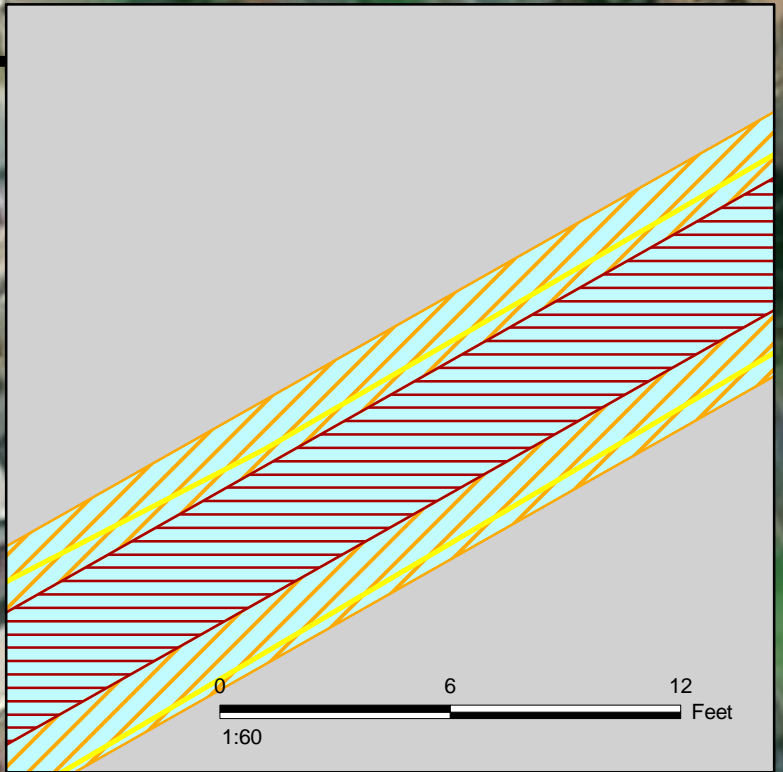
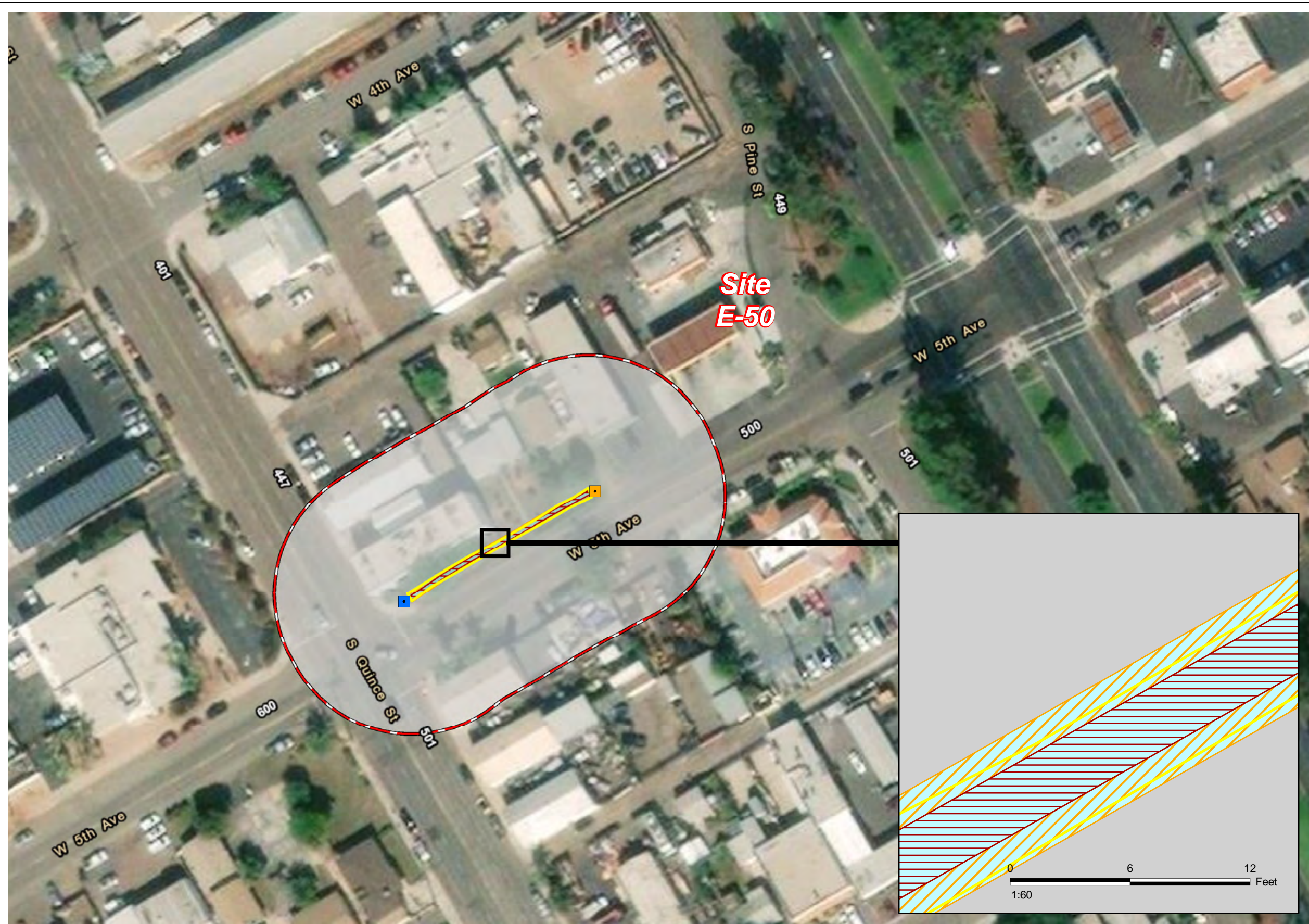
- Legend**
- Maintenance Sites
 - 100-ft Buffer
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Unvegetated Channel
 - Urban / Developed



Source: City of Escondido; ICF 2019

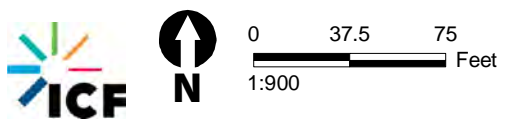


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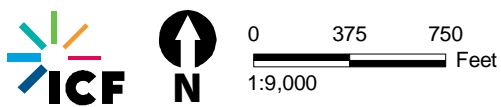
- Legend**
- Inlet
 - Outlet
 - Maintenance Sites
 - 100-ft Buffer
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Unvegetated Channel
 - Urban / Developed

Source: City of Escondido; ICF 2019





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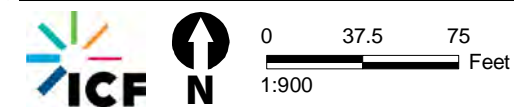
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- Maintenance Sites
 - 100-ft Buffer
 - Map Sheet Extent

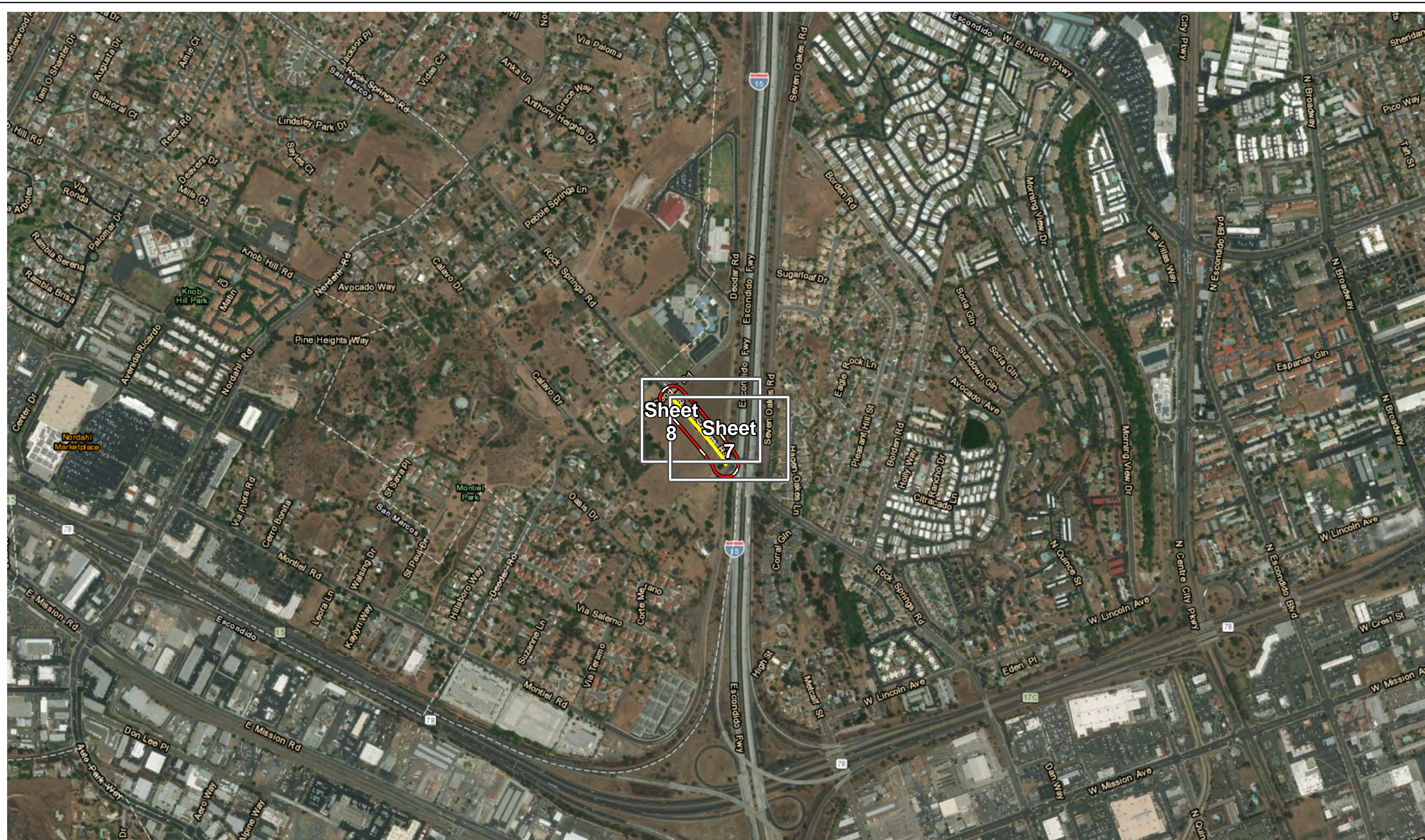
Overview
E-51
800 W Valley
Escondido RGP 94 Channel Maintenance Project



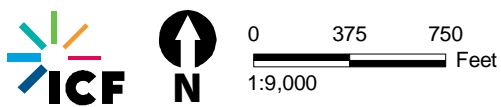
- Legend**
- Wetland Sample Point
 - ▭ 100-ft Buffer
 - ▭ Maintenance Sites
 - USACE/RWQCB Jurisdiction**
 - ▭ Nonwetland Waters
 - ▭ Wetland Waters
 - CDFW Jurisdiction**
 - ▭ Riparian Extent
 - ▭ Channel Bed and Bank
 - Vegetation**
 - ▭ Coastal and Valley Freshwater Marsh
 - ▭ Non-native Woodland
 - ▭ Disturbed Habitat
 - ▭ Urban / Developed

Source: City of Escondido; ICF 2019



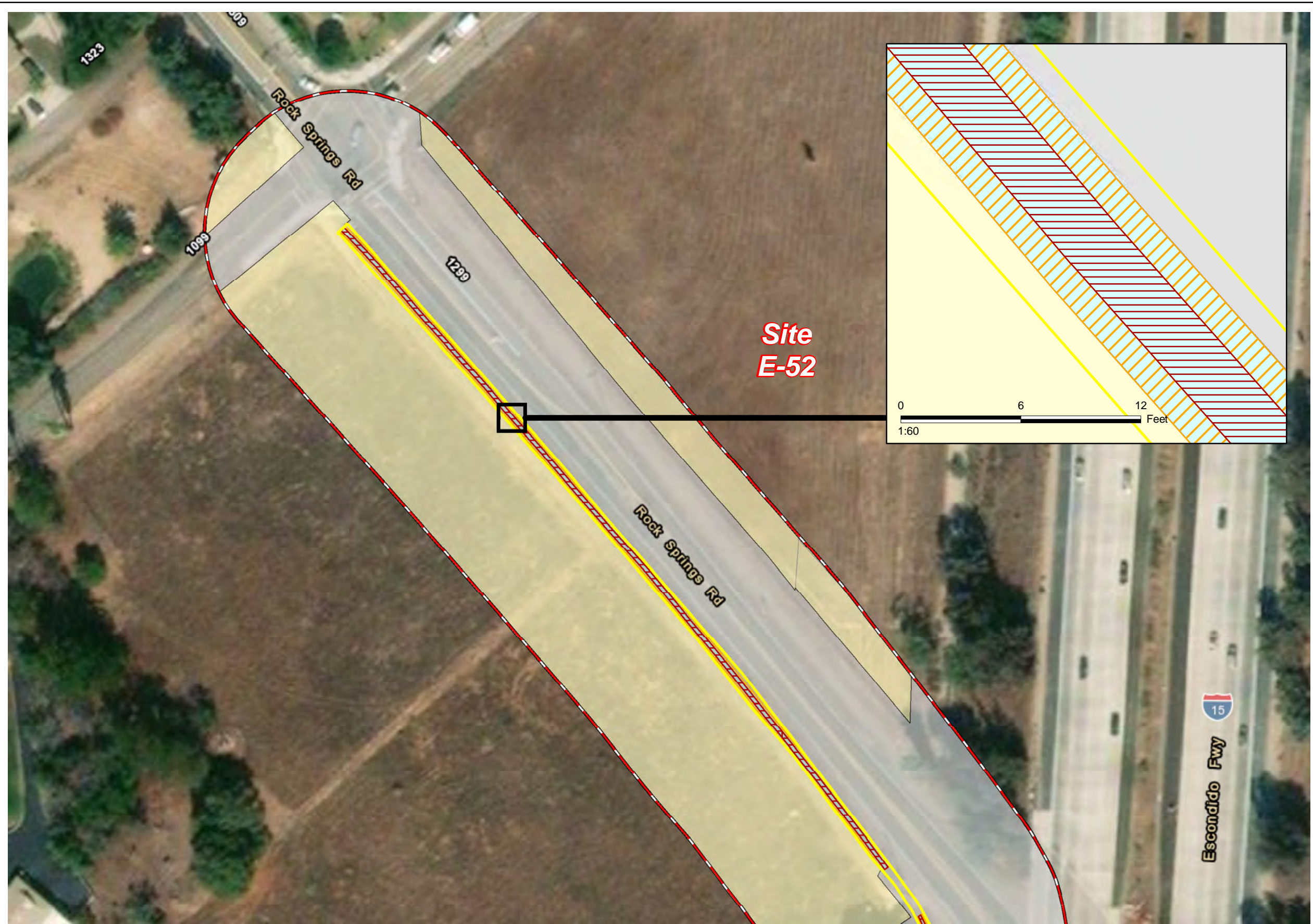


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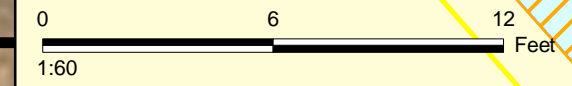


Overview
E-52
Rock Springs (1)
Escondido RGP 94 Channel Maintenance Project

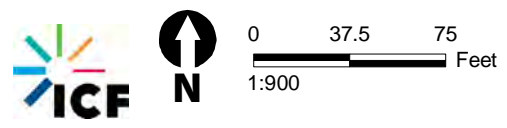
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- Legend**
- Maintenance Sites
 - 100-ft Buffer
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Unvegetated Channel
 - Non-native Grassland
 - Urban / Developed



Site E-52



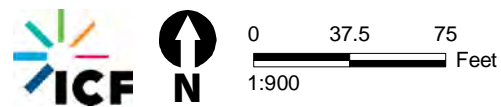
Source: City of Escondido; ICF 2019

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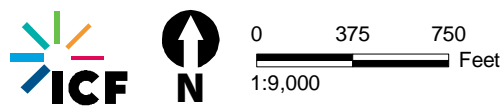
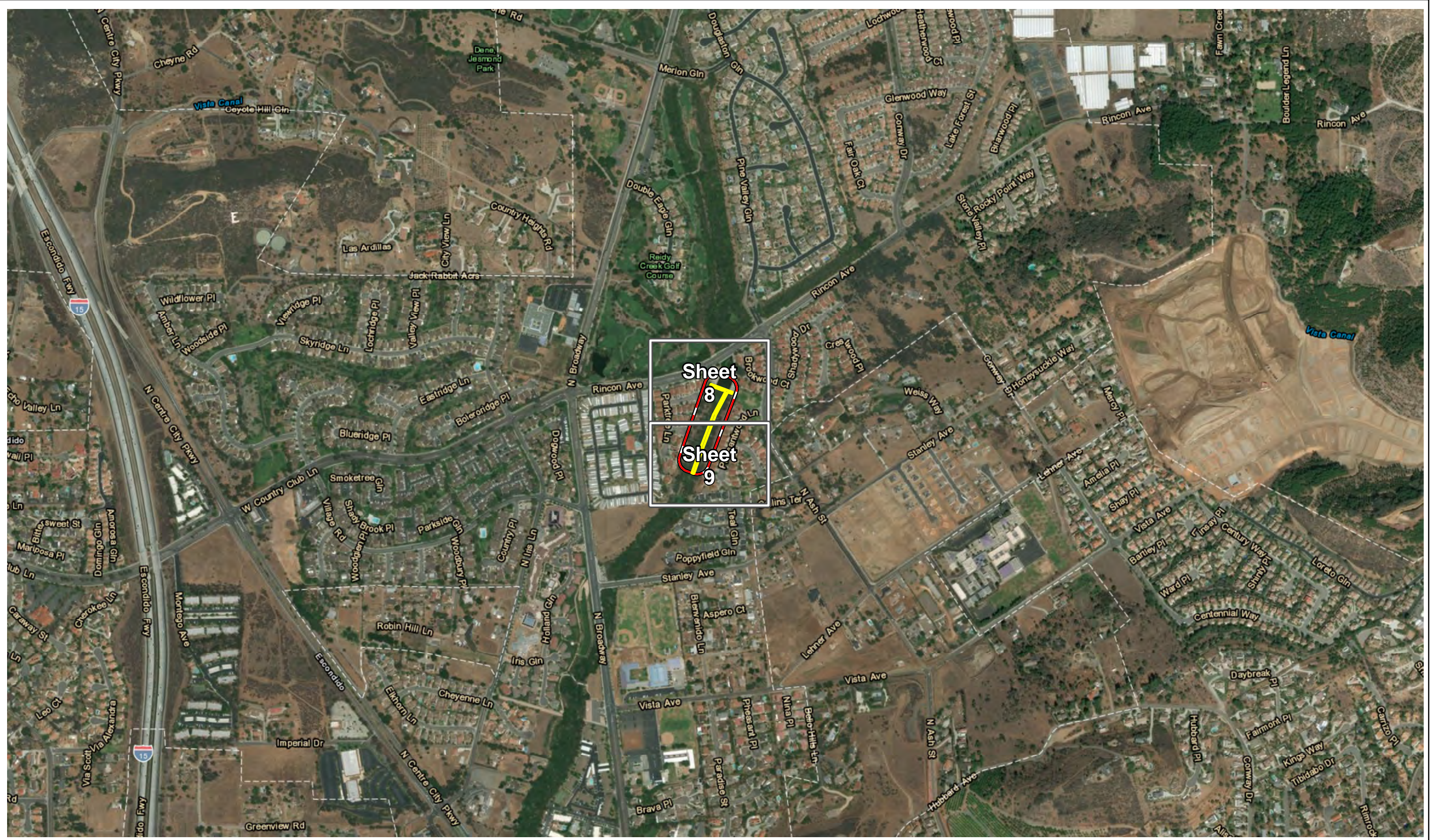


- Legend**
- 100-ft Buffer
 - Maintenance Sites
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Unvegetated Channel
 - Non-native Grassland
 - Urban / Developed

Source: City of Escondido; ICF 2019

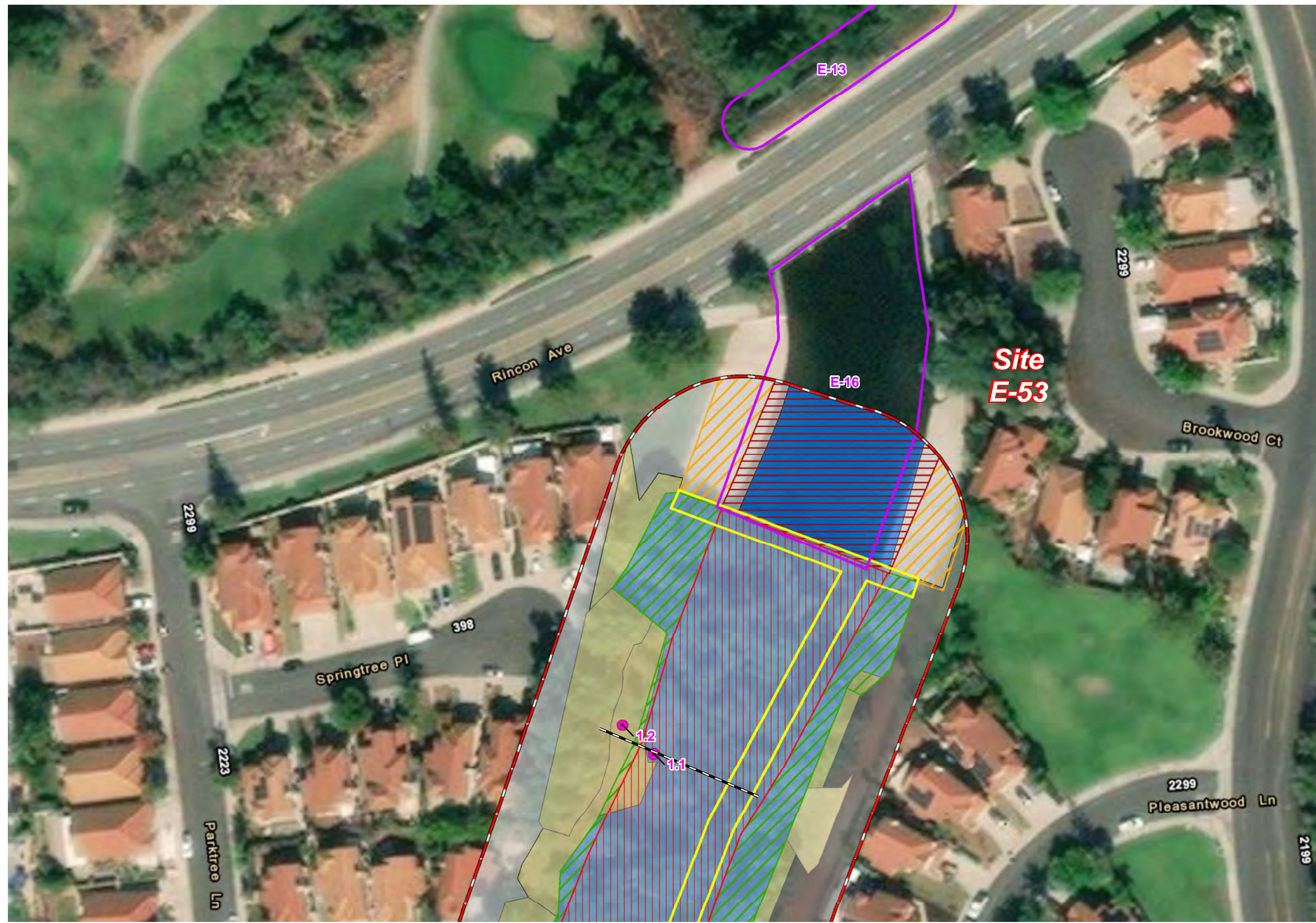


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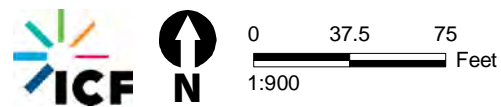
- Legend**
- Maintenance Sites
 - 100-ft Buffer
 - Map Sheet Extent

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- Legend**
- OHWM Transects
 - Wetland Sample Point
 - 100-ft Buffer
 - Current RGP Maintenance Footprints
 - Maintenance Sites
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Eucalyptus Grove
 - Open Water
 - So. Cottonwood-Willow Riparian Forest
 - Non-native Grassland
 - Disturbed Habitat
 - Urban / Developed

Source: City of Escondido; ICF 2019

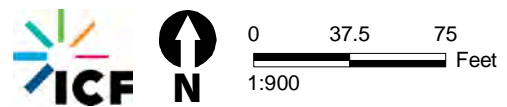


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- Legend**
- 100-ft Buffer
 - Maintenance Sites
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Eucalyptus Grove
 - Eucalyptus Woodland
 - So. Cottonwood-Willow Riparian Forest
 - Southern Riparian Scrub
 - Disturbed Habitat
 - Urban / Developed

Source: City of Escondido; ICF 2019





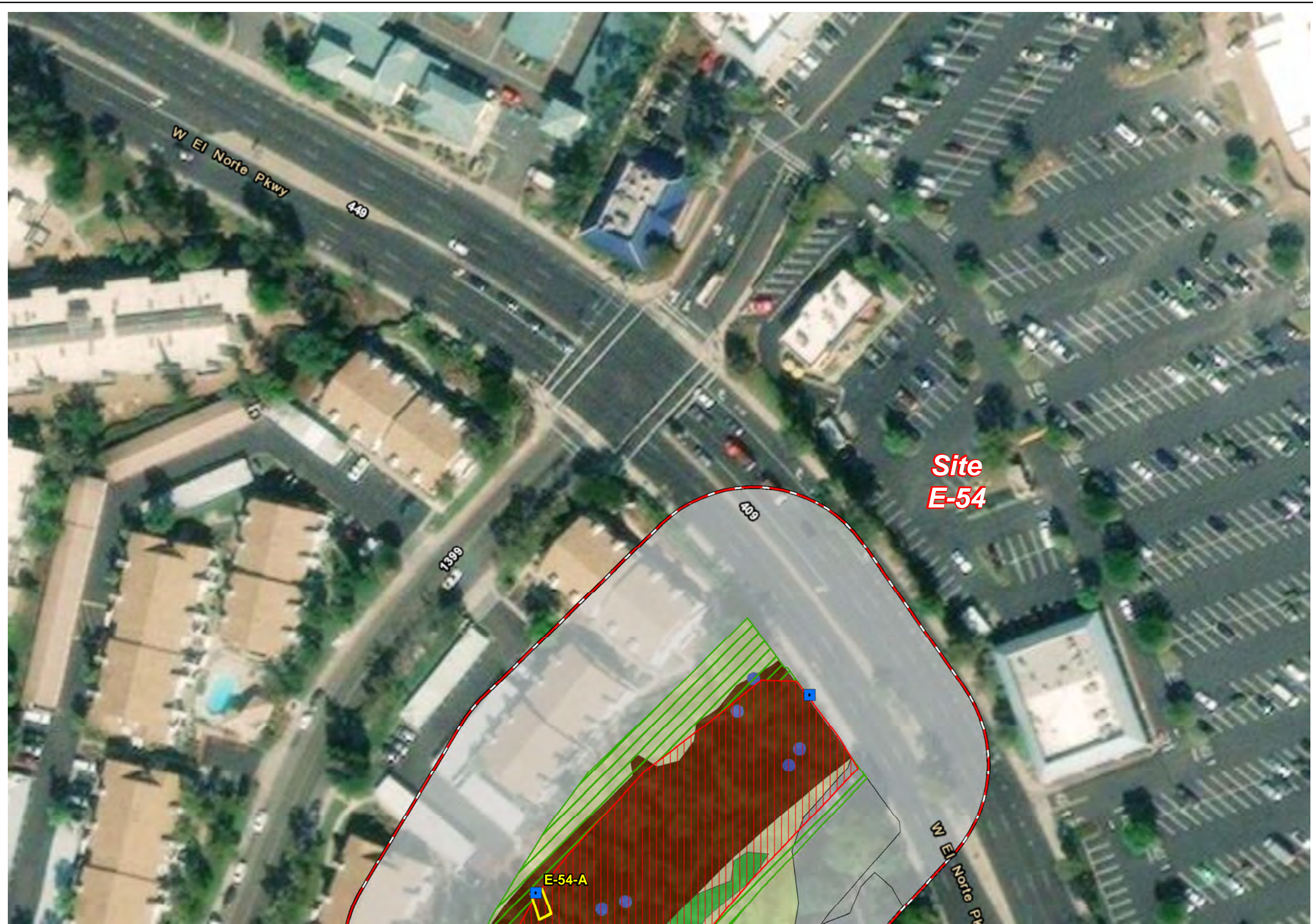
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Legend

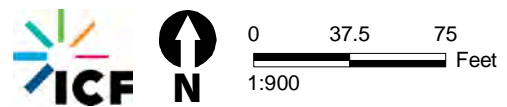
- Maintenance Sites
- 100-ft Buffer
- Map Sheet Extent

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- Legend**
- Outlet
 - 100-ft Buffer
 - Maintenance Sites
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Coastal and Valley Freshwater Marsh
 - Disturbed So. Cottonwood-Willow Riparian Forest
 - Non-native Grassland
 - Non-native Woodland
 - Urban / Developed

Source: City of Escondido; ICF 2019

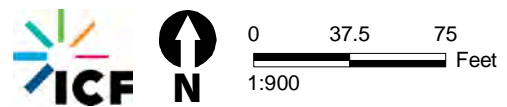


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- Legend**
- Wetland Sample Point
 - Outlet
 - ▭ 100-ft Buffer
 - ▭ Maintenance Sites
 - USACE/RWQCB Jurisdiction**
 - ▭ Nonwetland Waters
 - ▭ Wetland Waters
 - CDFW Jurisdiction**
 - ▭ Riparian Extent
 - ▭ Channel Bed and Bank
 - Vegetation**
 - Eucalyptus Woodland
 - Coastal and Valley Freshwater Marsh
 - Disturbed So.Cottonwood-Willow Riparian Forest
 - So.Cottonwood-Willow Riparian Forest
 - Non-native Grassland
 - Non-native Woodland
 - Urban / Developed

Source: City of Escondido; ICF 2019

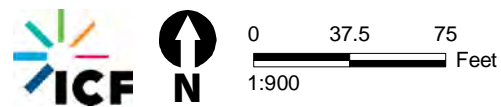


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- Legend**
- Outlet
 - ▭ 100-ft Buffer
 - ▭ Maintenance Sites
 - USACE/RWQCB Jurisdiction**
 - ▭ Nonwetland Waters
 - ▭ Wetland Waters
 - CDFW Jurisdiction**
 - ▭ Riparian Extent
 - ▭ Channel Bed and Bank
 - Vegetation**
 - Eucalyptus Woodland
 - Disturbed So. Cottonwood-Willow Riparian Forest
 - Non-native Grassland
 - Non-native Woodland
 - Urban / Developed

Source: City of Escondido; ICF 2019

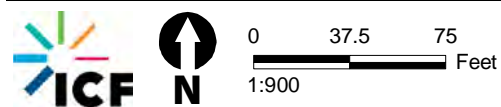


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- Legend**
- Outlet
 - ▭ 100-ft Buffer
 - ▭ Maintenance Sites
 - USACE/RWQCB Jurisdiction**
 - ▭ Nonwetland Waters
 - ▭ Wetland Waters
 - CDFW Jurisdiction**
 - ▭ Riparian Extent
 - ▭ Channel Bed and Bank
 - Vegetation**
 - ▭ Disturbed So.Cottonwood-Willow Riparian Forest
 - ▭ So.Cottonwood-Willow Riparian Forest
 - ▭ Non-native Grassland
 - ▭ Non-native Woodland
 - ▭ Disturbed Habitat
 - ▭ Urban / Developed

Source: City of Escondido; ICF 2019

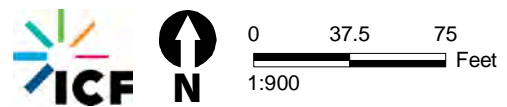


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- Legend**
- OHWM Transects
 - Outlet
 - 100-ft Buffer
 - Maintenance Sites
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Eucalyptus Woodland
 - Disturbed So.Cottonwood-Willow Riparian Forest
 - So.Cottonwood-Willow Riparian Forest
 - Non-native Grassland
 - Non-native Woodland
 - Urban / Developed

Source: City of Escondido; ICF 2019

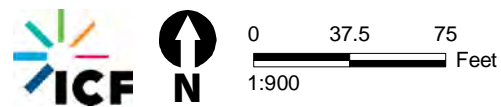


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- Legend**
- 100-ft Buffer
 - Current RGP Maintenance Footprints
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Disturbed So. Cottonwood-Willow Riparian Forest
 - Non-native Grassland
 - Non-native Woodland
 - Urban / Developed

Source: City of Escondido; ICF 2019

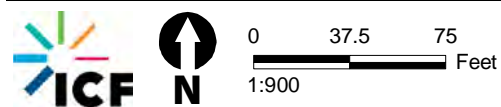


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- Legend**
- Wetland Sample Point
 - ▭ 100-ft Buffer
 - ▭ Current RGP Maintenance Footprints
- USACE/RWQCB Jurisdiction**
- ▭ Nonwetland Waters
 - ▭ Wetland Waters
- CDFW Jurisdiction**
- ▭ Riparian Extent
 - ▭ Channel Bed and Bank
- Vegetation**
- ▭ Disturbed So. Cottonwood-Willow Riparian Forest
 - ▭ Non-native Grassland
 - ▭ Non-native Woodland
 - ▭ Urban / Developed

Source: City of Escondido; ICF 2019

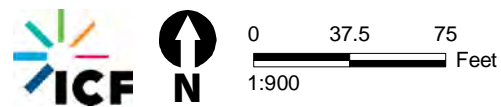


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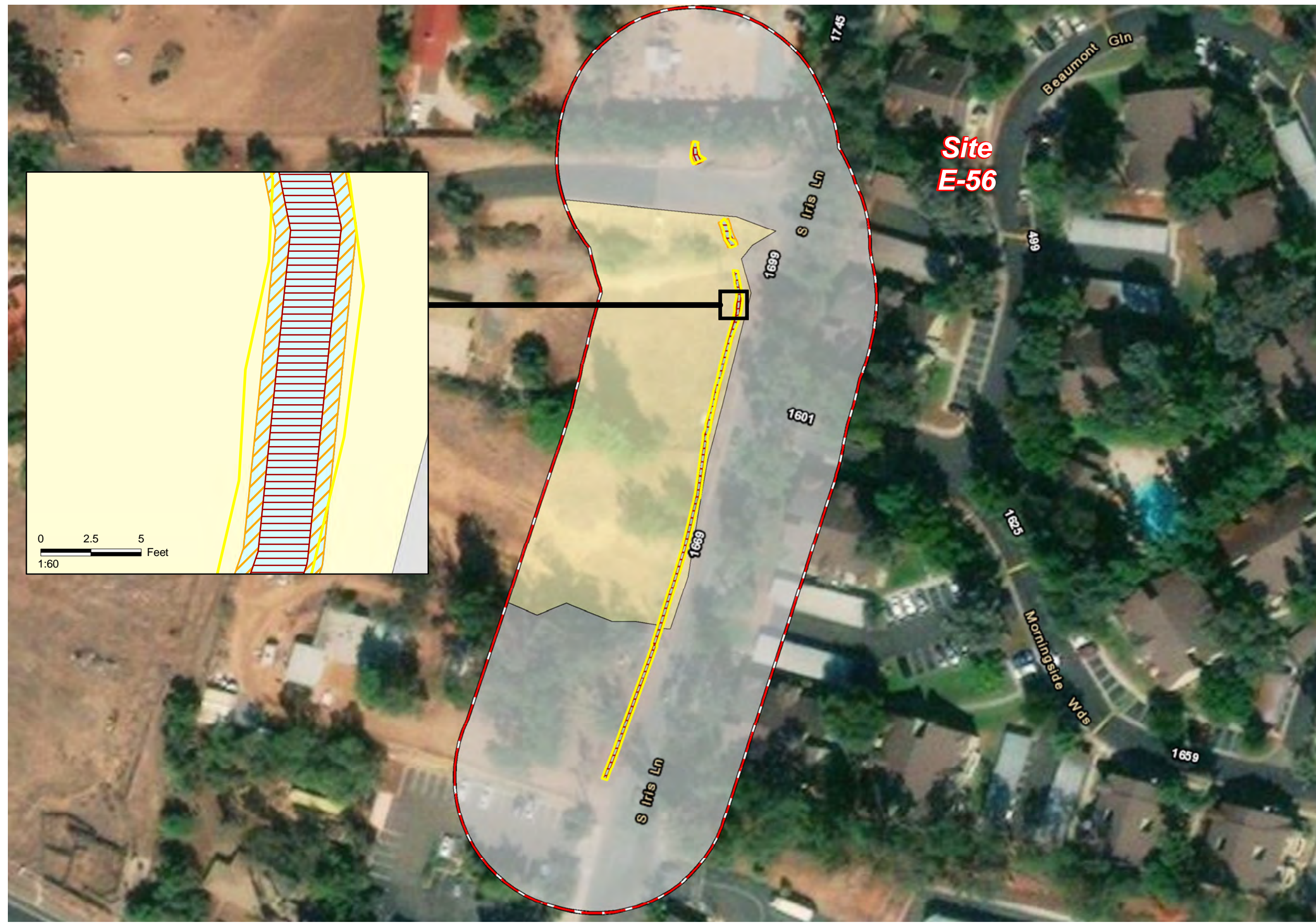


- Legend**
- 100-ft Buffer
 - Maintenance Sites
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Coast Live Oak Woodland
 - So. Cottonwood-Willow Riparian Forest
 - Southern Willow Scrub
 - Non-native Grassland
 - Urban / Developed

Source: City of Escondido; ICF 2019



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- Legend**
- Maintenance Sites
 - 100-ft Buffer
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Unvegetated Channel
 - Non-native Grassland
 - Urban / Developed

0 2.5 5
1:60 Feet

0 37.5 75
1:900 Feet

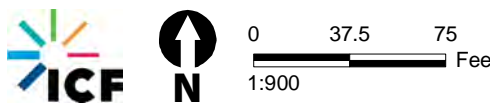
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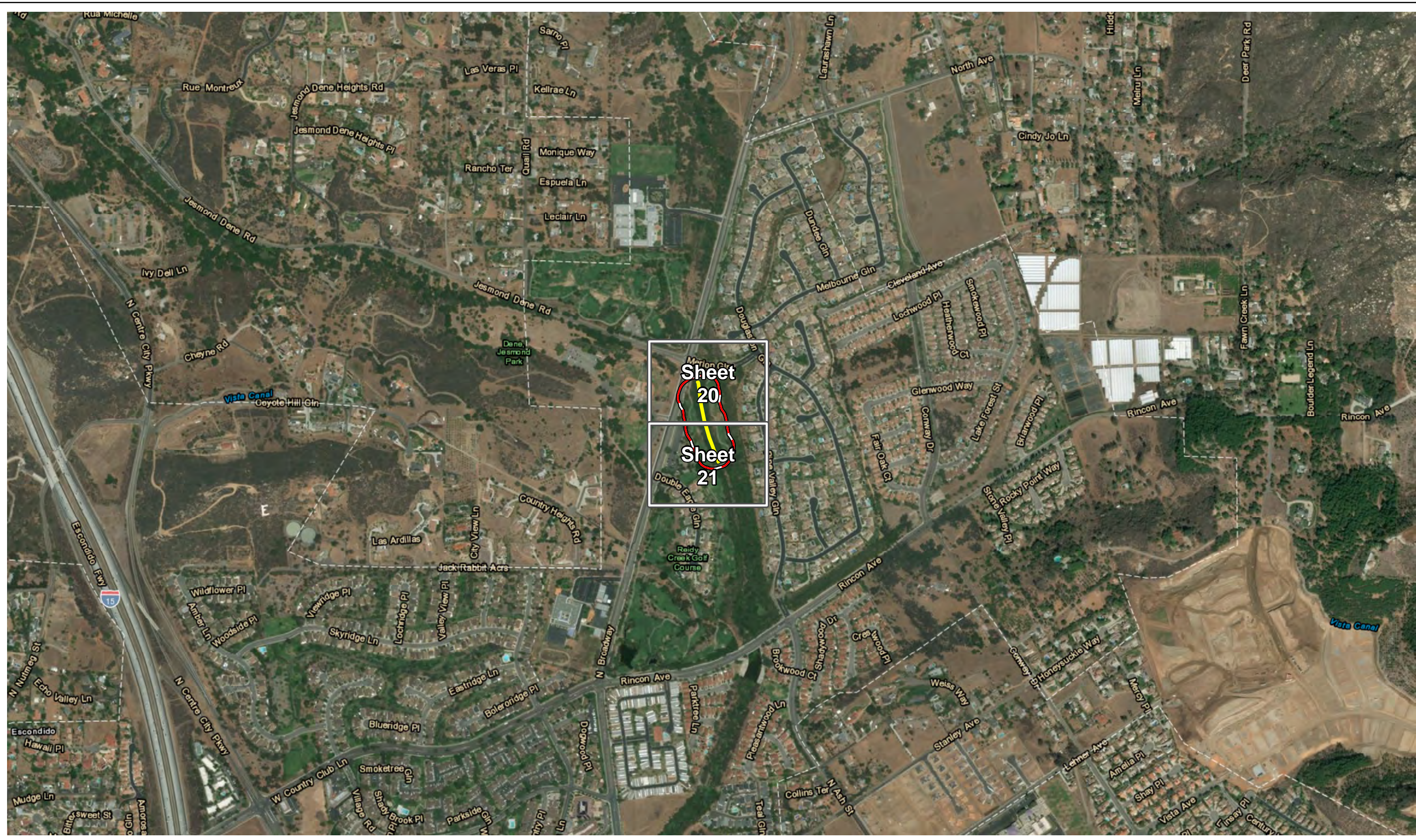
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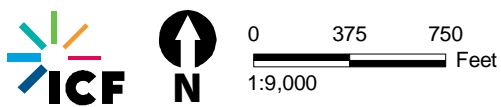
- Legend**
- Inlet
 - Outlet
 - OHWM Transect
 - Maintenance Sites
 - Current RGP Maintenance Footprints
 - 100-ft Buffer
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Disturbed Habitat
 - Urban / Developed

Source: City of Escondido; ICF 2019





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Legend
 Maintenance Sites
 100-ft Buffer
 Map Sheet Extent

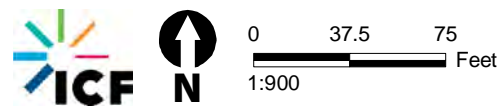
Overview
E-58
Reidy Creek Golf Course
Escondido RGP 94 Channel Maintenance Project

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- Legend**
- Access Route
 - Outlet
 - 100-ft Buffer
 - Current RGP Maintenance Footprints
 - Maintenance Sites
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Non-Native Grassland: Broad-leaf Dominated
 - Mulefat Scrub
 - So. Cottonwood-Willow Riparian Forest
 - Southern Riparian Scrub
 - Urban / Developed

Source: City of Escondido; ICF 2019



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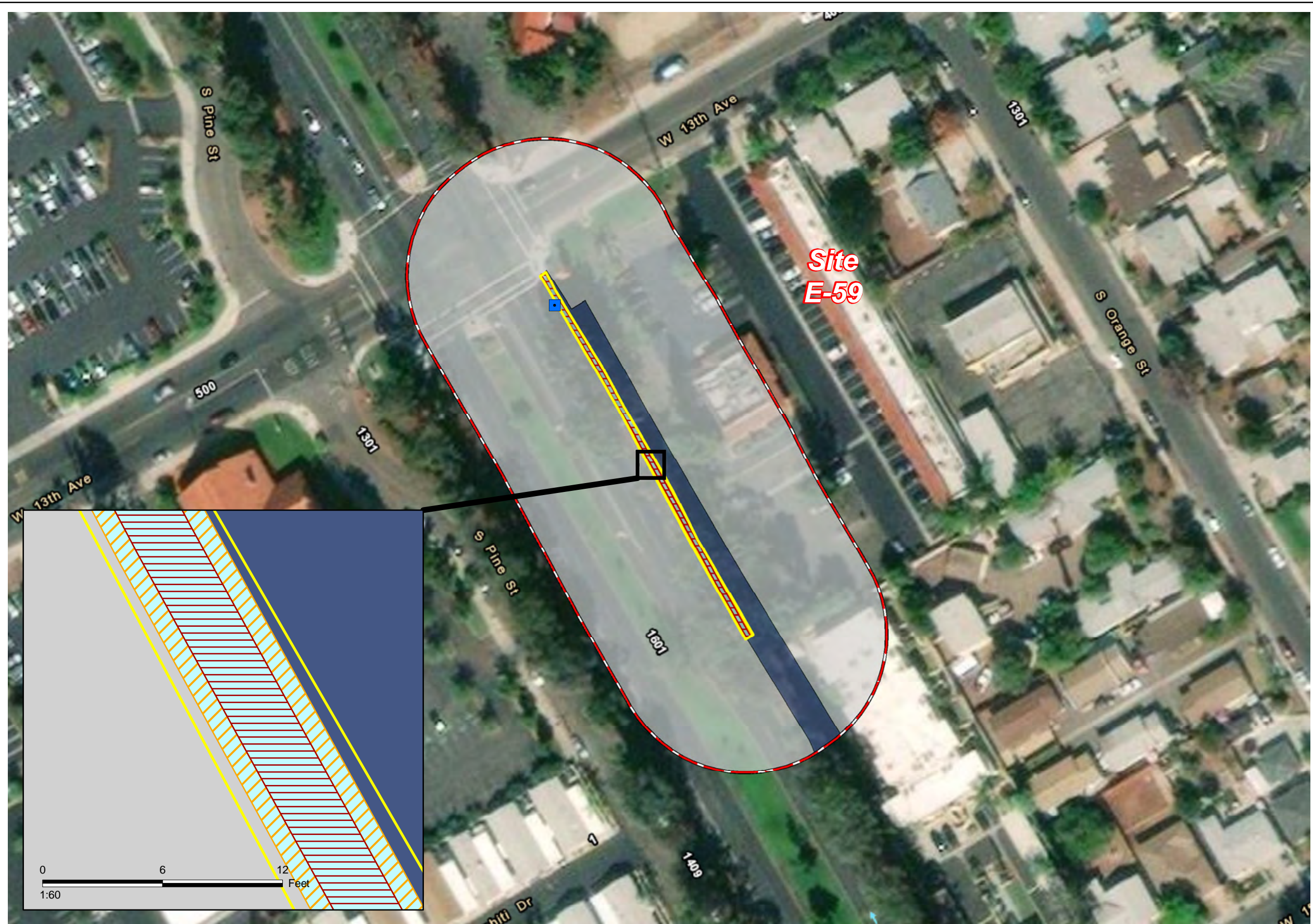


- Legend**
- OWHM Transects
 - Wetland Sample Point
 - Inlet
 - Outlet
 - 100-ft Buffer
 - Current RGP Maintenance Footprints
 - Maintenance Sites
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Coastal and Valley Freshwater Marsh
 - Emergent Wetland
 - Mulefat Scrub
 - So. Cottonwood-Willow Riparian Forest
 - Southern Arroyo Willow Riparian Forest
 - Southern Riparian Scrub
 - Urban / Developed

Source: City of Escondido; ICF 2019

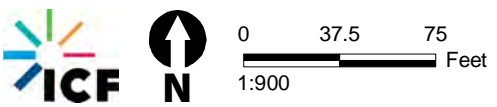


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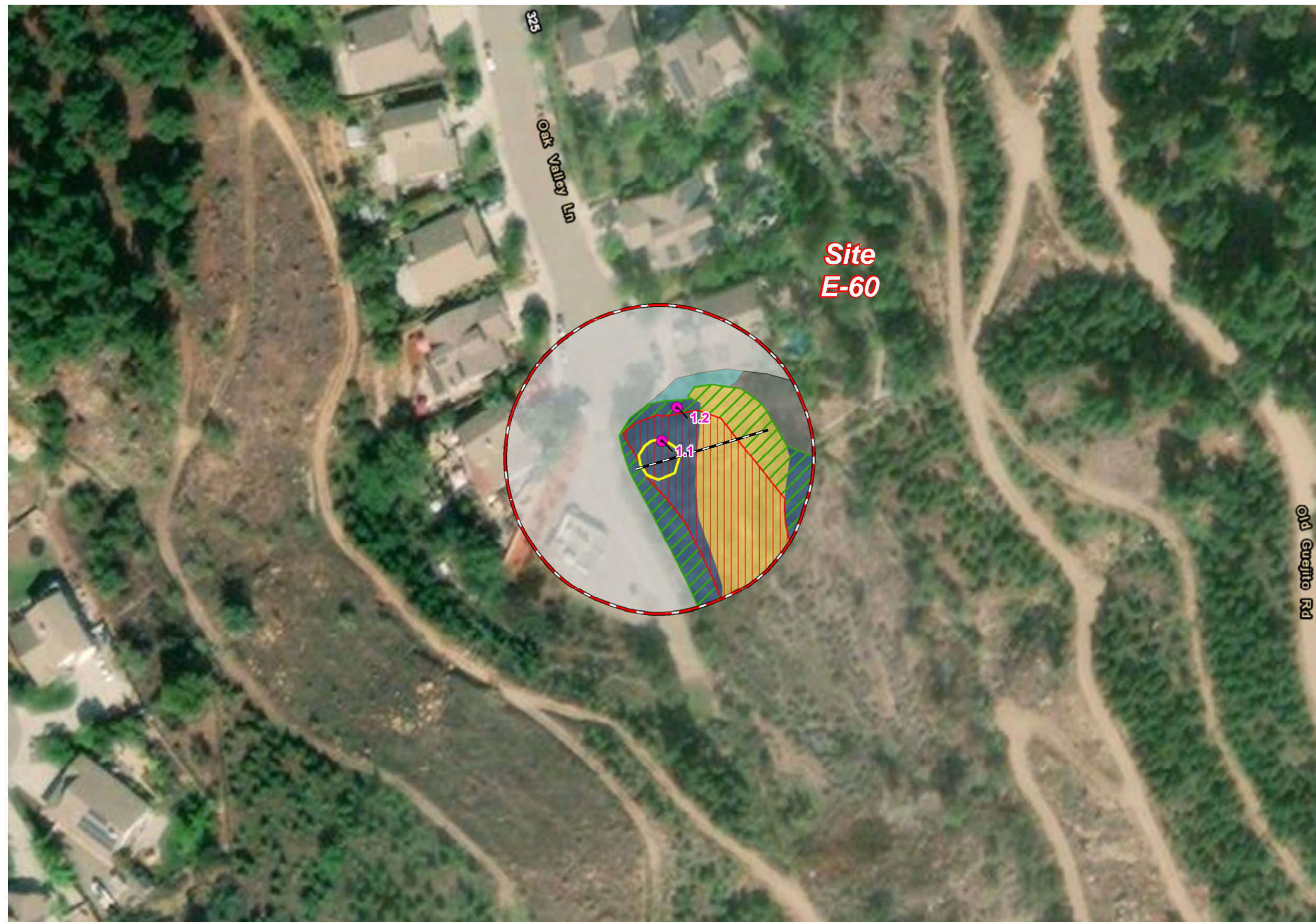


- Legend**
- Outfall
 - Maintenance Sites
 - 100-ft Buffer
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Eucalyptus Woodland
 - Unvegetated Channel
 - Urban / Developed

Source: City of Escondido; ICF 2019

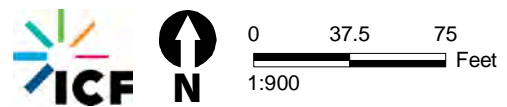


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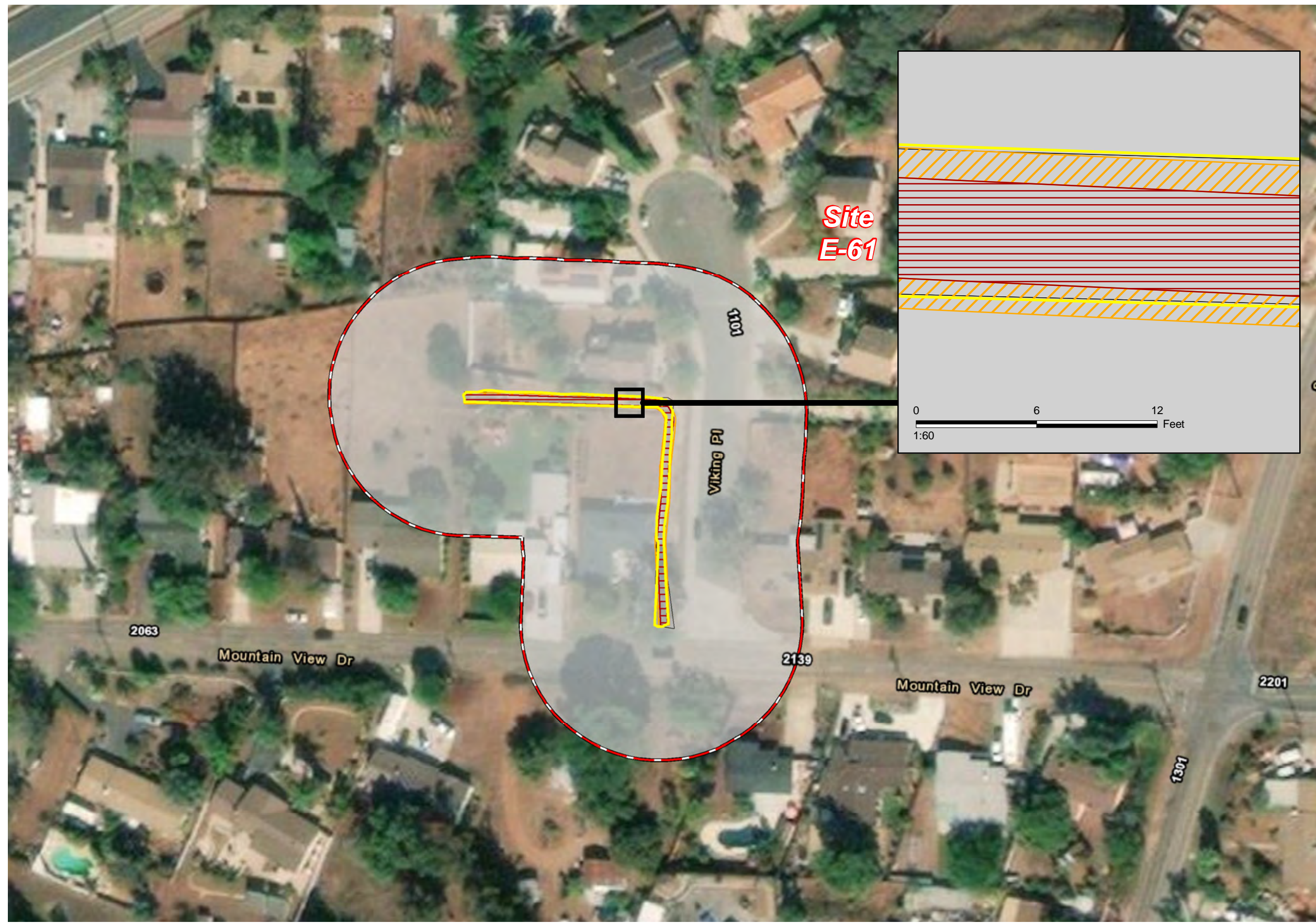


- Legend**
- OHWM Transects
 - Wetland Sample Point
 - 100-ft Buffer
 - Maintenance Sites
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Emergent Wetland
 - Southern Willow Scrub
 - Diegan Coastal Sage Scrub
 - Disturbed Habitat
 - Urban / Developed

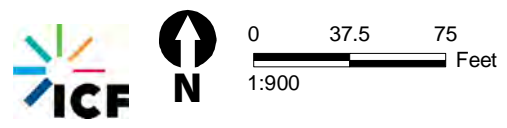
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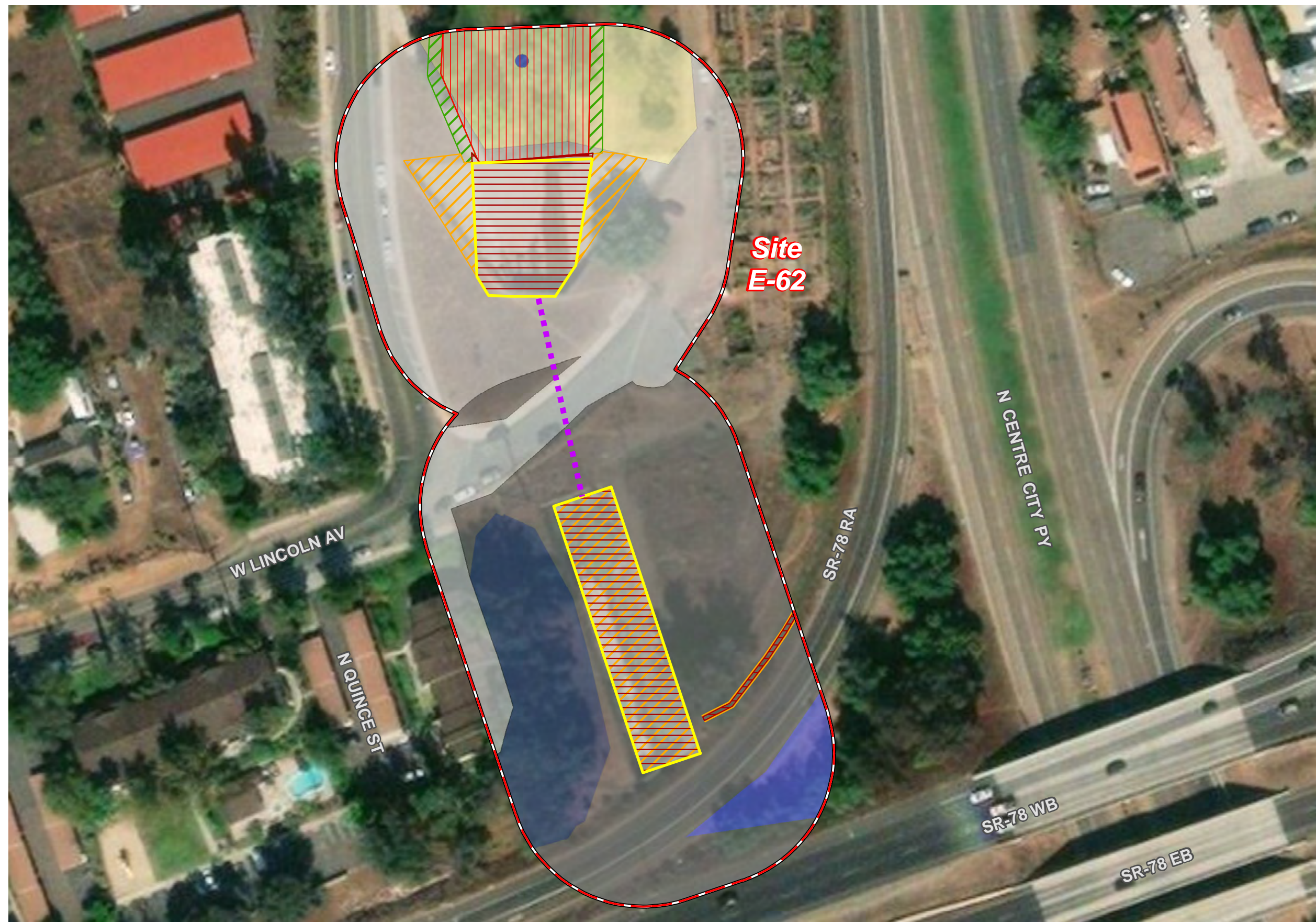


- Legend**
- Maintenance Sites
 - 100-ft Buffer
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Urban / Developed



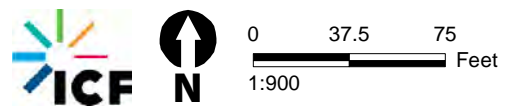
Source: City of Escondido; ICF 2019

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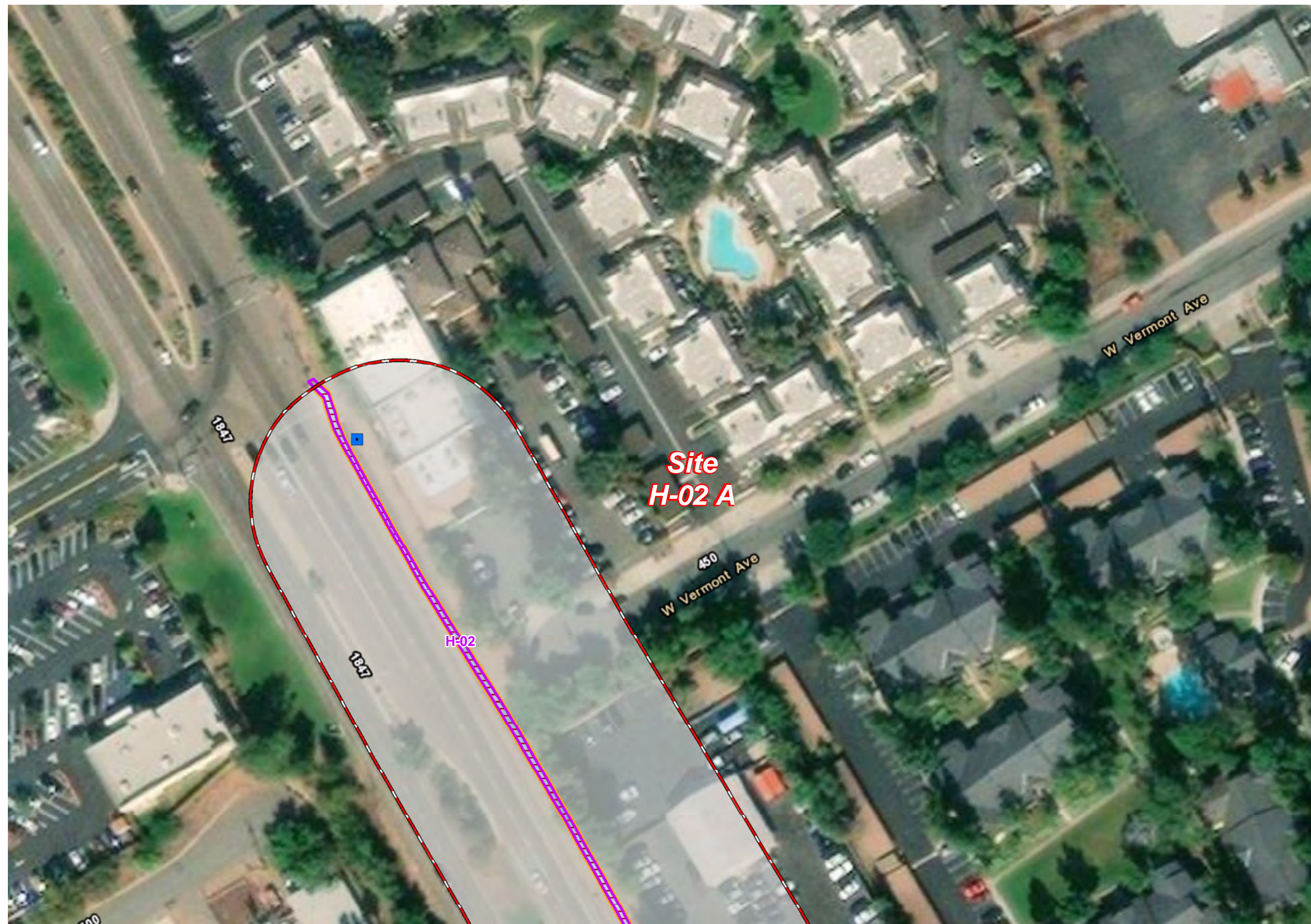


- Legend**
- Culvert
 - ▭ 100-ft Buffer
 - ▭ Maintenance Sites
 - USACE/RWQCB Jurisdiction**
 - ▭ Nonwetland Waters
 - ▭ Wetland Waters
 - CDFW Jurisdiction**
 - ▭ Riparian Extent
 - ▭ Channel Bed and Bank
 - Vegetation**
 - ▭ Eucalyptus Woodland
 - ▭ Non-native Grassland
 - ▭ Non-native Woodland
 - ▭ Disturbed Habitat
 - ▭ Urban / Developed

Source: City of Escondido; ICF 2019

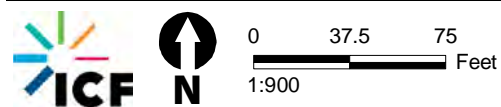


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- Legend**
- Outlet
 - 100-ft Buffer
 - Current RGP Maintenance Footprints
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Unvegetated Channel
 - Urban / Developed

Source: City of Escondido; ICF 2019

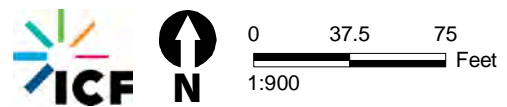


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- Legend**
- Inlet
 - Outlet
 - 100-ft Buffer
 - Current RGP Maintenance Footprints
 - Extended Maintenance Site
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Unvegetated Channel
 - Non-native Woodland
 - Urban / Developed

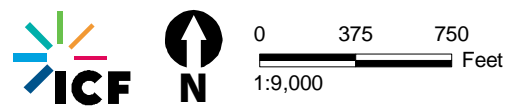
Source: City of Escondido; ICF 2019





Sheet
28
Sheet
29

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- Legend**
- Maintenance Sites
 - 100-ft Buffer
 - Map Sheet Extent

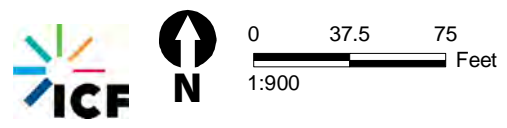
Overview
H-14
Miller Ave (2)
Escondido RGP 94 Channel Maintenance Project

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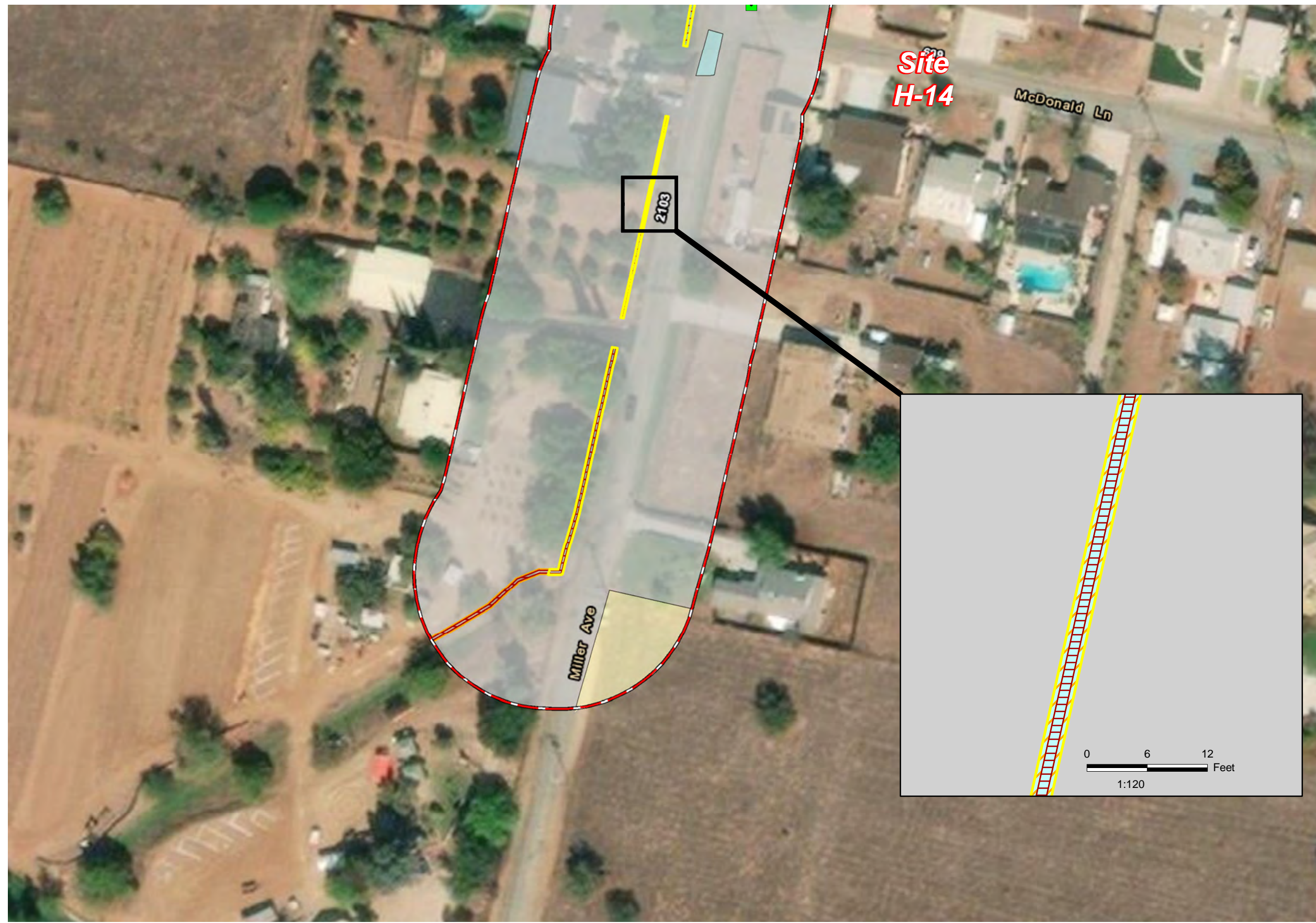


- Legend**
- Culvert
 - Maintenance Sites
 - 100-ft Buffer
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Unvegetated Channel
 - Urban / Developed

Source: City of Escondido; ICF 2019

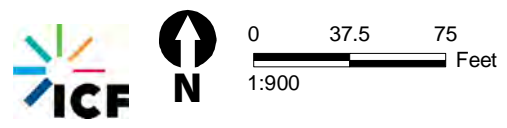


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- Legend**
- Culvert
 - Maintenance Sites
 - 100-ft Buffer
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Unvegetated Channel
 - Non-native Grassland
 - Urban / Developed

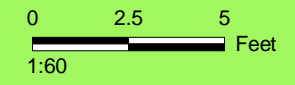
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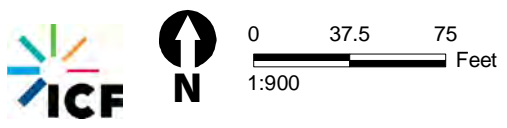
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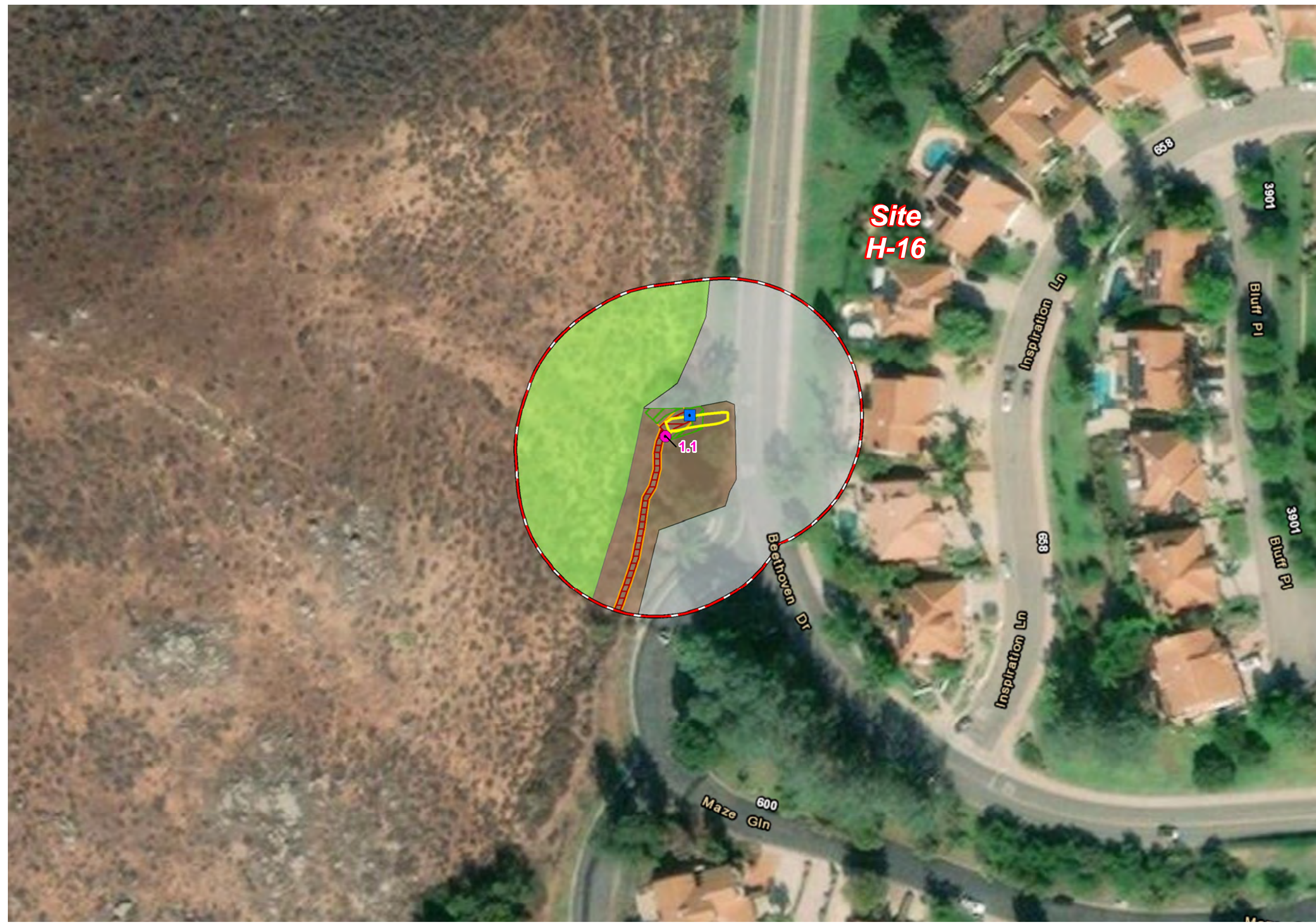
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- Outlet
 - Maintenance Sites
 - 100-ft Buffer
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Diegan coastal sage scrub
 - Unvegetated Channel
 - Urban / Developed



Source: City of Escondido; ICF 2019

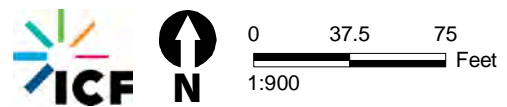


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- Legend**
- Wetland Sample Point
 - Outlet
 - ▭ 100-ft Buffer
 - ▭ Maintenance Sites
- USACE/RWQCB Jurisdiction**
- ▭ Nonwetland Waters
 - ▭ Wetland Waters
- CDFW Jurisdiction**
- ▭ Riparian Extent
 - ▭ Channel Bed and Bank
- Vegetation**
- ▭ Diegan coastal sage scrub
 - ▭ Southern Riparian Scrub
 - ▭ Urban / Developed

Source: City of Escondido; ICF 2019

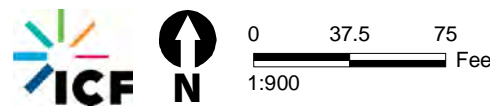


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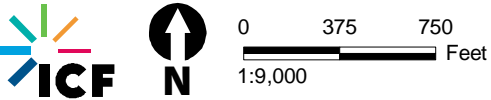
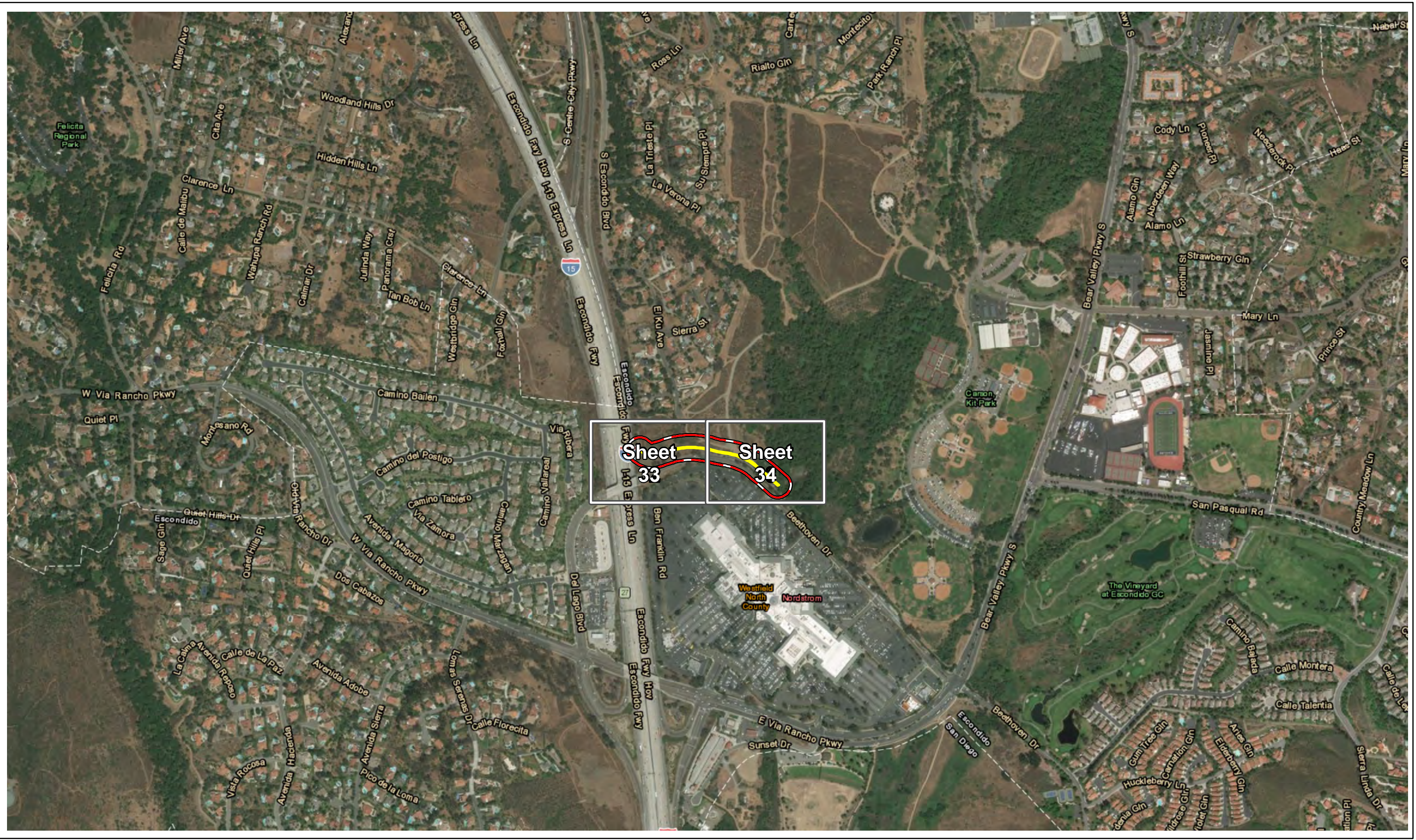


- Legend**
- Wetland Sample Point
 - Outlet
 - 100-ft Buffer
 - Maintenance Sites
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Emergent Wetland
 - Southern Arroyo Willow Riparian Forest
 - Non-native Grassland
 - Non-native Woodland
 - Urban / Developed

Source: City of Escondido; ICF 2019



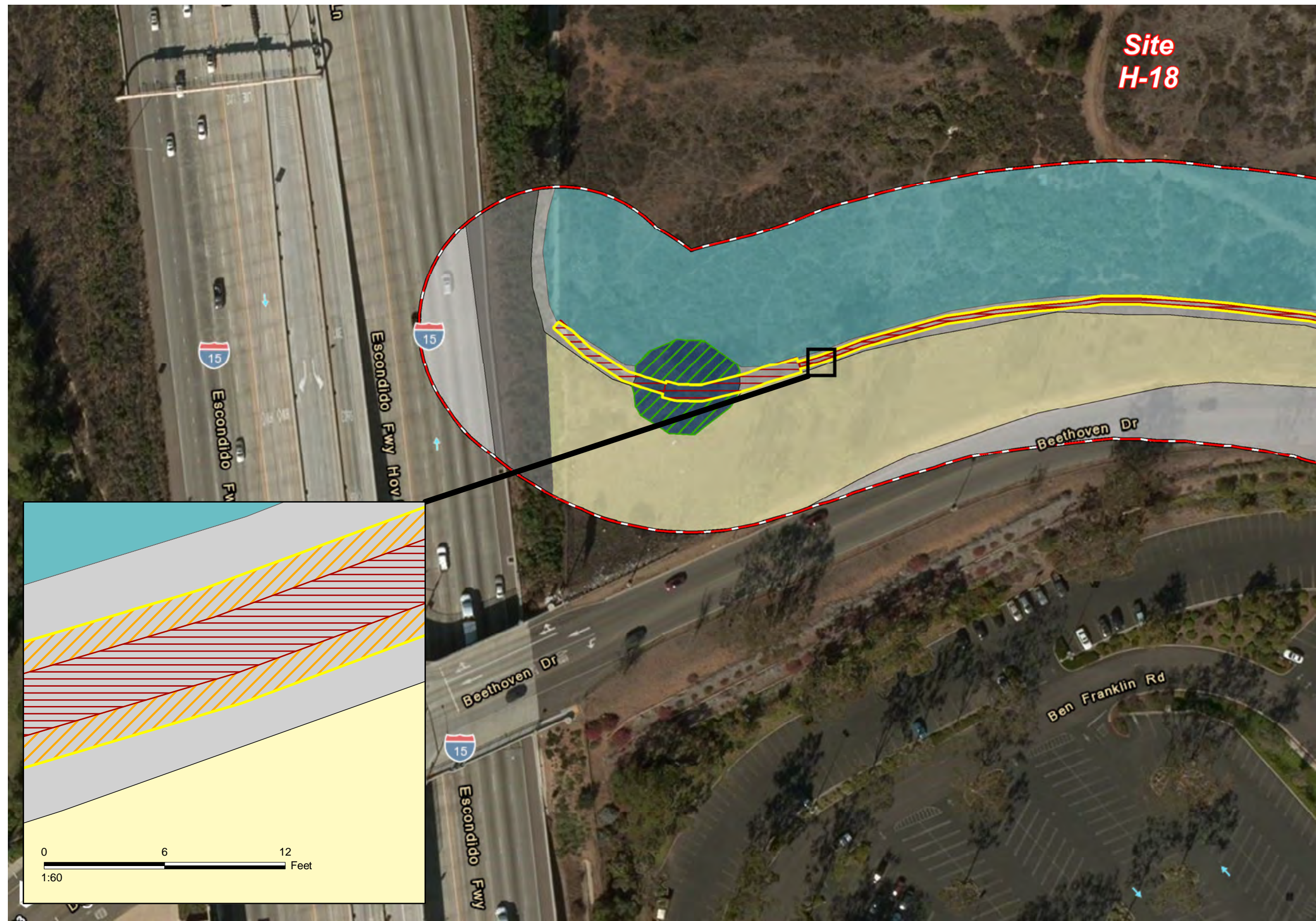
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Legend
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 100-ft Buffer
 Map Sheet Extent

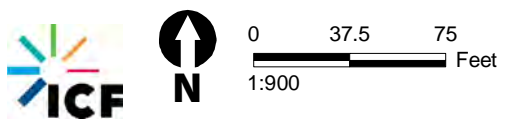
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H-18
Kit Carson Bike Trail
Escondido RGP 94 Channel Maintenance Project

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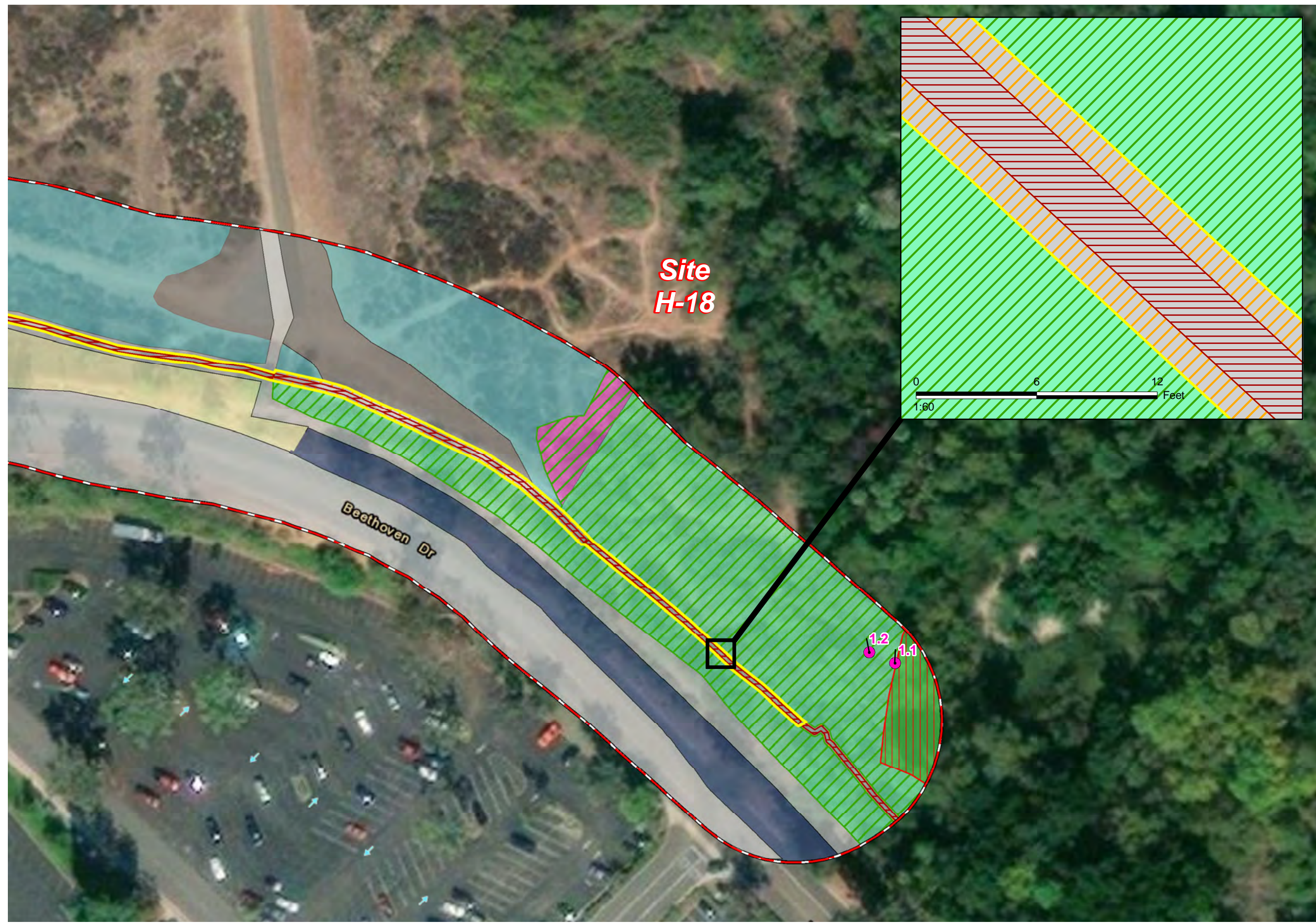


- Legend**
- Maintenance Sites
 - 100-ft Buffer
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Southern Willow Scrub
 - Diegan Coastal Sage Scrub
 - Non-native Grassland
 - Disturbed Habitat
 - Urban / Developed

Source: City of Escondido; ICF 2019

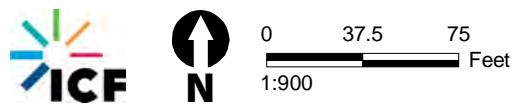


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- Legend**
- Wetland Sample Point
 - Maintenance Sites
 - ▭ 100-ft Buffer
- USACE/RWQCB Jurisdiction**
- ▭ Nonwetland Waters
 - ▭ Wetland Waters
- CDFW Jurisdiction**
- ▭ Riparian Extent
 - ▭ Channel Bed and Bank
- Vegetation**
- ▭ Eucalyptus Woodland
 - ▭ Coastal and Valley Freshwater Marsh
 - ▭ Mulefat Scrub
 - ▭ Southern Arroyo Willow Riparian Forest
 - ▭ Diegan Coastal Sage Scrub
 - ▭ Non-native Grassland
 - ▭ Disturbed Habitat
 - ▭ Urban / Developed

Source: City of Escondido; ICF 2019

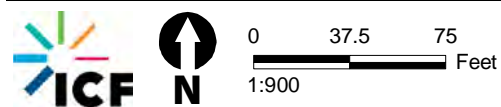


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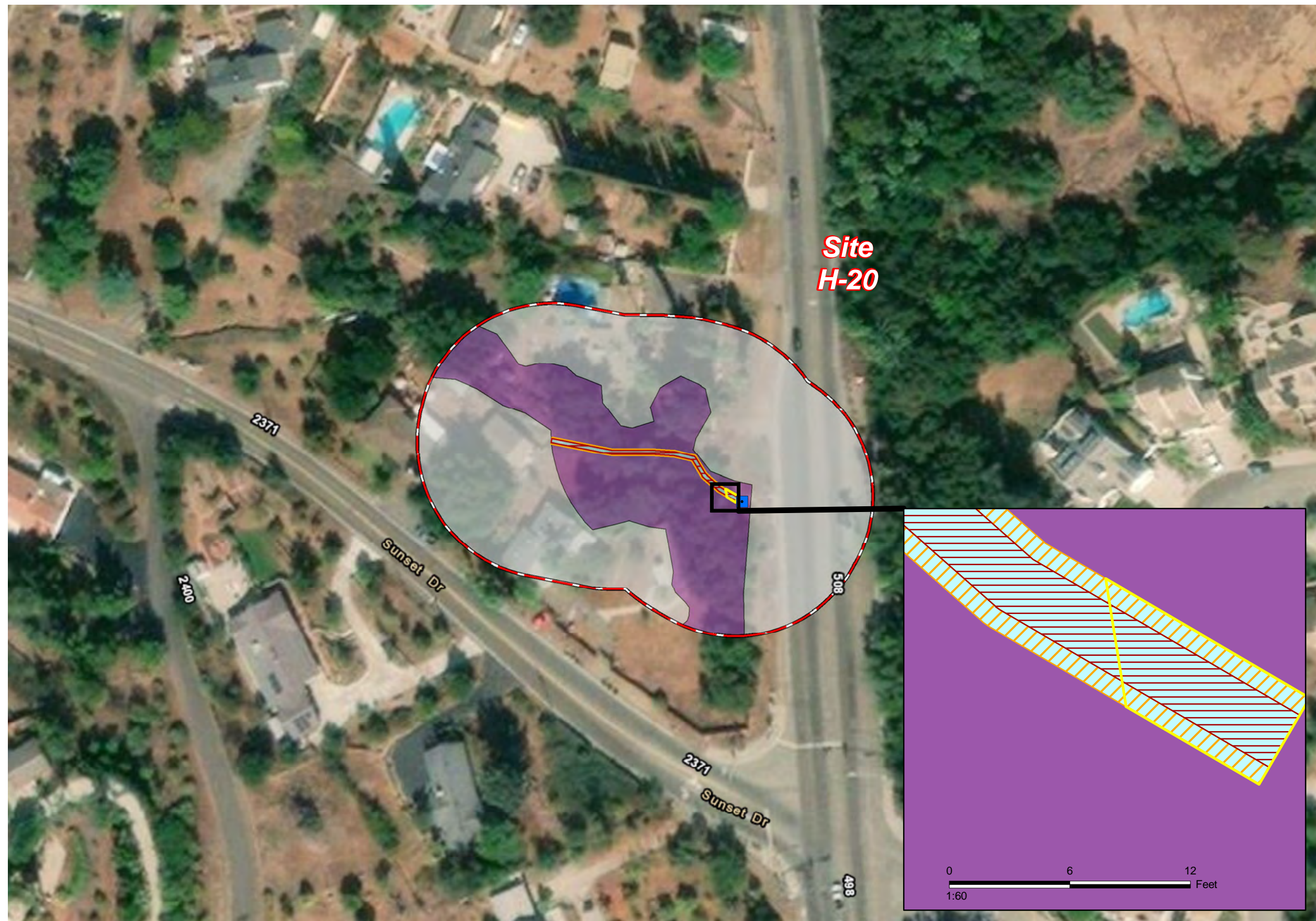


- Legend**
- Inlet
 - Outlet
 - 100-ft Buffer
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Coast Live Oak Woodland
 - Southern Willow Scrub
 - Disturbed Habitat
 - Urban / Developed

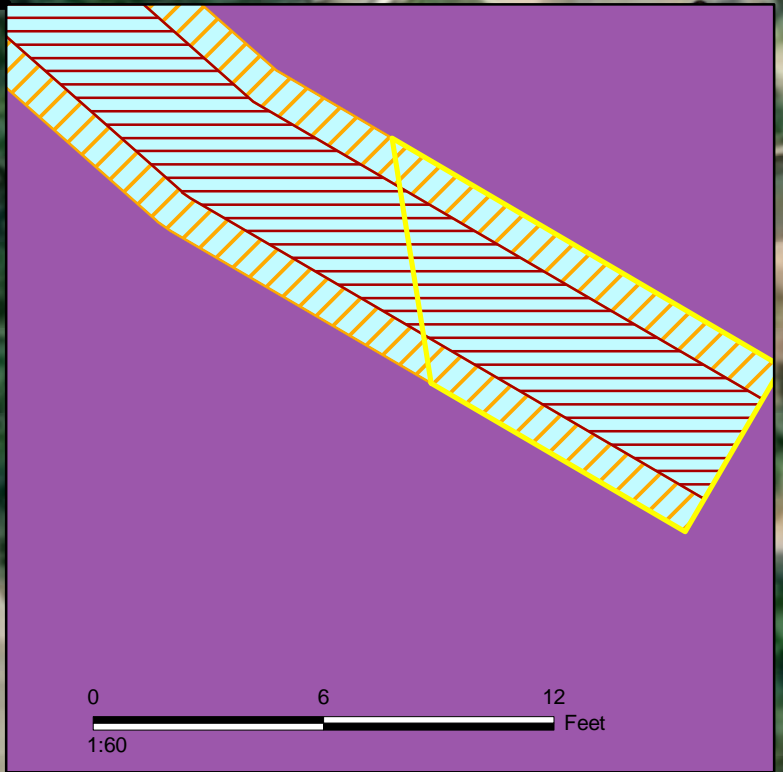
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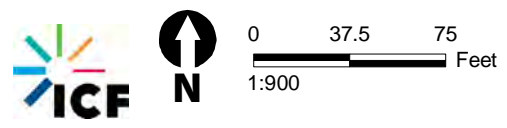
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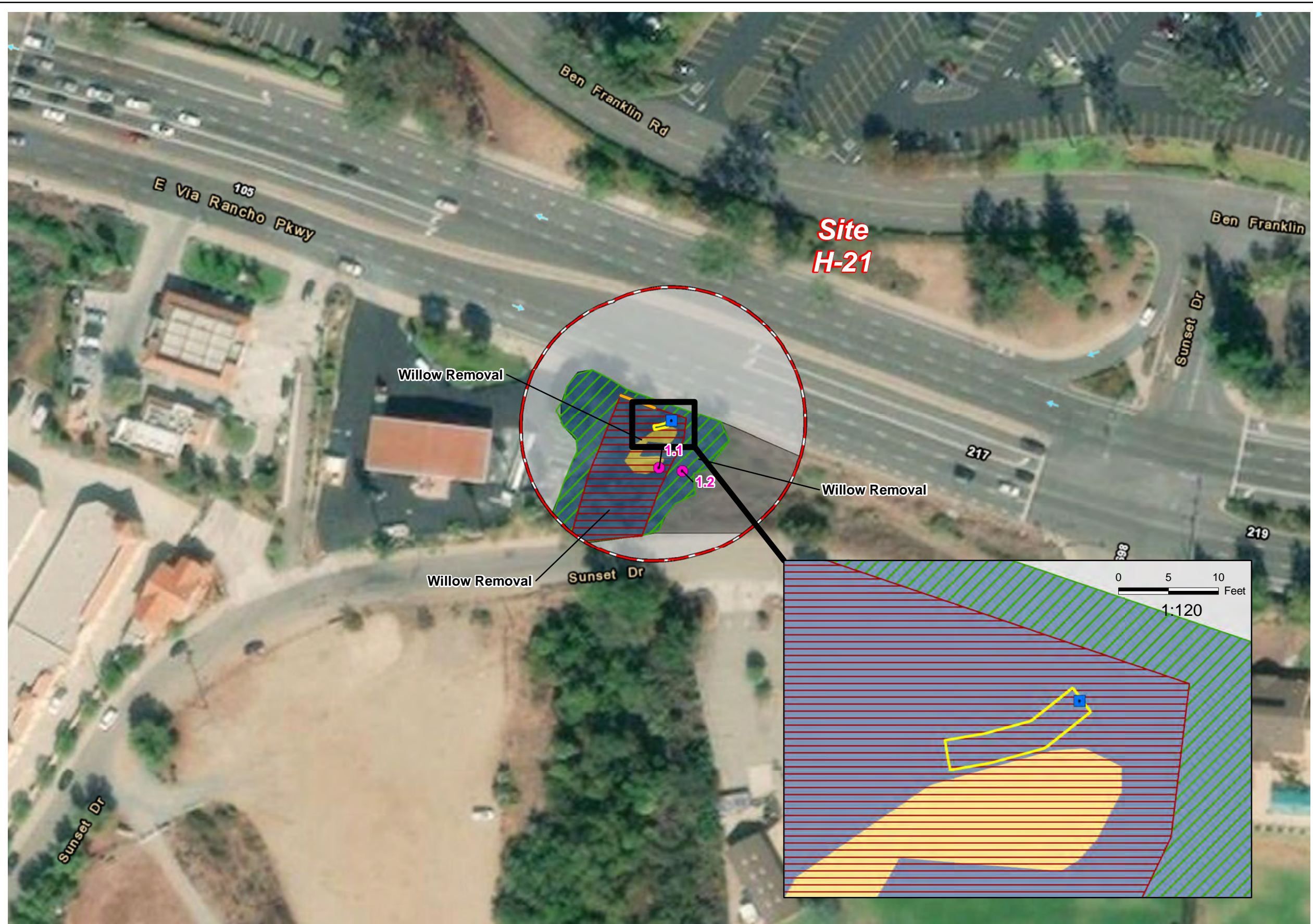
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- Outlet
 - Maintenance Sites
 - 100-ft Buffer
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Coast Live Oak Woodland
 - Unvegetated Channel
 - Urban / Developed



Source: City of Escondido; ICF 2019

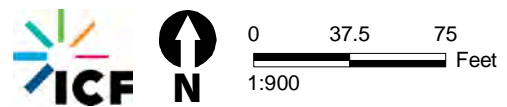


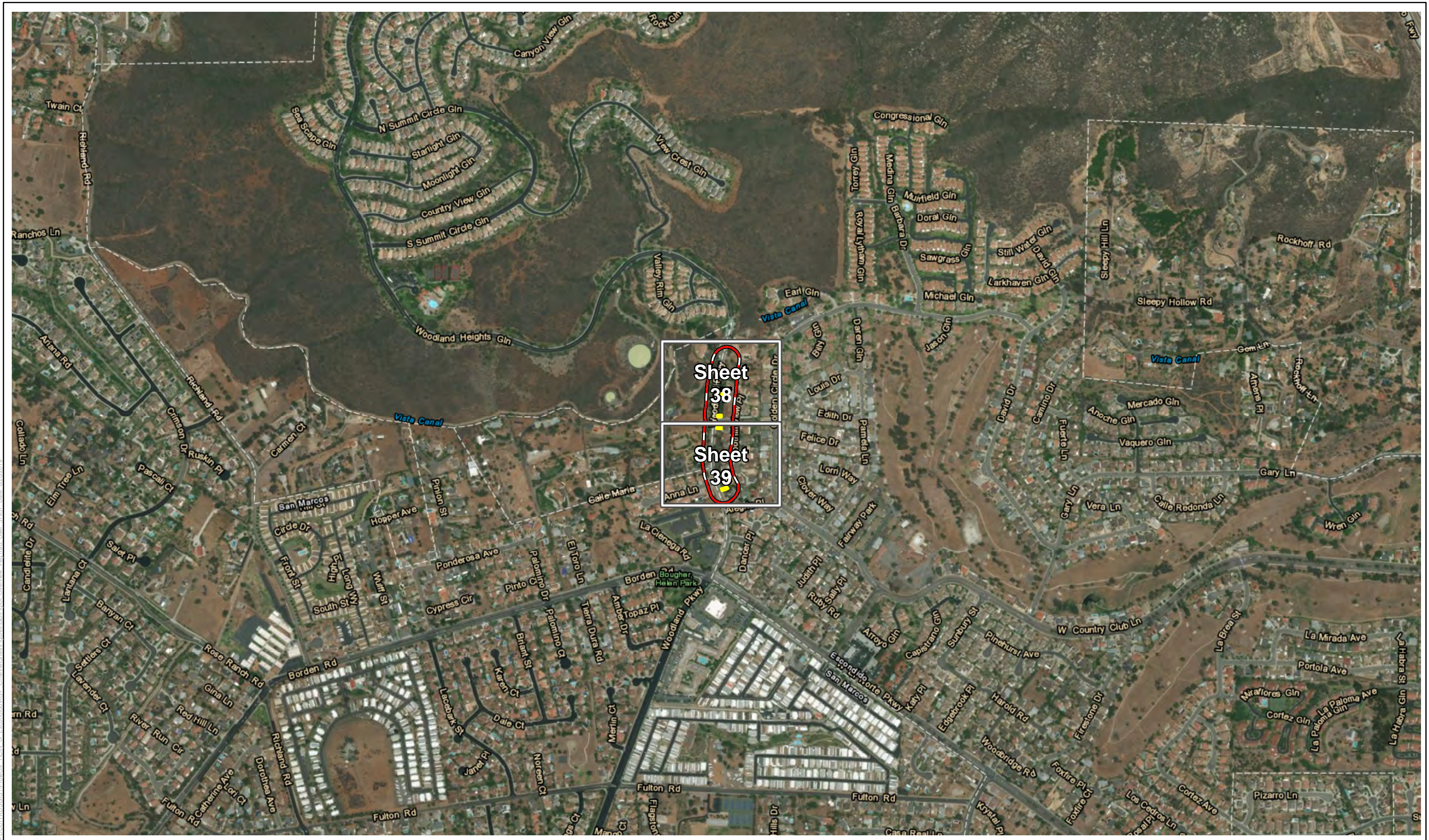
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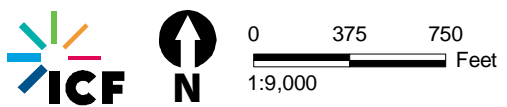
- Legend**
- Outlet
 - Wetland Sample Point
 - Box Culvert
 - ▭ Maintenance Sites
 - ▭ 100-ft Buffer
- USACE/RWQCB Jurisdiction**
- ▭ Nonwetland Waters
 - ▭ Wetland Waters
- CDFW Jurisdiction**
- ▨ Riparian Extent
 - ▨ Channel Bed and Bank
- Vegetation**
- ▨ Emergent Wetland
 - ▨ Southern Willow Scrub
 - ▨ Disturbed Habitat
 - ▨ Urban / Developed

Source: City of Escondido; ICF 2019





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- Legend**
- Maintenance Sites
 - 100-ft Buffer
 - Map Sheet Extent

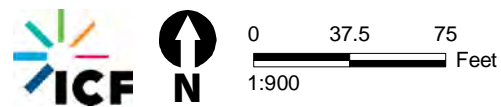
Overview
SM-05
Woodland Parkway
Escondido RGP 94 Channel Maintenance Project

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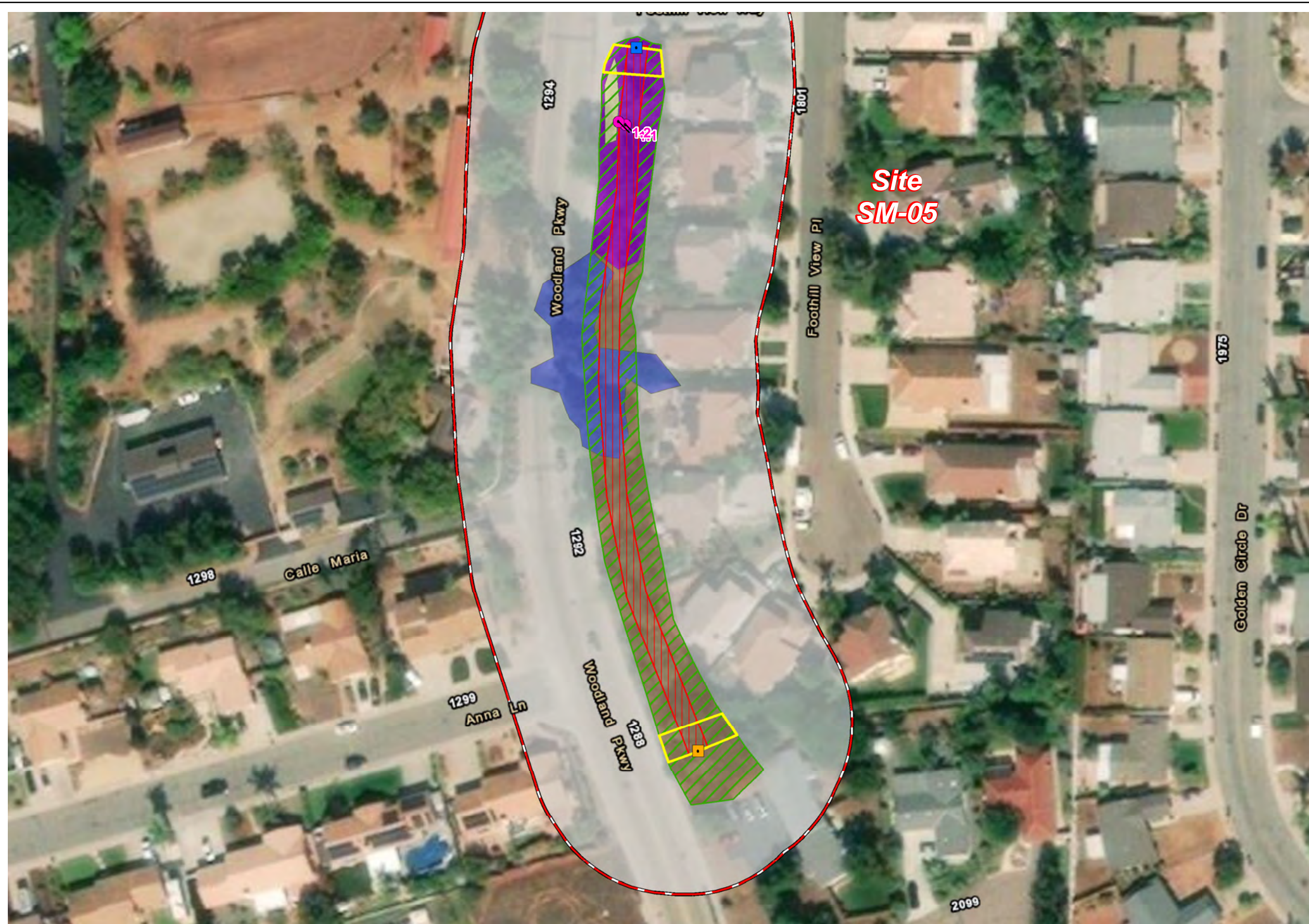


- Legend**
- Inlet
 - Outlet
 - 100-ft Buffer
 - Maintenance Sites
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Southern Coast Live Oak Riparian Forest
 - Southern Arroyo Willow Riparian Forest
 - Non-native Woodland
 - Urban / Developed

Source: City of Escondido; ICF 2019



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- Legend**
- Wetland Sample Point
 - Inlet
 - Outlet
 - 100-ft Buffer
 - Maintenance Sites
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Southern Coast Live Oak Riparian Forest
 - Southern Riparian Scrub
 - Non-native Grassland
 - Non-native Woodland
 - Urban / Developed

Source: City of Escondido; ICF 2019

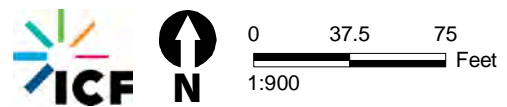


TABLE 2-1. PROPOSED PROJECT SITE LOCATIONS AND PROPOSED ACTIVITIES

Facility ID	Site Name	Lining Type	Maintenance Footprint	Maintenance Activities	Staging and Access
New Sites					
E-48	W 4th Ave	Earthen	Full Site	Remove accumulated sediment and weed removal	<ul style="list-style-type: none"> Equipment will be staged on the street and backhoe or excavator will be used to scoop sediment out of channel for clean excavation. No dragging of equipment along banks and no equipment in channel.
E-49	W 5 th and Pine	Earthen	Full Site	Remove accumulated sediment and weed removal	<ul style="list-style-type: none"> Equipment will be staged on the street and backhoe or excavator will be used to scoop sediment out of channel for clean excavation. No dragging of equipment along banks and no equipment in channel.
E-50	W 5th Ave	Earthen	Full Site	Remove accumulated sediment and weed removal	<ul style="list-style-type: none"> Equipment will be staged on the street and backhoe or excavator will be used to scoop sediment out of channel for clean excavation. No dragging of equipment along banks and no equipment in channel.
E-51	800 W Valley	Earthen	Earthen Segment – Handwork Only	Removal of nonnative vegetation; trimming of native trees/shrubs as needed.	<ul style="list-style-type: none"> No equipment proposed. Use of both manual and mechanical hand tools only to cut and remove nonnative vegetation. Native trees and shrubs that inhibit flows will be trimmed. Newly constructed access ramps will be used to access site.
E-52	Rock Springs	Earthen & Concrete	Full Site	Remove accumulated sediment and weed removal	<ul style="list-style-type: none"> Equipment will be staged on the street and backhoe or excavator will be used to scoop sediment out of channel for clean excavation. No dragging of equipment along banks and no equipment in channel.
E-53	Reidy Creek: Rincon to Pleasantwood	Earthen	15 feet from concrete apron (full bank width)	Remove accumulated sediment and herbaceous vegetation for pilot channel	<ul style="list-style-type: none"> Equipment to be within concrete portion of channel to clear 15 feet from apron.

Facility ID	Site Name	Lining Type	Maintenance Footprint	Maintenance Activities	Staging and Access
			10-foot wide pilot channel	Handwork – trimming of native trees/shrubs as needed.	<ul style="list-style-type: none"> • Dirt access road along eastern side of channel to be used to access pilot channel and scoop out sediment using backhoe or excavator. • Staging equipment on channel bank. • Native vegetation will be trimmed using hand tools within pilot channel area to allow access. • Sediment and debris spoil pile will be placed temporarily outside of jurisdictional waters within access road.
E-54	Reidy Creek – Morning View	Earthen	E-54-A (Sheet 9) – 20 feet long x 10 feet wide E-54-B – thru E-54-I; E-54-K (Sheets 10–12) – 10 feet long x 5 feet wide E-54-J (Sheet 12) – 30 feet long x 5 feet wide (due to slope and trees in flow path) Handwork/Tree Removal for full site	At outlets – Remove accumulated sediment Handwork – Removal of nonnative vegetation; trimming of native trees/shrubs as needed.	<ul style="list-style-type: none"> • Access from cul-de-sacs or disturbed areas adjacent to the creek. • Equipment will be staged on bank and within ordinary high-water mark to access outlet. Use of backhoe or excavator to unclog outlet and create pilot channel downstream of outlets. • Use of both manual and mechanical hand tools only to cut and remove nonnative vegetation. • Native trees and shrubs that inhibit flows will be trimmed.
E-55	HARRF	Concrete	Full Site Concrete Channel	Remove accumulated sediment and vegetation within Concrete Channel	<ul style="list-style-type: none"> • Equipment will be staged on developed areas adjacent to channel. • May need to have equipment within channel to clear downstream segment.
E-56	McLeod Park	Earthen & Asphalt	Full Site	Remove accumulated sediment and weed removal	<ul style="list-style-type: none"> • Equipment to be within channel to remove and restore drainage ditch to original contours.
E-57	Bienvenido and Vista	Earthen	20 feet from headwall x full bank width	Remove accumulated sediment and weed removal	<ul style="list-style-type: none"> • Equipment will be staged on the street and backhoe or excavator will be used to scoop sediment out of channel for clean excavation.

Facility ID	Site Name	Lining Type	Maintenance Footprint	Maintenance Activities	Staging and Access
					<ul style="list-style-type: none"> No dragging of equipment along banks and no equipment in channel.
E-58	Reidy Creek Golf Course	Earthen	10 feet total wide pilot channel	<p>Remove accumulated sediment and herbaceous vegetation for pilot channel</p> <p>Handwork – trimming of native trees/shrubs as needed.</p>	<ul style="list-style-type: none"> Equipment to be within channel to clear for pilot channel. Native vegetation will be trimmed using hand tools within pilot channel area to allow access for equipment Access routes as shown on figures will be trimmed using hand tools to allow access out of channel to remove sediment and debris. Sediment and debris will be removed from site. If needed, temporarily spoil pile will be located outside of jurisdictional waters within the golf course.
E-59	E. Side CCP and 13th	Earthen	Full Site	Remove accumulated sediment and weed removal	<ul style="list-style-type: none"> Equipment will be staged on the street and backhoe or excavator will be used to scoop sediment out of channel for clean excavation. No dragging of equipment along banks and no equipment in channel.
E-60	Oak Valley Lane	Earthen	20-foot radius from headwall	<p>One willow tree to be removed.</p> <p>Remove accumulated sediment and herbaceous vegetation.</p> <p>Handwork – trimming of native trees/shrubs as needed.</p>	<ul style="list-style-type: none"> One-time willow tree will be fully removed (root and all). Willow directly downstream of outlet and blocking flow. Equipment will be staged on the street and backhoe or excavator will be used to scoop out sediment to unclog outlet. Hand tools to trim native shrubs and trees, as needed.
E-61	Viking Place	Concrete	Full Site Concrete Channel	Remove accumulated sediment and vegetation within Concrete Channel	<ul style="list-style-type: none"> Equipment will be staged on developed areas adjacent to channel.
E-62	Reidy Creek – Lincoln Ave	Concrete	Full Site Concrete Channel	Remove accumulated sediment and vegetation within Concrete Channel	<ul style="list-style-type: none"> Equipment will enter the concrete channel to conduct maintenance activities.

Facility ID	Site Name	Lining Type	Maintenance Footprint	Maintenance Activities	Staging and Access
H-14	Miller Ave	Earthen	Full Site	Remove accumulated sediment and weed removal	<ul style="list-style-type: none"> Equipment will be staged on the street and backhoe or excavator will be used to scoop sediment out of channel for clean excavation. No dragging of equipment along banks and no equipment in channel.
H-15	Sierra Linda	Earthen	20 feet from headwall	Remove accumulated sediment and weed removal	<ul style="list-style-type: none"> Equipment will be staged on the street or disturbed areas and backhoe or excavator will be used to scoop out sediment to unclog outlet. No dragging of equipment along banks and no equipment in channel.
H-16	Concerto and Beethoven	Earthen	Access to outlet and 20 feet from headwall	Remove accumulated sediment and weed removal	<ul style="list-style-type: none"> Equipment will be staged on the street or disturbed areas and backhoe or excavator will be used to scoop out sediment to unclog outlet and create pilot channel. No dragging of equipment along banks and no equipment in channel.
H-17	Bear Valley Pkwy	Earthen	20 feet from headwall x 5 feet wide	Remove accumulated sediment and weed removal	<ul style="list-style-type: none"> Equipment will be staged on the street or disturbed areas and backhoe or excavator will be used to scoop out sediment to unclog outlet. No dragging of equipment along banks and no equipment in channel.
H-18	Kit Carson Bike Trail	Concrete	Full Site Concrete Channel	<p>Remove accumulated sediment and vegetation within Concrete Channel</p> <p>Portion of concrete is broken and requires repairs.</p>	<ul style="list-style-type: none"> Equipment/temporary spoil piles within trail/disturbed areas. A bobcat will drive to the downstream end of the concrete channel and push accumulated sediment upstream to temporary spoil pile location. Native tree trimming as needed to allow equipment access in channel.
H-19	Encino and Amparo	Earthen	Full Site	Remove accumulated sediment and weed removal	<ul style="list-style-type: none"> Equipment will be staged on the street or disturbed areas and backhoe or excavator will be used to scoop out sediment to unclog outlet. No dragging of equipment along banks and no equipment in channel. All native trees (willows) occurring within the basin will be removed (root and all).

Facility ID	Site Name	Lining Type	Maintenance Footprint	Maintenance Activities	Staging and Access
H-20	Sunset and Bear Valley	Earthen	30 feet from headwall	Remove accumulated sediment and weed removal	<ul style="list-style-type: none"> Equipment will be staged on the street and backhoe or excavator will be used to scoop out sediment to unclog outlet. No dragging of equipment along banks and no equipment in channel.
H-21	Via Rancho Pkwy and Sunset Drive	Earthen	15 feet x 3 feet wide from small outlet. Removal of 3–4 Willow Trees	Removal of 3–4 willow trees	<ul style="list-style-type: none"> One-time willow tree removal. Willows will be cut at base and roots left in place. Hand tools used for removal. One willow blocking access to the site, 2-3 willows have large branches that are perpendicular to the drainage flow and has the potential to act as a debris jam during storm events. Equipment will need to be within wetlands to access outlet area. Backhoe or excavator will be used to scoop out sediment to unclog outlet and create pilot channel to larger drainage. Hand tools to trim native shrubs and trees, as needed.
SM-05	Woodland Pkwy	Earthen	20 feet from each headwall x width of bank	Remove accumulated sediment and weed removal Remove dead vegetation/debris throughout entire drainage	<ul style="list-style-type: none"> Equipment will be staged on the street and backhoe or excavator will be used to scoop out sediment to unclog inlets and outlets. No dragging of equipment along banks and no equipment in channel. Native tree trimming as needed to allow equipment access. Manual hand tools will be used to remove dead vegetation or debris that may be blocking flow.
Extension of Existing Site					
H-02 A	1840 S Centre City Pkwy	Earthen	Current RGP Site proposed for expansion	Remove accumulated sediment and weed removal	<ul style="list-style-type: none"> Equipment will be staged on the street and backhoe or excavator will be used to scoop sediment out of channel for clean excavation. No dragging of equipment along banks and no equipment in channel.

Facility ID	Site Name	Lining Type	Maintenance Footprint	Maintenance Activities	Staging and Access
Mitigation Site to Compensate for Impacts from Projects Above					
N/A	Kit Carson Park Downstream	Earthen ditch	Full area will be enhanced	Enhancement would include removal of nonnative vegetation. Rehabilitation areas will require planting and seeding of native vegetation.	<ul style="list-style-type: none"> • Temporary fences may be needed to restrict access during restoration activities for public safety and the protection of site resources. • Nonnative weed removal will consist of hand removal, cutting or mowing, or chemical herbicide application • Invasive tree removal will require tree trunks to be cut to about 12 inches above ground. • Staging will occur adjacent to the mitigation site along disturbed areas or the Kit Carson parking lot. Access into the mitigation site will occur by foot.

New Project Activities to Be Included in RGP 94

Additional O&M activities beyond the scope of what was approved in 2013 MND ENV 12-0001 and 2014 Addendum ENV 12-0001 are proposed for all 87 maintenance sites to be included in the amended RGP (i.e., both new facility locations and the currently covered facility locations). These new O&M activities are further described below.

Similar to the current O&M activities for currently covered maintenance sites, the City has made great efforts at each facility to constrain the extent and type of impact that would occur. In natural facilities with native vegetation growing in earthen-bottom channels, the City reviewed each site and minimized impacts to trimming the understory (trimming/clearing of vegetation under the tree canopy), limited the scale of impacts to the smallest radius necessary to allow for positive flow dependent on the size of the outlet, and/or impacting only the minimal low-flow channel. The City would remove native riparian trees only for the new sites that have identified tree removal listed in Table 2-1 above. In all other new sites, the City would avoid removal of native riparian trees and shrubs, and conduct only minor trimming of lower branches where necessary to maintain access and flow. Maintenance activities conducted within serviceable concrete-lined features (i.e., features that have intact concrete linings, do not support mature native trees or shrubs, and can therefore be maintained, through removal of sediment, debris, and opportunistic herbaceous vegetation, without alterations to the channel bed/bank or removal of established habitat) would not be limited to an acreage threshold, as no adverse or significant impacts would result from these activities. The activities are identified in Table 2-1 above. O&M activities are necessary to ensure proper function and integrity of the channel system and structures, and the activities do not otherwise alter or expand the existing system.

Repairs/Maintenance of Existing Hardscape Structures

The City proposes to include the repairs of existing concrete aprons and/or concrete-lined drainages as part of the RGP. Repairs would include minor repairs to segments of concrete-lined channels or riprap-lined segments that would not result in the modification of the character, size, or scope of the original fill design. Additionally, these repairs would be limited to either current or new RGP sites. Larger drainages, such as Indian Wells or Escondido Creek, would not be included/covered.

Only one facility location, H-18 Kit Carson Bike Trail, is currently noted as needing repairs to a segment of its concrete channel. However, the City would like the ability to complete these types of repairs to any hardscape facility included in the RGP.

Work activities would be conducted based on a schedule that considers the needs of each site along with staff and budget allocations. Most work activities generally would be completed within 2 to 5 days.

Equipment and Maintenance Frequency

A variety of equipment would be utilized to complete O&M activities, including manual and mechanical hand tools, graders, backhoes, excavators, skid steers, and front-end loaders. Table 2-2 provides examples of equipment that could be used to conduct work activities.

TABLE 2-2. PROPOSED EQUIPMENT TYPES AND EXAMPLES

Type of Equipment	Equipment Examples
Manual hand tools	Rakes, shovels, loppers (any non-mechanical hand tools)
Mechanical hand tools	Chain saws, string trimmers, hedge trimmers
Heavy Mechanical Equipment	Grader, backhoe, excavator, skid steer, front-end loader, bobcat

Work activities would be conducted approximately annually or biannually as staff and budget allocations allow at each location. Most work activities will be conducted and completed within 2-5 days, but depending on the activity the work could last up to 45 days.

Stream Diversions and Best Management Practices

Stream diversions and Best Management Practices (BMPs) would be implemented for all facility locations during maintenance activities. If water is present during the time of the maintenance activity, flows/ponded water would be dammed by the installation of either gravel or sediment bags. Due to the varying channel widths, implementation of a coffer dam is not possible at all locations. Therefore, work within wetted portion of some channels may be needed. If work is conducted within the wetted portion of a channel, the City would employ a series of check dams downstream of the maintenance location to reduce flow velocities and allow any suspended particulates to settle out of the water column. Additionally, a pump diversion system may be used when appropriate.

If streams are dry, BMPs in the form of straw wattles would be used to prevent sediment or debris from entering downstream waters.

Staging Areas

Equipment staging and stockpiling of spoils would not occur within the limits of jurisdictional waters. Equipment would be staged on existing developed surface roads, lots, or disturbed habitat, when feasible. Sediment, debris, and vegetative material would be removed from immediate area; stockpiled within surface roads, lots, or disturbed habitat; and then moved off-site to City Public Works facilities. Spoils would be disposed of appropriately or reused for other projects throughout the city, where appropriate.

IV. ANTICIPATED PUBLIC MEETINGS/HEARINGS

Adoption of the Supplemental IS/MND will not require City Council adoption. Environmental documents that are not associated with a specific project that would require Planning Commission or City Council now can be adopted by the Zoning Administrator at a public meeting (Section 33-1319(b)). A tentative date for consideration by the Zoning Administrator has not yet been set. After the 30-day public review period has ended, a Zoning Administrator meeting date will be scheduled to consider the Final IS/MND and any comments received. The Zoning Administrator schedules Public Hearings on an as needed basis. The agenda for Zoning Administrator meetings are posted at least 72 hours prior to the meeting and can be found at the following website:

<https://www.escondido.org/zoning-administrator.aspx>.

V. ENVIRONMENTAL SETTING

City of Escondido

The City of Escondido is approximately 37.5 square miles and is located in northern San Diego County, approximately 30 miles north of downtown San Diego and 18 miles east of the Pacific Ocean. The city was incorporated in 1888 and became an agricultural center for grapes, citrus, and later for avocados. Escondido is now known as inland northern San Diego County's center for retail, services, health care and cultural facilities while maintaining a feel of small-town living (City of Escondido 2012). Escondido is bounded on the north by the unincorporated communities of Valley Center and Hidden Meadows, on the west by the city of San Marcos, on the south by Lake Hodges and the City of San Diego, and on the east by unincorporated San Diego County.

Location and Surrounding Land Uses

The proposed project would occur at 87 total maintenance sites throughout the City of Escondido. Figures 2-1 and 2-2 depict the regional location and project vicinity as well as the 63 facilities covered under the current RGP 94 and the 24 newly proposed facilities. The current and proposed facilities are located on privately owned parcels or within City easements or rights-of-way. Access to the facilities is typically gained from the nearest public roadway.

As shown in Figure 2-3, the proposed 24 sites not previously covered under the current RGP 94 are located at various sites within the city, each with different topography, elevation, and setting. Generally, sites are within suburban and urban areas. General Plan Land Uses in the area are mainly Residential (Urban, Suburban, and Estate), Commercial, Planned Office, Public Land/Open Space and Specific Plan Areas (Figure 2-4). Surrounding development varies in size, type, and age. Surrounding development includes urban and suburban residences, commercial buildings and shopping centers, schools, parks and open space, roadways, among other development types.

Facilities occur in and appurtenant to native, naturalized, and developed channels, varying in size, shape, habitat composition, and habitat quality. Natural communities and other land cover types in the proposed project area are further discussed in Section 3 of this document, including a tabular summary of the habitat types occurring in the area.

VI. REGULATORY SETTING

Applicable regional planning documents include the General Plan of the City of Escondido (2012) and the City of Escondido Draft Multiple Habitat Conservation Program (MHCP) Subarea Plan (City of Escondido 2001) under the Final MHCP (San Diego Association of Governments 2003).

The Draft Escondido Subarea Plan documents core conservation areas, known as Habitat Management Plan (HMP) Areas (Figure 2-5). The Draft Escondido Subarea Plan has not been adopted. Portions of proposed sites E-52 and SM-05 occur within HMP areas; these areas are subject to the conservation measures set forth by the City's Draft Subarea Plan, which includes up to 90 to 100 percent species conservation and no net loss of wetlands.

Various regulations govern jurisdictional wetlands and non-wetland waters of the U.S. and State. Moreover, the federal and state agencies that govern activities within these resources must ensure that the activities they authorize will not adversely affect other regulated resources that can occur within jurisdictional waters. As applicable to the project, these other regulated resources include

federally and state-listed species, migratory birds, and potential historic properties. Additionally, ordinances promulgated by the City of Escondido protect certain resources known to occur within the project study area. Therefore, as applicable to the project, jurisdictional waters (including wetlands and other aquatic environments/habitats), and the protected species and potential historic properties that may occur within or adjacent to these waters, are regulated under the following federal and state laws, and local ordinances.

Federal Regulations

Clean Water Act

Pursuant to Section 404 of the Clean Water Act (CWA), the U.S. Army Corps of Engineers (USACE) is authorized to regulate any activity that would result in the discharge of dredged or fill material into jurisdictional waters of the U.S., which include those waters listed in 33 Code of Federal Regulations Part 328 (Definitions). USACE, with oversight by the U.S. Environmental Protection Agency (USEPA), has the principal authority to issue CWA Section 404 Permits.

Pursuant to Section 401 of the CWA, the Regional Water Quality Control Board (RWQCB) (Region 9) certifies that any discharge into jurisdictional waters of the U.S. will comply with state water quality standards. RWQCB, as delegated by USEPA, has the principal authority to issue a CWA Section 401 water quality certification or waiver.

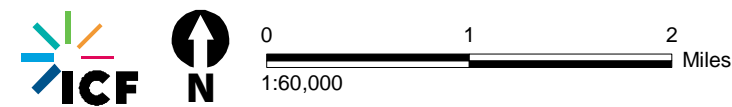
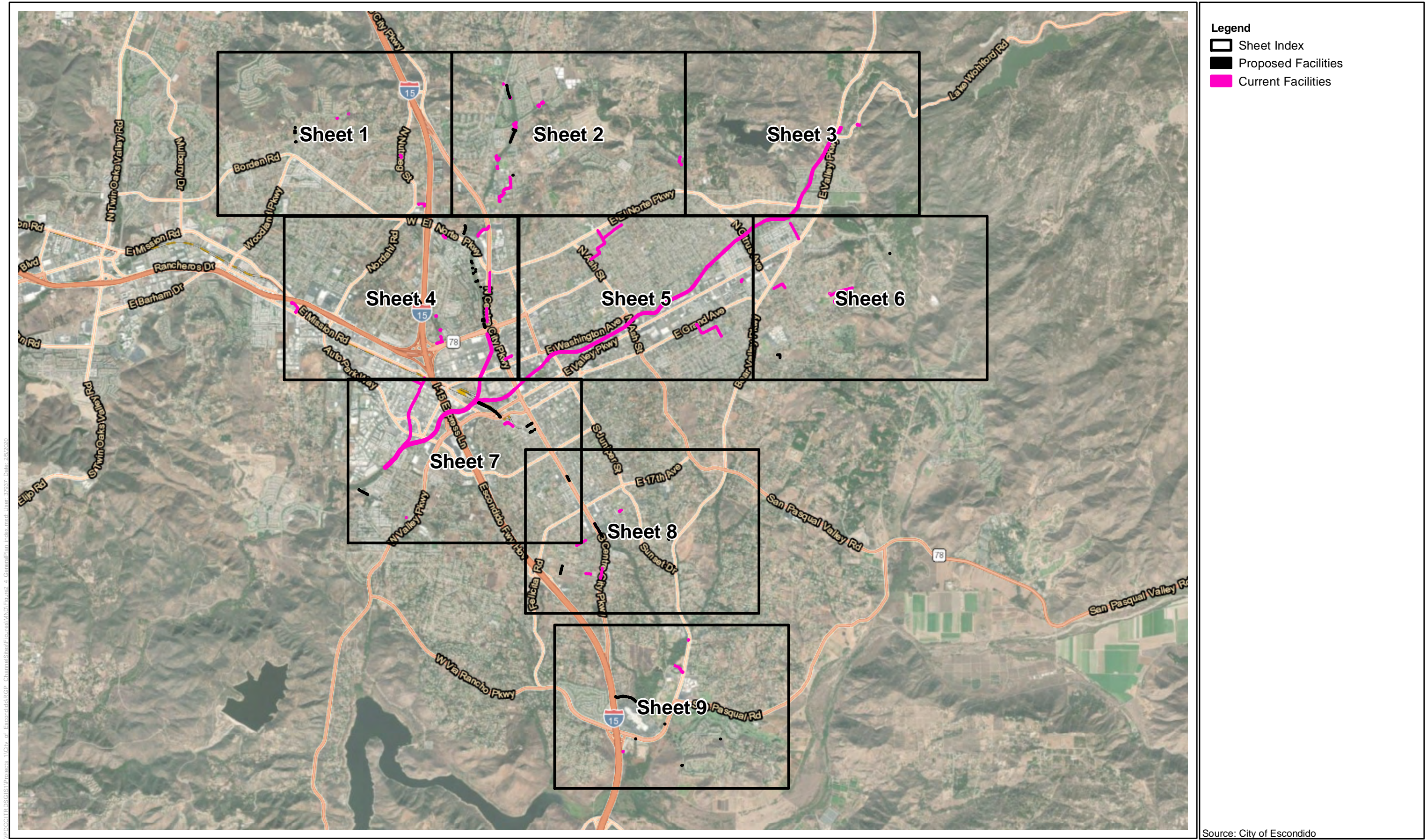
Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) administer the federal Endangered Species Act (ESA). Enacted in 1973, the ESA provides for the conservation of threatened and endangered species and their ecosystems. Section 9 of the ESA prohibits the take of any fish or wildlife species listed under the ESA as endangered and most species listed as threatened.¹ Take, as defined by the ESA, means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Harm is defined as “any act that kills or injures the species, including significant habitat modification.” For threatened and endangered plant species, Section 9 prohibits the “removal or reduction to possession” of any listed plant species “under federal jurisdiction” (i.e., on federal land). The ESA includes mechanisms that provide exceptions to the Section 9 take prohibitions. These are addressed in the ESA under Section 7 and 10(a).

Migratory Bird Treaty Act

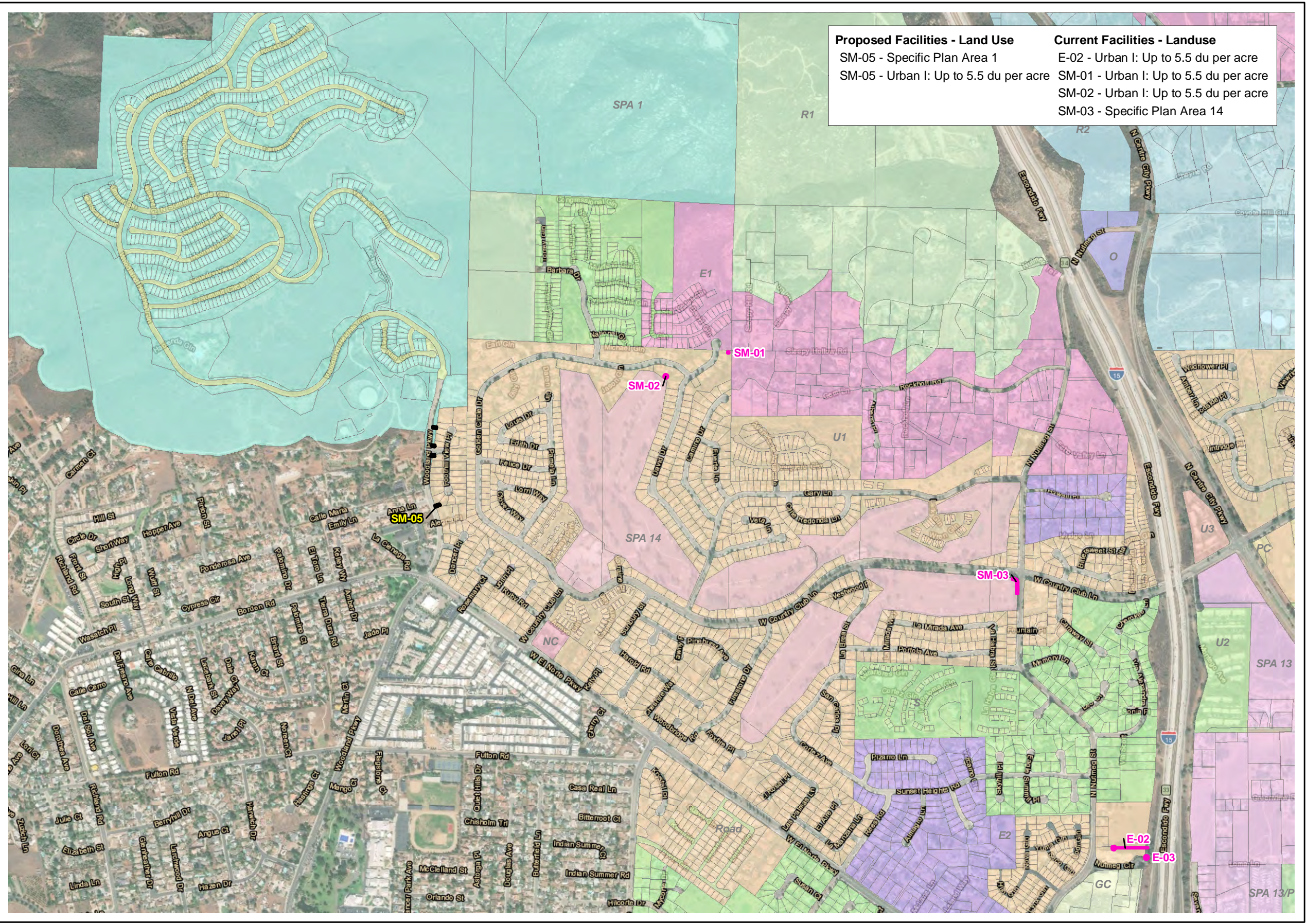
The Migratory Bird Treaty Act (MBTA) of 1918, as amended, implements various treaties and conventions between the United States and Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Under the MBTA, taking, killing, or possessing migratory birds is unlawful as is taking of any parts, nests, or eggs of such birds (16 United States Code 703). The definition of taking is different under MBTA from the definition under the ESA and includes only the death or injury of individuals of a migratory bird species or its eggs. Take under the MBTA does not include the concepts of harm and harassment as defined by the ESA. It is also important to note that the MBTA defines migratory birds broadly; most of the bird species documented from the project

¹ The protection of threatened species under Section 9 is discretionary through a rule issued under Section 4(d) of the ESA. Until a “4(d) rule” is issued by NMFS, threatened anadromous fish or marine species are not protected by the ESA. By regulation, USFWS automatically affords Section 9 protection to threatened species at the time of listing. These protections later can be modified by USFWS through a 4(d) rule.



**Figure 2-4, Index
General Plan Land Use Map
Escondido RGP 94 Channel Maintenance Project**

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Proposed Facilities - Land Use	Current Facilities - Land Use
SM-05 - Specific Plan Area 1	E-02 - Urban I: Up to 5.5 du per acre
SM-05 - Urban I: Up to 5.5 du per acre	SM-01 - Urban I: Up to 5.5 du per acre
	SM-02 - Urban I: Up to 5.5 du per acre
	SM-03 - Specific Plan Area 14

- Legend**
- Proposed Facilities
 - Current Facilities
- General Plan Land Use**
- E1 - Estate I: 1 du/ 1, 2, 4, 20 acres
 - E2 - Estate II: 1 du/ .5, 1, 20 acres
 - GC - General Commercial
 - NC - Neighborhood Commercial
 - O - Office
 - PC - Planned Commercial
 - R1 - Rural I: 1 du/ 4, 8, 20 acres
 - R2 - Rural II: 1 du/ 2, 4, 20 acres
 - Road - Road Right-Of-Way
 - S - Suburban : Up to 3.3 du/acre
 - SPA 1 - Specific Plan Area 1
 - SPA 13 - Specific Plan Area 13
 - SPA 13/P - Specific Plan Area 13/P
 - SPA 14 - Specific Plan Area 14
 - U1 - Urban I: Up to 5.5 du per acre
 - U2 - Urban II: Up to 12 du/acre
 - U3 - Urban III: Up to 18 du/acre

Source: City of Escondido

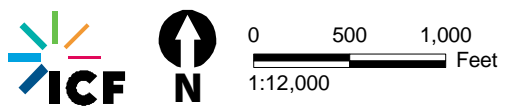
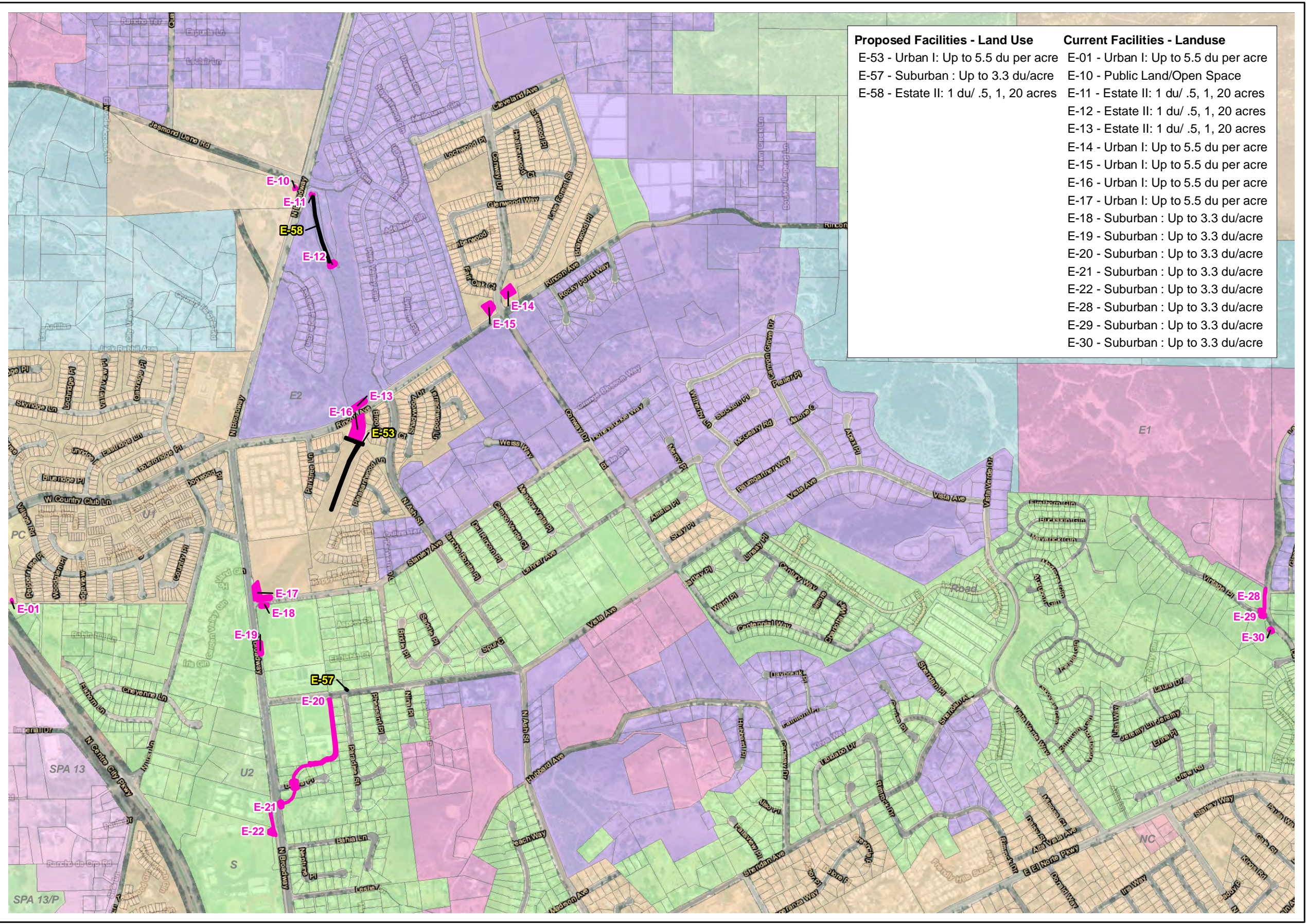


Figure 2-4, Sheet 1 of 9
General Plan Land Use Map
Escondido RGP 94 Channel Maintenance Project

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Proposed Facilities - Land Use	Current Facilities - Land Use
E-53 - Urban I: Up to 5.5 du per acre	E-01 - Urban I: Up to 5.5 du per acre
E-57 - Suburban : Up to 3.3 du/acre	E-10 - Public Land/Open Space
E-58 - Estate II: 1 du/ .5, 1, 20 acres	E-11 - Estate II: 1 du/ .5, 1, 20 acres
	E-12 - Estate II: 1 du/ .5, 1, 20 acres
	E-13 - Estate II: 1 du/ .5, 1, 20 acres
	E-14 - Urban I: Up to 5.5 du per acre
	E-15 - Urban I: Up to 5.5 du per acre
	E-16 - Urban I: Up to 5.5 du per acre
	E-17 - Urban I: Up to 5.5 du per acre
	E-18 - Suburban : Up to 3.3 du/acre
	E-19 - Suburban : Up to 3.3 du/acre
	E-20 - Suburban : Up to 3.3 du/acre
	E-21 - Suburban : Up to 3.3 du/acre
	E-28 - Suburban : Up to 3.3 du/acre
	E-29 - Suburban : Up to 3.3 du/acre
	E-30 - Suburban : Up to 3.3 du/acre

Legend

- Proposed Facilities
- Current Facilities

General Plan Land Use

- E1 - Estate I: 1 du/ 1, 2, 4, 20 acres
- E2 - Estate II: 1 du/ .5, 1, 20 acres
- NC - Neighborhood Commercial
- P - Public Land/Open Space
- PC - Planned Commercial
- R1 - Rural I: 1 du/ 4, 8, 20 acres
- R2 - Rural II: 1 du/ 2, 4, 20 acres
- Road - Road Right-Of-Way
- S - Suburban : Up to 3.3 du/acre
- SPA 13 - Specific Plan Area 13
- SPA 13/P - Specific Plan Area 13/P
- U1 - Urban I: Up to 5.5 du per acre
- U2 - Urban II: Up to 12 du/acre

Source: City of Escondido

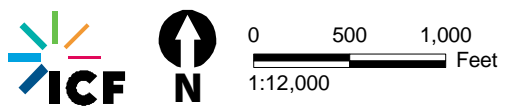
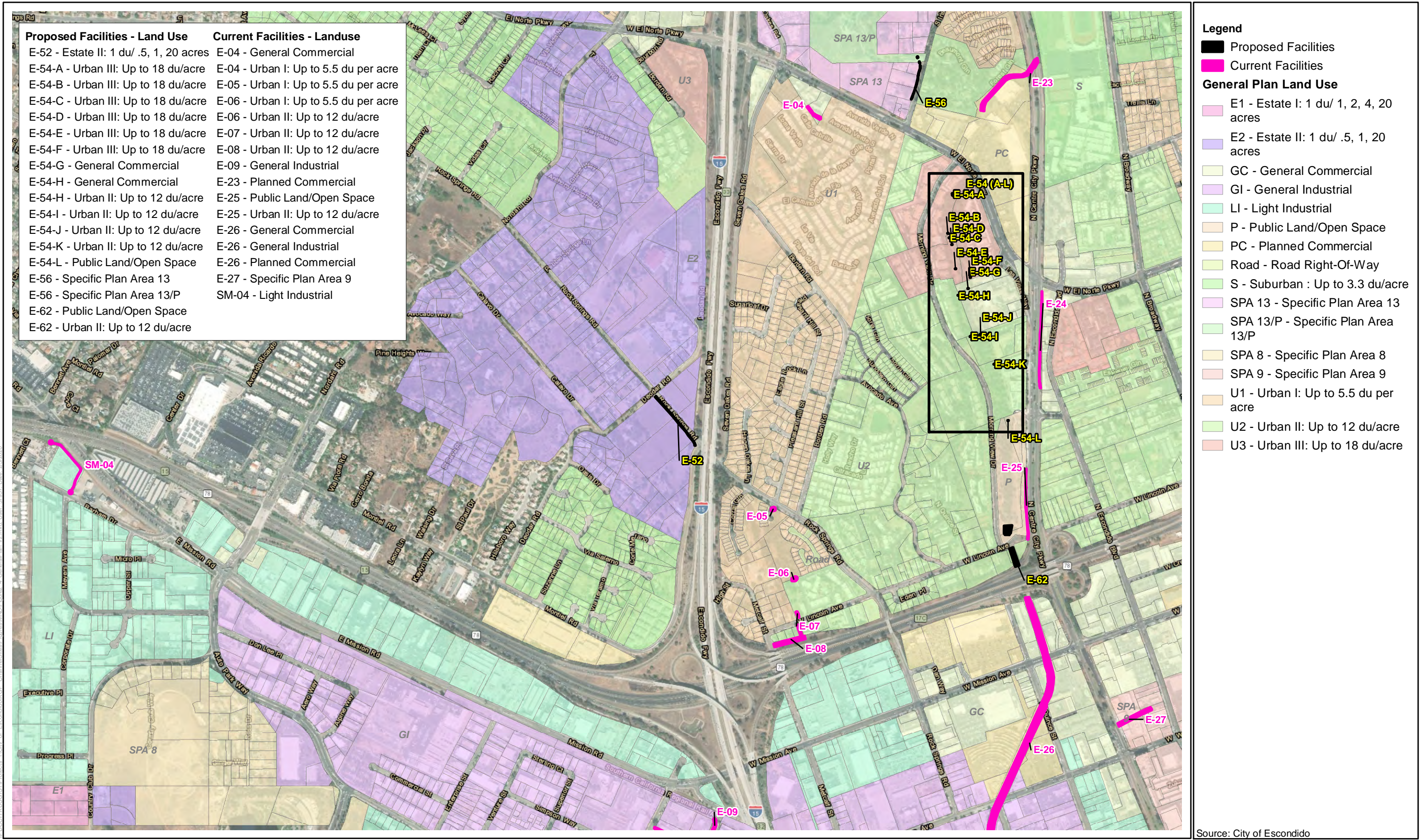


Figure 2-4, Sheet 2 of 9
General Plan Land Use Map
Escondido RGP 94 Channel Maintenance Project



Proposed Facilities - Land Use

- E-52 - Estate II: 1 du/ .5, 1, 20 acres
- E-54-A - Urban III: Up to 18 du/acre
- E-54-B - Urban III: Up to 18 du/acre
- E-54-C - Urban III: Up to 18 du/acre
- E-54-D - Urban III: Up to 18 du/acre
- E-54-E - Urban III: Up to 18 du/acre
- E-54-F - Urban III: Up to 18 du/acre
- E-54-G - General Commercial
- E-54-H - General Commercial
- E-54-H - Urban II: Up to 12 du/acre
- E-54-I - Urban II: Up to 12 du/acre
- E-54-J - Urban II: Up to 12 du/acre
- E-54-K - Urban II: Up to 12 du/acre
- E-54-L - Public Land/Open Space
- E-56 - Specific Plan Area 13
- E-56 - Specific Plan Area 13/P
- E-62 - Public Land/Open Space
- E-62 - Urban II: Up to 12 du/acre

Current Facilities - Land Use

- E-04 - General Commercial
- E-04 - Urban I: Up to 5.5 du per acre
- E-05 - Urban I: Up to 5.5 du per acre
- E-06 - Urban I: Up to 5.5 du per acre
- E-06 - Urban II: Up to 12 du/acre
- E-07 - Urban II: Up to 12 du/acre
- E-08 - Urban II: Up to 12 du/acre
- E-09 - General Industrial
- E-23 - Planned Commercial
- E-25 - Public Land/Open Space
- E-25 - Urban II: Up to 12 du/acre
- E-26 - General Commercial
- E-26 - General Industrial
- E-26 - Planned Commercial
- E-27 - Specific Plan Area 9
- SM-04 - Light Industrial

Legend

- Proposed Facilities
- Current Facilities
- General Plan Land Use**
- E1 - Estate I: 1 du/ 1, 2, 4, 20 acres
- E2 - Estate II: 1 du/ .5, 1, 20 acres
- GC - General Commercial
- GI - General Industrial
- LI - Light Industrial
- P - Public Land/Open Space
- PC - Planned Commercial
- Road - Road Right-Of-Way
- S - Suburban : Up to 3.3 du/acre
- SPA 13 - Specific Plan Area 13
- SPA 13/P - Specific Plan Area 13/P
- SPA 8 - Specific Plan Area 8
- SPA 9 - Specific Plan Area 9
- U1 - Urban I: Up to 5.5 du per acre
- U2 - Urban II: Up to 12 du/acre
- U3 - Urban III: Up to 18 du/acre

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Source: City of Escondido

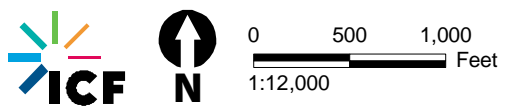
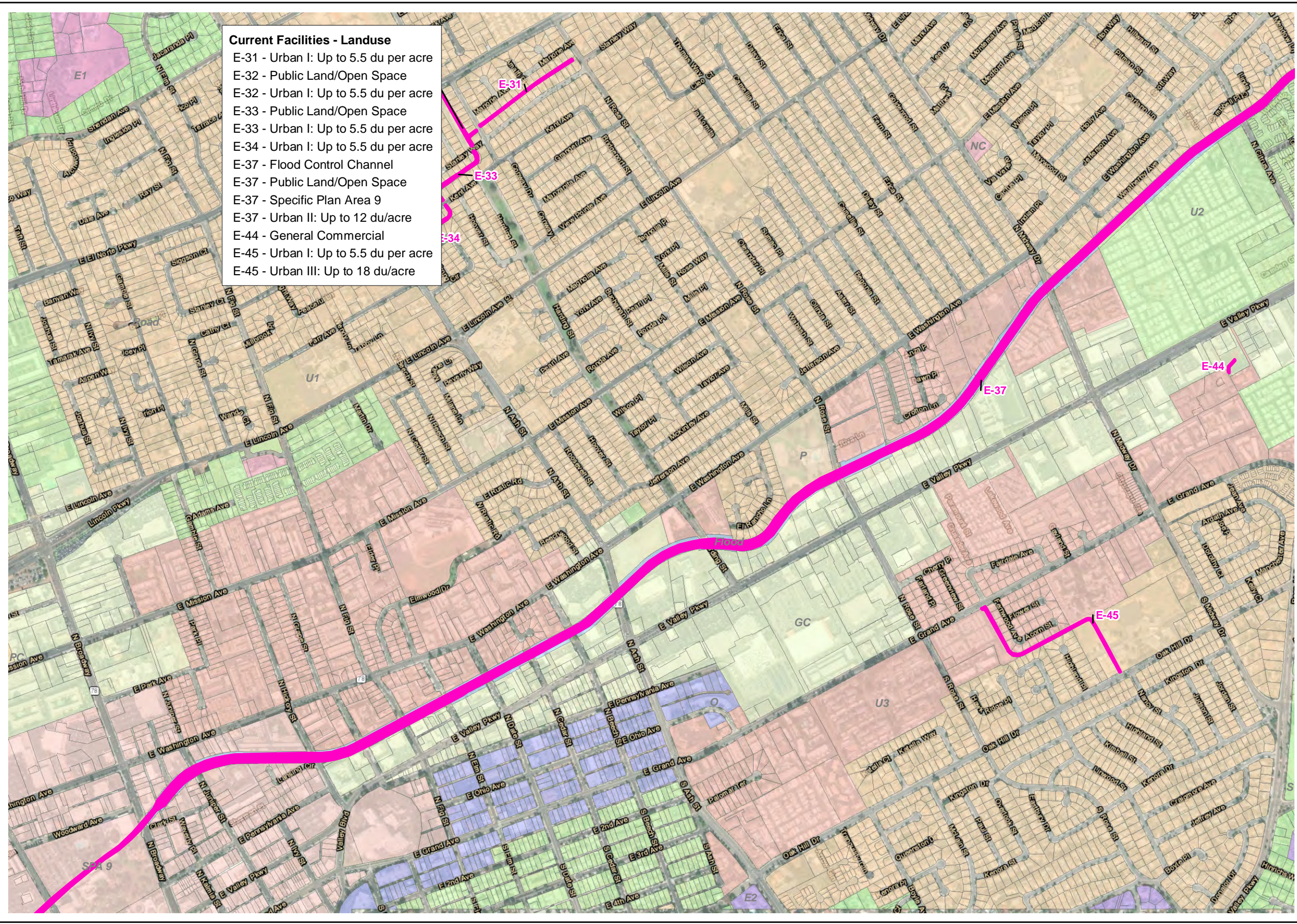


Figure 2-4, Sheet 4 of 9
General Plan Land Use Map
Escondido RGP 94 Channel Maintenance Project

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Current Facilities - Landuse

- E-31 - Urban I: Up to 5.5 du per acre
- E-32 - Public Land/Open Space
- E-32 - Urban I: Up to 5.5 du per acre
- E-33 - Public Land/Open Space
- E-33 - Urban I: Up to 5.5 du per acre
- E-34 - Urban I: Up to 5.5 du per acre
- E-37 - Flood Control Channel
- E-37 - Public Land/Open Space
- E-37 - Specific Plan Area 9
- E-37 - Urban II: Up to 12 du/acre
- E-44 - General Commercial
- E-45 - Urban I: Up to 5.5 du per acre
- E-45 - Urban III: Up to 18 du/acre

- Legend**
- Proposed Facilities
 - Current Facilities
- General Plan Land Use**
- E1 - Estate I: 1 du/ 1, 2, 4, 20 acres
 - E2 - Estate II: 1 du/ .5, 1, 20 acres
 - Flood - Flood Control Channel
 - GC - General Commercial
 - NC - Neighborhood Commercial
 - O - Office
 - P - Public Land/Open Space
 - PC - Planned Commercial
 - Road - Road Right-Of-Way
 - S - Suburban : Up to 3.3 du/acre
 - SPA 9 - Specific Plan Area 9
 - U1 - Urban I: Up to 5.5 du per acre
 - U2 - Urban II: Up to 12 du/acre
 - U3 - Urban III: Up to 18 du/acre

Source: City of Escondido

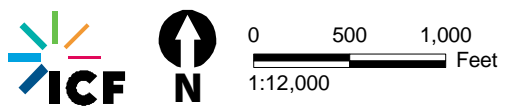
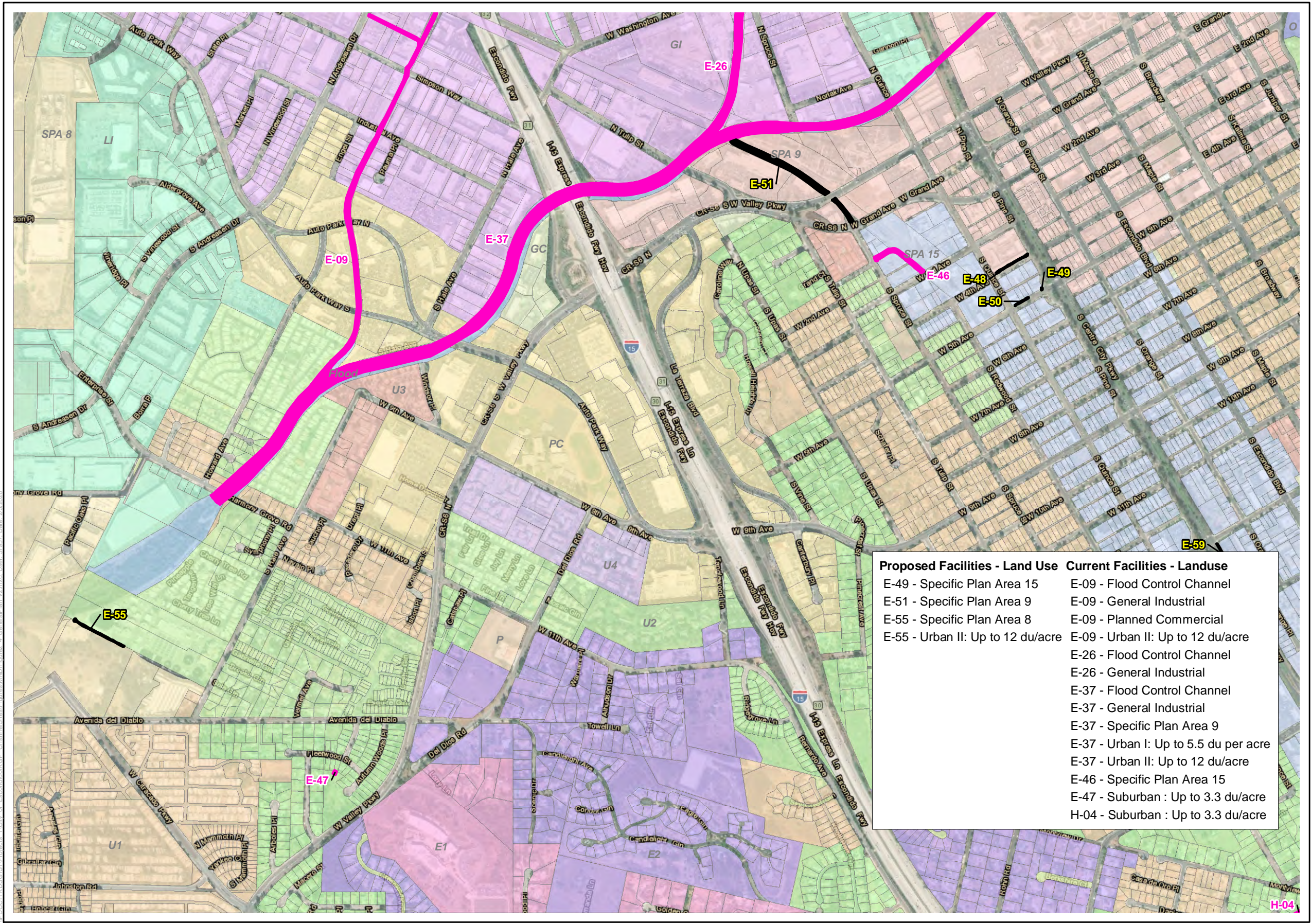


Figure 2-4, Sheet 5 of 9
General Plan Land Use Map
Escondido RGP 94 Channel Maintenance Project



- Legend**
- Proposed Facilities
 - Current Facilities
- General Plan Land Use**
- E1 - Estate I: 1 du/ 1, 2, 4, 20 acres
 - E2 - Estate II: 1 du/ .5, 1, 20 acres
 - Flood - Flood Control Channel
 - GC - General Commercial
 - GI - General Industrial
 - LI - Light Industrial
 - O - Office
 - P - Public Land/Open Space
 - PC - Planned Commercial
 - Road - Road Right-Of-Way
 - S - Suburban : Up to 3.3 du/acre
 - SPA 15 - Specific Plan Area 15
 - SPA 8 - Specific Plan Area 8
 - SPA 9 - Specific Plan Area 9
 - U1 - Urban I: Up to 5.5 du per acre
 - U2 - Urban II: Up to 12 du/acre
 - U3 - Urban III: Up to 18 du/acre
 - U4 - Urban IV: Up to 24 du/acre

Proposed Facilities - Land Use	Current Facilities - Landuse
E-49 - Specific Plan Area 15	E-09 - Flood Control Channel
E-51 - Specific Plan Area 9	E-09 - General Industrial
E-55 - Specific Plan Area 8	E-09 - Planned Commercial
E-55 - Urban II: Up to 12 du/acre	E-09 - Urban II: Up to 12 du/acre
	E-26 - Flood Control Channel
	E-26 - General Industrial
	E-37 - Flood Control Channel
	E-37 - General Industrial
	E-37 - Specific Plan Area 9
	E-37 - Urban I: Up to 5.5 du per acre
	E-37 - Urban II: Up to 12 du/acre
	E-46 - Specific Plan Area 15
	E-47 - Suburban : Up to 3.3 du/acre
	H-04 - Suburban : Up to 3.3 du/acre

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Source: City of Escondido

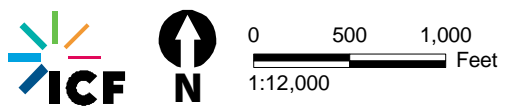


Figure 2-4, Sheet 7 of 9
General Plan Land Use Map
Escondido RGP 94 Channel Maintenance Project

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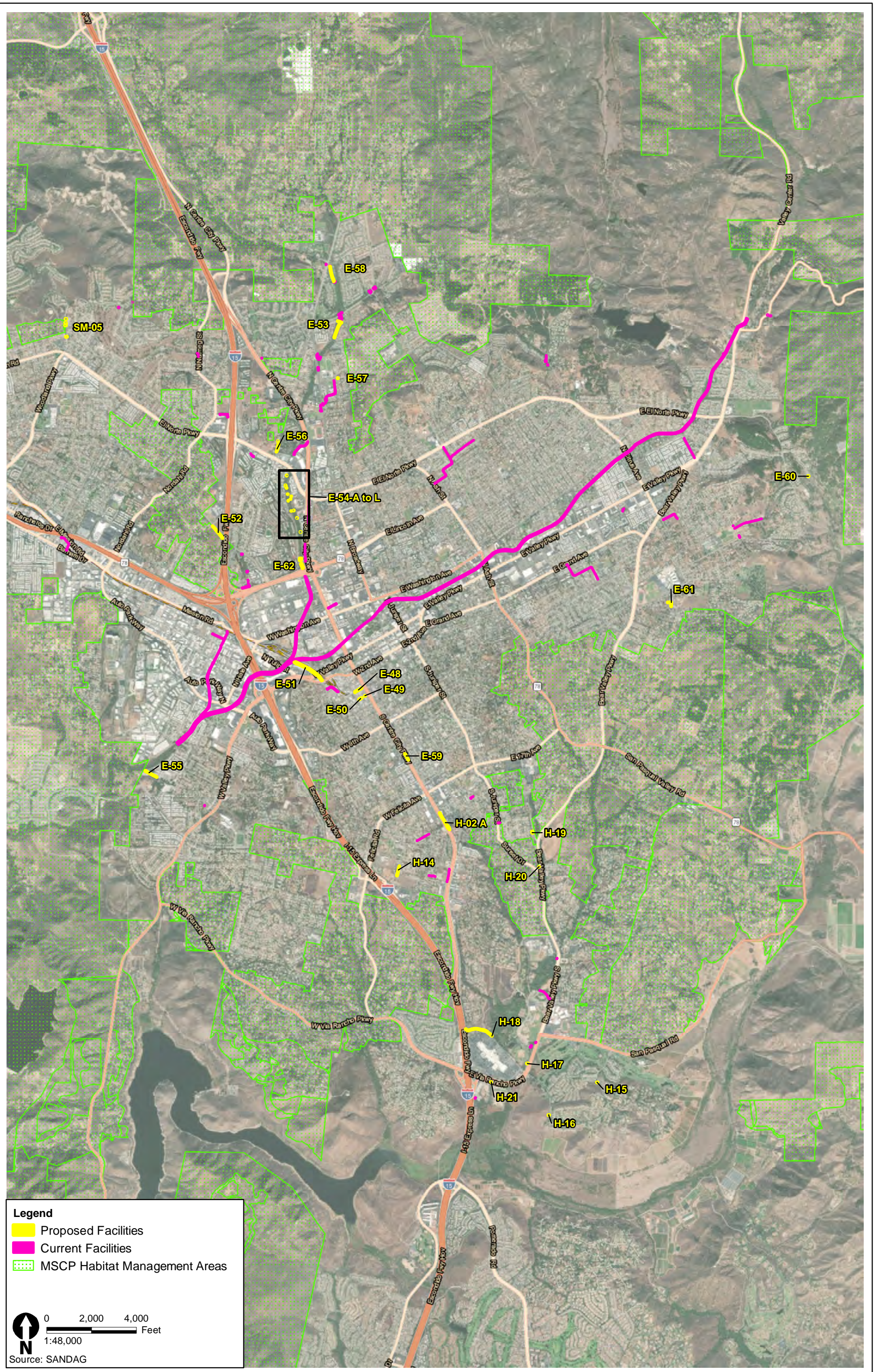


Figure 2-5
MSCP Habitat Management Areas
Esccondido RGP 94 Channel Maintenance Project

area are covered by the provisions of the MBTA. No permit is issued under the MBTA; however, the proposed activities would need to comply with measures that would avoid or minimize effects on migratory birds.

National Historic Preservation Act, Title 16 United States Code Sections 431-433

Among the provisions of Section 101 of the National Historic Preservation Act (NHPA), a State Historic Preservation Program was established in each state and a State Historic Preservation Officer (SHPO) was given the responsibility to consult with the appropriate federal agencies in accordance with the NHPA regarding:

- (i) Federal undertakings that may affect historic properties; and
- (ii) the content and sufficiency of any plans developed to protect, manage, or to reduce or mitigate harm to such properties;

Section 106 of the NHPA requires federal agencies to:

take into account the effect of their undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The head of any such Federal agency shall afford the Advisory Council on Historic Preservation...a reasonable opportunity to comment with regard to such undertaking.

State Regulations

California Fish and Game Code

The CFGC regulates the taking or possession of birds, mammals, fish, amphibians, and reptiles, as well as natural resources such as wetlands and waters of the State. It includes the California Endangered Species Act (CESA) (Sections 2050–2115) and Streambed Alteration Agreement regulations (Sections 1600–1616). These sections are described further below.

CFGC Sections 1600–1616 – Pursuant to Section 1600 et seq. of the CFGC, CDFW regulates activities of an applicant’s project that would substantially alter the flow, bed, channel, or bank of streams or lakes, unless certain conditions outlined by CDFW are met by the applicant. The limits of CDFW jurisdiction are defined in CFGC Section 1600 et seq. as the “bed, channel, or bank of any river, stream², or lake designated by CDFW in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit.”³ However, in practice, CDFW usually extends its jurisdictional limit and assertion to the top of a bank of a stream, the bank of a lake, or outer edge of the riparian vegetation, whichever is wider.

In some cases, drainage ditches and retention ponds⁴ can be potentially considered under the regulatory administration of CDFW. CDFW provides specific guidance concerning its regulatory administration in CCR Title 14 Section 720 (Designation of Waters of Department Interest):

² Title 14 CCR 1.72 defines a stream as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation.”

³ This also includes the habitat upon which they depend for continued viability (CFGC Division 5, Chapter 1, Section 45, and Division 2, Chapter 1, Section 711.2[a]).

⁴ Title 14 CCR 1.56 defines a lake as a feature that “includes lakes or man-made reservoirs.”

For the purpose of implementing Sections 1601 and 1603 of the Fish and Game Code, which requires submission to the department of general plans sufficient to indicate the nature of a project for construction by or on behalf of any person, governmental agency, state or local, and any public utility, of any project which will divert, obstruct, or change the natural flow or bed of any river, stream, or lake designated by the department, or will use material from the streambeds designated by the department, all rivers, streams, lakes, and streambeds in the State of California, including all rivers, streams, and streambeds, *which may have intermittent flows of water*, are hereby designated for such purpose. (Italics added.)

CFGC Sections 2050–2115 – Any proposed impact on state-listed species within or adjacent to the project area would require a permit under CESA. CESA generally parallels the main provisions of the federal ESA and is administered by CDFW. CESA prohibits take of wildlife and plants listed as threatened or endangered by the California Fish and Game Commission. Take is defined under the CFGC as any action or attempt to “hunt, pursue, catch, capture, or kill.” Therefore, take under CESA does not include “the taking of habitat alone or the impacts of the taking.”⁵ Rather, the courts have affirmed that under CESA, “taking involves mortality.”

CESA allows exceptions to the take prohibition for take that occurs during otherwise lawful activities. The requirements of an application for incidental take permit under CESA are described in Section 2081 of the CFGC. Incidental take of state-listed species may be authorized if an applicant submits an approved plan that minimizes and “fully mitigates” the impacts of this take. Therefore, any proposed impact on state-listed species within or adjacent to the project area would require an incidental take permit under CESA.

CFGC Section 2080.1 allows an applicant who has obtained a federal incidental take statement as part of a Biological Opinion pursuant to a ESA Section 7 consultation or an incidental take permit under ESA Section 10(a) to notify the CDFW Director in writing that the applicant has been issued an incidental take statement or permit pursuant to the ESA and submit a copy to the CDFW Director. The Director then has 30 days to determine whether the incidental take statement or permit is “consistent” with the CESA in the form of a written “consistency determination.” If the Director determines that the incidental take statement or permit is consistent with the CESA, the applicant does not need to obtain separate take authorization from the CDFW in the form of an incidental take permit under CFGC Section 2081(b) and (c). However, consistency determinations apply only in those situations where the affected species is listed under both the ESA and the CESA. If the species is listed under the CESA only, an applicant must obtain an incidental take permit under CFGC 2081(b) and (c).

CFGC Section 3503. Under CFGC Division 4, Part 2, Chapter 1, Section 3503.5, “it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto,” where “take” is defined under Division 0.5, Chapter 1, Section 86 as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” In addition, the MBTA restricts the killing of migratory birds or destruction of active migratory bird nests and/or eggs.

⁵ *Environmental Council of Sacramento v. City of Sacramento*, 142 Cal. App. 4th 1018 (2006).

Porter-Cologne Water Quality Act

Pursuant to Section 13000 et seq. of the California Water Code (the 1969 Porter-Cologne Water Quality Control Act), RWQCB is authorized to regulate any activity that would result in discharges of waste or fill material to waters of the State, including “isolated” waters and wetlands (e.g., vernal pools and seeps). Waters of the State include any surface water or groundwater within the boundaries of the state (California Water Code § 13050[e]). RWQCB also adopts and implements water quality control plans (basin plans) that recognize and are designed to maintain the unique characteristics of each region with regard to natural water quality, actual and potential beneficial uses, maintaining water quality, and addressing the water quality problems of that region.

Designated beneficial uses of state waters that may be protected against quality degradation include preservation and enhancement of fish, wildlife, designated biological habitats of special significance, and other aquatic resources or preserves.

City Regulations

Tree Protection Ordinance

City ordinance protects against the removal of historically significant and mature trees within City limits, with a focus on oak tree protection. In Section 33-105 of the Escondido Municipal Code, the City defines protected trees as “any oak (*Quercus* sp.) which has a ten (10) inch or greater DBH, or any other species or individual specimen listed on the local historic register, or determined to substantially contribute to the historic character of a property or structure listed on the local historic register, pursuant to Article 40 of the Escondido Zoning Code (2001).”

City of Escondido General Plan

A General Plan is a statement of long-range public policy to guide the use of private and public lands within a community’s boundaries. The policies within the Plan are intended to become the basis for decisions by elected and appointed officials. The Plan is both general and comprehensive in that it provides broad guidelines for development in the city while addressing a wide range of issues that will affect the city’s desirability as a place to live and work. The General Plan represents both an evaluation and vision of the future, typically 15 to 20 years, and beyond. The goals and policies are aimed at guiding growth and development in that direction.

The General Plan is an internally consistent document in that the goals, objectives, policies, principles, and standards present a comprehensive, unified program for development. California planning law requires consistency between the General Plan and its implementation programs—zoning and subdivision ordinances, growth management policies, capital improvements programming, specific plans, environmental review procedures, building and housing codes, and redevelopment plans.

The City of Escondido General Plan was adopted on May 23, 2012.

VII. REGULATORY APPROVALS

The City of Escondido is the lead agency under CEQA and is responsible for permitting the project; USACE, USFWS, RWQCB, CDFW, and have some approval and/or discretionary authority over the

project. The regulatory approvals listed in Table 2-3 would be obtained for the proposed O&M activities.

TABLE 2-3. PERMITS

Resource Agency	Permit Type
U.S. Army Corps of Engineers	Regional General Permit
U.S. Fish and Wildlife Service	Section 7 Informal Consultation
Regional Water Quality Control Board	401 Water Quality Certification
California Department of Fish and Wildlife	Streambed Alteration Agreement

VIII. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- | | | |
|---|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology /Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials |
| <input checked="" type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Wildfire | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached

sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

J Paul

October 26, 2020

Signature

Date

Jay Paul, Senior Planner

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SECTION 3. ENVIRONMENTAL CHECKLIST

I. AESTHETICS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings along a scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Evaluation

Would the project:

- a. Have a substantial adverse effect on a scenic vista?

No Impact. The 2013 MND ENV 12-0001 (2013 MND) found that implementation of the current RGP 94 would not result in substantial adverse impacts on a scenic vista. Similarly, the proposed RGP 94 Channel Maintenance Program Implementation & Renewal Project would generally be consistent with the O&M activities that were analyzed in the City's 2013 MND. The proposed project would be contained within the same project vicinity analyzed in the City's 2013 MND and would contain a similar mix of land uses. The proposed project would not construct structures or modify the existing land form in a way that would cause an adverse effect on a scenic vista, and the project does not propose activities that would damage scenic resources or degrade the existing visual character (City of Escondido 2012). Therefore, implementation of the proposed project would not significantly alter the developed character of the sites, and no impacts would occur on any scenic views through and across the project area.

- b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic

buildings along a scenic highway. Similarly, the proposed project would not occur within any state- or county-designated scenic highways (City of Escondido 2012). No activities of the proposed project would damage scenic resources or degrade the existing visual character. The proposed project would not damage any significant scenic resources within a designated state scenic highway or create an aesthetically offensive site open to the public because the site is not located along a state scenic highway. Therefore, the proposed project would not substantially damage scenic resources within a state scenic highway, and no impacts would occur.

- c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

No Impact. The City's 2013 MND found that implementation of the current RGP 94 would not propose activities that would damage scenic resources or degrade the existing visual character of the site or the surrounding areas (City of Escondido 2012). Similarly, the proposed project would be consistent with the project activities analyzed in the City's 2013 MND and would not damage scenic resources or degrade the existing visual character of the site or the surrounding areas. Therefore, no impacts would occur from implementation of the proposed project.

- d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

No Impact. The City's 2013 MND stated that operation and maintenance activities planned for the current RGP 94 are not scheduled to occur at night and would not create a new source of light or glare that would affect daytime or nighttime views of the area. Similarly, the proposed project proposes O&M activities that would not occur at night and thus would not create a new source of light or glare or affect day or nighttime views in the area. Although no impacts are anticipated, compliance with the City's Outdoor Lighting Ordinance would ensure that any impacts related to light and glare resulting from the project would not occur (City of Escondido 2019). Therefore, no impacts would occur from implementation of the proposed project.

II. AGRICULTURAL AND FORESTRY RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
<p>In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts on forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project, and forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board. Would the project:</p>				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Evaluation

Would the project:

- a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The 2013 MND found that activities planned for the current RGP 94 would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Important to non-agricultural use.

Similarly, the proposed project would not be located on or adjacent to designated farmland. The proposed project sites are within urban and suburban areas and do not involve changes to the existing environment that would result in conversion of farmland to a nonagricultural use (California Department of Conservation 2016). Therefore, no impacts would occur.

b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?

No Impact. The 2013 MND found that activities planned for the current RGP 94 are routine in nature and would not conflict with existing zoning for agricultural use or conflict with a Williamson Act contract. Similarly, the proposed project would not be located on or adjacent to land under a Williamson Act contract, nor would it occur on land zoned by the City for agricultural use (City of Escondido 2012). Therefore, the proposed project would not conflict with existing zoning for agricultural use or conflict with a Williamson Act contract and no new impacts would occur.

c. Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not conflict with existing zoning for, or cause rezoning of, forest land or timberland zoned Timberland Production. Similarly, the project would not be located on or adjacent to an area with existing zoning for forestland or timberland zoned Timberland Production (City of Escondido 2012). Therefore, no impacts would occur.

d. Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not result in the loss of forest land or conversion of forest land to non-forest use. Similarly, the proposed project would not reduce or convert forest land to non-forest use. The proposed project consists of routine O&M activities and would not result in the loss of forest land and does not propose to convert forest land to a non-forest use (City of Escondido 2012). Therefore, no impacts would occur.

e. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not otherwise convert Farmland to non-agricultural use or convert forest land to non-forest land. As discussed above, the proposed project would not be located on or adjacent to land that is designated as farmland or forest land. Furthermore, the proposed project does not involve any other changes to the existing environment that would result in conversion of farmland to non-agricultural use or forest land to non-forest use (California Department of Conservation 2016). Therefore, no impact would occur.

III. AIR QUALITY

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Evaluation

Would the project:

- a. Conflict with or obstruct implementation of the applicable air quality plan?

Less-than-Significant Impact. The 2013 MND found that implementation of the current RGP 94 would not violate any air quality standard or contribute substantially to an existing or projected air-quality violation or obstruct implementation of applicable air quality plans.

The proposed project site is in the San Diego Air Basin (SDAB), which is contiguous with San Diego County. The San Diego Air Pollution Control District (SDAPCD) is required, pursuant to the federal and state Clean Air Acts, to reduce emissions of criteria pollutants for which the SDAB is in nonattainment. The SDAB is currently classified as a nonattainment area for the federal 8-hour ozone (O₃) standard (2008 standard of 0.075 part per million [ppm]) and a maintenance area for both the old (1997 standard of 0.08 ppm) 8-hour O₃ standard and the federal carbon monoxide (CO) standard. The USEPA lowered the federal 8-hour O₃ standard to 0.070 ppm effective October 2015, but demonstration of attainment of this new standard will not be required until after the California Air Resources Board (CARB) makes its final area attainment designations. In addition, the SDAB is classified as a nonattainment area for the state O₃, particulate matter less than 2.5 microns (PM_{2.5}), and particulate matter less than 10 microns (PM₁₀) standards (U.S. Environmental Protection Agency 2020, California Air Resources Board 2016).

All areas designated as nonattainment are required to prepare plans showing how the area would meet the state and federal air quality standards by its attainment dates. The SDAPCD's adopted air quality plan is the San Diego Regional Air Quality Strategy (RAQS), which was last updated in 2016. The RAQS outlines SDAPCD's plans and control measures designed to attain the federal and state air-quality standards. The RAQS relies on mobile source emission projections from CARB and growth projections from the San Diego Association of Governments (SANDAG) to project future

emissions and determine appropriate emissions reduction strategies. In turn, the CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the region's cities and by the County of San Diego, which includes local general plans. Generally, projects that propose development that are consistent with the land use designations and growth anticipated by the local general plan and SANDAG are consistent with the RAQS.

The proposed RGP 94 Channel Maintenance Program Implementation & Renewal Project would involve similar O&M activities that are currently being performed under the existing (2015) RGP 94, including excavation of accumulated sediment and herbaceous vegetation, excavation and clearing of culverts, removal of nonnative trees, and trimming of native shrub and tree cover, as well as additional work activities such as one-time native tree removal to gain access and/or allow for positive flows to occur at specific facility locations and the repair of existing hardscaped facilities. The proposed project would allow for these O&M activities to occur on 24 new maintenance facility locations in addition to the existing 63 facilities and would also expand a current facility location that is already included in the existing RGP. The proposed project would not change land uses, increase population, or result in a substantial increase in motor vehicle trips in the project area. As such, the proposed project would not affect the local general plan and SANDAG's growth projections that were used in the development of the RAQS. Therefore, the proposed project would be considered consistent at a regional level with the RAQS. Additionally, while the proposed project's O&M activities would generate pollutant emissions, these emissions would not exceed the City's criteria pollutant thresholds (discussed below under Threshold III.b). Furthermore, the proposed project's O&M activities would be required to comply with SDAPCD rules that have been implemented to reduce regional particulate matter and ozone emissions—Rule 50 (Visible Emissions), Rule 51 (Nuisance), Rule 52 (Particulate Matter), Rule 54 (Dust and Fumes), and Rule 55 (Fugitive Dust Control). Overall, emissions generated by the proposed project are not expected to impede attainment or maintenance of the state and federal air quality standards. Therefore, similar to the current RGP 94 and findings of the 2013 MND, the proposed RGP 94 Channel Maintenance Program Implementation & Renewal Project would not conflict with or obstruct the implementation of any applicable air quality plan, and this impact would be less than significant.

- b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard?

Less-than-Significant Impact. The 2013 MND found that under a worst-case scenario, maximum daily emissions generated during implementation of the current RGP 94 would not exceed the City of Escondido's significance thresholds for criteria pollutants. As a result it was concluded that the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation, nor result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.

As discussed above, the proposed project would involve similar O&M activities as the current RGP, which was analyzed in the 2013 MND, along with additional work activities that involve one-time native tree removal at specific facility locations and the repair of existing hardscaped facilities. Like the current RGP 94, maintenance activities associated with the proposed project would generate emissions of reactive organic gases (ROG), nitrogen oxides (NO_x), PM_{2.5}, PM₁₀, carbon monoxide (CO), and sulfur dioxide (SO₂). Exhaust emissions would originate from use of offroad equipment including tractor/loader/backhoes, excavators, and skid steer loaders; mechanical hand tools including chainsaws and trimmers; use of water trucks onsite; employee vehicle trips; and haul and

vendor truck trips. Fugitive dust emissions would also result from earth movement and ground disturbance at facility sites. Emissions were estimated using a combination of emission factors and methodologies published and recommended by CARB and other agencies, including the California Emissions Estimator Model (CalEEMod), version 2016.3.2 (Trinity Consultants 2017), CARB's EMFAC2017 model (CARB 2018), and EPA's AP-42 *Compilation of Air Pollutant Emission Factors* (USEPA 2011). Construction data for the proposed project (e.g., schedule, equipment types and numbers, and truck trips) is based on a combination of information provided by the project applicant and model defaults.

Maximum peak daily emissions generated by the proposed project's O&M activities were estimated assuming all new daily maintenance activities would be occurring in addition to the existing daily maintenance activities occurring under the current RGP 94. Emissions are summarized in Table 3-1 according to activity type and compared to the City of Escondido's significance thresholds. Please refer to Appendix B for model outputs.

TABLE 3-1. ESTIMATED MAXIMUM DAILY CRITERIA POLLUTANT EMISSIONS BY SOURCE (POUNDS PER DAY)

Source	ROG	NO _x	CO	SO _x	PM10	PM2.5
Offroad Equipment	42	50	223	<1	2	2
Mobile	<1	4	1	<1	<1	<1
Grading	0	0	0	0	1	<1
Total	42	54	224	0	3	2
Threshold	75	250	550	250	100	55
Exceed Threshold?	No	No	No	No	No	No

Source: Appendix B

As show in Table 3-1, estimated maximum daily emissions would not exceed the City of Escondido's significance thresholds for any criteria pollutant. Consequently, similar to the current RGP 94 and findings of the 2013 MND, the proposed RGP 94 Channel Maintenance Program Implementation & Renewal Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation, nor result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard. Therefore, the impact would be less than significant.

c. Expose sensitive receptors to substantial pollutant concentrations?

Less-than-Significant Impact. The 2013 MND found that implementation of the current RGP 94 would not expose sensitive receptors to substantial pollutant concentrations, including toxic air contaminants (TAC) such as diesel particulate matter (DPM), and CO. Similar to the current RGP 94, the proposed project would not expose sensitive receptors to substantial pollutant concentrations.

1. Diesel Particulate Matter

DPM, which is classified as a carcinogenic TAC by CARB, is the primary exhaust pollutant of concern with regard to health risks to sensitive receptors. Diesel-powered construction equipment as well as heavy-duty truck movement and hauling both on and off site would emit DPM that could potentially expose nearby sensitive receptors to pollutant concentrations.

Sensitive receptors are facilities and structures where people live or spend considerable amounts of time, and include retirement homes, residences, schools, playgrounds, childcare centers, and athletic facilities. As previously mentioned in the 2013 MND, DPM is highly dispersive, and studies have shown that measured concentrations of vehicle-related pollutants, including ultra-fine particles, decrease dramatically within approximately 300 feet of the source. The proposed project would not be active within 300 feet of any sensitive receptors for any substantial length of time, given that O&M activities would be occurring at 87 total maintenance facility sites throughout the City of Escondido. Most maintenance activities at each facility site would take 2 to 5 days to complete, while some sites would require work that could last up to 45 days. However, this time period would be significantly lower than the 70-year exposure period typically associated with chronic cancer health risks. Accordingly, implementation of the project would not result in an elevated cancer risk to exposed sensitive receptors. Therefore, emissions would be minimal, and compliance with all SDAPCD rules would ensure that nearby sensitive receptors would not be exposed to substantial pollutant concentrations. As such, similar to the current RGP 94 and findings of the 2013 MND, impacts related to the emissions of TACs from implementation of the proposed RGP 94 Channel Maintenance Program Implementation & Renewal Project would be less than significant.

2. Carbon Monoxide Hotspots

A CO hot spot is a localized concentration of CO that is above the state or national 1-hour or 8-hour ambient air standards for the pollutant, and generally occur at locations with high traffic volumes and congestion. Projects that do not generate CO concentrations in excess of the state's health-based standard would not contribute a significant level of CO such that localized air quality and human health would be substantially degraded. Similar to the current RGP 94, the proposed project would not increase traffic volumes resulting in congestion on local streets and intersections, would not result in a substantial increase in the number of vehicles operating in cold start mode, or substantially increase the number of vehicles on local roadways. As shown in Table 3-1 above, CO emissions from mobile sources associated with the proposed project would only be approximately 1 pound per day, which is minimal and would not expose sensitive receptors to substantial pollutant concentrations. Therefore, similar to the current RGP 94 and findings of the 2013 MND, impacts related to sensitive receptor exposure to substantial CO concentrations would be less than significant.

3. Criteria Air Pollutants

All criteria pollutants that would be generated by the proposed project are associated with some form of health risk (e.g., asthma, lower respiratory problems). However, air quality districts have developed region-specific CEQA thresholds of significance for criteria pollutants in consideration of existing air quality concentrations and attainment designations under the state and federal air quality standards. This applies to the City's criteria pollutant thresholds presented in Table 3-1 above, which were developed based on the County of San Diego and South Coast Air Quality Management District (SCAQMD) thresholds. The state and federal air quality standards are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations of criteria pollutants. As such, local air quality districts with established criteria pollutant thresholds consider projects that generate criteria pollutant and ozone precursor emissions below their thresholds to be minor in nature and would not adversely affect air quality such that the health-protective state and federal air quality standards would be exceeded. As shown in Table 3-1, implementation of the proposed project would not exceed significance thresholds for any criteria pollutant, which is also the finding in the 2013 MND. Therefore, the proposed project is not expected to contribute to a

significant level of air pollution within the SDAB, and impacts related to adverse health effects induced by criteria pollutant emissions would be less than significant.

- d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less-than-Significant Impact. The 2013 MND found that implementation of the current RGP 94 would not result in a significant impact related to other emissions, such as those leading to odors, that would adversely affect a substantial number of people. Similar to the current RGP 94, potential odor emitters during operation and maintenance of the proposed project would result from exhaust from vehicles and offroad equipment. However, odor impacts would be limited to the circulation routes, parking areas, and areas immediately adjacent to the project site, and would not exceed existing odor conditions. Although such brief exhaust odors may be considered unpleasant, they would not affect a substantial number of people. Similar to the current RGP 94, odor-related impacts as a result of implementation of the proposed RGP 94 Channel Maintenance Program Implementation & Renewal Project would be less than significant.

IV. BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Background

The following section is based on the results of environmental surveys and analysis of the newly proposed 24 maintenance facilities and one expanded current facility location conducted by ICF in 2019 and described in the City of Escondido Regional General Permit 94 – Biological Resources Memorandum dated March 2020 and prepared by ICF (Appendix C). Environmental surveys included general biological surveys, vegetation mapping, and a formal jurisdictional delineation of potential waters of the U.S. and State and CDFW jurisdictional waters within the maintenance footprint and a 100-foot survey buffer for each facility location (survey area). ICF biologists incorporated the following datasets into their analysis:

- California Department of Fish and Wildlife (CDFW) Natural Diversity Database (CNDDDB) (CDFW 2019)

- National Wetlands Inventory (NWI) Wetlands Mapper (USFWS 2019)
- U.S. Department of Agriculture (USDA)/Natural Resource Conservation Service (NRCS) Web Soil Survey (NRCS 2012)

In addition, this section summarizes the results and findings of environmental surveys and analysis previously conducted for the 63 existing maintenance facilities. This information can be found in full in the 2013 MND ENV 12-0001 (2013 MND) and the 2014 Addendum ENV 12-0001 (2014 Addendum).

Existing Conditions

Natural Communities and Other Land Covers

The 2013 MND documented 16 vegetation communities/land cover types that occur within the existing 63 facilities. ICF biologists conducted vegetation mapping of the newly proposed 24 facilities and one expanded current facility location during the winter, spring, and fall of 2019, resulting in the detection of three additional vegetation communities not previously described in the 2013 MND. These vegetation communities include disturbed southern cottonwood-willow riparian forest, non-native woodland, and southern coast live oak riparian forest, which are described below. Refer to Table 3.2 below for a list of all vegetation communities/land cover types documented within the survey areas.

Disturbed Southern Cottonwood-Willow Riparian Forest

Disturbed southern cottonwood-willow riparian forest occurs along Reidy Creek and is due to the sparse canopy of native trees and the abundance of Mexican fan palms (*Washingtonia robusta*). Within the survey area, this is one of the dominate vegetation communities within facility locations E-51 and E-54.

Non-native Woodland

This habitat consists of a composition of planted, nonnative tree species, such as pepper trees (*Schinus* spp.), tamarisk (*Tamarix* spp.) and Eucalyptus spp. Within the survey area, this vegetation community occurs within facility locations E-51, E-53, E-54, H-02, and H-17, which occur near roadsides and within ornamental plantings associated with urban developments.

Southern Coast Live Oak Riparian Woodland

This riparian habitat type is dominated by coast live oak (*Quercus agrifolia*), and it often has a richer understory of herbs while poorer in shrubs when compared to other riparian communities. Within the survey area, this vegetation community occurs within facility location SM-05, which occurs adjacent to open space.

Table 3-2 depicts the comparison of habitat types occurring within the 24 newly proposed maintenance sites and the 63 existing maintenance sites. Vegetation communities are classified according to the Holland Classification System, as modified for San Diego County by Oberbauer et al. (2008).

Vegetation communities and other land cover types classified as “sensitive” within this MND were determined by applying the following regulatory context. Guidance for determining sensitive vegetation communities is provided by the resource agencies—including CDFW and the California Native Plant Society (CNPS)—as well as supporting documentation such as the CNDDDB. These

federal, state, and local agencies and related publications are typically in concurrence on the classification of sensitive vegetation communities and other land cover types. For example, vegetation communities or other cover types that are considered potential jurisdictional waters of the U.S. and State or CDFW jurisdictional waters typically result in the vegetation community or nonvegetated area being considered sensitive. For the proposed project, these waters are regulated by Sections 401 and 404 of the CWA, Sections 1600 et seq. of the CFGC, and the Porter-Cologne Water Quality Control Act. In addition, vegetation communities are considered sensitive if identified as warranting mitigation in the City's Draft Subarea Plan. Biologically, the vegetation communities that provide the highest habitat values within the project area are the structurally diverse riparian communities.

Potential Jurisdictional Waters of the U.S. and State and CDFW Jurisdictional Waters

All 87 maintenance facilities (63 existing and 24 newly proposed) occur in and adjacent to native, naturalized, and developed channels, varying in size, shape, habitat composition, and habitat quality. These ecologically heterogeneous locations share a common ecological context, in that they each convey storm water and other runoff through the city and are connected to larger creeks and waterways (Reidy Creek, Escondido Creek, San Marcos Creek, or the San Dieguito River depending on the facility location), which eventually flow to the Pacific Ocean. Based on this hydrologic and ecologic context, the RGP maintenance facilities are considered to be located within potential jurisdictional waters and are protected by federal, state, and local regulations.

The project study area is encompassed by three Hydrologic Areas (HAs) within three Hydrologic Units (HUs): (1) Carlsbad HU, Escondido Creek HA (RWQCB Basin 904.62, USACE HUC 18070303); (2) Carlsbad HU, San Marcos HA (RWQCB Basin 904.51, USACE HUC 18070303); (3) San Dieguito HU, Hodges HA (RWQCB Basin 905.21, USACE HUC 18070304); and San Dieguito HU, San Pasqual HA (RWQCB Basin 905.21, USACE HUC 18070304). The San Pasqual HA is an additional HA that was not included in the 63 existing maintenance facilities.

Of the 24 newly proposed maintenance facilities, 13 facilities or (54 percent) occur in the Escondido Creek HA, with 9 facilities (38 percent) occurring in the Hodges HA, one facility (4 percent) occurring in the San Marcos HA and one facility occurring in the San Pasqual HA (4 percent). Facilities within the Escondido Creek HA are hydrologically connected to the Pacific Ocean via Escondido Creek, facilities within the San Marcos HA are hydrologically connected to the Pacific Ocean via San Marcos Creek, and facilities within the San Dieguito HU are hydrologically connected to the Pacific Ocean via the San Dieguito River. Hydrology is further discussed under Threshold IV.c below. Biologists conducted a formal jurisdictional delineation for potential waters of the U.S. and State and CDFW jurisdictional waters of the 24 newly proposed maintenance sites in 2019 (Appendix C). Biologists had access to the project survey area to sample vegetation, soils, and hydrology in support of the formal jurisdictional delineation for waters of the U.S. and State and CDFW jurisdictional waters. The presence of wetlands and other waters was assessed based on pre-field surveys and ambient site conditions, along with the formal delineation of wetland and nonwetland waters pursuant to the guidance and criteria outlined in and in accordance with the following:

- 33 Code of Federal Regulations 328 (Definition of Waters of the United States)
- Regulatory Guidance Letters (RGL) 07-02, 88-06, and 05-05
- *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) (1987 Manual)

- *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0) (Environmental Laboratory 2008) (2008 Supplement)
- *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual* (USACE 2008)

TABLE 3-2. VEGETATION COMMUNITIES AND OTHER COVER TYPES OCCURRING WITHIN THE PROJECT STUDY AREA

Vegetation Communities and Land Cover Types	New Proposed 24 Sites			Existing 63 Sites			Grand Total
	Within Facility Location	Within 100-Foot Buffer	Total	Within Facility Location	Within 100-Foot Buffer	Total	
Riparian and Wetlands							
Southern Arroyo Willow Riparian Forest*	0.02	2.08	2.10	0.33	5.94	6.27	8.37
Southern Cottonwood-Willow Riparian Forest*	2.1	4.69	6.79	0.43	5.06	5.49	12.28
Disturbed Southern Cottonwood-Willow Riparian Forest*	6.83	0.13	6.96	--	--	--	6.96
Emergent Wetland*	--	0.4	0.40	< 0.01	< 0.01	0.01	0.41
Coastal and Valley Freshwater Marsh*	0.81	0.11	0.92	0.20	0.57	0.77	1.69
Mulefat Scrub*	--	0.14	0.14	< 0.01	0.21	0.21	0.35
Southern Riparian Scrub*	0.03	0.85	0.88	0.01	0.45	0.46	1.34
Southern Willow Scrub*	0.09	0.87	0.96	< 0.01	0.12	0.13	1.09
Open Water	0.04	0.27	0.31	1.23	0.19	1.42	1.73
Unvegetated Channel	0.34	0.05	0.39	0.08	0.09	0.17	0.56
<i>Total Riparian and Wetlands</i>	<i>10.26</i>	<i>9.59</i>	<i>19.85</i>	<i>3.43</i>	<i>13.69</i>	<i>17.12</i>	<i>36.97</i>
Uplands							
Coast Live Oak Woodland*	--	0.79	0.79	--	0.21	0.21	1
Southern Coast Live Oak Riparian Forest*	0.03	0.25	0.28	--	--	--	0.28
Diegan Coastal Sage Scrub*	<0.01	3.01	3.01	--	1.06	1.06	4.07
Eucalyptus Woodland *	0.04	1.923	1.963	0.03	0.60	0.63	2.593
Non-native Woodland	1.142	2.64	3.782	--	--	--	3.782
Non-native Grassland *	3.842	9.888	13.73	< 0.01	1.67	1.67	15.4
<i>Total Uplands</i>	<i>5.054</i>	<i>18.501</i>	<i>23.555</i>	<i>0.03</i>	<i>3.92</i>	<i>3.95</i>	<i>27.505</i>

Vegetation Communities and Land Cover Types	New Proposed 24 Sites			Existing 63 Sites			Grand Total
	Within Facility Location	Within 100-Foot Buffer	Total	Within Facility Location	Within 100-Foot Buffer	Total	
Other Land Cover Types							
Disturbed Habitat	0.06	3.33	3.39	0.54	7.98	8.52	11.9
Urban / Developed	1.22	56.77	57.99	71.94	310.21	382.14	440.13
<i>Total Other Land Cover Types</i>	<i>1.28</i>	<i>60.1</i>	<i>61.28</i>	<i>72.48</i>	<i>318.18</i>	<i>390.66</i>	<i>451.94</i>
Grand Total	16.6	88.191	104.8	75.94	335.79	411.73	516.53

* Denotes sensitive vegetation community.

¹ All acreages rounded to two decimal places after summation.

² Based on AECOM (2012) and ICF (2020) survey results.

A total of 13.15 acres of waters of the U.S. and State and 16.42 acres of CDFW riparian and/or streambed occur within the newly proposed facility locations (Table 3-3). These jurisdictional waters occur within the Carlsbad and San Dieguito watersheds. Representative OHWM data forms were completed for each type of jurisdictional water (i.e. concrete-lined, roadside drainage, and natural drainage) and not completed for each facility location.

TABLE 3-3. POTENTIAL JURISDICTIONAL WATERS OF THE U.S. AND STATE AND CDFW WATERS OCCURRING WITHIN THE PROJECT SURVEY AREA

RGP Maintenance Facilities	Waters of the U.S and State			CDFW Waters		
	Nonwetland (acres)	Wetland (acres)	Total	Streambed (acres)	Riparian (acres)	Total
Newly Proposed 24	1.09	12.06	13.15	1.39	15.03	16.42
Existing 63	70.75	0.91	71.66	2.23	0.29	2.52
Total	71.84	12.97	84.81	3.62	15.32	18.94

¹ All acreages rounded to two decimal places after summation.

Special-Status Species

Species are given special consideration by resource agencies such as USFWS and CDFW due to limited distribution (i.e., rarity), local significance, and/or the threat of extinction by human activities. Special-status species are those protected under the federal ESA, CESA, and/or listed as sensitive by other state and local organizations or agencies such as the CNPS. For purposes of this analysis, a special-status species is broadly defined as a candidate, sensitive, or other species covered by local or regional plans, policies, or regulations, or by CDFW or USFWS.

The 2013 MND determined 40 special-status plant and animal species are known to occur within 1 mile of the existing 63 maintenance facilities. Of these 40 species, 21 special-status species were observed or determined to have a potential to occur within 100 feet of one or more of the existing maintenance facilities. A complete list of special-status plant and animal species documented in CNDDDB within 1 mile of the existing 63 maintenance facilities is provided in Appendix C of the 2013 MND.

Based on the results of field surveys of the newly proposed 24 maintenance facilities and a revised search of the CNDDDB (CDFW 2019), 11 additional special-status plant and animal species are known to occur within 1 mile of the project survey area: San Diego button-celery (*Eryngium aristulatum* var. *parishii*), decumbent goldenbush (*Isocoma menziesii* var. *decumbens*), spreading navarretia (*Navarretia fossalis*), southern California legless lizard (*Aniella stebbinsi*), coast horned lizard (*Phrynosoma blainvillii*), Coronado skink (*Plestiodon skiltonianus interparietalis*) tricolored blackbird (*Agelaius tricolor*), Swainson’s hawk (*Buteo swainsoni*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), California black rail (*Laterallus jamaicensis coturniculus*), and Townsend’s big-eared bat (*Corynorhinus townsendii*). None of these additional special-status species have been determined to have a high potential to occur within any of the newly proposed 24 maintenance facilities.

Three special-status plant and animal species that were previously determined to have a potential to occur within the existing 63 maintenance facility locations were also determined to have a potential

to occur within one or more of the 24 new maintenance facility locations. The potential to occur is based on the presence of suitable habitat within and adjacent to the maintenance facility locations and known occurrences of these species within 1 mile of the maintenance facility. These species include San Diego ambrosia (*Ambrosia pumila*), coastal California gnatcatcher (*Polioptila californica californica*, CAGN) and least Bell's vireo (*Vireo bellii pusillus*, LBVI).

In addition, two new maintenance facility locations (H-15 and H-18) are located within USFWS-designated critical habitat for coastal California gnatcatcher. See Table 3-4 below for a description of which facility sites provide suitable habitat and/or designated critical habitat for LBVI, CAGN, and San Diego Ambrosia.

TABLE 3-4. SUITABLE HABITAT WITHIN NEW PROPOSED 24 FACILITY LOCATIONS

Facility Location	Site Name	LBVI	CAGN and/or Within its Designated Critical Habitat	San Diego Ambrosia
E-53	Reidy Creek – Rincon to Pleasantwood	Yes	--	Yes
E-54	Reidy Creek – Morning View	Yes	--	Yes
E-55	HARRF	Yes	--	--
E-58	Reidy Creek Golf Course	Yes	--	Yes
E-60	Oak Valley Lane	Yes	--	Yes
H-15	Sierra Linda	--	Yes; Critical Habitat	--
H-16	Concerto and Beethoven	--	Yes	Yes
H-17	Bear Valley Pkwy	Yes		Yes
H-18	Kit Carson Bike Trail	Yes	Yes; Critical Habitat	Yes
H-19	Encino and Amparo	Yes	--	--
H-20	Sunset and Bear Valley	Yes	--	Yes
H-21	Via Rancho Pkwy and Sunset Drive	Yes	--	--
SM-05	Woodland Pkwy	Yes	--	Yes

Migratory Birds, Wildlife Movement, and Migration Corridors

In addition to the special-status species discussed above, as previously noted, migratory birds are protected under the MBTA. Under the act, most migratory birds are protected during the nesting season, as are the habitats in which they reside. Several species of migratory birds have the potential to use habitat within and adjacent to the facility locations during the nesting season.

Most of the 24 newly proposed maintenance facilities are highly urbanized concrete and earthen facilities supporting little or no native vegetation, or are within isolate patches of riparian habitat surrounded by urban and suburban development. These facilities provide little value as corridors for wildlife movement or nesting/foraging. Six facilities occur in riparian or upland habitats with potential connectivity to undeveloped expanses of natural habitats within the region (e.g., San Dieguito River Park Open Space Preserve). For example, facilities within the northern portion of Reidy Creek and Kit Carson Park are well connected to established riparian corridors to Escondido Creek; these habitats provide valuable movement corridors for fish and wildlife through otherwise highly developed City and private land. Additionally, one facility, H-16, occurs adjacent to the Hodges Reservoir Core Habitat Linkage as identified in the Draft North County Subarea Plan of the San Diego Multiple Species Conservation Plan.

Environmental Evaluation

Would the project:

- a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than Significant with Mitigation Incorporated. As summarized above, three special-status species have the potential to occur within at least one of the 24 newly proposed maintenance facilities. These species are federally listed and include San Diego ambrosia, coastal California gnatcatcher, and least Bell's vireo (note that least Bell's vireo is also state-listed). These three listed species were also previously determined to have the potential to occur adjacent to one or more of the existing 63 maintenance facility locations.

O&M activities are necessary to ensure proper function and integrity of the channel system and structures, and the activities do not otherwise alter or expand the existing system. At each of the existing and proposed maintenance facilities, the City has made great efforts to constrain the extent and type of impact that would occur. Activities conducted within serviceable concrete-line facilities would not result in adverse or significant impacts as no impacts on sensitive habitat would occur within these facilities. Impacts on natural facilities with earthen-bottom channels would be limited by restricting tree-trimming to the understory and limiting activities to the smallest radius necessary to allow for positive flow and only impacting the minimal low-flow channel. The City would avoid native tree removal in all but three facility locations (E-60, H-19, and H-21) as described in Table 2-1 to allow crews access to the facility site or to allow for positive flow within the channel.

Even with the restriction activity impact areas, there is potential for significant impacts on sensitive species, from habitat modification or degradation, construction noise and lighting, and unauthorized trespass by O&M personnel. The proposed project would incorporate the same mitigation measures from the 2013 MND, with minor revisions to Mitigation Measures BIO-1 and BIO-14 to clarify when pre-activity surveys would be performed based on how the current permits are being implemented and to allow for native tree removal within identified new facility locations.

As listed in Table 3-10 below, several species-specific mitigation measures from the 2013 MND (BIO-17 through BIO-22), have been identified to avoid and minimize otherwise potentially significant impacts to a less-than-significant level. Moreover, additional mitigation measures from the 2013 MND would be implemented to reduce impacts on special-status species to a level below significance. Biological monitors would be on site during vegetation clearing and grubbing to flag sensitive resources for avoidance and halt work if necessary (Mitigation Measure BIO-1), and workers would be trained to identify key natural and cultural resources prior to starting work (Mitigation Measure BIO-2). Equipment staging would be located outside of sensitive habitats and limited to the project footprint (Mitigation Measure BIO 3); work areas would be fenced or flagged (BIO-4); trash and dust would be kept out of sensitive habitats (Mitigation Measures BIO-5 and BIO-6); use of night lighting would be avoided if at all possible, or the lights would be directed away from sensitive habitats (Mitigation Measure BIO-7). Site access would be controlled and vehicles restricted to existing access roads (Mitigation Measure BIO-8). Erosion control measures would ensure sensitive habitats are not degraded through sedimentation and/or topsoil loss (Mitigation Measure BIO-9). Tools and equipment would be washed prior to entering maintenance areas to limit the spread of invasive plant species (Mitigation Measure BIO-12). Trespass into riparian vegetation

would be prohibited, and impacts on riparian habitats would be minimized to the greatest extent possible (i.e., understory only within the confines of the project footprint; Mitigation Measure BIO-13). Native trees would be avoided except for within specified locations to allow access (Mitigation Measure BIO-14). The nesting season would be avoided if at all possible (Mitigation Measure BIO-15), with applicable preconstruction surveys, flagging of environmentally sensitive avoidance buffers, and biological monitoring (Mitigation Measures BIO-16 through BIO 18). Pre-activity surveys would be performed in areas with potential for state-listed and/or federally listed plant species, and, if detected, these species would be avoided (Mitigation Measure BIO-19). Weed whipping activities would be restricted in occupied San Diego ambrosia habitat (Mitigation Measure BIO-20). Mature oak trees would be avoided per City guidelines, as well as the establishment of an oak root protection zone when heavy equipment is to be used (Mitigation Measure BIO-21). The City's goal is 100 percent avoidance of any direct impacts on special-status species (Mitigation Measure BIO-22). In addition, impacts on habitats with potential to support sensitive species would be mitigated for, as described further under Threshold IV.b (Mitigation Measure BIO-23). Thus, with implementation of mitigation, impacts on sensitive and special-status species would be less than significant.

- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than Significant with Mitigation Incorporated. Within the 24 new maintenance facilities, a total of approximately 14.95 acres of impacts on sensitive vegetation communities would result from the proposed project (Table 3-5). Sensitive vegetation communities are those classified as Vegetation Groups A and B as described in Table 3-6. The majority of impacts on sensitive vegetation communities from the 24 new maintenance facilities (14.12 acres) would result from nonnative vegetation clearing and native vegetation trimming using hand tools only. These impacts would be temporary and are not considered significant. A total of approximately 0.83 acre of impacts on sensitive vegetation communities would result from vegetation and sediment removal within the 24 new maintenance facilities and are considered potentially significant.

TABLE 3-5. SENSITIVE VEGETATION COMMUNITY IMPACTS

Vegetation Type	Impact Acreage	
	24 Proposed Sites	Existing 63 Sites
Sensitive Vegetation Communities—Mitigation Proposed		
Tier I		
Alkali Seep	--	< 0.01
Cismontane Alkali Marsh	--	< 0.01
Coastal and Valley Freshwater Marsh	--	0.10
Diegan Coastal Sage Scrub	< 0.01	--
Engelmann Oak Woodland	--	0.03
Southern Arroyo Willow Riparian Forest	0.02	0.31
Southern Coast Live Oak Riparian Forest	0.04	--
Southern Cottonwood-Willow Riparian Forest	0.57	0.36
Southern Riparian Scrub	0.03	0.01
Southern Willow Scrub	0.07	< 0.01
<i>Tier I Subtotal</i>	<i>0.73</i>	<i>0.81</i>

Vegetation Type	Impact Acreage	
	24 Proposed Sites	Existing 63 Sites
Tier II		
Disturbed So. Cottonwood-Willow Riparian Forest	0.01	--
Disturbed Wetland	--	0.25
Emergent Wetland	--	< 0.01
Nonnative Grassland	0.01	--
Nonnative Woodland	0.09	--
<i>Tier II Subtotal</i>	<i>0.10</i>	<i>0.25</i>
Tier I and II Total¹	0.83	1.06
Sensitive Vegetation Communities—Mitigation Not Proposed (Hand Tool Work Only or Temporary BMPs)		
Coastal and Valley Freshwater Marsh	0.81	0.10
Disturbed So. Cottonwood-Willow Riparian Forest	6.82	--
Disturbed Wetland	--	0.89
Emergent Wetland	--	< 0.01
Eucalyptus Woodland	0.05	0.03
Mulefat Scrub	--	< 0.01
Nonnative Grassland	3.84	< 0.01
Nonnative Woodland	1.05	--
So. Cottonwood-Willow Riparian Forest	1.53	0.07
Southern Arroyo Willow Riparian Forest	--	0.02
Southern Willow Scrub	0.02	--
Total¹	14.12	1.11
Non-Sensitive (Tier IV) Vegetation Communities—Mitigation Not Proposed		
Open Water	0.04	1.23
Unvegetated Channel	0.34	0.08
Disturbed Habitat	0.06	0.54
Urban / Developed	1.22	71.94
Total¹	1.66	73.79

¹Total acreage may not add up due to rounding of decimal places.

TABLE 3-6. PROPOSED VEGETATION CATEGORIES FOR DETERMINING RESOURCE TIERS

Category	Description	Community
A	Native Vegetation Communities	Alkali Seep
		Cismontane Alkali Marsh
		Coast Live Oak Woodland
		Coastal and Valley Freshwater Marsh
		Diegan Coastal Sage Scrub
		Engelmann Oak Woodland
		Mulefat Scrub
		Southern Arroyo Willow Riparian Forest
		Southern Cottonwood-Willow Riparian Forest
		Southern Riparian Scrub

Category	Description	Community
		Southern Coast Live Oak Riparian Forest
		Southern Willow Scrub
B	Disturbed Wetland	Disturbed So. Cottonwood-Willow Riparian Forest
		Disturbed Wetland
		Emergent Wetland
		Nonnative Grassland
		Nonnative Woodland
		Eucalyptus Woodland
C	Disturbed, Developed, or Unvegetated Land Covers	Disturbed Habitat
		Open Water
		Unvegetated Channel
		Urban/Developed

As mentioned above, at each facility the City has made great efforts to constrain the impact area to existing concrete-lined features and otherwise developed/disturbed areas. In natural facilities with native vegetation growing in earthen-bottom or non-serviceable concrete channels, the City would limit impacts from removal of accumulated sediment and herbaceous vegetation, weed and nonnative tree removal, one-time native tree removal, and native shrub trimming. The City would also limit removal of native riparian trees and shrubs to three facility locations (E-60, H-19, and H-21) to allow crews access to the facility site and to maintain positive flow. Minor trimming would occur at the other facility locations.

As listed in Table 3-10 below, several mitigation measures from the 2013 MND (Mitigation Measures BIO-1 through BIO-5, and Mitigation Measures BIO-8 through BIO-14) would be implemented to avoid and minimize significant impacts (direct and indirect) on sensitive vegetation communities to the greatest extent practicable. These measures would include staking/flagging of maintenance footprints, only allowing access within designated access roads, requiring equipment and tools to be washed prior to entering the site to prevent the spread of invasives, and minimizing impacts on native riparian habitat and native trees. In addition to the measures detailed above under Threshold IV.a, dewatering would be conducted in accordance with water quality BMPs and under applicable permits (Mitigation Measure BIO-10).

Even with implementation of avoidance and minimization measures, significant impacts on 0.83 acre of sensitive habitat would remain with project implementation. However, the project would implement Mitigation Measure BIO-23, requiring compensatory mitigation for impacts on habitats through creation, restoration, and/or enhancement. Therefore, impacts on sensitive habitats would be less than significant. Mitigation ratios would be based on resource tiers. These tiers indicate the sensitivity of the resource, with Tier I being the most sensitive (native habitat areas) and Tier IV (unvegetated concrete channels) being the least sensitive. These Tiers, and the proposed mitigation types are summarized in Table 3-7. Therefore, with implementation of the mitigation measures discussed above, impacts on sensitive vegetation communities would be less than significant.

TABLE 3-7. PROPOSED RESOURCE TIERS AND IMPACT THRESHOLDS FOR THE ESCONDIDO CHANNEL MAINTENANCE PROJECT

Resource Tier	Description	Proposed Mitigation
Tier I	Includes native habitats (i.e., Category A vegetation communities per Table 3-6) growing within earthen facilities or non-serviceable concrete facilities. This includes wetland waters and riparian extent.	2:1 in the form of restoration or enhancement as needed to achieve overall 2:1 ratio.
Tier II	Includes nonnative habitats and unvegetated areas (i.e., Category B vegetation communities and Category C land covers per Table 3-6) occurring within earthen facilities or non-serviceable concrete facilities. These are mostly nonwetland waters but may include disturbed wetland waters.	1.5:1 for natural drainages, in the form of restoration or enhancement. 1:1 for natural-lined roadside drainage ditches (i.e., Category C land covers) through on-site channel recontouring.
Tier III	Includes vegetated areas (i.e., Category A [herbaceous] and Category B vegetation communities per Table 3-6) occurring within serviceable concrete facilities. These are isolated, low-quality patches of opportunistic vegetation that are not likely to persist (e.g., flow associated with a storm event could easily blow out these habitat “islands”). Note that mature tree/shrub vegetation communities of Category A cannot occur on serviceable concrete lining by definition; if enough sediment is present to support native tree/shrub vegetation communities of Category A, the structure is non-serviceable by definition, and the impacts would be elevated to Tier I.	No mitigation
Tier IV	Includes unvegetated areas (i.e., Category C per Table 3-6) occurring within serviceable concrete facilities.	No mitigation

Note: Does not include impacts determined to be non-significant (temporary BMPs and vegetation removal with hand tools).

- c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?

Less than Significant with Mitigation Incorporated. As shown in Tables 3-8 and 3-9 below, 1.57 acres of the new maintenance facilities project impacts would occur within waters of the U.S. and State, and 16.42 acres would occur within CDFW jurisdictional waters. Of the 24 new facility locations, 5 will result in a discharge of dredged material within waters of the U.S. and State during maintenance activities that is regulated by the USACE and RWQCB, resulting in 0.64 acre of impacts. These facility locations include: E-53, E-56, E-58, E-60, and H-19. The remaining facility locations would only result in temporary impacts (0.93 acre) associated with use of temporary diversion structures during maintenance activities.

Activities proposed within all 24 new facility locations are regulated by the CDFW. Of the 16.42 acres, 15.37 acres would occur in serviceable concrete-lined features or in earthen channels that require nonnative vegetation removal and vegetation trimming with hand tools only. Potential impacts on Tiers

III and IV, as well as temporary BMP installation and selective nonnative vegetation removal with hand tools within Tier I and Tier II resources, are not considered significant and would not have a significant impact on federal or state-protected wetland resources.

TABLE 3-8. JURISDICTIONAL WATERS OF THE U.S. AND STATE IMPACT BY TIERS

Resource Tiers	24 Proposed Maintenance Facilities	Existing 63 Maintenance Facilities
Earthen or Non-Serviceable Concrete Lining (Mitigation Required)		
Wetland Waters		
Tier I	0.62	0.55
Tier II	--	0.25
Non-wetland Waters		
Tier II	0.03	0.20
Total Impacts – Mitigation Required¹	0.64	1.00
Jurisdictional Serviceable Concrete Lining and Earthen Channel use of Temporary BMPs (Mitigation Not Required)		
Wetland Waters		
Tier I	0.03	--
Tier II	0.01	--
Tier III	0.02	0.11
Non-wetland waters		
Tier I	<0.01	--
Tier II	0.22	--
Tier III	--	0.81
Tier IV	0.64	69.75
Total Impacts—No Mitigation Required¹	0.93	70.66
Project Impacts on Waters of the U.S. and State, All Resource Tiers¹	1.57	71.66

¹ Acreages may not add up directly due to rounding.

TABLE 3-9. CDFW JURISDICTIONAL WATERS IMPACT BY TIERS

Resource Tiers	24 Proposed Maintenance Facilities	Existing 63 Maintenance Facilities
Earthen or Non-Serviceable Concrete Lining (Mitigation Required)		
Riparian		
Tier I	0.72	0.81
Tier II	0.11	0.25
Channel Bed and Bank		
Tier I	<0.01	<0.01
Tier II	0.22	0.33
Total¹	1.05	1.39
Jurisdictional Serviceable Concrete Lining and Earthen Channel Hand-Tool Work (Mitigation Not Required)		
Riparian		
Tier III	14.06	0.14

Resource Tiers	24 Proposed Maintenance Facilities	Existing 63 Maintenance Facilities
Channel Bed and Bank		
Tier III	--	0.95
Tier IV	1.31	71.77
Total Impacts—No Mitigation Required¹	15.37	72.85
Project Impacts on CDFW Jurisdictional Waters, All Resource Tiers¹	16.42	74.24

¹ Acreages may not add up directly due to rounding.

Permanent impacts on Tier I (native riparian/wetland) and Tier II (nonnative riparian/wetland) resources are considered significant. Potentially significant project impacts would occur on 1.05 acres of Tier I and II wetland or riparian habitat (i.e., federal and/or state jurisdictional habitat) (Tables 3-8 and 3-9) due to maintenance activities proposed at the new facility locations.

As listed in Table 3-10 below, several mitigation measures would be implemented to avoid and minimize significant impacts (direct and indirect) on jurisdictional waters to the greatest extent practicable and would include: equipment staging, stockpiling, and refueling would be located in upland areas away from wetlands, and project activities would be limited to the project footprint and surrounding developed access routes (Mitigation Measure BIO-3); trash and dust would be kept out of sensitive habitats (Mitigation Measures BIO-5 and BIO-6). In addition, erosion control measures would ensure waters and wetlands are not degraded through sedimentation and/or topsoil loss (Mitigation Measure BIO-9). Dewatering would be conducted in accordance with water quality BMPs and under applicable permits (Mitigation Measure BIO-10), fires would be prevented through safe driving and smoking practices (Mitigation Measure BIO-11), and the spread of exotic weed species would be avoided by proper washing of vehicles upon entry and exit (Mitigation Measure BIO-12). Trespass into riparian vegetation would be prohibited, and impacts on riparian habitats would be minimized to the greatest extent possible (i.e., understory only within the confines of the project footprint) (Mitigation Measure BIO-13). Native riparian trees and shrubs would be limited to two pre-approved locations (Mitigation Measure BIO-14).

Due to the nature of the project, the proposed project necessitates work within and around jurisdictional waters. The City has made great efforts to minimize impacts to the greatest extent practicable, while also maintaining the objectives of the project; however, impacts on potential jurisdictional waters remain a part of the proposed project.

Even with avoidance and minimization measures, significant impacts on 1.05 acres of jurisdictional waters would remain with project implementation. Although project impacts are considered permanent as maintenance activities would modify the jurisdictional waters contours and elevation as well as reduce the functions and services provided by these waters, no loss of jurisdictional waters would occur. In addition, the project would implement Mitigation Measure BIO-23, requiring compensatory mitigation for impacts on habitats through restoration and/or enhancement. Therefore, impacts on federal or state-protected wetland resources would be less than significant. Mitigation ratios would be based on resource tiers. These tiers indicate the sensitivity of the resource, with Tier I being the most sensitive (native habitat areas) and Tier IV (unvegetated concrete channels) being the least sensitive. These tiers, and the proposed mitigation types, are summarized in Table 3-7. Therefore, with implementation of the mitigation measures discussed above, impacts on federal- or state-protected wetland resources would be less than significant.

- d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less-than-Significant Impact. The proposed project involves minimally invasive vegetation and sediment removal within maintenance facilities that are accessible primarily via urban hardscape. Maintenance activities would be timed to avoid significant impacts on special-status species, would be designed to avoid native riparian tree removal (other than the three identified facility locations: E-60, H-19, and H-21), and would not involve the permanent placement of obstructive apparatus or structures within native habitats. The small impact footprint and low invasiveness of maintenance at each facility, coupled with the urbanized setting of most facilities, would result in less than significant impacts on wildlife movement and habitat corridors from the project.

- e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than Significant with Mitigation Incorporated. The City defines protected trees as “any oak (*Quercus* sp.) which has a ten (10) inch or greater diameter at breast height (DBH), or any other species or individual specimen listed on the local historic register, or determined to substantially contribute to the historic character of a property or structure listed on the local historic register, pursuant to Article 40 of the Escondido Zoning Code (2001).” Four proposed maintenance facility locations (E-55, H-19, H-20, and SM-05) are located in areas mapped as coast live oak woodland or southern coast live oak riparian forest. These protected trees would be avoided during project activities per Mitigation Measures BIO-14 and BIO-21, which require the avoidance of all native trees other than the identified locations (E-60, H-19, and H-21) and protection of an oak tree’s root protection zone. Therefore, with implementation of mitigation impacts would be less than significant.

- f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

Less-than-Significant Impact. The project study area occurs within one regional conservation planning area: the City of Escondido Draft Subarea Plan under the MHCP. The project study area occurs within City limits and thus outside of the North County Multiple Species Conservation Plan (MSCP) area.

The Draft Escondido Subarea Plan (City of Escondido 2001) documents core conservation areas, known as Hardline Reserves. Sites E-55, H-18, SM-05, E-58, and H-15 occur within Hardline Reserve areas. The Draft Escondido Subarea Plan calls for conservation of between 90 and 100 percent of resources within preserve areas and no net loss of wetlands. Because the project would avoid take of special-status species and would result in no net loss of sensitive habitats or jurisdictional waters, the project is consistent with conservation measures defined in the Draft Escondido Subarea Plan. Thus, impacts would be less than significant.

Mitigation Measures for Biological Resources

TABLE 3-10. MITIGATION MEASURES FOR BIOLOGICAL RESOURCES

Measure	Description
Biological Resources General Avoidance & Minimization	
BIO-1 Biological Monitors + City Inspectors	<p>The City will designate a qualified biologist(s) to oversee monitoring and compliance with protective measures for the biological resources. The qualified biologist(s) will maintain communications with the appropriate personnel (project manager, resident engineer, project foreman) to ensure that issues relating to biological resources are appropriately and lawfully managed. The qualified biologist(s) will submit reports that document compliance with these measures to the wildlife agencies upon request or, at a minimum, are included in an end-of-the-year report. In addition, the qualified biologist(s) will perform the following duties:</p> <ol style="list-style-type: none"> a. Conduct pre-activity surveys to verify site conditions and identify sensitive biological resources that require avoidance. Pre-activity surveys will occur at 1) sites that have not yet been maintained; earthen sites that have not been maintained for two or more years; and concrete-lined sites that have not been maintained for three or more years; 2) sites where the maintenance activity has not occurred within 30 days from the date of the pre-activity survey; and 3) any site where maintenance work will occur within the nesting season and suitable avian habitat is present within 500 feet of the site. b. If site conditions are different than the established baseline, the maintenance site will be reevaluated for federally listed species and their habitats. The U.S. Army Corps of Engineers will be notified of the new conditions prior to work and will have 14 days to coordinate with the U.S. Fish and Wildlife Service to respond with amended permit conditions relevant to the site. Otherwise, work will proceed using existing avoidance, minimization, and mitigation measures set forth in the permits, as applicable to the new site conditions. c. Monitor O&M activities when sensitive biological resources have been flagged for avoidance during pre-activity surveys by a qualified biologist(s). The qualified biologist(s) will have authority to halt work, if necessary, and will be responsible for coordinating with the U.S. Army Corps of Engineers (who will consult as needed with the U.S. Fish and Wildlife Service) to ensure the proper implementation of species and habitat protection measures. Any breach of the conservation measures will be reported to Service by the qualified biologist(s) within 24 hours of its occurrence. d. Erosion control measures will be regularly checked by City inspectors, resident engineer, and/or project foreman. The qualified biologist(s) will also monitor erosion control measures when he/she is on-site. Site-specific best management practice (BMP) plans will be reviewed by the qualified biologist(s) and modified, if necessary, prior to implementation. Fencing and/or erosion control measures at maintenance facilities will be inspected by on-site personnel a minimum of once per week until completion of the maintenance activity.
BIO-2 Worker Awareness	<p>Each employee will participate in a training/awareness program that will be presented by the qualified biologist or City staff member, prior to working on the proposed project.</p>
BIO-3 Staging + Stockpiling	<p>The City will ensure that all work materials, staging, storage, dispensing, fueling, and equipment maintenance activities are located in upland areas outside of sensitive habitat, and that adequate measures are taken to prevent any potential runoff from entering waters of the U.S. and State. Staging areas will be located within facility footprints or adjacent urban/developed hardscape.</p>
BIO-4 Fencing and Flagging	<p>The City will temporarily fence (with silt barriers) or flag the limits of project impacts (including staging areas and access routes), as needed to prevent additional habitat impacts and prevent the spread of silt from the construction zone into adjacent habitats to be avoided. When deemed necessary, fencing or flagging will be installed in a manner that does not impact habitats to be avoided. If work occurs beyond the fenced or flagged limits of impact, all work will cease until the problem has been remedied to the satisfaction of the City. Temporary construction fencing or flagging will be removed upon project completion.</p>
BIO-5	<p>Spoils, trash, or any debris will be removed off-site to an approved disposal facility.</p>

Measure	Description
Trash Removal	
BIO-6 Dust Abatement	The project foreman and biological monitor (See BIO-1 for role of biological monitor)) will periodically monitor the work area to ensure that maintenance-related activities do not generate excessive dust.
BIO-7 Light and Glare	Maintenance activities will be conducted during normal business hours, and without the use of lighting whenever possible, excepting emergencies. If emergency maintenance activities occur at night, all project lighting (e.g., staging areas, equipment storage sites, roadway) will be directed onto the roadway or maintenance facility footprint and away from sensitive habitat. Light glare shields may also be used to reduce the extent of illumination into adjoining areas.
BIO-8 Access	Vehicle traffic will be restricted to existing access roads except as specified in the RGP.
BIO-9 Post-Activity Erosion and Sediment Control	Post-maintenance activity erosion and sediment control will be implemented as applicable, including landscape planting and other biotic slope stabilization techniques (e.g., hydroseed and/or hydromulch). Erosion control blankets having plastic mesh with the potential to ensnare amphibians and reptiles will not be used in areas these animals inhabit.
BIO-10 Water Diversion/ Dewatering	<p>All surface waters, including ponded waters, will be diverted away from areas undergoing dredging or vegetation removal and/or any other activity that may result in a discharge to the receiving water to the extent practicable. When water diversion is necessary, a structural BMP would be implemented to temporarily detain or reroute drainage around the work area based on field conditions, drainage characteristics, seasonal variation, maintenance duration, and practicability of application. The intent of the temporary BMP implementation would be to avoid or minimize water interference in the work area and water quality impacts to downstream receiving waters. When maintenance is completed, the flow diversion structure will be removed as soon as possible in a manner that allows flow to resume and prevent debris or sediment accumulated from returning to the stream.</p> <p>If dewatering is conducted, either a pump will move water to an upland disposal site, or a sediment basin or other structure will be used to collect and treat the water. If applicable, a National Pollutant Discharge Elimination System permit may be required. If not applicable, the water returned to the waterway should be equivalent in nature to pre-activity conditions.</p> <p>Additional water quality measures may arise as conditions of the 401 Water Quality Certification. The City will adhere to these conditions in addition to this avoidance measure.</p>
BIO-11 Fire Prevention	Wildfires will be prevented by exercising care when driving and by not parking vehicles where catalytic converters could ignite dry vegetation. In times of high fire hazard, trucks may need to carry water and shovels or fire extinguishers in the field. No smoking or disposal of cigarette butts will take place within vegetated areas.
BIO-12 Minimizing Spread of Exotic Plant Species	Tools and equipment will be washed in designated areas prior to entering and exiting work areas, to ensure no plant material is transported on- or off-site.
Riparian Vegetation Avoidance & Minimization	
BIO-13 Riparian Vegetation Avoidance	Measures will be taken to avoid and minimize impacts to native riparian vegetation to the greatest extent possible. This includes unnecessary or unauthorized trespass by workers and equipment, staging and storage of equipment and materials, refueling activities, and littering or dumping debris in riparian areas.
BIO-14 Native Tree Avoidance	Native Tree Avoidance – The City will only remove mature native trees within identified locations (E-60, H-19, and H-21). Outside of these identified locations, the City will not remove native trees, including, but not limited to, willow (<i>Salix</i> spp.), cottonwood (<i>Populus</i> spp.), western sycamore (<i>Platanus racemosa</i>), and oak (<i>Quercus</i> sp.). The

Measure	Description
	<p>City may trim these species up to a height of 7 feet, barring oaks and sycamores with a diameter breast-height greater than 9.5 inches, which may not be pruned.</p> <p>Where access and operation of equipment is limited, portions of trees may be trimmed/pruned to no more than 13 feet provided a certified arborist and/or project biologist determines that such pruning will not result in a significant impact to the health of the tree. Trimming/pruning of native trees will be conducted outside the general avian nesting season (February 15 through September 15), when feasible. If work is required during the avian nesting season then surveys will be required as outlined in BIO-15 through BIO-17 to ensure avoidance of nesting birds. Trimming/pruning shall be done in a manner to maintain the trees overall health and appearance. Cutting of branches greater than 2 inches in diameter will be done by a certified arborist.</p>
Migratory Bird Avoidance & Minimization	
BIO-15 Nesting Season Avoidance	Vegetation clearing shall occur outside of the typical breeding season for raptors and migratory birds (February 15 through September 15). However, if this is not possible, then a qualified biologist will conduct a raptor nesting survey prior to construction to determine the presence or absence of nests in the riparian habitat, and the potential need for additional project mitigation measures.
BIO-16 Nest Buffers	<p>To the greatest extent feasible, vegetation clearing, dredging, and other mechanized activities within 500 feet of undeveloped vegetation communities will be conducted outside the breeding season for federally protected migratory and listed bird species. In situations where these types of maintenance activities will occur adjacent to undeveloped vegetation communities during the breeding season (February 15 through September 15), the following measures will be implemented:</p> <ol style="list-style-type: none"> 1. A preconstruction survey for migratory birds shall be performed by a qualified biologist within 3 days prior to any removal of trees, shrubs, or structures on the project site. If no active nests are found, then no further action will be warranted. 2. If an active nest is detected on or within 300 feet of the project site (500 feet for raptors), no work shall be conducted within a 300-foot radius (500 feet for raptors) of the detected nest until a biological monitor determines the nest is no longer active.
Special-Status Species Avoidance & Minimization	
BIO-17 State- Listed and Federally Listed Bird Species	For those facilities where state-listed and/or federally listed bird species have potential to occur within the project footprint, a qualified biologist will make three separate visits (on separate days), with the final visit being not more than 3 days prior to the maintenance activity. These three survey visits will supersede the preconstruction surveys required under BIO-1 and BIO-15.
BIO-18 Bat Species	For those facilities where special-status bat species have potential to occur within the project footprint, a qualified biologist will survey for roosting bats concurrently with the preconstruction surveys required under BIO-1 and BIO-15. The same conditions identified in BIO-15 will apply to roosting bats.
BIO-19 Rare Plants	Pre-activity Surveys – For those facilities where San Diego ambrosia has the potential to occur within the maintenance site footprint, a qualified biologist(s) will perform focused surveys prior to maintenance activities and will flag avoidance areas if the species is detected. If ambrosia is detected within the maintenance footprint and cannot be avoided, O&M activities within that maintenance footprint will be postponed and consultation will be reinitiated by the U.S. Army Corps of Engineers with the U.S. Fish and Wildlife Service to address adverse effects on ambrosia and develop feasible impact minimization measures (e.g., plant and/or seed salvage). O&M activities at that maintenance site will not resume until consultation between the U.S. Army Corps of Engineers and U.S. Fish and Wildlife Service is completed and all feasible measures are implemented. Results of focused surveys for ambrosia will be valid for 3 years; facilities with survey results older than 3 years may require repeat surveys.

Measure	Description
BIO-20 San Diego Ambrosia	<p>Weed whipping or other non-ground disturbing activities may occur in occupied habitat for San Diego ambrosia (when presence is documented by focused surveys conducted every 3 years as described in BIO-19) if the following measures are implemented:</p> <ol style="list-style-type: none"> a. Conduct activities outside of the blooming period (April 1 through October 31) and 72 hours after any significant rain events (0.25 inch or more), when the soil is hard, and when no vegetative growth is visible. b. Avoid the application of herbicide in areas where listed plant species occur (unless concurred with by the Agencies for specific problem plants such as artichoke thistle). If no listed plant species are present, herbicide application may occur under the direction of a licensed applicator. c. Use a machine mower only if soil is not wet or muddy. d. Remove weed thatch carefully so that soil is not disturbed (i.e., avoid disturbing the seed bank or corms).
BIO-21 Oak Trees	<p>Oaks require special avoidance. Heavy equipment shall not encroach on the root protection zone (i.e., 50 feet from the drip line) within undeveloped areas, nor will equipment be staged/stockpiled in these areas. A qualified biologist shall flag root protection zones as off-limits at applicable facilities, prior to starting work. Specific types of work and equipment may be approved within the root protection zone if approved by a certified arborist.</p>
BIO-22 Complete Avoidance of Special-Status Species	<p>The City will strive for 100 percent avoidance of direct impacts to special-status plant and wildlife species and will use biological monitors and preconstruction surveys to ensure avoidance (per BIO-1, BIO-16, BIO-17, BIO-18, BIO-19, and BIO-20, BIO-21).</p>
Biological Resources Compensatory Mitigation	
BIO-23 Compensatory Mitigation	<p>All potentially significant project impacts will occur within habitats that are also potential jurisdictional waters. Compensatory mitigation for jurisdictional waters, as described below, will reduce potentially significant impacts to natural habitats to a level below significance. Because the project will avoid potentially significant impacts to special-status species and wildlife migration, no mitigation is necessary above and beyond the habitat-based compensatory mitigation for jurisdictional waters described below.</p> <p>The proposed project necessitates work within and around jurisdictional waters. As demonstrated in the previous section, the City has made great efforts to minimize impacts to the greatest extent practicable, while also maintaining the objectives of the project; however impacts to potential jurisdictional waters remain a part of the proposed project.</p> <p>These impacts will be mitigated to a level below significance through permittee-responsible off-site mitigation in the form of restoration and/or enhancement or through the purchase of restoration and enhancement credits at the San Luis Rey Mitigation Bank. The City is currently pursuing permittee-responsible mitigation in the form of restoration and enhancement activities within Kit Carson Park. The City is currently in negotiations with the agencies and has prepared a draft mitigation plan for their review and approval. A final mitigation plan will be approved as a condition of the 404, 401, and 1602 authorizations, respectively. Final mitigation ratios will be generally consistent with the guidelines of relevant regional conservation plans, including the North County MSCP and Draft Escondido Subarea MHCP. In the event that the Kit Carson Park mitigation or other permittee-responsible site is not approved, the City will purchase mitigation credits from San Luis Rey Mitigation Bank or another appropriate bank approved through the applicable authorizations.</p> <p>Mitigation ratios will be based on resource tiers, as defined above (Table 3-6 and Table 3-7 of the IS/MND) for impacts on 0.64-acre of waters of the U.S. and 1.05 acres of CDFW jurisdictional waters.</p>

V. CULTURAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Background

The following section provides a brief discussion of the cultural resources within the city of Escondido, including a description of existing conditions, an outline of significance criteria and an impact analysis of the potential effects the project could have on eligible or significant cultural resources, and proposed mitigation measures for the protection of these resources. Information from the City's 2013 MND and the Cultural Resources Technical Report prepared by ICF in 2020 (Appendix D) was used in the preparation of this section.

Existing Conditions

Cultural Setting

The sequence of human occupation of coastal southern California begins in the Paleoindian period (11,500–8500 B.P.), a time in which adaptations were formerly believed to be focused on the hunting of large game, but are now recognized to represent more generalized hunting and gathering, with considerable emphasis on marine resources (Erlandson and Colten 1991, Jones 1991). The following period, the Archaic (8500–1300 B.P.) is traditionally seen as encompassing both a coastal and an inland focus, with the coastal Archaic represented by the shell middens of the La Jolla complex and the inland Archaic represented by the Pauma complex. The Late Prehistoric period (1300–200 B.P.) is marked by the appearance of small projectile points indicating the use of the bow and arrow, the common use of ceramics, and the replacement of inhumations with cremations.

The Spanish Period (1769–1821) represents a period of Euroamerican exploration and settlement. Dual military and religious contingents established the San Diego Presidio and the San Diego and San Luis Rey Missions. The Mission system used Native Americans to build a footing for greater European settlement. The Mission system also introduced horses, cattle, other agricultural goods, and implements; and provided construction methods and new architectural styles. The cultural and institutional systems established by the Spanish continued beyond the year 1821, when California came under Mexican rule.

Many Spanish practices survived into the early part of the Mexican period (1821–1848). The secularization of the missions in 1834 brought notable changes to the land ownership in the region. After secularization, large tracts of land were granted to individuals and families and the rancho system was established. Cattle ranching dominated other agricultural activities and the development

of the hide and tallow trade with the United States increased during the early part of this period. The Pueblo of San Diego was established during this period and Native American influence and control greatly declined. The Mexican Period ended when Mexico ceded California to the United States after the Mexican-American War of 1846-1848. Escondido was part of a land grant bestowed to former Governor Juan Bautista Alvarado in 1843 by then Governor Manuel Micheltoarena. Alvarado built an adobe home and raised cattle on the property.

The American period (1848–present) began when Mexico ceded California to the United States as part of the Treaty of Guadalupe Hidalgo. While some of the previous land claims were validated, much of the land that was once part of the ranchos became available for settlement. After the death of Juan Bautista Alvarado in the 1850s his heirs sold the rancho to Oliver S. Witherby, a judge from San Diego. The land changed hands over the years until finally a group of land speculators from Kansas purchased it in 1883 and began viticultural (growing wine grapes) pursuits in the valley. Churches, schools, and the Escondido Hotel would be constructed in a short time. The railroad was completed in late 1887 and the first freight was shipped from the Santa Fe depot at the west end of Grand Avenue in early 1888. During this time the portions of the proposed project within Escondido was agricultural land and would not be developed until well into the twentieth century.

History of the Project Area

After the arrival of Spanish explorers, the area that is now Escondido became part of the Spanish mission system. In 1843, the area was part of a rancho (El Rincon del Diablo) granted to Juan Bautista Alvarado, and in 1860, it was acquired by the Wolfskill brothers who planted vineyards and raised sheep (McGrew 1988). In 1883, much of the area was purchased by the Escondido Company, a group of Stockton speculators who subdivided the property 3 years later. In 1886, a 12,000-acre tract was purchased by a group of investors who formed the Escondido Land and Town Company, which platted the City of Escondido and lobbied for construction of a railroad connection to the coast. Aggressive land promotions during the latter half of the 1880s drew many people to the area, and although growth had slowed considerably during the 1890s, settlers continued to arrive in the back country, establishing small farms and ranches throughout the area. This migration took a sharp decline with the onset of the Depression during the 1930s, as many of the rural farmers abandoned their farms and moved to urban areas. The number of people living on farms fell 63 percent during the 1930s, while San Diego County's overall population increased by 38 percent (Van Wormer and Walter 1991). Nevertheless, farming and ranching continued to be the major focus of Escondido's economy until the 1960s.

Cultural Resources within the Project Area

Over the last decade, ICF has conducted several cultural resources investigations near the project area, including a cultural resources survey for the proposed project covering the 24 maintenance sites, one expanded maintenance site, and biological mitigation site (Appendix D). These investigations consisted of records searches, field surveys, and test excavations, the result of which reveal that the city of Escondido contains both historical and archaeological resources.

Record Search

A cultural resources records search for the proposed additional facilities was conducted at the South Coastal Information Center (SCIC) in May and June of 2019, using a 0.5-mile buffer around each of the facility locations. The records search indicates that 92 cultural resources are located within a 0.5-mile radius of the study area, 8 of which intersect with project facilities and the 50-foot survey buffer:

a prehistoric lithic scatter (P-37-000572), a prehistoric habitation site (P-37-008280), prehistoric bedrock milling sites and associated artifacts (P-37-006726, P-74-6727, and P-37-012601), a prehistoric isolated mano and flake (P-37-015577), a historic residence (P-37-017871), and a historic flume (P-37-030889).

Only P-37-030889, the Vista Irrigation District Bench Flumes, previously recorded by Van Wormer in 2009, has been evaluated for its potential eligibility for the California Register of Historical Resources (CRHR) or National Register of Historic Places (NRHP). Per Jow and Dolan (2012) “[t]he bench flumes were built as part of the water distribution system efforts of the 1920s that brought remarkable growth within the district. The flumes were constructed as above-ground gunite canals with a gunite domed cover, connected by steel and concrete pipe siphons (Robbins-Wade, Giletti and Van Wormer 2009). For the most part, the siphons are underground. The gunite bench flumes and above ground siphon segments have been evaluated as potentially eligible for the NRHP at a local level of significance as well as for designation on the CRHR”. Van Wormer recommended that the bench flumes and siphons qualify for listing on the CRHR and NRHP because they have been the primary water conveyance system in Escondido for the Vista Irrigation District since the system was constructed in the mid 1920s (Criteria A for NRHP, Criteria 1 for CRHR). The bench flumes also qualify for listing due to their unique design and construction technique (Criteria C for NRHP, Criteria 3 for CRHR).

Field Survey

ICF archaeologists conducted a pedestrian survey of the 361-acre survey area in October and November 2019. The survey area consisted of each newly proposed facility and a 50-foot buffer. The archaeologists examined the ground surface within each survey area for the presence of prehistoric artifacts and features, prehistoric milling surfaces on exposed bedrock, and historic artifacts and features. Visibility ranged from good in road shoulders to extremely poor in areas with dense vegetation. Vegetation within the Area of Potential Effect (APE) consisted of agricultural land, native and nonnative grasses, disturbed native chaparral, and landscaped residential yards and roadsides. For this survey, visibility was characterized as good to excellent if 75 percent or more of the ground was visible, fair to good if 25–75 percent was visible, and poor to fair if 5–25 percent of the ground was visible. The archaeologists took notes and photographs of the project survey area and all identified cultural resources.

During the field surveys, none of the eight previously recorded archaeological resources were relocated. One new prehistoric bedrock milling site, ICF-ESC94-P-001, was identified. For the most part, this appears to be due to environmental conditions that have occurred since the resources were originally recorded. Some of the resources appear to have been buried or eroded away, have been destroyed by later development, exist underground in the APE, or were inaccessible because of dense vegetation. Discrepancies may also be due to sites being recorded prior to the common use of Geographic Information Systems (GIS) in site recording, resulting in the original recorded locations being off or erroneously mapped.

Significance Criteria and Impact Analysis

Significance Criteria

Under CEQA, the lead agency is responsible for determining whether a project may have a significant effect on historical and archaeological resources. Section 21083.2 of the Public Resources Code states that if the lead agency determines that the project may have a significant

effect on “unique” archaeological resources, an environmental impact report shall address these resources. A unique archaeological resource is an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one of the following criteria:

1. Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
2. Associated with the lives of persons important to local, California or national history.
3. Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values.
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

Environmental Evaluation

Would the project:

- a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Less than Significant with Mitigation Incorporated. There is one potentially significant cultural resource, P-37-030889, the Vista Irrigation District Bench Flumes, located within the project area. However, because it is below ground at a depth far below proposed ground-disturbing activities it would not be affected by the proposed maintenance activities. Intensive pedestrian surveys were unable to be completed at nine of the new facilities due to access issues or poor visibility from dense vegetation or are in proximity to recorded cultural resources locations. These facility locations (E-54, E-55, E-58, E-60, H-19, H-16, H-18, SM-05, and the Kit Carson Park Downstream Mitigation site) have the potential for resources to be present. However, and consistent with the 2013 MND, any adverse impacts on unknown cultural resources would be mitigated to a less than significant level with the implementation of Mitigation Measures CR-1, CR-2, CR-3, CR-4 and CR-5 from the 2013 MND and the existing Monitoring and Discovery Plan, which outlines the monitoring protocols and treatment measures for potentially undiscovered cultural resources and human remains. Thus, with incorporation of mitigation, impacts on cultural resources would be less than significant.

- b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than Significant with Mitigation Incorporated. As discussed above, there is only one potentially significant cultural resource located within the project area; however, it would not be affected by the proposed maintenance activities. Although no known cultural resources would be adversely affected by the project, intensive pedestrian surveys were unable to be completed at several facilities due to access issues or poor visibility from dense vegetation, as described above. These facility locations have the potential for resources to be present. Any adverse impacts on unknown archaeological resources would be mitigated to a less-than-significant level with the implementation of Mitigation Measure CR-5 from the 2013 MND and the Monitoring and Discovery Plan, which outlines the monitoring protocols and treatment measures for cultural resources and human remains. Thus, with incorporation of mitigation, impacts on archaeological resources would be less than significant.

c. Disturb any human remains, including those interred outside of dedicated cemeteries?

Less than Significant with Mitigation Incorporated. No cultural resources that include human remains were identified during the cultural resources study. Although no known human remains were identified within the project area, intensive pedestrian surveys were unable to be completed at several facilities due to access issues or poor visibility from dense vegetation, as described above. These facility locations may have the potential for human remains to be present. Any adverse impacts on unknown human remains would be mitigated to a less-than-significant level with the implementation of Mitigation Measure CR-5 from the 2013 MND and the Monitoring and Discovery Plan. Thus, with incorporation of mitigation, impacts on human remains would be less than significant.

Mitigation Measures for Cultural Resources

TABLE 3-11. MITIGATION MEASURES FOR CULTURAL RESOURCES

Measure	Description
<p>CR-1 Archaeological Monitor and Native American Monitoring</p>	<p>The applicant shall enter into a Tribal Cultural Resource Treatment and Monitoring Agreement (also known as a pre-excavation agreement) with a tribe that is traditionally and culturally affiliated with the project location (TCA Tribe) prior to issuance of ground-disturbing activities. The purpose of the agreement is to provide the applicant with clear expectations regarding tribal cultural resources and to formalize protocols and procedures between them. The applicant and the TCA Tribe are responsible for the protection and treatment of, including but not limited to, Native American human remains, funerary objects, cultural and religious landscapes, ceremonial items, traditional gathering areas, and cultural items, located and/or discovered through a monitoring program in conjunction with the construction of the project, including additional archaeological surveys and/or studies, excavations, geotechnical investigations, grading, and all other ground-disturbing activities.</p> <p>Prior to ground disturbing activities, the applicant shall provide written verification to the City that a qualified archaeologist and a Native American monitor associated with a TCA Tribe have been retained to implement the monitoring program.</p> <p>An archaeological monitor under the supervision of the qualified archaeologist will be present during the first maintenance activity that involves ground disturbing activities at the following earthen facilities: E-54, E-55, E-58, E-60, H-16, H-19, and SM-05.</p> <p>A Native American monitor will be present during the first maintenance activity that involves ground disturbing activities at the following facilities: E-53, E-54, E-55, E-56, E-58, E-60, H-15, H-16, H-17, H-19, H-20, H-21, and SM-05.</p> <p>The archaeologist shall be responsible for coordinating with the Native American monitor. This verification shall be presented to the City in a letter from the project archaeologist that confirms the selected Native American monitor is associated with a TCA Tribe. The City, prior to any preconstruction meeting, shall approve all persons involved in the monitoring program. The qualified archaeologist and Native American monitor shall attend the pre-grading meeting with the grading contractors (if a pre-grading meeting is required) to explain and coordinate the requirements of the monitoring program.</p>

Measure	Description
<p>CR-2 Unanticipated Discovery and Avoidance of Archaeological Resources</p>	<p>If an unanticipated archaeological resource is discovered during monitoring, if feasible, it will be avoided. Unanticipated archaeological discoveries made during monitoring will be addressed following procedures identified in the Monitoring and Discovery Plan. In the event that previously unidentified tribal cultural resources are discovered, the qualified archaeologist and the Native American monitor shall have the authority to temporarily divert or temporarily halt ground disturbance operation in the area of discovery to allow for the evaluation of potentially significant cultural resources. Isolates and clearly non-significant deposits shall be minimally documented in the field and collected so the monitored grading can proceed. Mitigation Measures CR-3 and/or CR-4 may be implemented if appropriate.</p>
<p>CR-3 Testing of Archaeological Resources</p>	<p>In the event that previously unidentified tribal cultural resources are discovered, the qualified archaeologist and the Native American monitor shall have the authority to temporarily divert or temporarily halt ground disturbance operation in the area of discovery to allow for the evaluation of potentially significant cultural resources. Isolates and clearly non-significant deposits shall be minimally documented in the field and collected so the monitored grading can proceed. If an unanticipated archaeological discovery is potentially significant and cannot be avoided, an evaluation plan that identifies research topics and procedures for evaluation of the resource will be prepared. The evaluation plan will be a stand-alone document and will be implemented prior to ground-disturbing maintenance activities.</p> <p>If a potentially significant tribal cultural resource is discovered, the archaeologist shall notify the City of said discovery. The qualified archaeologist, in consultation with the City, the TCA Tribe, and the Native American monitor, shall determine the significance of the discovered resource. A recommendation for the tribal cultural resource's treatment and disposition shall be made by the qualified archaeologist in consultation with the TCA Tribe and the Native American monitor and be submitted to the City for review and approval.</p>
<p>CR-4 Data Recovery of Archaeological Resources</p>	<p>If a potentially significant tribal cultural resources and/or unique archaeological resource is discovered, the avoidance and/or preservation of the significant tribal cultural resource and/or unique archaeological resource must first be considered and evaluated as required by CEQA. Where any significant tribal cultural resources and/or unique archaeological resources have been discovered and avoidance and/or preservation measures are deemed to be infeasible by the City, then a research design and data recovery program to mitigate impacts shall be prepared by the qualified archaeologist (using professional archaeological methods), in consultation with the TCA Tribe and the Native American monitor, and shall be subject to approval by the City. The qualified archaeologist, in consultation with the Native American monitor, shall determine the amount of material to be recovered for an adequate sample of the resource for analysis. Before construction activities are allowed to resume in the affected area, the research design and data recovery program activities must be concluded to the satisfaction of the City.</p> <p>If the qualified archaeologist elects to collect any tribal cultural resources, the Native American monitor must be present during any testing or cataloging of those resources. Moreover, if the qualified archaeologist does not collect the cultural resources that are unearthed during the ground-disturbing activities, the Native American monitor may, at their discretion, collect said resources and provide them to the TCA Tribe for respectful and dignified treatment in accordance with the TCA Tribe's cultural and spiritual traditions. Any tribal cultural resources collected by the qualified archaeologist shall be repatriated to the TCA Tribe. Should the TCA Tribe or other traditionally and culturally affiliated tribe decline the collection, the collection shall be curated at the San Diego Archaeological Center. All other resources determined by the qualified archaeologist, in consultation with the Native American monitor, to not be tribal cultural resources, shall be curated at the San Diego Archaeological Center.</p>

Measure	Description
	<p>Prior to the release of the grading bond (if required) or completion of the project, a monitoring report and/or evaluation report, if appropriate, which describes the results, analysis, and conclusion of the archaeological monitoring program and any data recovery program on the project site shall be submitted by the qualified archaeologist to the City. The Native American monitor shall be responsible for providing any notes or comments to the qualified archaeologist in a timely manner to be submitted with the report. The report will include California Department of Parks and Recreation Primary and Archaeological Site Forms for any newly discovered resources.</p>
<p>CR-5 Treatment of Human Remains</p>	<p>If human remains are inadvertently discovered, they shall be treated according to appropriate State (Public Resources Code Section 5097.98, 5097.99, 5097.991, 7050.5, 8010-8011 and AB 2641); or on federal land NAGPRA provisions, as outlined in the Monitoring and Discovery Plan.</p>

VI. ENERGY

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Evaluation

Would the project:

- a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less-than-Significant Impact. Energy use is not discussed within either the 2013 MND or the 2014 Addendum. Notwithstanding the fact that energy was not previously analyzed, the “project” analyzed in the 2013 and 2014 documents provided coverage for routine O&M activities on 63 of the City’s flood control facilities. The proposed project would expand the permit to add the ability to perform O&M activities at 24 additional facilities. The addition of these 24 facilities may result in an incremental increase in consumption of electricity and petroleum during proposed O&M activities. Typically demand for electricity would stem from the use of electrically powered hand tools; but the use of electricity during O&M would be temporary and minimal. Natural gas is not anticipated to be required during maintenance.

Petroleum would be consumed throughout the duration of the O&M activities. Fuel consumed by construction equipment would be the primary energy resource expended over the course of maintenance, and vehicle miles traveled associated with the transportation of materials and construction worker commutes would also result in petroleum consumption. Heavy-duty construction equipment associated with maintenance activities and haul trucks involved in relocating dirt are assumed to use diesel fuel. Workers would travel to and from the various project sites throughout the duration of maintenance activities using primarily gasoline-powered vehicles. Maintenance activities would be required to comply with CARB’s Airborne Toxics Control Measure, which restricts heavy-duty diesel vehicle idling time to 5 minutes, which would minimize fuel consumption. Therefore, because electricity, natural gas, and petroleum use during proposed maintenance activities would be temporary and relatively minimal, and would not be wasteful or inefficient, impacts would be less than significant.

- b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less-than-Significant Impact. A discussion regarding energy usage is not included within the 2013 MND or 2014 Addendum. However, the project would not involve construction of buildings, and would only involve O&M activities for the 87 (total) flood control facilities that are already in place throughout the City (63 facilities covered by the previous documents plus 24 additional facilities); thus, Title 24 of the California Code of Regulations, Part 6 and Part 11 would not apply. Therefore,

the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and impacts would be less than significant

VII. GEOLOGY, SOILS, AND PALENOTOLOGY RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Evaluation

Would the project:

- a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other

substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less-than-Significant Impact. The 2013 MND found that implementation of the current RGP 94 would not directly or indirectly cause substantial adverse effects related to rupture of a known earthquake fault. The 2013 MND stated that although the city of Escondido is located within a Seismic Zone 4, the current RGP 94 activities would not be located within proximity to active faults as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map. The closest known active faults are the Rose Canyon Fault and the Elsinore Fault. Due to the distance of the facilities from these faults, fault surface rupture is not likely at the maintenance sites. In the event of a major earthquake on these faults or other faults within the Southern California region, the facilities could be subjected to moderate to severe ground shaking. However, the site is not considered to possess a significantly greater seismic risk than that of the surrounding area in general.

A review of the current California Geological Survey's *Earthquake Zones of Required Investigation* (California Geological Survey 2020) confirms that no new or more severe impacts would occur compared to the analysis in the 2013 MND. None of the newly proposed facilities would be located in a Fault Zone, Liquefaction Zone, or Landslide Zone. Thus, impacts would be less than significant.

2. Strong seismic ground shaking?

Less-than-Significant Impact. The 2013 MND found that the current RGP 94 facilities are not considered to possess a significantly greater seismic risk than that of the surrounding area in general. In the event of a major earthquake on these faults (Rose Canyon Fault and the Elsinore Fault) or other faults within the Southern California region, the facilities could be subjected to moderate to severe ground shaking.

As with the current RGP 94 facilities, the newly proposed facilities would all be located within the City of Escondido and would be subject to the same level of risk associated with seismic ground shaking (from Rose Canyon Fault, Elsinore Fault and regional faults). Thus, no new or more severe impacts associated with seismic ground shaking would occur, and impacts would continue to be less than significant.

3. Seismic-related ground failure, including liquefaction?

Less-than-Significant Impact. The 2013 MND found that implementation of the current RGP 94 would not expose people or structures to substantial adverse effects or risks related to seismic-related ground failure including liquefaction. Potential geologic hazards such as tsunamis, seiches, liquefaction, or collapse were determined to be negligible or nonexistent.

As with the current RGP 94 facilities, the newly proposed facilities would all be located within the City of Escondido and would be subject to the same level of risk. In addition, as mentioned under Threshold VII a.1. above, none of the newly proposed facilities would be located within *Earthquake Zones of Required Investigation* for liquefaction or landslides. Thus, no new or more severe impacts associated with ground failure including liquefaction would occur, and impacts would continue to be less than significant.

4. Landslides?

Less-than-Significant Impact. The 2013 MND found that implementation of the current RGP 94 would not expose people or structures to substantial adverse effects or risks related to landslides. In addition, as mentioned under Threshold VII a.1. above, none of the newly proposed facilities would be located within Earthquake Zones of Required Investigation for liquefaction or landslides. Thus, no new or more severe impacts associated with landslides would occur, and impacts would continue to be less than significant.

b. Result in substantial soil erosion or the loss of topsoil?

Less-than-Significant Impact. The 2013 MND found that implementation of the current RGP 94 activities would be routine in nature and would not result in any substantial soil erosion or the loss of topsoil because all areas are developed with structures, paving, or hardscape.

Newly proposed facilities would be similar to the original 63 locations, and the BMPs for water quality protection (including erosion and sediment control measures) discussed in Section X, *Hydrology and Water Quality*, below would be implemented at new facility locations as well. The objective of the BMPs is to adequately control the potential discharge of pollutants (including via erosion) during maintenance activities to a less-than-significant level. Thus, no new or more severe impacts associated with erosion would occur, and impacts would be less than significant.

c. Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less-than-Significant Impact. The 2013 MND found that potential geologic hazards such as tsunamis, seiches, liquefaction, or collapse would be considered negligible or nonexistent for the current RGP 94 facilities.

As the nearest newly proposed facility is located approximately 13 miles from a large body of water (Pacific Ocean), tsunamis and seiches would continue to be negligible risks to project implementation. As mentioned under Thresholds VIIa.3 and VII.a.4 above, none of the newly proposed facilities would be located in a liquefaction or landslide prone zone. In addition, the proposed project involves O&M and work activities at existing features and does not include the construction of new habitable structures; thus, potential impacts associated with secondary seismic phenomena such as subsidence or collapse would also continue to be negligible. Therefore, no new or more severe impacts associated with unstable geologic units or soil would occur, and impacts would be less than significant.

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less-than-Significant Impact. The 2013 MND found that implementation of the current RGP 94 would involve routine O&M activities on existing structures throughout San Diego County and would not create a substantial risk to life or property.

Similarly, the proposed project's O&M and work activities to be conducted at the newly proposed facilities would also occur within existing facilities, and the project does not include the construction of new habitable structures (creating a substantial risk to life or property). Thus, no new or more

severe impacts associated with expansive soils would occur, and impacts would be less than significant.

- e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?

No Impact. The 2013 MND found that no septic tanks or alternative wastewater disposal system would be utilized as part of the current RGP 94. Although the project would not require a permanent water supply or source, the project site would be served by an existing wastewater/sewer pipeline system within the city of Escondido when necessary.

Similarly, no septic tanks or alternative wastewater disposal system are included as part of the proposed project. Thus, no impacts would occur.

- f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant Impact. No paleontological resources have been identified within the city of Escondido (Demere 2007). Five of the 24 project facilities and one expanded current facility surveyed are concrete or asphalt and do not have the potential for the discovery of paleontological resources. Of the remaining 20 project locations, 17 are located on soils not expected to contain paleontological resources. There are Jurassic marine terraces present at the remaining earth-lined facilities; however, these terraces are covered in recent alluvium and proposed project activities would occur in these non-sensitive disturbed soils and would not reach a depth that would potentially impact any paleontological resources. Thus, impacts on paleontological resources would be negligible and less than significant.

VIII. GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Evaluation

Would the project:

- a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less-than-Significant Impact. Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of greenhouse gases (GHGs) in the atmosphere. Rising atmospheric concentrations of GHGs in excess of natural levels result in increasing global surface temperatures—a phenomenon commonly referred to as global warming. The primary associated GHG emissions are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluoridated compounds. Assembly Bill (AB) 32 sets forth the regulatory framework in California to reduce emissions to 1990 levels by 2020. Senate Bill (SB) 32 builds on AB 32 and establishes a longer-term goal of 40 percent below 1990 levels by 2030. Because GHGs are a global problem, GHG impacts and the analysis contained herein are inherently cumulative.

The State CEQA Guidelines do not indicate what amount of GHG emissions would constitute a significant impact on the environment. Instead, they authorize the lead agency to select thresholds of significance that it considers most appropriate to enable decision makers to adequately account for the project's incremental contribution to climate change, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence (State CEQA Guidelines Sections 15064.4(a) and 15064.7(c)). According to the City of Escondido's *Greenhouse Gas Emissions Adopted CEQA Thresholds and Screening Tables*, projects that generate less than 2,500 metric tons (MT) of carbon dioxide equivalent (CO₂e) per year are generally considered less than significant. Thus, for the purpose of this analysis, the 2,500 MTCO₂e threshold is used as a screening threshold to assess the proposed project's GHG emissions.

The 2013 MND ENV 12-0001 (2013 MND) found GHG emissions from implementation of the current RGP 94 would not be a considerable contribution to the cumulative global impact and were determined to be less than significant.

Similar to the current RGP 94, GHG emissions associated with the proposed project would result from engine exhaust from heavy-duty off-road equipment, mechanical hand tools including chainsaws and trimmers, use of water trucks onsite, employee vehicle trips, and haul and vendor truck trips. GHG emissions were estimated using a combination of emission factors and methodologies published and recommended by CARB and other agencies, including the CalEEMod

version 2016.3.2, and CARB’s EMFAC2017 model. Construction data for the proposed project (e.g., schedule, equipment types and numbers, and truck trips) is based on a combination of information provided by the project applicant, and modeling defaults.

Table 3-12 summarizes estimated GHG emissions by source from O&M associated with the proposed project.

TABLE 3-12. ESTIMATED ANNUAL GHG EMISSIONS BY SOURCE (MTCO₂E/YEAR)

Source	CO ₂	CH ₄	N ₂ O	Total CO ₂ e
Offroad Equipment	57	<1	0	63
Mobile	110	<1	<1	115
Total	167	<1	<1	178
Threshold				2,500
<i>Exceed Threshold?</i>				<i>No</i>

Source: Appendix B

As shown in Table 3-12, maintenance of the proposed project would result in GHG emissions that would be well below the City of Escondido’s screening threshold of 2,500 MTCO₂e per year. Similar to the current RGP 94, because construction-related emissions would be below the applicable level of significance, the project’s GHG emissions would not be a considerable contribution to the cumulative global impact and, therefore, would be less than significant.

- b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less-than-Significant Impact. At the local level, the City of Escondido’s *Climate Action Plan (E-CAP)* and associated *Greenhouse Gas Emissions CEQA Threshold and Screening Tables* (City of Escondido 2013) were adopted in December 2013, and are the most relevant plan, policy or regulatory program adopted for the purpose of reducing the emissions of GHGs within the City. The E-CAP’s *Greenhouse Gas Emissions CEQA Threshold and Screening Tables* document determined that projects within the City of Escondido that generate less than 2,500 MTCO₂e per year are generally small in nature and are considered less than significant. As described above, like the current RGP 94, the proposed project would generate GHG emissions that are well below the applicable 2,500 MTCO₂e screening threshold (178 MTCO₂e/year). As a result, the proposed project would not conflict with implementation of the City’s E-CAP. It should be noted that the City’s current E-CAP was prepared to comply with the 2020 GHG reduction goal established by AB 32 and does not address the 2030 GHG reduction goal established by SB 32. The City is currently working on an update to its E-CAP to ensure compliance with updated state policies and regulations. Aside from the City’s E-CAP at the local level, the other applicable plan, policy, or regulation relevant to the proposed project that has been adopted for the purposes of reducing GHG emissions to meet the 2030 GHG reduction goal is CARB’s 2017 Climate Change Scoping Plan (Scoping Plan) at the state level, which is described below.

CARB’s Scoping Plan outlines the framework and strategies the state will take to achieve its GHG emission reduction targets. Based on the Scoping Plan, many of the reductions needed to meet the 2030 target will come from state regulations, including cap-and-trade regulations, the requirement for increasing renewable energy sources in California’s energy supply, updates to Title 24, and increased emission reduction requirements for mobile sources. The Scoping Plan indicates that some reductions would need to come in the form of changes pertaining to vehicle emissions and

mileage standards. Some would come from changes pertaining to sources of electricity and increased energy efficiency at existing facilities. The remainder would need to come from state and local plans, policies, or regulations that will lower carbon emissions relative to business-as-usual conditions. The 2017 Scoping Plan contains GHG reduction measures to help achieve the state's 2030 target across all sectors of the California economy, including transportation, energy, and industry. The proposed project, which involves maintaining existing facilities to ensure adequate flood control capacity and avoid potential vector control issues for long-term sustainability and public safety, would not impede implementation of any of these regulations. The proposed project would not involve any land use development or population growth; therefore, the GHG reduction measures in the 2017 Scoping Plan are largely not applicable to the project. The project would benefit from the Scoping Plan measures, however, because it would involve the use of vehicles and require on- and off-road equipment to complete its O&M activities. Vehicle emissions would be reduced by measures outlined in the 2017 Scoping Plan such as Pavley I, Pavley II, and the Low-Carbon Fuel Standard (LCFS). On- and off-road construction equipment used for maintenance of the project would be affected by the LCFS and the heavy-duty vehicle measures in the 2017 Scoping Plan. These measures would lead to cleaner vehicles and equipment for the project's O&M activities and thus lower GHG emissions. Because the Scoping Plan measures are largely not applicable to the project, the project would not conflict with applicable policies described in the Scoping Plans for AB 32 and SB 32.

The 2013 MND found that the GHG emissions generated under the current RGP 94 would not conflict with any applicable plan, policy, or regulation adopted for reducing GHG emissions. As presented in the discussions above, similar to the current RGP 94 the proposed project would also not conflict with any applicable plan, policy, or regulation for GHG reduction or managing global climate change. Therefore, the impact would be less than significant.

IX. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Evaluation

Would the project:

- a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-than-Significant Impact. The 2013 MND found that due to the nature of the project and the lack of hazardous materials associated with the proposed O&M activities, implementation of the current RGP 94 would not result in the creation of any health hazards to the public through transport, use, or disposal of hazardous materials.

Activities to be conducted at the proposed 24 new facilities would include O&M and work activities. Work activities include the excavation of accumulated sediment and herbaceous vegetation, excavation and clearing of culvert inlets and outlets, removal of nonnative trees, the trimming of

native shrub and tree cover, and the excavation of accumulated sediment and vegetation within a specified basin. Additional work activities would include repairs of existing hardscaped facilities, which can include minor repairs to segments of concrete-lined channels or riprap-lined segments. Routine transport, use, and disposal of hazardous materials such as fuel, solvents, paints, oils and grease could occur during this time. However, such transport, use, and disposal must be compliant with applicable federal, state, and local regulations. Although small amounts of these materials would be transported, used, and disposed of, these materials are typically used in equipment and in maintenance and would not represent the transport, use, and disposal of acutely hazardous materials. Thus, impacts would be less than significant.

- b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less-than-Significant Impact. The 2013 MND found that implementation of the current RGP 94 would not result in the creation of any health hazards nor would it involve a risk of an explosion or the release of hazardous substances. The current RGP 94 does not involve the use or storage of hazardous materials that would result in a reasonably foreseeable upset or accident conditions.

Similarly, O&M and work activities performed under the proposed project would involve the use of some hazardous materials; however, hazardous material use would be compliant with applicable federal, state, and local regulations. Any spills involving these materials would be in small amounts, localized, and cleaned up as they occur. Activities associated with the proposed project would not result in the creation of any health hazards nor would they involve a risk of an explosion. The proposed project would not involve the use or storage of hazardous materials in quantities that would result in a significant release. Thus, impacts would be less than significant.

- c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less-than-Significant Impact. The 2013 MND found that implementation of the current RGP 94 would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school.

Similarly, hazardous material used during implementation of the proposed project would be compliant with applicable federal, state, and local regulations and would not involve the use of acutely hazardous materials. As mentioned above, spills involving these materials would be in small amounts, localized, and cleaned up as they occur. In addition, the proposed project does not involve the use or storage of hazardous materials in quantities that would result in a significant release to the surrounding environment, including nearby schools. Thus, impacts would be less than significant.

- d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less-than-Significant Impact. The 2013 MND found that no significant odors, pools of liquid, or significantly stained soils—all of which are indicators of underground storage tanks, pits, or ponds—were observed at the current RGP 94 sites. Also, no evidence or indication of releases of petroleum hydrocarbons, heavy metals, hazardous chemicals, or other “recognized environmental conditions”

were revealed at the current facilities. According to the California Department of Toxic Substances Control Hazardous Waste and Substances Site List (2020), only one active Hazardous Waste and Substances Site was identified in the city of Escondido. This site is known as the Chatham Brothers Barrel Yard and is located at 2257 Bernardo Avenue, Escondido, California. This site is approximately 1 mile from the closest facility location (H-07) and would therefore not create or contribute to a significant hazard to the public or environment.

Similarly, none of the newly proposed facilities are located within any site identified in the California Environmental Protection Agency's *Cortese List Data Resources*⁶ (2020). Facility locations E-48, E-50, E-49, and H-21 were identified adjacent to Leaking Underground Storage Tank (LUST) sites (State Water Resources Control Board 2020). However, all LUST sites were granted closure by the applicable oversight agency. In addition, facility location E-48 was also located 200 feet away from a Cleanup Program Site (Department of Toxic Substances Control 2020) involving a diesel and gasoline release. The site had been granted closure by the applicable oversight agency as well. Thus, impacts would be less than significant.

- e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not be located within 2 miles of a public airport or public use airport and would not result in a safety hazard for people residing or working in the area.

Similarly, none of the newly proposed facilities are located within 2 miles of a public airport or public use airport. The closest aviation facilities are the Ramona Airport located approximately 7.6 miles to the southeast (of H-15) and McClellan Palomar Airport located approximately 8.3 miles to the west (of SM-05). Thus, no impact would occur.

- f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less-than-Significant Impact. The 2013 MND found implementation of the current RGP 94 is not expected to result in the need for additional emergency and fire facilities. The current RGP 94 consists of routine O&M activities and does not include activities or structures that would impair the implementation of, or physically interfere with, an adopted emergency response plan or evacuation plan.

As with the current RGP 94, the proposed project's O&M and work activities to be conducted at the newly proposed facilities would not include activities or structures that would impair the implementation of, or physically interfere with, an adopted emergency response plan or evacuation plan. O&M and work activities would be temporary and conducted in concrete channels, culvert inlet and outlets, etc. making interference with an emergency response plan or evacuation plan highly unlikely. Thus, impacts would be less than significant.

⁶ The CalEPA *Cortese List Data Resources* are the online resources that provide information regarding the facilities or sites identified as meeting the "Cortese List" requirements.

- g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

Less-than-Significant Impact. The 2013 MND found that implementation of the current RGP 94 would not expose people or structures to wildland fires as the majority of the O&M activities would be completed in an urban or suburban setting. The current activities do not include activities that would increase the risk of fires, so in areas where residences are intermixed with wildlands there would be no increased risks. Thus, the current RGP 94 O&M activities were not identified to result in the need for additional emergency and fire facilities.

The proposed project's O&M and work activities at the newly proposed facilities also would be completed in urban and suburban settings and would not include activities that increase the risk of fires. In addition, the work would be conducted at existing facilities and does not include the construction of new habitable structures (thus creating a potential impact on people or new structures). O&M and work activities under the proposed project would also not result in scenarios in which additional emergency and fire resources would be needed. Thus, impacts would be less than significant.

X. HYDROLOGY AND WATER QUALITY

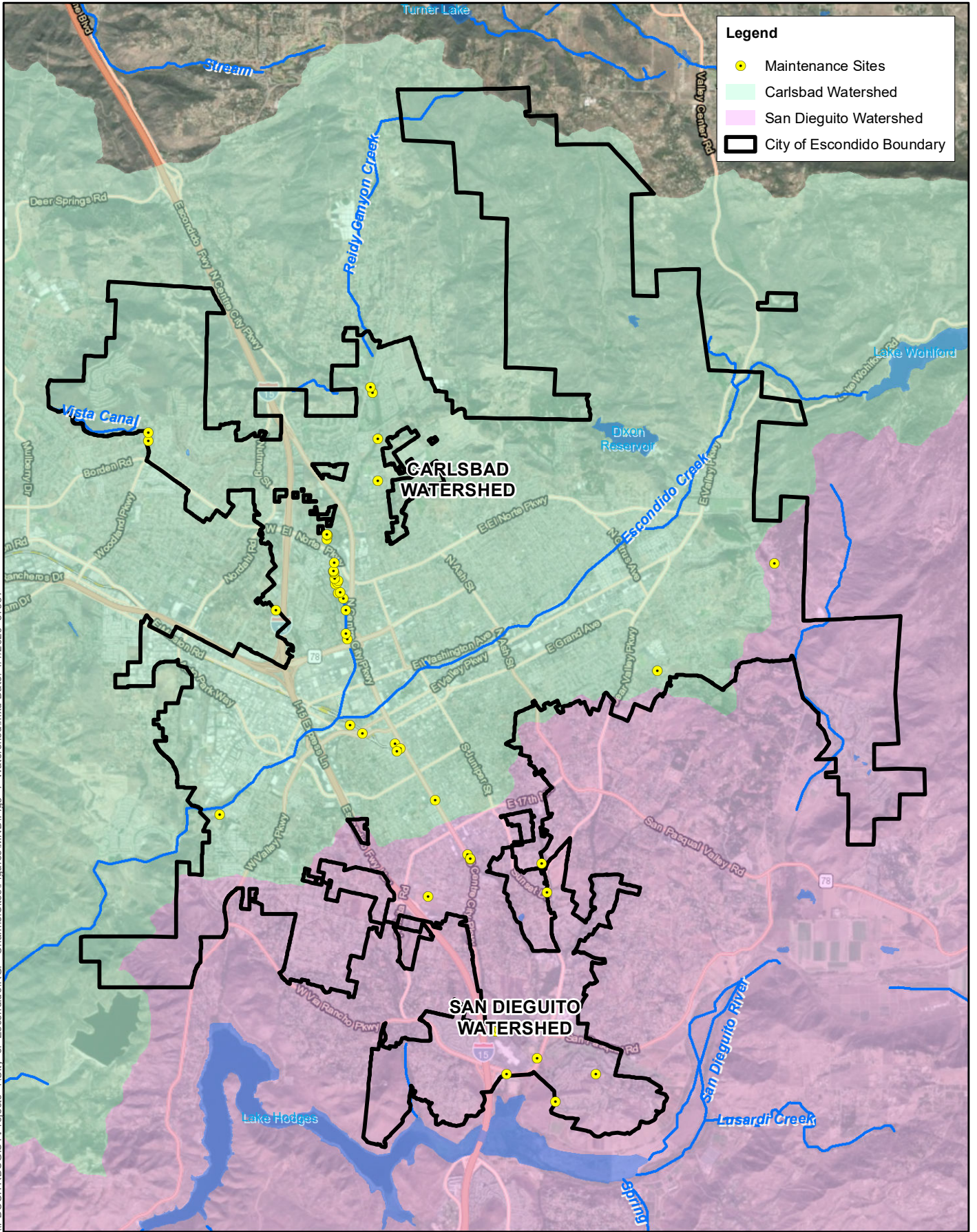
	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:				
1. Result in substantial erosion or siltation on or off site;	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Impede or redirect flood flows?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Background

The following discussion briefly describes the watershed characteristics specific to the project study area, including the beneficial uses of surface water and groundwater, and impaired waters.

Hydrologic Setting

The project study area falls primarily within two major watersheds, or HUs: Carlsbad and San Dieguito (Figure 3-1). Approximately 75 percent of Escondido is located within the Carlsbad Watershed. The majority of the City's northern jurisdiction drains to Escondido Creek within the Escondido Creek HA. Reidy Creek, located mostly within the city, is a main tributary to Escondido Creek. Runoff from a very small portion of the city drains into the San Marcos Creek HA, which ultimately flows to, and is contained in, Lake San Marcos. The Carlsbad Watershed drains to several coastal lagoons, including San Elijo Lagoon. Escondido Creek is tributary to San Elijo Lagoon, which is listed as being impaired for eutrophic conditions, indicator bacteria, and sedimentation and/or



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Source: ESRI Base Map, NHD HUC (2016)



Figure 3-1
Watersheds
City of Escondido Channel Maintenance Project

siltation. Escondido Creek leaves the City’s boundaries approximately 14 miles upstream of San Elijo Lagoon.

The southern part of Escondido is located within the San Dieguito Watershed. The major receiving water within the San Dieguito Watershed is the San Dieguito River. For the most part, the San Dieguito River is an ephemeral stream that flows into Lake Hodges during extreme wet weather. Additionally, except during extreme wet weather events, the water contained behind Lake Hodges Dam is rarely released and is allowed to proceed westerly to San Dieguito Lagoon. The majority of the city’s area within this watershed drains to Felicita and Kit Carson creeks and ultimately Lake Hodges.

Table 3-13 below identifies the basins that encompass the project study area. The majority of the existing project facilities (47 facilities or 75 percent) occur in the Escondido Creek HA of the Carlsbad HU, with 12 facilities (19 percent) occurring in the Hodges HA of the San Dieguito HU and 4 facilities (6 percent) occurring in the San Marcos HA of the Carlsbad HU. The majority of the newly proposed facilities (14 facilities or 56 percent) occur in the Escondido Creek HA of the Carlsbad HU, with 9 facilities (36 percent) occurring in the Hodges HA of the San Dieguito HU and 1 facility (4 percent) occurring in both the San Marcos HA of the Carlsbad HU and the San Pasqual HA of the San Dieguito HU.

TABLE 3-13. WATERSHEDS IN THE PROJECT STUDY AREA

Basin ID	Hydrologic Subarea	Hydrologic Area	Hydrologic Unit
904.62	Escondido	Escondido Creek	Carlsbad
904.52	Richland	San Marcos	Carlsbad
905.21	Del Dios	Hodges	San Dieguito
905.32	Las Lomas Muertas	San Pasqual	San Dieguito

Figure 3-1 depicts the project sites in relation to the watersheds and surface waters within the City’s jurisdiction.

Water Quality

Tables 3-14 and 3-15 list the beneficial uses of surface waters and groundwater within these basins as set forth in the Water Quality Control Plan for the San Diego Region (RWQCB 2016; Basin Plan).

TABLE 3-14. BENEFICIAL USES FOR INLAND SURFACE WATERS

Water Body	Beneficial Use
Carlsbad Hydrologic Unit	
Escondido Creek (904.62)	MUN, AGR, IND ¹ , REC1, REC2, WARM, COLD, WILD
Reidy Canyon Creek (904.62)	MUN, AGR, IND ¹ , REC1, REC2, WARM, COLD, WILD
San Marcos Creek (904.52)	AGR ² , REC1, REC2, WARM, WILD
San Dieguito Hydrologic Unit	
San Dieguito River (905.21)	MUN, AGR, IND, PROC, REC1, REC2, BIOL, WARM, WILD, RARE
Lake Hodges (905.21)	MUN, AGR, IND, PROC, REC1 ³ , REC2, WARM, COLD, WILD, RARE
Kit Carson Creek (905.21)	MUN, AGR, IND, PROC, GWR ¹ , REC1, REC2, WARM, RARE

¹ Potential beneficial use.

² Excepted from municipal beneficial use.

³ Fishing from shore or boat permitted, but other water contact recreational (REC-1) uses are prohibited.

TABLE 3-15. BENEFICIAL USES FOR GROUNDWATER

Basin	Beneficial Use
Carlsbad Hydrologic Unit	
Richland HSA (904.52)	MUN, AGR, IND
Escondido HSA (904.62)	MUN, AGR, IND
San Dieguito Hydrologic Unit	
Hodges HA (905.20)	MUN, AGR, IND

Beneficial use designations are defined below. Additional detail is provided within the Basin Plan.

- MUN – Municipal and domestic supply
- AGR – Agricultural supply
- IND – Industrial service supply
- PROC – Industrial process supply
- GWR – Ground water recharge
- REC1 – Contact water recreation
- REC2 – Non-contact water recreation
- BIOL – Preservation of biological habitats of special significance
- WARM – Warm freshwater habitat
- COLD – Cold freshwater habitat
- WILD – Wildlife habitat
- RARE – Rare, threatened, or endangered species

Receiving waters within the project study area that are listed as impaired on the 2014/2016 CWA 303(d) List of Water Quality Limited Segments (SWRCB 2018) are provided in Table 3-16.

TABLE 3-16. CWA 303(D) LIST OF WATER QUALITY LIMITED SEGMENTS WITHIN THE CITY OF ESCONDIDO

Water Body	Impairment(s)
Carlsbad Hydrologic Unit	
Escondido Creek	Benthic Community Effects, Bifenthrin, DDT (Dichlorodiphenyltrichloroethane), Indicator Bacteria, Malathion, Manganese, Nitrogen, Phosphate, Selenium, Sulfates, Total Dissolved Solids, Toxicity
San Marcos Creek	Benthic Community Effects, DDE (dichlorodipenyldichloroethane), Indicator Bacteria, Phosphorus, Selenium Toxicity,
San Dieguito Hydrologic Unit	
Kit Carson Creek	Pentachlorophenol (PCP), Total Dissolved Solids
Felicita Creek	1,4-Dioxane, Aluminum, Indicator Bacteria, Tetrachloroethylene, ¹ Total Dissolved Solids, TCE (Trichloroethylene)
Lake Hodges	Color, Manganese, Mercury, Nitrogen, pH, Phosphorus, Turbidity

Source: SWRCB 2018

¹Tetrachloroethylene Is also known as perchloroethylene (PCE)

Flooding

As shown in Figure 3-2, the majority of the existing and proposed maintenance sites are outside of the 100-year floodplain, in areas of minimal flood hazard (FEMA Zone X). However, a number of sites are within the 100-year Floodplain Zone (Zones A, AE, AH, and AO). Table 3-17 lists the number of existing and proposed maintenance sites within the floodplain.

TABLE 3-17. NUMBER OF MAINTENANCE SITES WITHIN THE FLOODPLAIN

Flood Zone	Number of Maintenance Sites
Existing Maintenance Sites	
A	4
AE	19
AH	2
AO	7
X	75
Proposed Maintenance Sites	
A	13
AE	5
X	25

Notes:

Zones A, AE, AH, and AO are within the 100-year floodplain zone.

Zone X is outside of the 100-year floodplain, in areas of minimal flood hazard

Environmental Evaluation

Would the project:

- a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less than Significant with Mitigation Incorporated. The 2013 MND concluded that with the incorporation of mitigation, implementation of the current RGP 94 would have a less-than-significant impact. Similar to the previous analysis in the 2013 MND, the proposed project has the potential to result in short-term water quality impacts. Potential water quality impacts include (1) sedimentation, siltation, and turbidity from ground-disturbing activities, vegetation removal, and dredging of channels; (2) redistribution of pollutants in disturbed sediment; and (3) pollutants from heavy equipment, including oil and grease, heavy metals, and various petroleum products. Table 3-18 below lists mitigation measures from the 2013 MND for hydrology and water quality that would be implemented to reduce potentially significant impacts to less than significant. Prior to the start of the project, all personnel would be educated on these avoidance and mitigation measures and other project BMPs (per Mitigation Measure WQ-1).

Standard erosion control measures and BMPs would be implemented during construction to minimize water quality degradation (Mitigation Measure WQ-5). Activities and land disturbances would be conducted at the minimum amount necessary (as required by Mitigation Measure WQ-2). Furthermore, erosion and sediment control techniques would be implemented during and after maintenance activities and inspected to ensure proper function during the duration of maintenance activities as required by Mitigation Measures WQ-5, WQ-6, WQ-7, WQ-17, and

BIO-10. Earth-disturbing activities would be avoided during the wet season to minimize potential erosion-related impacts per Mitigation Measure WQ-4.

Additionally, vehicles and equipment would be operated in a manner to prevent degradation of water quality (Mitigation Measures WQ-9 and WQ-16). Equipment, staging, stockpiling, and refueling would be located in upland areas away from receiving waters and limited to the project footprint and adjacent urban and developed areas (Mitigation Measure WQ-12). In the event of a spill of hazardous materials, the appropriate materials will be available on site to contain the spill or inadvertent release of pollutants into waterbodies (Mitigation Measure WQ-15). Due to the nature of the accumulated sediment/vegetation that would be proposed for removal, hazardous pollutant levels within the sediment would not be expected. Water diversion would be treated as required to protect water quality (Mitigation Measure WQ-14). Workers would also be trained in incorporating appropriate and effective water protection measures (Mitigation Measure WQ-1). Groundwater is not anticipated to be encountered and no dewatering activities would be required. Potential impacts on regulated waters and wetlands would be minimized through avoidance and minimization measures and appropriate authorization under Section 404 of the CWA obtained as required (Mitigation Measure WQ-10). Thus, mitigation and avoidance measures for water quality protection would be implemented to adequately control the potential discharge of pollutants during maintenance activities to a less-than-significant level. Therefore, impacts would be less than significant with the incorporation of mitigation.

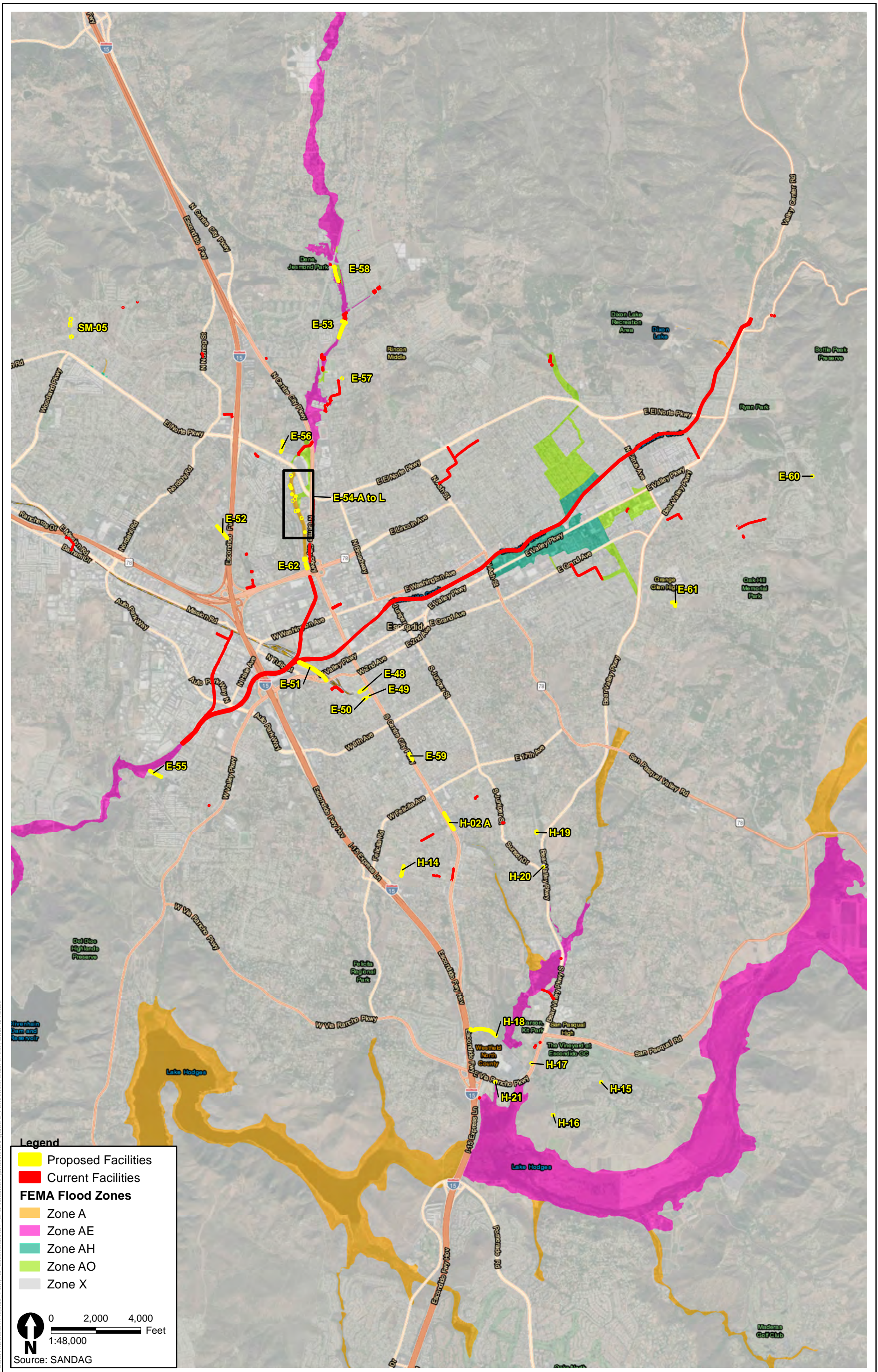
- b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than Significant Impact. The 2013 MND concluded that implementation of the current RGP 94 would have a less-than-significant impact related to groundwater supplies and recharge. Similar to the previous analysis in the 2013 MND, the proposed project involves the routine removal of vegetation and/or sediment from various storm drain facilities (constructed and natural) for the proper function of the channel system and structures. No groundwater supply would be used during construction or operation activities; therefore, the project would not decrease groundwater supply. There would be no change in pervious cover; therefore, groundwater recharge potential would be the same as under existing conditions. Thus, the project would not interfere with groundwater recharge or impede sustainable groundwater management of the basin. Therefore, impacts would be less than significant.

- c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would?

- 1. Result in substantial erosion or siltation on or off site?

Less than Significant with Mitigation Incorporated. The 2013 MND concluded that implementation of the current RGP 94 would not result in substantial erosion or siltation on or off site. During construction, stormwater drainage patterns could be temporarily altered. However, activities and land disturbances would be conducted at the minimum amount necessary and existing vegetation preserved to the extent practicable (as required by Mitigation Measures WQ-2 and WQ-3). The proposed project would implement BMPs to minimize the potential for erosion or siltation on or off site and temporary changes in drainage patterns during construction (Mitigation Measure WQ-5). The project serves to maintain positive hydraulic flow and ultimately increase storm water conveyance capacity compared to existing conditions within the limits of



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Figure 3-2
FEMA Flood Zones Within the Project Area
Escondido RGP 94 Channel Maintenance Project

the original design. Proposed activities would not substantially alter the existing drainage pattern of the site or area. Furthermore, implementation of avoidance and mitigation measures for erosion, sediment, and runoff control (Mitigation Measures WQ-5, WQ-6, WQ-7, and BIO-10) would also reduce potential erosion or siltation impacts to a less-than-significant level. Impacts would be less than significant and the mitigation measures mentioned herein would further ensure impacts remain less than significant.

2. Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?

Less than Significant Impact. The 2013 MND concluded that implementation of the current RGP 94 would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site. The proposed project does not include activities that would alter the existing drainage pattern of the maintenance sites in a manner that would result in a substantial increase in the rate or amount of surface runoff. The purpose of the proposed project is to improve runoff conveyance and minimize flooding potential. Construction BMPs would capture and infiltrate small amounts of sheet-flow into the ground such that offsite runoff from the construction site would not increase, ensuring that drainage patterns are not significantly altered. Thus, impacts would remain less than significant.

3. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less than Significant with Mitigation Incorporated. The 2013 MND concluded that implementation of the current RGP 94 would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The project serves to increase storm water conveyance capacity within the limits of the original design. Proposed improvements would not create or contribute runoff water to existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff. O&M activities are necessary to ensure proper function and integrity of the channel system and structures, and activities would not otherwise alter or expand the existing system. Mitigation measures would be implemented to ensure proper stormwater control and treatment and reduce the discharge of pollution. Access routes would be maintained to minimize impacts on receiving waters and minimize the discharge of pollutants (Mitigation Measure WQ-8). Implementation of avoidance and mitigation measures for runoff control, site spoil management, staging and stockpiling, trash management, and vehicle and equipment maintenance (Mitigation Measures WQ-5, WQ-12, WQ-13, WQ-14, and WQ-16) would also reduce potential additional sources of polluted runoff. In the event of a spill of hazardous materials, the appropriate materials would be available onsite to contain the spill or inadvertent release of pollutants into waterbodies (Mitigation Measure WQ-15). Thus, impacts would be less than significant with mitigation incorporated.

4. Impede or redirect flood flows?

Less than Significant with Mitigation Incorporated. The 2013 MND concluded that implementation of the current RGP 94 would not impede or redirect flood flows. During construction, stormwater drainage patterns, including flood flows may be temporarily impeded or redirected. However, standard erosion control BMPs would be implemented to limit site runoff during construction and reduce flood impacts (Mitigation Measure WQ-5). BMPs would be implemented to control construction site runoff and ensure proper stormwater and flood control.

After project implementation, no structures would be constructed that would impede or redirect flood flows. Impacts would be less than significant, and the mitigation measure mentioned herein would further ensure impacts remain less than significant.

- d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less than Significant with Mitigation Incorporated. The 2013 MND did not evaluate this impact, as the State CEQA Guidelines Appendix G Checklist was updated in January 2018. Although a number of sites are within the 100-year Floodplain Zone (Table 3-17; Figure 3-2), the majority of the existing and proposed maintenance sites are outside of the 100-year floodplain, in areas of minimal flood hazard (FEMA Zone X; FEMA 2012, 2016). Due to the distance from the Pacific Ocean (approximately 13 miles), the project site is not within a tsunami inundation area. Therefore, the proposed project is not subject to inundation by a tsunami. There are no reservoirs adjacent to the maintenance sites. Therefore, the proposed project would not be prone to inundation by a seiche.

In the event of a flood hazard, implementation of avoidance and mitigation measures for maintenance activities would minimize release of pollutants due to project inundation to a less-than-significant level. Therefore, implementation of avoidance and mitigation measures for runoff control (Mitigation Measures WQ-5 and WQ-14) would reduce potential water quality impacts to a less than significant level.

- e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan;

Less than Significant with Mitigation Incorporated. The 2013 MND did not evaluate this impact, as the State CEQA Guidelines Appendix G Checklist was updated in January 2018. However, the 2013 MND stated standard erosion control BMPs would be implemented to minimize water quality degradation (Mitigation Measure WQ-5). Implementation of these BMPs would ensure stormwater discharges would not contain pollutants that cause or contribute to an exceedance of any applicable water quality objectives or water quality standards, including designated beneficial uses, as required by the Basin Plan. Minimization and avoidance measures would be implemented to control the potential discharge of pollutants and project water quality. Implementation of avoidance and mitigation measures to minimize impacts on receiving waters and minimize the discharge of pollutants, site spoil management, staging and stockpiling, trash management, and vehicle and equipment maintenance (Mitigation Measures WQ-9, WQ-11, WQ-12, WQ-13, WQ-16) would also reduce potential impacts on surface water quality objectives and/or beneficial uses as defined in the regional water quality control plan.

There would be no change in pervious cover; thus, groundwater recharge potential would be the same as under existing conditions. Therefore, the project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan and impacts would be less than significant with mitigation incorporated.

Mitigation Measures for Hydrology and Water Quality

TABLE 3-18. MITIGATION MEASURES FOR HYDROLOGY AND WATER QUALITY

Measure	Description
WQ-1 Worker Awareness	Prior to the start of the project, and annually thereafter, the City will educate all personnel on these avoidance and mitigation measures and other project best management practices (BMPs).
WQ-2 Minimization of Disturbance	<p>The City will ensure that activities and land disturbance are the minimum necessary to (1) remove sediment and debris for the proper functioning of the storm water conveyance system and (2) prevent stagnant and ponding water in areas that have been demonstrated to support mosquito breeding.</p> <p>Where vegetation removal is necessary, the removal of native trees will be restricted in accordance with BIO-14.</p>
WQ-3 Preservation of Existing Vegetation	The City will preserve existing vegetation to the extent practicable and ensure implementation of BIO-13, riparian vegetation avoidance and BIO-14, native tree avoidance.
WQ-4 Scheduling of Maintenance Activities	Maintenance activities will be scheduled to avoid or minimize earth disturbance during the wet season to the maximum extent practicable.
WQ-5 Erosion and Sediment Control	<p>Maintenance activities will include a combination of BMPs for soil erosion and sediment control depending on site conditions, which can include:</p> <p>Erosion control/slope stabilization/bank protection</p> <ul style="list-style-type: none"> • erosion control blankets • soil stabilizers • organic mulch, such as wood chips and vegetation • riprap <p>Temporary sediment controls:</p> <ul style="list-style-type: none"> • silt fence • sediment/desilting basins • sediment traps • fiber rolls • gravel bag berm/barrier/dam • straw bale barrier • waterbag dams • filters/filter bags
WQ-6 Inspection of Erosion and Sediment Control	All erosion and sediment control measures will be inspected/maintained to ensure proper integrity and function during the duration of maintenance activities. All post-activity stabilization and structural controls would be inspected for the duration of the maintenance activities and would be repaired or maintained for optimum performance.
WQ-7 Channel Alteration	If a stream channel, gradient, or lake margin have been temporarily altered during maintenance activities, the City will return the area to original design specifications or as closely as possible to pre-project conditions without creating a possible future bank erosion problem. Post-activity bank stabilization techniques (sediment and erosion control) will be implemented to further protect against bank erosion.
WQ-8 Site Access Management	<p>The City will ensure that access routes to maintenance areas are selected and designed to minimize impacts to receiving waters, in particular the discharge of identified pollutants to an already impaired water body.</p> <p>Soil-tracking BMPs will be implemented to limit off-site transport of sediment from vehicles by implementing measures and site access points such as metal corrugated shaker plates, gravel strips, and/or wheel-washing sites.</p>

Measure	Description
WQ-9 Vehicle/Equipment Operation	<p>The City will not operate equipment or vehicles in ponded or flowing areas except as otherwise addressed in any of the project's applicable regulatory permits.</p> <p>If maintenance activities require moving equipment across a flowing stream, the City will implement/install measures to prevent an increase to stream turbidity.</p>
WQ-10 CWA Section 404 Compliance	<p>Potential impacts to regulated waters and wetlands will be minimized through avoidance and minimization measures. Refer to Section IV, Biological Resources, and Mitigation Measure BIO-23.</p>
WQ-11 Site Spoil Management	<p>The City will ensure that spoil sites shall not be located next to surface waters where spoil dewatering could potentially affect water quality, or where it will cover aquatic or riparian vegetation unless the site is specifically identified in the project's Notification of Lake or Streambed Alteration application.</p>
WQ-12 Staging + Stockpiling	<p>Work materials, staging, storage, dispensing, fueling, and equipment maintenance activities will be located in upland areas outside of sensitive habitat, and adequate measures will be taken to prevent any potential runoff from entering receiving waters. Staging areas will be located within facility footprints or adjacent urban/developed areas.</p>
WQ-13 Trash Management	<p>Spoils, trash, or any debris will be removed off-site to an approved disposal facility.</p>
WQ-14 Water Diversion/Dewatering	<p>All surface waters, including ponded waters, will be diverted away from areas undergoing dredging or vegetation removal and/or any other activity that may result in a discharge to the receiving water. When water diversion is necessary, a temporary dam or other artificial obstruction will be constructed using materials that will cause little or no siltation and ensure water does not enter the work area. Water will be diverted around the maintenance facility without completely obstructing stream flow. When maintenance is completed, the flow diversion structure will be removed as soon as possible in a manner that allows flow to resume and prevents accumulated debris or sediment from returning to the stream.</p> <p>If dewatering is conducted, either a pump will move water to an upland disposal site, or a sediment basin or other structure will be used to collect and treat the water. If applicable, a National Pollutant Discharge Elimination System permit may be required. If not applicable, the water returned to the waterway should be equivalent in nature to pre-activity conditions.</p> <p>Additional water quality measures may arise as conditions of the 401 Water Quality Certification or Nationwide Permit #33 (if pursued) and applicable stipulations of a 1602 SAA, if applicable. The City will adhere to these and any other applicable conditions and avoidance measures.</p>
WQ-15 Spill Control	<p>The City will maintain appropriate types and sufficient quantities of materials on-site to contain any spill or inadvertent release of materials that may cause a condition of pollution or nuisance if the materials reach waters of the U.S. and/or state.</p>
WQ-16 Vehicle/Equipment Maintenance	<p>The City will ensure that all vehicles and equipment utilized for maintenance activities are well maintained and not leaking fluids. Vehicle or equipment maintenance (including fueling) will not be performed on-site or in a manner that could contribute pollutants to receiving waters.</p>
WQ-17 Post-Activity Erosion and Sediment Control	<p>Post-maintenance activity erosion and sediment control will be implemented as applicable, including landscape planting and other slope stabilization techniques (i.e., hydroseed and/or hydromulch).</p>

XI. LAND USE AND PLANNING

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Evaluation

Would the project:

- a. Physically divide an established community?

No Impact. The 2013 MND states that the proposed project would not create any new land use barriers, or otherwise divide or disrupt the physical arrangement of the surrounding community because the project does not propose the construction of any new structures that might divide an established area. Under this threshold, a significant impact could occur if a project were sufficiently large enough or otherwise configured in such a way as to create a physical barrier within an established community by impeding access between parts of the community. Projects that typically have the potential to physically divide an established community are projects such as railroads, highways, airports, and stadiums, none of which are proposed as part of the project. The O&M activities proposed as part of the project would be limited to facilities that already exist within the city, and no construction or development of additional flood control facilities is proposed. Therefore, impacts related to physically dividing an established community would not occur.

- b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less-than-Significant Impact. The 2013 MND states that, from a land use perspective, no adverse impacts from the proposed project are anticipated because O&M activities would be conducted in existing channels and structures, and would not alter existing uses or conflict with local land use planning policies. The proposed project would add 24 additional facility locations, expand a current facility location (already included in the RGP), and include additional work activities. However, all 87 facilities are existing concrete and earthen stormwater facilities within the city, and the proposed O&M activities would not alter existing uses or conflict with any land use plans or policies designed to avoid or mitigate environmental effects. Therefore, the impact would be less than significant.

XII. MINERAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Evaluation

Would the project:

- a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state (City of Escondido 2012). Similarly, the proposed project consists of routine O&M activities that would not be located within or adjacent to any mineral extraction activities or Surface Mining and Reclamation Act (SMARA)-designated areas, and there would be no loss of availability of valuable mineral resources site (California Department of Conservation 2015). Therefore, impacts related to the loss or reduction of a valuable mineral resource would not occur.

- b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan (City of Escondido 2012). Similarly, the proposed project would not be located within or adjacent to any mineral extraction activities or SMARA-designated areas, and would not result in the loss of availability of a locally important mineral resource recovery site (California Department of Conservation 2015). Therefore, impacts related to loss of a locally important mineral resource recovery site would not occur.

XIII. NOISE

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Generate excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Be located within the vicinity of a private airstrip or an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Evaluation

Would the project:

- a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?

Less-than-Significant Impact. The 2013 MND concluded that the current RGP 94 activities would not result in a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies. The 2013 MND stated that because current RGP 94 activities would consist of temporary O&M activities and would not create any new permanent noise sources, the project would not cause any permanent increase in ambient noise levels. Furthermore, because the project would not contain operational components that would be subject to Section 17-229 of the City’s Municipal Code (see below), there would be no exceedance of those standards.

It is noted that the CEQA Appendix G checklist questions for Noise have changed since the 2013 MND was prepared. The current question “a”, as stated above, combines three issues that were previously addressed in three separate questions in the 2013/2014 IS/MND. These were (1) compliance with applicable standards, (2) temporary or periodic increases in ambient noise, and (3) permanent increases in ambient noise. Because these issues have since been combined into a single checklist question, the following discussion relates to the combined findings for all three questions.

The 2013 MND identified that the applicable local noise standards are provided by the Escondido Noise Ordinance. The ordinance is contained in Chapter 17, Article 12, *Noise Abatement and Control*, of the City Municipal Code (Code). Noise level limits between adjacent properties are governed by Section 17-229 of the Code. Fixed-location public utility distribution or transmission facilities located on or adjacent to a property line are subject to the noise level limits in Section 17-229 of the Code, measured at or beyond 6 feet from the boundary of the easement upon which the

equipment is located. General construction noise is governed by Section 17-234 of the Code, which limits construction operations to 7 a.m. through 8 p.m., Monday through Friday, and on Saturdays between 9 a.m. and 5 p.m. and prohibits construction on Sundays and City holidays. Noise generated by grading activities is governed by Section 17-238 of the Code, which limits grading operations to 7 a.m. to 8 p.m., Monday through Friday and prohibits grading on Saturdays, Sundays, and City holidays. A variance for grading may be issued by the City Manager to allow grading operations on Saturdays between 10 a.m. and 5 p.m., if it can be demonstrated that it would serve the community good.

O&M activities at current RGP 94 facilities were classified as temporary construction activities subject to Code Sections 17-234 and 17-238. Both Code Sections 17-234 and 17-238 limit noise generated by construction equipment to a maximum of 75 A-weighted decibels (dBA) for a 1-hour equivalent noise level (L_{eq}) at the property line of any property developed for residential purposes, unless a variance is obtained from the City Manager (pursuant to Code Sections 17-249 through 17-257).

O&M noise sources at current RGP 94 facilities were assumed to include graders, backhoes, excavators, front end loaders, and other equipment. O&M activities would be limited by the City's Noise Ordinance such that they would not occur during the prohibited nighttime, weekend, and holiday periods. Based on construction noise data from the Federal Transit Administration, general construction schedule assumptions, and soft-site ground conditions, the analysis assumed O&M equipment would generate a 1-hour L_{eq} of 70 dBA at 50 feet from the construction area, with a drop-off rate (i.e., noise attenuation rate) of 7.5 decibels (dB) per doubling of distance from the source. Thus, while noise levels within and adjacent to the current RGP 94 facilities would temporarily increase during the O&M period, it was concluded that the increase would not be considered substantial, and construction-related noise levels would not exceed the noise level limits identified in Sections 17-234 and 17-238 of the Code.

Work to be conducted at the newly proposed facilities (i.e., new and extended sites) for the proposed project would consist of the same type of O&M activities conducted at current facilities. Work activities at any individual facility would be conducted approximately annually or biannually, and most O&M activities would be completed within 2 to 5 days. O&M activities, including newly proposed repairs and maintenance of existing hardscaped structures, would use the same general equipment types considered in the 2013 MND, including manual hand tools (e.g. rakes, shovels, loppers), mechanical hand tools (e.g., chain saws, string trimmers, hedge trimmers), and, in some locations, heavy mechanical equipment (e.g. grader, backhoe, excavator, skid steer, front-end loader, bobcat). Consequently, the resulting noise levels would be the same as those predicted for current facilities. Like activities at current facilities, proposed O&M activities would be limited by the City's Noise Ordinance and would not occur during the prohibited nighttime, weekend, and holiday periods. Newly proposed facilities would be located adjacent to a mix of neighborhoods and land uses that are the same or very similar to those surrounding current facilities. As a result, the noise levels and associated impacts from newly proposed facilities would be essentially the same as those from current facilities. Thus, while noise levels within and adjacent to the newly proposed facilities would temporarily increase during the O&M period, the increase would not be substantial, and construction-related noise levels would not exceed the noise level limits identified in Sections 17-234 and 17-238 of the Code.

Because the proposed project would consist of temporary O&M activities and would not create any new permanent noise sources, the proposed project would not cause any permanent increase in ambient noise levels. Furthermore, because the project would not contain operational components

that would be subject to Code Section 17-229, there would be no exceedance of those standards. As a result, the O&M activities at newly proposed facilities would not result in a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies. Thus, impacts would be less than significant.

b. Generate excessive groundborne vibration or groundborne noise levels?

Less-than-Significant Impact. The 2013 MND concluded that impacts related to groundborne vibration and groundborne noise impacts from the current RGP 94 would be less than significant. The 2013 MND noted that no pile driving or explosives blasting was anticipated as a result of the project. Thus, the most substantial vibration sources associated with the proposed project would be the O&M equipment used during vegetation clearing and dredging activities. Vibration levels from proposed equipment, reported as the peak particle velocity in inches per second (PPV in/sec), were found to be 0.1 PPV in/sec or less at distances of 30 feet or more. This impact was determined to be below applicable threshold for both annoyance to people and damage to structures.

Work to be conducted at the newly proposed facilities (i.e., new and extended sites) for the proposed project would be the same type of O&M activities conducted at current facilities. Work would use the same general equipment types, including manual hand tools, mechanical hand tools, and heavy mechanical equipment. No new high-intensity construction techniques (such as pile driving or blasting) would be introduced. Consequently, the vibration levels and associated impacts from proposed facilities would be essentially the same as those from current facilities. As a result, the O&M activities at proposed facilities would not result in excessive groundborne vibration or groundborne noise levels, and impacts would be less than significant.

c. Be located within the vicinity of a private airstrip or an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not expose people residing or working in the project area to excessive noise levels due to airport or airstrip operations. It is noted that the CEQA Appendix G checklist questions for noise have changed since the 2013/2014 IS/MND was prepared. The current question “c”, as stated above, combines two issues that were previously addressed in two separate questions in the 2013 MND. These were (1) noise from public airports or public use airports and (2) noise from private airstrips. The 2013 MND noted that the current RGP94 facilities are not located within an airport land use plan or within 2 miles of a public airport, public use airport, or private airstrip, and thus no impact would occur.

The newly proposed and extended sites under the proposed project would all be within the city of Escondido limits and, therefore, within the same general geographical boundaries considered in the 2013 MND. Similarly, no project sites (existing or proposed) would be located within an airport land use plan or within 2 miles of a public airport, public use airport, or private airstrip. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels due to airport or airstrip operations, and no impact would occur.

XIV. POPULATION AND HOUSING

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Evaluation

Would the project:

- a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?

No Impact. The MND found that implementation of the current RGP 94 would neither directly nor indirectly induce substantial population growth in the area. Similarly, population within the surrounding area would not incrementally increase as a result of implementation of the proposed project (City of Escondido 2012). The proposed O&M activities would not alter the location, distribution, or population density within the area, nor would they adversely impact the city's housing demand. The proposed project does not propose to create or expand infrastructure that would induce population growth. Therefore, no impacts would occur.

- b. Displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The 2013 MND found that the implementation of the current RGP 94 would not displace a substantial number of people or housing, necessitating the construction of replacement housing elsewhere. Similarly, implementation of the proposed project would not displace a substantial number of people or housing (City of Escondido 2012). The proposed project consists of routine O&M activities and would not add any units to the existing housing stock and would not displace any people or create a demand for additional housing or necessitate the construction of housing elsewhere. Therefore, no impacts would occur.

XV. PUBLIC SERVICES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Evaluation

Would the project:

- a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

Fire protection?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not result in substantial adverse impacts on fire protection services. Similarly, the proposed project would not result in substantial adverse impacts on fire protection services. Escondido is currently served by seven fire stations, located throughout the city (City of Escondido 2012). Due to the nature of the proposed project, it would not impact fire protection services and would not result in the need for expanded fire protection services. No impacts would occur.

Police protection?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not result in substantial adverse impacts on police protection services. Similarly, the proposed project would not result in substantial adverse impacts on police protection services. Due to the nature of the project, no significant impacts on police services are anticipated, and the proposed project would not result in the need for expanded police protection services. No impacts would occur.

Schools?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not result in substantial adverse impacts on schools. Similarly, the proposed project would not result in substantial adverse impacts on schools. The proposed project site is within the Escondido Union School District and the Escondido Union High School District. Due to the nature of the proposed project, it would not result in additional elementary and high school students, and would not result in the need for construction of additional schools. No impacts would occur.

Parks?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not result in substantial adverse impacts on parks. Similarly, the proposed project would not result in substantial adverse impacts on parks. Due to the nature of the proposed project, it would not result in an incremental increase in demand on the city's recreational facilities, and would not result in the need for additional parks. Three proposed project sites are located within park sites: maintenance facility H-17 and H-18 located within Kit Carson Park (3333 Bear Valley Parkway), and maintenance facility E-56 located with Rod Mcleod Park (1701 South Iris Lane). As discussed in the project description, proposed project activities at these sites would consist of short-term operation and maintenance work and would not result in substantial adverse impacts on parks. Most work activities would be completed within 2 to 5 days, and all of the sites would be accessed without impacting the surrounding areas, which would include either development (i.e., private homeowner landscaping) or upland native habitat. Further, all O&M activities would be completed during normal business hours (7:30 a.m. to 6:00 p.m.), Monday through Friday. Facility H-17 maintenance activities include removal of accumulated sediment and weed removal, facility H-18 maintenance activities include removal of accumulated sediment and vegetation within the concrete channel and repairing a segment of concrete within the channel, and facility E-56 maintenance activities include removal of accumulated sediment and weed removal. No other project sites are currently used for recreational activities and none are listed as a potential park site in the City's Master Plan of Parks, Trails and Open Spaces (City of Escondido 1999). Therefore, no significant impact on recreational resources would occur as a result of the proposed project.

Other public facilities?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not result in substantial adverse impacts on libraries or other public facilities. Similarly, the proposed project would not result in substantial adverse impacts on libraries or other public facilities. Due to the nature of the proposed project, it would not result in a significant increase in demand on library services or the development of additional library spaces. No substantial adverse physical impacts associated with the provision of new or physically altered San Diego Gas and Electric facilities would occur. The proposed project would not impact or affect any other public facilities in a manner that would result in the need for additional or expanded public facilities.

XVI. RECREATION

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Evaluation

Would the project:

- a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not result in substantial adverse impacts on existing neighborhood and regional parks or other recreational facilities. Similarly, the proposed project would not result in substantial adverse impacts on parks or recreational facilities. Due to the nature of the project, the O&M activities associated with the proposed project would not increase the use of existing neighborhood parks and regional parks or other recreational facilities. No impact on recreational resources would occur.

- b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not include recreational facilities or require the construction or expansion of recreational facilities resulting in a substantial adverse impact on the environment. Similarly, the proposed project would not require construction or expansion of recreational facilities. The proposed project does not include any recreational facilities. Therefore, no impacts on recreational resources would occur.

XVII. TRANSPORTATION

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict or be inconsistent with State CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially increase hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Evaluation

Would the project:

- a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not conflict with adopted policies, plans, or programs related to the performance of the circulation system or supporting alternative transportation. Similarly, the proposed project would not conflict with adopted policies, plans, or programs related to the performance of the circulation system or supporting alternative transportation. Project-related trips would primarily be associated with routine O&M activities and would be short term and temporary. The proposed project also would not impact any proposed bus routes or stops, or require the development of new or relocated bus stops. Therefore, no impact would occur.

- b. Conflict or be inconsistent with State CEQA Guidelines section 15064.3, subdivision (b)?

Less-than-Significant Impact. The 2013 MND analyzed level of service impacts related to the current RGP 94 travel demand and did not include an analysis of vehicle miles traveled as described in State CEQA Guidelines Section 15064.3. Travel analysis conducted for the current RGP 94 found that vehicle trips would not substantially increase congestion or affect the level of service. Similarly, the proposed project consists of routine O&M activities that would not substantially increase congestion or affect the level of service. The proposed project would require on average three roundtrips per day. The frequency of maintenance activities would be site- and structure specific and would range from semi-annual to annual maintenance. Most of the maintenance activities would take between 2 to 5 days to complete; however, some sites would require work that could last up to 45 days. Given that the proposed project would only generate on average three roundtrips per day, well below OPR's screening threshold of 110 trips per day for small projects (Governor's Office of Planning and Research 2018), the proposed project would not conflict or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b). Therefore, impacts would be less than significant and no mitigation is required.

- c. Substantially increase hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not substantially increase hazards due to a design feature or incompatible uses. Similarly, the proposed project would not substantially increase hazards due to a design feature or incompatible uses. The proposed project consists only of routine O&M activities and does not propose any changes to existing roadway design features or any incompatible uses. Therefore, no impact would occur.

- d. Result in inadequate emergency access?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not result in inadequate emergency access. Similarly, the proposed project would not result in inadequate emergency access. All O&M activities of the proposed project would be completed off of the roadways and would not block a roadway or impede traffic in any way. Emergency and nonemergency response times of the Escondido Fire Department would remain the same with the proposed project. Therefore, no impact would occur.

XVIII. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Evaluation

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

Less Than Significant Impact with Mitigation Incorporated. Records searches and archival research were negative for the presence of tribal cultural resources located within the project area. Additionally, ICF submitted a request to the Native American Heritage Commission (NAHC) for information in the Sacred Lands File database on May 21, 2019, in order to acquire more information about potential cultural resources within the APE and vicinity. A response from the NAHC was received on June 5, 2019. The NAHC indicated that no traditional cultural places are located within the APE that may be affected by the proposed project. Additionally, the NAHC provided a list of 31 Native American tribes and individuals to contact about the proposed project and requested follow-up phone calls. Letters were sent to the 31 Native American tribes and individuals (dated October 25, 2019). Responses were received from the Viejas Band of Kumeyaay Indians, the San Pasqual Band of Mission Indians, the Rincon Band of Luiseno Indians, and the Pala Band of Mission Indians. None of the responses from tribal contacts identified tribal cultural resources within the project area or vicinity, and consultation will continue as the project progresses.

AB 52, effective July 1, 2025, introduced the Tribal Cultural Resource as a class of cultural resource and additional considerations relating to Native American consultation into CEQA. Four Native

American tribes (Rincon, San Luis Rey, Soboba, and Mesa Grande) were mailed notification regarding the proposed project in conformance with AB 52. The Rincon and San Luis Rey tribes responded requesting formal consultation. Consultation was conducted with representatives from Rincon and San Luis Rey on June 17, 2020, along with review of select sites in the field with both Tribes. The Tribes requested monitoring at various sites and also agreed the standard mitigation measures developed with the Tribes and incorporated into the IS/MND for the project would adequately address any potential impact on Tribal Cultural Resources. Therefore, mitigation measures would be required for the project in order to address potential inadvertent discoveries of cultural resources, the content of which are included as mitigation measures CR1 through CR-4. Implementation of these mitigation measures would reduce potential impacts to tribal cultural resources to a less-than-significant level (see Section V. Cultural Resources).

- b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?

Less Than Significant Impact with Mitigation Incorporated. Records searches, archival research, NAHC, and tribal outreach were negative for the presence of tribal cultural resources located within the project area. See response to XVIII.a, above.

XIX. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Evaluation

Would the project:

- a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not exceed wastewater treatment requirements of the applicable RWQCB. Similarly, the proposed project would not exceed wastewater treatment requirements of the applicable RWQCB. The proposed project includes the maintenance of existing structures and does not include or require expansion of the system or construction of a new wastewater treatment facility or new storm water facilities. Therefore, implementation of the proposed project would not result in exceedance of wastewater treatment requirements and no impacts would occur.

- b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

No Impact. The 2013 MND identified that implementation of the current RGP 94 would not require a permanent source of water or require additional water entitlements. Similarly, the proposed project would not require a permanent source of water supply and would not require additional water

entitlements. Therefore, the proposed project would not result in a significant impact on water supplies, and no impacts would occur.

- c. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. The 2013 MND found that implementation of the current RGP 94 would not increase wastewater generation such that treatment facilities would be inadequate to serve the project's projected demand in addition to the provider's existing commitments. Similarly, the proposed project would not require wastewater treatment services or the expansion of a wastewater treatment facility. Therefore, no impact would occur.

- d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

No Impact. The 2013 MND found that the current RGP 94 waste disposal needs would be minimal and could be adequately served by the local landfill. Similarly, the proposed project would not impair the attainment of solid waste reduction goals. Escondido Disposal, Inc. (EDI) currently provides solid waste removal service for the Escondido area. EDI also operates a solid waste transfer station at their Washington Avenue site where solid waste is consolidated into larger transfer trucks and taken to a class III landfill for disposal. Solid waste pick-up would be available for the project by EDI for all O&M activities. The proposed project's solid waste disposal needs would be minimal and could be adequately served by the local infrastructure. Therefore, no impact would occur.

- e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. The 2013 MND found that implementation of the current RGP 94 would comply with all federal, state, and local statutes and regulations related to solid waste. Similarly, the proposed project would comply with all applicable federal, state, and local statutes related to solid waste. Maintenance personnel would dispose of solid waste in accordance with applicable solid waste regulations. All O&M activities would comply with all federal, state, and local statutes and regulation related to solid waste. Therefore, no impact would occur.

XX. WILDFIRE

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks of, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Evaluation

Would the project:

- a. Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less-than-Significant Impact. The 2013 MND found that implementation of the current RGP 94 would not substantially impair an adopted emergency response plan or emergency evacuation plan. Similarly, the proposed project would be consistent with, and not substantially impair, an adopted emergency response plan or emergency evacuation plan. The proposed project consists of routine O&M activities and does not include activities or structures that would impair the implementation of, or physically interfere with, an adopted emergency response plan or evacuation plan. The proposed O&M activities also are not expected to result in the need for additional emergency and fire facilities. Therefore, impacts would be less than significant.

- b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks of, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less-than-Significant Impact. As discussed above, the proposed project facilities are located at various sites within the city with varying topography, elevation, and setting. Sites are within suburban and urban areas, and surrounding development includes urban and suburban residences, commercial buildings, and shopping centers, schools, parks and open space, roadways, and other development types. General Plan land uses in the proposed project area are mainly Residential (Urban, Suburban, and Estate), Commercial, Planned Office, Public Land/Open Space, and Specific Plan Areas (Figure 2-4). Surrounding development varies in size, type, and age, and includes urban and suburban residences, commercial buildings and shopping centers, schools, parks and open

space, roadways and other development types. However, according to the State of California Fire Marshall (State of California Fire Marshall 2020), the proposed project is not located in a very high fire hazard zone area. In addition, as discussed in Section IX, *Hazards and Hazardous Materials*, the proposed project would not expose people or structures to wildland fires.

The proposed project would involve the routine removal of vegetation and/or sediment from various storm drain facilities (constructed and natural) for the proper function of the channel system and structures. Thus, due to the nature of the project, proposed activities would not increase the risk of wildfire or involve the construction of new habitable structures. Therefore, the proposed project would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, and impacts would be less than significant.

- c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment?

No Impact. The proposed project involves the routine removal of vegetation and/or sediment from various existing storm drain facilities (constructed and natural) for the proper function of the channel system and structures. As discussed in Section 2, *Project Description*, project facilities are located on privately owned parcels or on City easements or rights-of-way. All work would be completed on private land, and access to structures for O&M activities would typically be from the nearest public roadway. Most sites would be accessed without impacting the surrounding areas, which would include either development (i.e., private homeowner landscaping) or disturbed habitat. One site (E-58 Reidy Creek Golf Course) will require access points through upland native habitat as shown on Figure 2-3, Sheets 20 and 21. No installation or maintenance of wildfire infrastructure such as roads, fuel breaks, and emergency water sources is required, and thus the project would not result in temporary ongoing impacts on the environment. No impact would occur.

- d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less-than-Significant Impact. As discussed above in Section X, *Hydrology and Water Quality*, the purpose of the proposed project is to improve runoff conveyance and minimize flooding potential and would not affect flooding off site. In addition, as discussed in Section VII, *Geology and Soils*, the proposed project is not located in a landslide hazard zone. Therefore, the proposed project would not substantially alter the existing drainage pattern of the project area or result in a substantial increase in the rate or amount of surface runoff in a manner that would result in flooding on or off site. Therefore, impacts would be less than significant

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Evaluation

- a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation Incorporated. Consistent with what was discussed in the 2013 MND and 2014 Addendum, the potential impacts on the environment as a result of the proposed project would be related to the resource areas of Biological Resources and Cultural Resources. As discussed in the preceding applicable sections, O&M activities at some of the citywide facility locations have the potential to impact special-status species, sensitive vegetation communities, and federally or state-protected wetlands or waters. Although no known cultural resources would be adversely affected by the project, mitigation measures are included to prevent adverse impacts on undiscovered cultural/tribal cultural resources or human remains. Thus, with incorporation of mitigation, impacts on cultural resources would be less than significant.

With the implementation of mitigation measures BIO-1 through BIO-23 and CUL-1 through CUL-7, and conditions of approval listed in this document, the project is not expected to have any significant impacts. The project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, or cause the fish or wildlife population to drop below self-sustaining levels. The project would not threaten to eliminate a plant or animal community or substantially reduce the number or restrict the range of a rare or endangered plant or animal. The project would not eliminate important examples of the major periods of California history or pre-

history. Lastly, the project would not materially degrade levels of service of the adjacent streets, intersections, or utilities. Thus, impacts would be less than significant with mitigation incorporated.

- b. Does the project have impacts that are individually limited but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less than Significant with Mitigation Incorporated. As discussed in the preceding paragraphs, protection of biological and cultural resources as well as hydrology and water quality would be achieved through implementation of mitigation measures (BIO-1 through BIO-23; CUL-1 through CUL-7; and WQ-1 through WQ-17) and would ensure that impacts remain less than significant. As a result, project implementation would not result in any individually limited, but cumulatively significant impacts on these resources.

Furthermore, when considering all potential environmental impacts of the proposed project, including impacts identified as less than significant in this IS/MND, together with the impacts of other present, past, and reasonably foreseeable future projects, there would not be a cumulatively considerable impact on the environment with the mitigation and monitoring measures incorporated into the proposed project.

- c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Less-than-Significant Impact. Refer to XXI.a and XXI.b, above.

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APPENDIX A. MAINTENANCE ACTIVITIES FOR CURRENT RGP FACILITY LOCATIONS

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Maintenance Activities for Current RGP Facility Locations

Facilities with Hand Work Only		
Facility ID	Maintenance Activities Performed	
<ul style="list-style-type: none"> • E-13 • E-17 • E-18 	<ul style="list-style-type: none"> • E-19 • H-07 	<ul style="list-style-type: none"> • Vegetation trimming/mowing using handtools such as chainsaw, hedge trimmer, and hand pruning saw. • Debris and cuttings placed outside of jurisdictional waters before being removed from site. • Crews walk into site for maintenance activities. • No equipment within jurisdictional waters.
Concrete-lined Channels - Use of Temporary Diversion Fills during Maintenance Work		
Facilities with Tier I or II impacts		
Facility ID	Site Name	Maintenance Activities Performed
E-01	2107 Pepper Tree Place	Sediment and vegetation removal <ul style="list-style-type: none"> • Equipment is staged on disturbed upland habitat and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
E-02	Nutmeg Street / Fire Station 3 (main channel)	Sediment and vegetation removal <ul style="list-style-type: none"> • Use of equipment such as backhoe to remove sediment and vegetation. Equipment enters jurisdictional waters to access and perform maintenance activities. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.

Maintenance Activities for Current RGP Facility Locations

E-03	Nutmeg Street / Fire Station 3 (east outlet)	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Equipment is staged on disturbed upland habitat and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
E-05	Carrotwood Glen (north outlet)	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Equipment is staged on disturbed upland habitat and/or adjacent street and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
E-06	Carrotwood Glen (east outlet)	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Use of equipment such as backhoe to remove sediment and vegetation. Equipment enters jurisdictional waters to access and perform maintenance activities. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
E-11	Reidy Creek Golf Course (north outlet)	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Use of equipment to remove sediment and vegetation. Equipment enters jurisdictional waters to access and perform maintenance activities. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
E-12	Reidy Creek Golf Course (creek crossing)	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Equipment is staged on disturbed upland habitat and/or adjacent street and backhoe or excavator used to scoop sediment out of wetland area for clean excavation. • No dragging of equipment along banks and no equipment in earthen section of channel. • Temporary BMPs are placed within the channel to reduce impacts to downstream waters.

Maintenance Activities for Current RGP Facility Locations

E-20	Vista Avenue (north segment)	<p>Sediment and vegetation removal Within concrete portion</p> <ul style="list-style-type: none"> • Equipment is within channel to remove sediment and debris. <p>Within earthen portion</p> <ul style="list-style-type: none"> • Equipment is staged at top of bank and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
E-21	Vista Avenue (south segment)	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Equipment is staged at top of bank or in street and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
E-24	Center City Parkway / Decatur Way	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Equipment is staged at top of bank or in street and backhoe or excavator used to scoop sediment of jurisdictional waters; resulting in clean excavation. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
E-25	Center City Parkway / Community Garden	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Equipment is staged at top of bank or in street and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.

Maintenance Activities for Current RGP Facility Locations

E-27	623 Escondido Boulevard	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Equipment is staged on disturbed upland habitat and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
E-29	Trujillo Terrace (south outlet)	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Equipment is staged at top of bank or in street and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
E-30	Trujillo Terrace (south inlet)	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Equipment is staged at top of bank and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters. • Temporary BMPs are placed within the channel to reduce impacts to downstream waters.
E-35	Lake Wohlford Road	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Equipment is staged on disturbed upland habitat and/or street and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
E-36	Lake Wohlford Court	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Equipment is staged in street and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • No dragging of equipment along banks and no equipment in jurisdictional waters.

Maintenance Activities for Current RGP Facility Locations

		<ul style="list-style-type: none"> • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
E-40	Slivkoff Drive (east segment)	<p>Sediment and vegetation removal within a roadside ditch.</p> <ul style="list-style-type: none"> • Equipment is staged at top of bank and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • Shovels used to clean out remaining sediment. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
E-41	Slivkoff Drive (west segment)	<p>Sediment and vegetation removal within a roadside ditch.</p> <ul style="list-style-type: none"> • Equipment is staged at top of bank and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
E-42	Silverado Place	<p>Sediment and vegetation removal within a roadside ditch.</p> <ul style="list-style-type: none"> • Equipment is staged at top of bank and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • Shovels used to clean out remaining sediment. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
H-01	1855 Naranja Street	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Use of equipment such as backhoe to remove sediment and vegetation. Equipment enters jurisdictional waters to access and perform maintenance activities. • Temporary BMPs are placed within the jurisdictional waters to reduce impacts to downstream waters.

Maintenance Activities for Current RGP Facility Locations

<p align="center">H-02</p>	<p>2035 Escondido Boulevard Corrected to: 1840 S Centre City Pkwy</p>	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Equipment is staged in street or disturbed upland habitat and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • Shovels used to clean out remaining sediment. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters. • The expansion of this site is proposed with the RGP renewal.
<p align="center">H-03</p>	<p align="center">Amparo Drive</p>	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Equipment is staged in street and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • Shovels used to clean out remaining sediment. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
<p align="center">H-06</p>	<p align="center">Center City Parkway / Brotherton Road</p>	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Equipment is staged in street and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • Shovels used to clean out remaining sediment. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
<p align="center">H-08</p>	<p align="center">Kit Carson Park (north outlet)</p>	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Equipment is staged in street and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • Shovels used to clean out remaining sediment. • No dragging of equipment along banks and no equipment in jurisdictional waters.

Maintenance Activities for Current RGP Facility Locations

		<ul style="list-style-type: none"> • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
H-09	Kit Carson Park (east channel)	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Use of equipment such as backhoe to remove sediment and vegetation. Equipment enters jurisdictional waters to access and perform maintenance activities. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
H-10	Kit Carson Park (south outlet)	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Equipment is staged in street and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • Shovels used to clean out remaining sediment. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
H-11	Kit Carson Park (south driveway, culvert inlet)	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Equipment is staged in street and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • Shovels used to clean out remaining sediment. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
H-12	Kit Carson Park (south driveway, culvert outlet)	<p>Sediment and vegetation removal</p> <ul style="list-style-type: none"> • Equipment is staged at top of bank and backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • Shovels used to clean out remaining sediment. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.

Maintenance Activities for Current RGP Facility Locations

H-13	3680 Sunset Drive	<p>Sediment and vegetation removal.</p> <ul style="list-style-type: none"> • Equipment is staged on disturbed upland area and use of backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • Shovels used to clean out remaining sediment. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
SM-02	Golden Circle	<p>Sediment and vegetation removal.</p> <ul style="list-style-type: none"> • Equipment is staged on disturbed upland area and use of backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • Shovels used to clean out remaining sediment. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.
SM-03	Nutmeg Street / Country Club Lane	<p>Sediment and vegetation removal within a roadside ditch.</p> <ul style="list-style-type: none"> • Equipment is staged at top of bank or in street and use of backhoe or excavator used to scoop sediment out of jurisdictional waters; resulting in clean excavation. • Shovels used to clean out remaining sediment. • No dragging of equipment along banks and no equipment in jurisdictional waters. • Temporary BMPs are placed within jurisdictional waters to reduce impacts to downstream waters.

APPENDIX B. AIR QUALITY/GREENHOUSE GAS EMISSIONS MODEL OUTPUTS

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Assumptions

Equipment Type	Fuel Type	Quantity	Hours/day	CalEEMod or Off-Model/App D
New Equipment				
Chain saws	Gas	1	8	Appendix D
String trimmers	Gas	3	6	Appendix D
Hedge trimmers	Gas	1	6	Appendix D
Backhoe	Diesel	1	8	CalEEMod
Bobcat/Skid Steer	Diesel	1	8	CalEEMod
Excavator	Diesel	1	8	CalEEMod
Current RGP 94 Equipment				
Loader	Diesel	4	8	CalEEMod
excavator	Diesel	4	8	CalEEMod
backhoe	Diesel	4	8	CalEEMod

Offsite trips

	Trucks or workers/day	Miles/trip	
Worker Trips	3	10.8	CalEEMod H-W Urban trip SDAB
Vendor Trucks	1	7.3	CalEEMod C-NW Urban trip SDAB
Haul Trucks	15	6	From applicant

Onsite trips

	Hours/day	mph	miles/day
Water Truck	3	5	15

General Assumptions

pounds per gram	0.00220462	
metric tons per gram	1.00E-06	
days per year (2020)	252	
ton/lbs	0.0005	
Grading PM10 EF	1.0605 lbs/acre	CalEEMod (no mitigation)
Grading PM2.5 EF	0.1145 lbs/acre	CalEEMod (no mitigation)

Emission Factor Summary

Counties = San Diego

Year	Air Basin	VehType	Lookup	Running (RUNEX, PMTW, PMBW) grams per mile										Process (IDLEX, STREX, TOTEX, DIURN, HTSK, RUNLS, RESTL) grams per trip										
				ROG	NOx	CO	PM10 Ex	PM10 D	PM2.5 Ex	PM2.5 D	SO2	CO2	CH4	N2O	ROG	NOx	CO	PM10 Ex	PM10 D	PM2.5 Ex	PM2.5 D	SO2	CO2	CH4
2020	SDAB	T6	2020SDABT6	0.21	3.46	0.59	0.09	0.26	0.08	0.08	0.01	1,050	0.01	0.17	0.01	1.81	0.17	0.00	0.00	0.00	0.00	58	0.00	0.01
2020	SDAB	T7	2020SDABT7	0.53	7.52	1.30	0.14	0.21	0.14	0.05	0.02	1,892	0.02	0.30	0.35	8.46	4.27	0.01	0.00	0.01	0.00	855	0.02	0.13
2020	SDAB	LDA-LDT	2020SDABLDA-LDT	0.02	0.07	0.80	0.00	0.12	0.00	0.02	0.00	302	0.00	0.01	0.90	0.25	2.45	0.00	0.00	0.00	62	0.07	0.03	
2020	SDAB	T6Onsite	2020SDABT6Onsite	1.48	10.03	2.51	0.23	0.36	0.22	0.08	0.01	2,373	0.07	0.37	0.01	1.81	0.17	0.00	0.00	0.00	58	0.00	0.01	
2020	SDAB	T7Onsite	2020SDABT7Onsite	2.11	17.47	4.14	0.29	0.21	0.27	0.05	0.02	3,669	0.10	0.58	0.35	8.46	4.27	0.01	0.00	0.01	0.00	855	0.02	0.13

Paved Road Dust Assumptions

Pollutant	Variables					Emission Factor (g per ml)
	k	sl	W	P	N	
PM10 D	0.0022	0.036423	2.4	42	365	0.1162
PM2.5 D	0.00	0.036423	2.4	42	365	0.0174

Unpaved Road Dust Assumptions

Scenario	Pollutant	Variables					EF (g/mile)
		k	s	W	a	b	
Unmitigated	PM10 D	1.5	4.3%	17.5	0.9	0.45	9.5
	PM2.5 D	0.15	4.3%	17.5	0.9	0.45	0.9

Escondido RGP - San Diego Air Basin, Winter

Escondido RGP
San Diego Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	0.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2020
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	535.7	CH4 Intensity (lb/MWhr)	0	N2O Intensity (lb/MWhr)	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2017 SDG&E CO2e EF, based on 2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018. (0.243 MTCO2e/MWh) 1 MT = 2204.62 lbs, 0.243 MT = 535.7 lbs CO2e/MWh

Land Use -

Construction Phase - Peak daily maintenance scenario.

Off-road Equipment - Data provided by applicant.

Trips and VMT - Mobile emissions estimated using EMFAC.

Area Coating - SDAPCD Regulation 67.0.1 limits VOC content from architectural coatings.

Energy Use -

Grading -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstructionPhase	NumDays	0.00	1.00
tblOffRoadEquipment	HorsePower	97.00	187.00
tblOffRoadEquipment	HorsePower	65.00	97.00
tblOffRoadEquipment	LoadFactor	0.37	0.41
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	9.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	535.7
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblTripsAndVMT	WorkerTripNumber	38.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	4.09	46.97	32.97	0.09	0.00	1.75	1.75	0.00	1.61	1.61	0.00	8525.31	8525.31	2.76	0.00	8594.24
Maximum	4.09	46.97	32.97	0.09	0.00	1.75	1.75	0.00	1.61	1.61	0.00	8525.31	8525.31	2.76	0.00	8594.24

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	4.0852	46.9695	32.9678	0.0881	0.0000	1.7459	1.7459	0.0000	1.6062	1.6062	0.0000	8,525.3095	8,525.3095	2.7573	0.0000	8,594.2409
Maximum	4.0852	46.9695	32.9678	0.0881	0.0000	1.7459	1.7459	0.0000	1.6062	1.6062	0.0000	8,525.3095	8,525.3095	2.7573	0.0000	8,594.2409

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/23/2020	3/23/2020	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Excavators	5	8.00	158	0.38

Site Preparation	Graders	0	0.00	187	0.41
Site Preparation	Skid Steer Loaders	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	9	8.00	187	0.41

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	15	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	4.0852	46.9695	32.9678	0.0881		1.7459	1.7459		1.6062	1.6062		8,525.3095	8,525.3095	2.7573		8,594.2409
Total	4.0852	46.9695	32.9678	0.0881	0.0000	1.7459	1.7459	0.0000	1.6062	1.6062		8,525.3095	8,525.3095	2.7573		8,594.2409

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	4.0852	46.9695	32.9678	0.0881		1.7459	1.7459		1.6062	1.6062	0.0000	8,525.3095	8,525.3095	2.7573		8,594.2409
Total	4.0852	46.9695	32.9678	0.0881	0.0000	1.7459	1.7459	0.0000	1.6062	1.6062	0.0000	8,525.3095	8,525.3095	2.7573		8,594.2409

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Escondido RGP - San Diego Air Basin, Annual

Escondido RGP
San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	0.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2020
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	535.7	CH4 Intensity (lb/MWhr)	0	N2O Intensity (lb/MWhr)	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2017 SDG&E CO2e EF, based on 2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018. (0.243 MTCO2e/MWh) 1 MT = 2204.62 lbs, 0.243 MT = 535.7 lbs CO2e/MWh

Land Use -

Construction Phase - Peak daily maintenance scenario.

Off-road Equipment - Data provided by applicant.

Trips and VMT - Mobile emissions estimated using EMFAC.

Area Coating - SDAPCD Regulation 67.0.1 limits VOC content from architectural coatings.

Energy Use -

Grading -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstructionPhase	NumDays	0.00	1.00
tblOffRoadEquipment	HorsePower	97.00	187.00
tblOffRoadEquipment	HorsePower	65.00	97.00
tblOffRoadEquipment	LoadFactor	0.37	0.41
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	9.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	535.7
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblTripsAndVMT	WorkerTripNumber	38.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.87	3.87	0.00	0.00	3.90
Maximum	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.87	3.87	0.00	0.00	3.90

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	2.0400e-003	0.0235	0.0165	4.0000e-005	0.0000	8.7000e-004	8.7000e-004	0.0000	8.0000e-004	8.0000e-004	0.0000	3.8670	3.8670	1.2500e-003	0.0000	3.8983
Maximum	2.0400e-003	0.0235	0.0165	4.0000e-005	0.0000	8.7000e-004	8.7000e-004	0.0000	8.0000e-004	8.0000e-004	0.0000	3.8670	3.8670	1.2500e-003	0.0000	3.8983

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-23-2020	6-22-2020	0.0182	0.0182
		Highest	0.0182	0.0182

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/23/2020	3/23/2020	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Excavators	5	8.00	158	0.38
Site Preparation	Graders	0	0.00	187	0.41
Site Preparation	Skid Steer Loaders	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	9	8.00	187	0.41

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	15	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0400e-003	0.0235	0.0165	4.0000e-005		8.7000e-004	8.7000e-004		8.0000e-004	8.0000e-004	0.0000	3.8670	3.8670	1.2500e-003	0.0000	3.8983
Total	2.0400e-003	0.0235	0.0165	4.0000e-005	0.0000	8.7000e-004	8.7000e-004	0.0000	8.0000e-004	8.0000e-004	0.0000	3.8670	3.8670	1.2500e-003	0.0000	3.8983

Unmitigated Construction Off-Site

Off-Road Equipment (Gas) Emissions

Equipment	#/day	hrs/day	HP	Pounds per day							Tons per year							Metric tons per year								
				ROG	NOx	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e			
Chain Saws	1	8	15	32	1	89	0	0					0	4	0	11	0	0				0	27	0		32
Trimmers	4	6	5	5	2	101	0	0					0	1	0	13	0	0				0	26	0		27
Total				38	3	190	0	0	0	0	0	0	0	5	0	24	0	0	0	0	0	0	53	0	0	59

Table 7.2- Landscape Equipment Running Emission Factors g/bhp-hr

Equipment Type	Year	Engine	Commercial or		Low HP	High HP	ROG	CO	NOx	SO2	PM10	PM2.5	CO2	CH4
			Residential											
Chainsaws	2020	G2	C		0	2	122.245	336.69	2.866	0.036	0.667	0.667	884.645	7.598
Chainsaws	2020	G2	C		6	15	727.09	1573.283	13.915	0.174	2.675	2.675	4229.983	45.192
Chainsaws	2020	G2	R		0	2	122.245	336.69	2.866	0.036	0.667	0.667	884.645	7.598
Chainsaws	2020	G2	R		6	15	727.09	1573.283	13.915	0.174	2.675	2.675	4229.983	45.192
Trimmers/Edgers/B	2020	G2	R		0	2	77.851	285.983	2.482	0.031	0.449	0.449	772.991	4.838
Trimmers/Edgers/B	2020	G4	C		3	5	19.759	381.691	8.585	0.029	0.361	0.361	858.879	1.111
Trimmers/Edgers/B	2020	G4	R		3	5	19.759	381.691	8.585	0.029	0.361	0.361	858.879	1.111

Grading Emissions

Strip (acres/day)	Pounds per day							
	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
1						1.0605004	0.1145092	

Mobile Emissions

	Veh type	VMT/day	Trips/day	Pounds per Day										Metric Tons per Day			Metric Tons per Year			
				ROG	NOx	CO	PM10 Ex	PM10 D	PM10 Total	PM2.5 Ex	PM2.5 D	PM2.5 Total	SO2	CO2	CH4	N2O	CO2	CH4	N2O	CO2e
Worker Trips	LDA-LDT	65	6	0.01	0.01	0.15	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.02	0.00	0.00	5	0	0	5
Haul Trucks	T7	180	30	0.23	3.54	0.80	0.06	0.08	0.14	0.05	0.02	0.08	0.01	0.37	0.00	0.00	92	0	0	97
Vendor Trucks	T6	15	2	0.01	0.12	0.02	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.02	0.00	0.00	4	0	0	4
Water Trucks	T6Onsite	15	1	0.05	0.34	0.08	0.01	0.01	0.02	0.01	0.00	0.01	0.00	0.04	0.00	0.00	9	0	0	9
Total				0	4	1	0	0	0	0	0	0	0	0	0	0	110	0	0	115

Daily Criteria Air Pollutant Emissions (lbs/day)

	ROG	NOx	CO	SOx	PM10	PM2.5
Offroad Equipment	42	50	223	0	2	2
Mobile	0	4	1	0	0	0
Grading	0	0	0	0	1	0
Total	42	54	224	0	3	2
Threshold	75	250	550	250	100	55
Exceed Threshold?	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Annual GHG Emissions (MTCO2e/year)

	CO2	CH4	N2O	CO2e
	57	0	0	63
	110	0	0	115
	0	0	0	0
	167	0	0	178
Threshold				2,500
Exceed Threshold?				<i>No</i>

**APPENDIX C. BIOLOGICAL RESOURCES
MEMORANDUM**

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Memorandum

To:	Elisa Marrone City of Escondido
From:	Lanika Cervantes; ICF
Date:	March 3, 2020
Re:	City of Escondido Regional General Permit 94 – Biological Resources Memorandum

This memorandum documents the results of the jurisdictional delineation (JD), vegetation mapping, and habitat assessment effort completed for the new facility locations to be added to the City of Escondido Regional General Permit (RGP) 94.

Project Description

As part of the City of Escondido's (City) ongoing needs to effectively maintain its municipal separate storm system (MS4), the City is planning to add an additional 24 facility locations, expand a current facility location, as well as include additional work activities.

The overall project description for all new and existing facility locations is provided below.

The types of facilities that will be added as new facilities under the RGP 94 are listed below and include:

- Earthen streams/creeks and storm water channels with hydrologic regimes ranging from ephemeral to perennial,
- Concrete bottom channels with hydrologic regimes of ephemeral and intermittent,
- Culverts and their associated inlets and outlets, and
- A storm water basin.

The following work activities will be conducted at the new and existing facility locations:

- Accumulated sediment and herbaceous vegetation within concrete channels and earthen streams/creeks will be excavated to allow for positive flow,
- Culvert inlets and outlets will be excavated and cleared within a specified radius,

- Nonnative trees will be removed within specified facility locations,
- One-time native tree removal to gain access and/or allow for positive flows will occur at specific facility locations (either cut at stump, leaving root in place or root and all removal depending on its location),
- Native shrub and tree cover that inhibit positive flow and create debris jams will be trimmed, and
- Accumulated sediment and vegetation within a basin will be excavated.

Project Location

The Project is located within drainage facilities located at multiple sites in the city of Escondido, California (Figures 1 and 2 located in Attachment 1).

Methodology

Prior to beginning the biological surveys, ICF biologists Lanika Cervantes and William Kohn reviewed aerial photography and areas with topographical configurations and vegetative signatures occurring within the survey areas. Table 1 below presents the survey dates and personnel who conducted the surveys.

Table 1. Survey Dates

Date of Survey	Personnel	Survey Details
February 18, 2019	Lanika Cervantes and William Kohn	JD; Veg Mapping; Habitat Assessment
February 26, 2019	Lanika Cervantes and William Kohn	JD; Veg Mapping; Habitat Assessment
February 27, 2019	William Kohn and Ryan Layden	JD; Veg Mapping; Habitat Assessment
March 25, 2019	Shawn Johnston and Kelsey Dix	Veg Mapping and rare plant species potential
November 1, 2019	Lanika Cervantes and Kelsey Dix	JD; Veg Mapping, Habitat Assessment

Vegetation Communities

Vegetation communities were mapped within the survey areas according to the Holland Vegetation Classification (Holland 1986) as amended by Oberbauer (2018) to describe the unique vegetation communities of San Diego County. Vegetation communities were delineated using an Apple iPad using Collector Map with a sub-meter accuracy global positioning systems (GPS) unit.

Habitat Assessment

A California Natural Diversity Database (CNDDDB) list was generated prior to the habitat assessment to determine which species have potential to occur within the 24 facility locations. Based on this list, it was determined that least Bell's vireo (*Vireo bellii*) (LBVI), coastal California gnatcatcher (*Polioptila californica*) (CAGN), and San Diego Ambrosia (*Ambrosia pumila*) have a high potential to occur within the project sites. The habitat assessment focused on surveying for suitable riparian nesting and foraging habitat for least Bell's vireo, suitable Diegan coastal sage scrub nesting and foraging habitat for coastal California gnatcatcher, and suitable habitat for San Diego Ambrosia. Critical habitat for coastal California gnatcatcher was determined by overlaying the U.S. Fish and Wildlife Service Critical Habitat Map with a map of the project boundaries in ArcGIS. All other Threatened, Endangered, and Special Status Species along with suitable nesting habitat were also documented during the habitat assessment.

Jurisdictional Delineation

Prior to beginning the field delineation, aerial photography, USGS topographic maps, the national hydrography dataset (NHD), and the National Wetland Inventory (NWI) maps were analyzed to determine the locations of potential areas of US Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) jurisdiction.

Potential jurisdictional features were evaluated for the presence of a definable channel and/or wetland vegetation, soils, and hydrology. The delineation area was analyzed for potential wetlands using the methodology set forth in *the 1987 USACE Wetland Delineation Manual* (Environmental Laboratory 1987) and *the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008a). While in the field, the jurisdictional feature was mapped using an Apple iPad using Collector Map with a sub-meter accuracy global positioning systems (GPS) unit.

Results

Vegetation Communities

A total of 17 vegetation communities were mapped within the facility locations and their 100-foot survey buffer. Below is a description of each vegetation community. Table 2 presents the total acreage of each vegetation community occurring with the Facility Locations where excavation and removal of vegetation is proposed using heavy equipment and their survey buffers. Table 3 presents the total acreage of each vegetation community occurring within the Facility Locations where only removal of nonnatives and trimming of native vegetation is proposed using handtools only and their survey buffers.

Southern Arroyo Willow Riparian Forest 61320

This riparian habitat is dominated by arroyo willow (*Salix lasiolepis*) and understories usually consist of shrubby willows, such as red willow (*Salix laevigata*). Other species found in this habitat type in the survey area include: fan palm (Washington fillferia), pampas grass (*Cortaderia selloana*),

and an emergent wetland understory structure. Within the survey area, this is one of the dominate vegetation communities within the larger natural drainage areas.

Southern Cottonwood-Willow Riparian Forest 61330

This habitat is dominated by cottonwoods (*Populus fremontii*) and sycamores (*Platanus racemosa*) along with several tree and shrubby willows (*Salix* spp.). Other species that can be found include: mule fat (*Baccharis salicifolia*), wild cucumber (*Marah macrocarpa*) and nettles (*Urtica* spp.). Disturbed Southern Cottonwood-Willow Riparian Forest occurs along Reidy Creek and is due to the sparse canopy of native trees and the abundance of Mexican fan palms (*Washingtonia robusta*). Within the survey area, this is one of the dominate vegetation communities within the natural drainage areas.

Emergent Wetland 52440

Emergent wetlands are generally persistent wetlands that are dominated by low growing, perennial wetland species, such as (*Anemopsis*), (*Eleocharis* spp.), spiny rush (*Juncus* spp.), wild rose (*Rosa californica*), mule fat (*Baccharis salicifolia*), and small willows (*Salix* spp.). These often occur in areas of previous disturbance and the full diversity of species are not yet established. Within the survey area, this vegetation community occurs directly adjacent to riparian habitat within Reidy Creek and tributaries to San Dieguito Creek.

Coastal and Valley Freshwater Marsh 52400

This habitat type is dominated by perennial monocots that often form closed canopies. Bulrush (*Scirpus* spp.) and cattails (*Typha* spp.) are the dominate species along with *Carex* spp. and *Eleocharis* spp. Within the survey area, this vegetation community occurs near the low flow channels of larger drainage areas within Reidy Creek.

Mule Fat Scrub 63310

Mule fat scrub is a riparian community solely dominated by mule fat (*Baccharis salicifolia*) and is commonly found where flooding is frequent, otherwise more established tree would dominate the landscape. Within the survey area, this vegetation community occurs within the Reidy Creek Golf Course and the Kit Carson Bike Train facility locations.

Southern Riparian Scrub 63300

This habitat occurs in riparian regions that are dominated by small trees or shrubs, without taller riparian trees. Many willow species are common (*Salix* spp.), as well as coyote bush (*Baccharis sarothroides*). Other species found within this community while surveying were: cattails (*Typha* spp.), laurel sumac (*Malosma laurina*), Acacia spp., and sages (*Salvia* spp.). Within the survey area, this vegetation community occurs within the larger natural drainage areas.

Southern Willow Scrub 63320

This habitat is a dense aggregation of several willow species (*Salix* spp.) with a few small cottonwoods (*Populus fremontii*) and scyamores (*Platanus racemosa*). Due to the dense nature of the stands, there is poor understory development. Within the survey area, this vegetation community occurs within the larger natural drainage areas.

Open Water 64110

These areas are considered to contain year-round bodies of water with less than 10% vegetative cover that form lakes, streams, ponds or rivers. Within the survey area, Reidy Creek supports areas of open water due to dense vegetation that causes ponding and the inability for water to flow downstream.

Unvegetated Channel 64200

These areas consist of sandy, gravelly, or rocky fringes of waterways or flood channels. There is typically little to no vegetation present within these areas. Within the survey area, this is the main habitat type that occurs within the facility locations.

Coast Live Oak Woodland 71160

This vegetation community is dominated by coast live oak (*Quercus agrifolia*). The shrub layer is poorly developed and the herb understory is usually composed of non-native grasses (*Bromus* spp.). Within the survey area, this vegetation community is found in small locations near facilities and roadways.

Southern Coast Live Oak Riparian Forest 61310

This riparian habitat type is dominated by coast live oak (*Quercus agrifolia*) and it often has a richer understory of herbs while poorer in shrubs when compared to other riparian communities. Within the survey area, this vegetation community occurs within facility locations adjacent to open space.

Diegan Coastal Sage Scrub 32500

Diegan coastal sage scrub occurs in steep, xeric slopes dominated low, soft-woody subshrubs, California sagebrush (*Artemisia californica*) and California buckwheat (*Eriogonum fasciculatum*), with other species such as laurel sumac (*Malosma laurina*), white sage (*Salvia apiana*), and black sage (*Salvia mellifera*). Only a small amount of Diegan coastal sage scrub habitat occurs in a facility location, this vegetation community primarily occurs within the survey buffer.

Eucalyptus Woodland 79100

Eucalyptus woodlands are non-native stands of Eucalyptus spp., most commonly blue gum (*Eucalyptus globulus*) and red gum (*E. camaldulensis*), usually planted. There is usually little or no shrubby understory present due to the bark and leaf litter produced by the trees. Within the survey area, this vegetation community occurs in facility locations that occur near urban developments and roads.

Non-Native Woodland 79000

This habitat consists of a composition of planted, non-native tree species, such as pepper trees (*Schinus* spp.), tamarisk (*Tamarix* spp.) and Eucalyptus spp. Within the survey area, this vegetation community occurs near roadsides and within ornamental plantings associated with urban developments.

Non-Native Grassland 42200

This habitat type is composed of a dense to sparse cover of annual grasses along with some native annual forbs, especially in years of good rainfall. Indicator species include oats (*Avena* spp.), bromes (*Bromus* spp.), filarees (*Erodium* spp.) and mustards (*Brassica* spp. and *Hirshfeldia incana*). In the survey area, this vegetation community occurs in areas of disturbance that are near urban developments and roads.

Disturbed Habitat 11300

Disturbed habitat consists of predominantly non-native species, such as invasive forbs including mustards and thistles and a limited number of grass species, are not typically artificially irrigated, and retain a soil substrate. This habitat is found where the ground is continually disturbed and is no longer recognizable as a native or naturalized community. Within the survey area, this vegetation community occurs along roadsides and other areas of continued disturbance to the vegetation.

Urban/Developed 12000

Urban and developed lands include all areas that have been constructed upon or otherwise altered to such an extent that native vegetation is no longer supported. This would encompass all buildings, parking lots, ornamental plantings and any other modified urban environment. Within the survey area, the majority of facility locations occurs near roadways and urban areas.

Table 2. Vegetation Communities and Land Cover Types within Facility Location and Survey Buffer – Sites Requiring Excavation and Vegetation Removal (Acres)

Vegetation Communities and Land Cover Types	Within Facility Location	Within 100-ft Buffer	Grand Total
Riparian and Wetlands			
Southern Arroyo Willow Riparian Forest	0.02	2.08	2.10
So.Cottonwood-Willow Riparian Forest	0.57	4.69	5.26
Disturbed So.Cottonwood-Willow Riparian Forest	0.01	0.00	0.01
Emergent Wetland	-	0.40	0.40
Coastal and Valley Freshwater Marsh	-	0.11	0.11
Mulefat Scrub	-	0.14	0.14
Southern Riparian Scrub	0.03	0.85	0.88
Southern Willow Scrub	0.09	0.87	0.96
Open Water	<0.01	0.27	0.27
Unvegetated Channel	0.34	0.05	0.39
<i>Total Riparian and Wetlands</i>	<i>1.05</i>	<i>9.47</i>	<i>10.52</i>
Uplands			
Coast Live Oak Woodland	-	0.79	0.79
Southern Coast Live Oak Riparian Forest	0.03	0.25	0.28
Diegan Coastal Sage Scrub	<0.01	3.01	3.01
Eucalyptus Woodland	<0.01	1.613	1.61
Non-native Woodland	0.102	0.840	0.94
Non-native Grassland	0.032	4.938	4.97
<i>Total Uplands</i>	<i>0.16</i>	<i>11.44</i>	<i>11.61</i>
Other Land Cover Types			
Disturbed Habitat	0.01	2.77	3.38
Urban / Developed	0.80	38.27	39.07
<i>Total Other Land Cover Types</i>	<i>0.80</i>	<i>41.04</i>	<i>42.45</i>
Grand Total	2.02	61.95	64.58

Table 3. Vegetation Communities and Land Cover Types within Facility Location and Survey Buffer –Sites Requiring use of Handtools Only for Nonnative Removal and Native Vegetation Trimming - Facility Locations E-51 and E-54 (Acres)

Vegetation Communities and Land Cover Types	Within Facility Location	Within 100-ft Buffer	Grand Total
Riparian and Wetlands			
So.Cottonwood-Willow Riparian Forest	1.53	-	1.53
Disturbed So.Cottonwood-Willow Riparian Forest	6.82	0.13	6.95
Coastal and Valley Freshwater Marsh	0.81	-	0.81
<i>Total Riparian and Wetlands</i>	<i>9.15</i>	<i>0.13</i>	<i>9.29</i>
Uplands			
Eucalyptus Woodland	0.04	0.31	0.36
Non-native Woodland	1.04	1.80	2.84
Non-native Grassland	3.81	4.95	8.77
<i>Total Uplands</i>	<i>4.90</i>	<i>7.06</i>	<i>11.96</i>
Other Land Cover Types			
Disturbed Habitat	0.05	0.56	0.60
Urban / Developed	0.42	18.50	18.92
<i>Total Other Land Cover Types</i>	<i>0.47</i>	<i>19.06</i>	<i>19.53</i>
Grand Total	14.52	26.26	40.78

Habitat Assessment

A habitat assessment was conducted for the 24 new facility locations and 1 expanded facility location. The habitat assessment concluded that of the 25 sites, 11 sites support suitable habitat for LBVI, three sites support suitable habitat for CAGN, two sites are located in CAGN designated critical habitat, and nine sites support suitable habitat for San Diego Ambrosia. See Table 4 below for a description of which facility sites provide suitable habitat and/or designated critical habitat for LBVI, CAGN, and San Diego Ambrosia. For information on Threatened, Endangered, and Special Status Species detected within the Vicinity of the new and expanded facilities as well as suitable nesting habitat refer to the Facility Location Site Forms included as Attachment 2.

Table 4. Suitable Habitat within Facility Locations

Facility Location	Site Name	LBVI	CAGN and/or within its designated critical habitat	San Diego Ambrosia
E-53	Reidy Creek: Rincon to Pleasantwood	Yes	-	Yes
E-54	Reidy Creek - Morning View	Yes	-	Yes
E-55	HARRF	Yes	-	-
E-58	Reidy Creek Golf Course	Yes	-	Yes
E-60	Oak Valley Lane	Yes	-	Yes
H-15	Sierra Linda	-	Yes; Critical Habitat	-
H-16	Concerto and Beethoven	-	Yes	Yes
H-17	Bear Valley Pkwy	Yes		Yes
H-18	Kit Carson Bike Trail	Yes	Yes; Critical Habitat	Yes
H-19	Encino and Amparo	Yes	-	-
H-20	Sunset and Bear Valley	Yes	-	Yes
H-21	Via Rancho Prky and Sunset Drive	Yes	-	-
SM-05	Woodland Pkwy	Yes	-	Yes

Jurisdictional Delineation

A total of 13.15 acres of waters of the U.S. and 16.42 acres of CDFW riparian and/or streambed occur within the Facility locations (Table 5; Figure 2). These jurisdictional waters occur within the San Diego and San Luis Rey-Escondido watersheds. Specific information for each facility location is provided in the Facility Location Site Forms (Attachment 2) along with wetland and OHWM data forms and photographs. Representative OHWM data forms were completed for each type of jurisdictional water (i.e. concrete-lined, roadside drainage, and natural drainage) and not completed for each facility location.

Table 5. Jurisdictional Waters Occurring within the Facility Locations

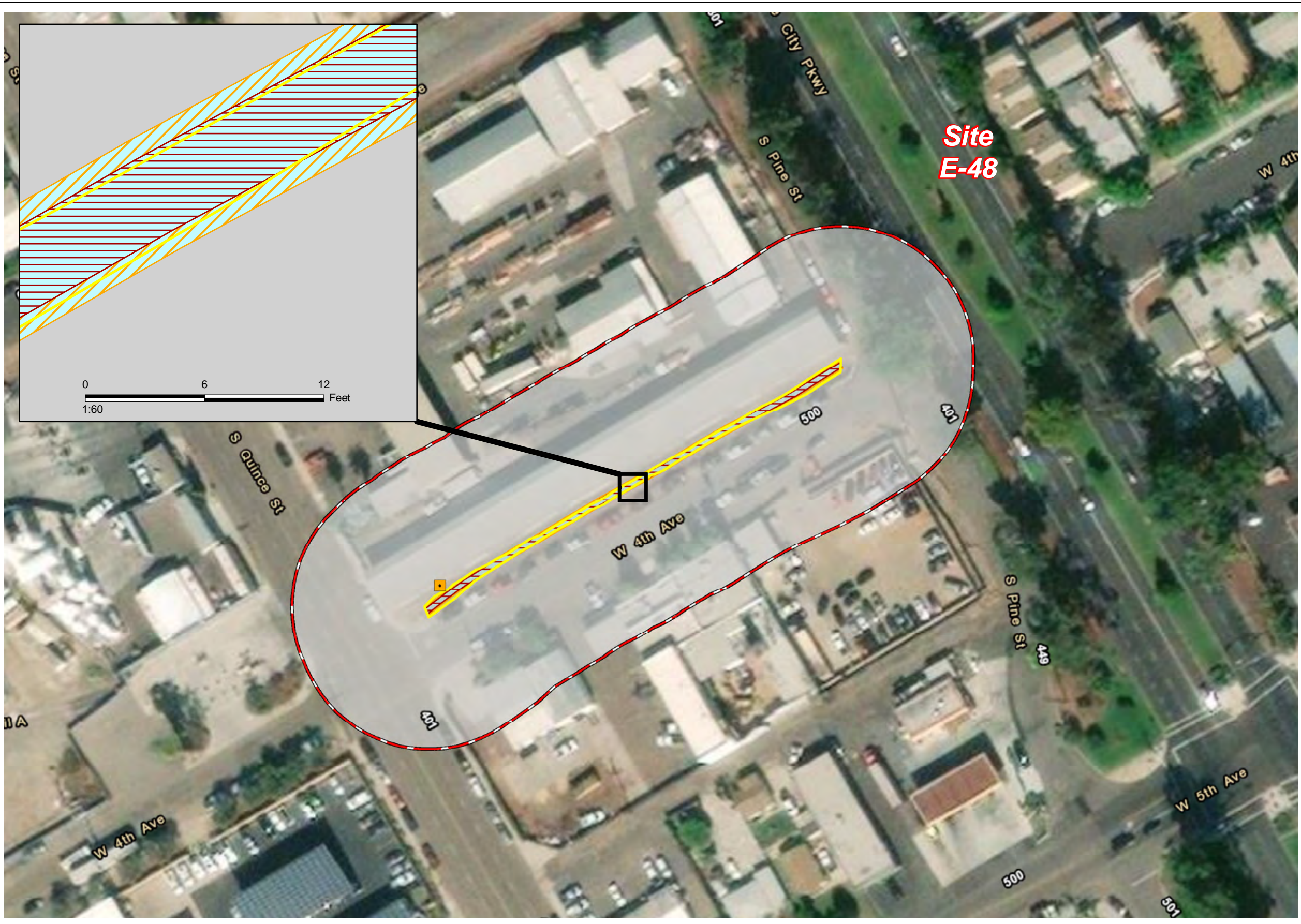
Waters of the U.S		CDFW Waters	
Nonwetland (Acres)	Wetland (Acres)	Streambed (Acres)	Riparian (Acres)
1.09	12.06	1.39	15.03

Attachments

1. Figures
 - a. Project Overview Map
 - b. Project Mapbook
2. Facility Location Site Forms and Data Forms

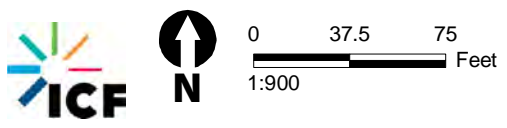
Attachment 1
Figures

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- Legend**
- Inlet
 - Maintenance Sites
 - 100-ft Buffer
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Unvegetated Channel
 - Urban / Developed

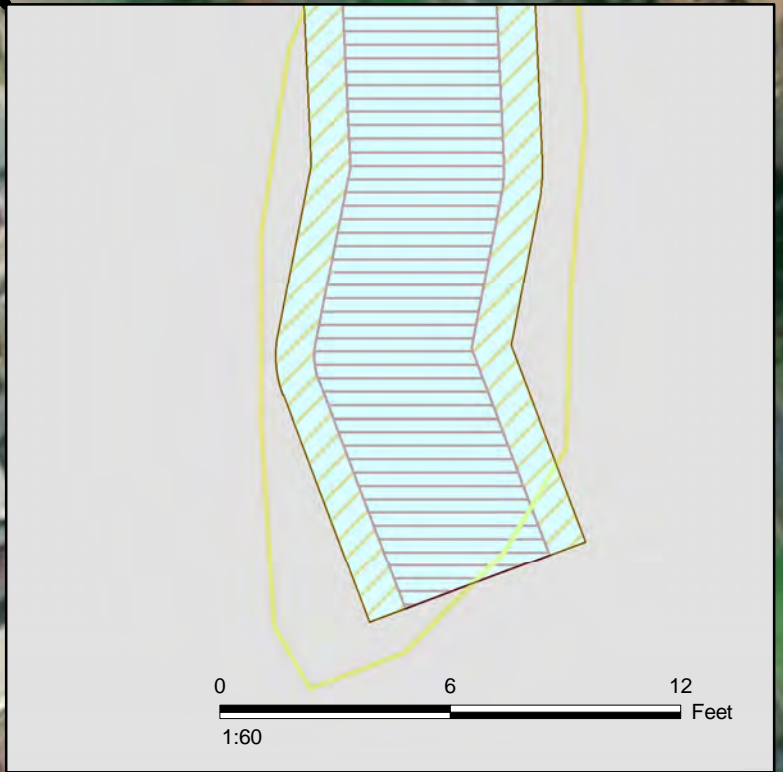
Source: City of Escondido; ICF 2019



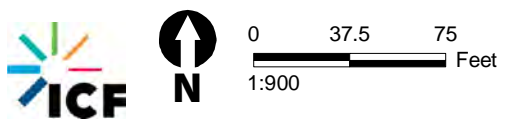
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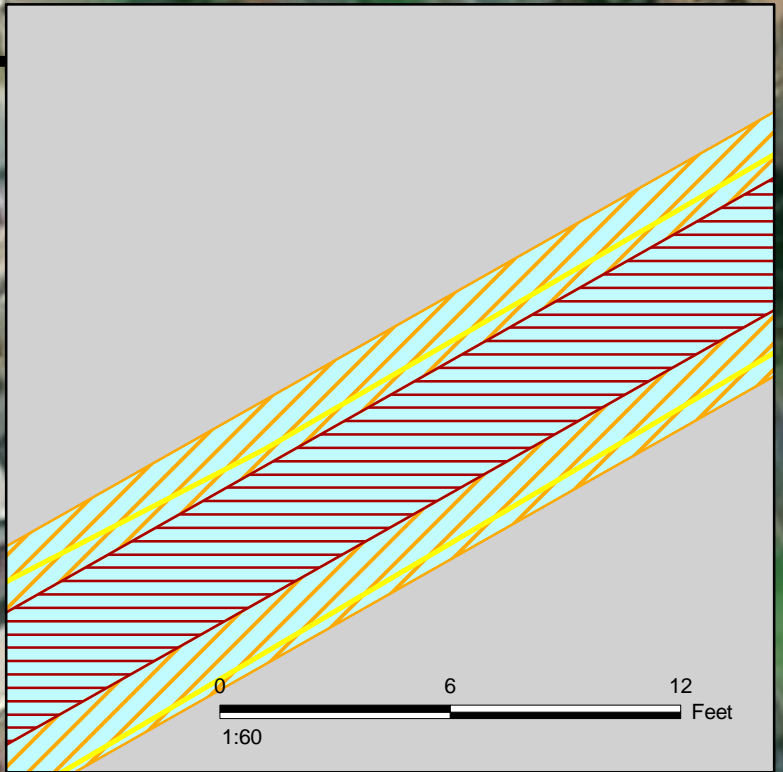
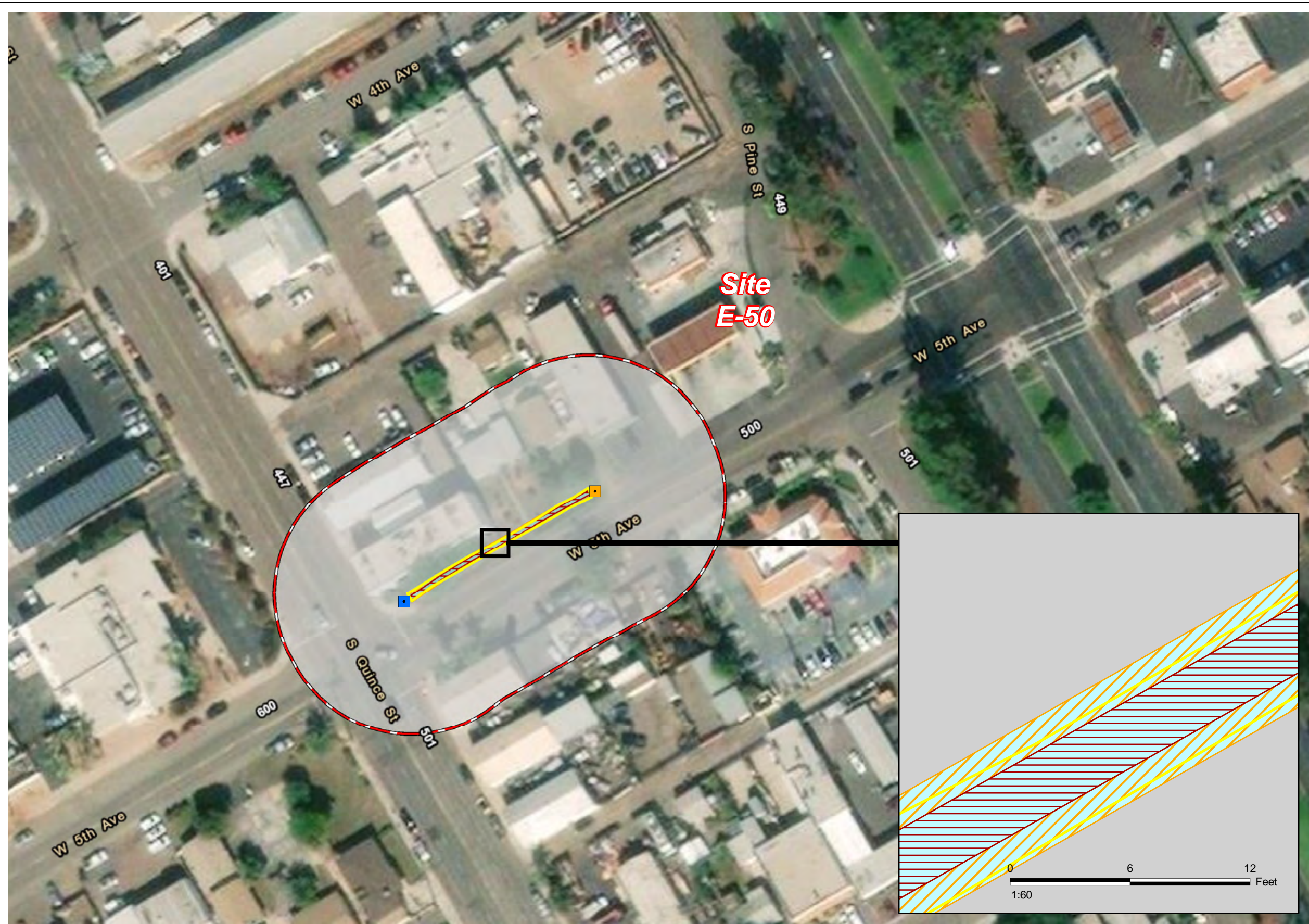
- Legend**
- Maintenance Sites
 - 100-ft Buffer
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Unvegetated Channel
 - Urban / Developed



Source: City of Escondido; ICF 2019

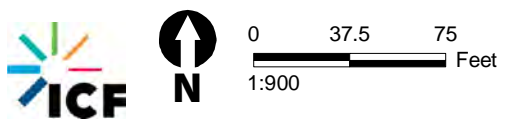


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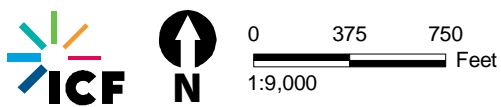
- Legend**
- Inlet
 - Outlet
 - Maintenance Sites
 - 100-ft Buffer
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Unvegetated Channel
 - Urban / Developed

Source: City of Escondido; ICF 2019





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- Legend**
- Maintenance Sites
 - 100-ft Buffer
 - Map Sheet Extent

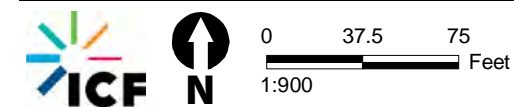
Overview
E-51
800 W Valley
City of Escondido Channel Maintenance Project

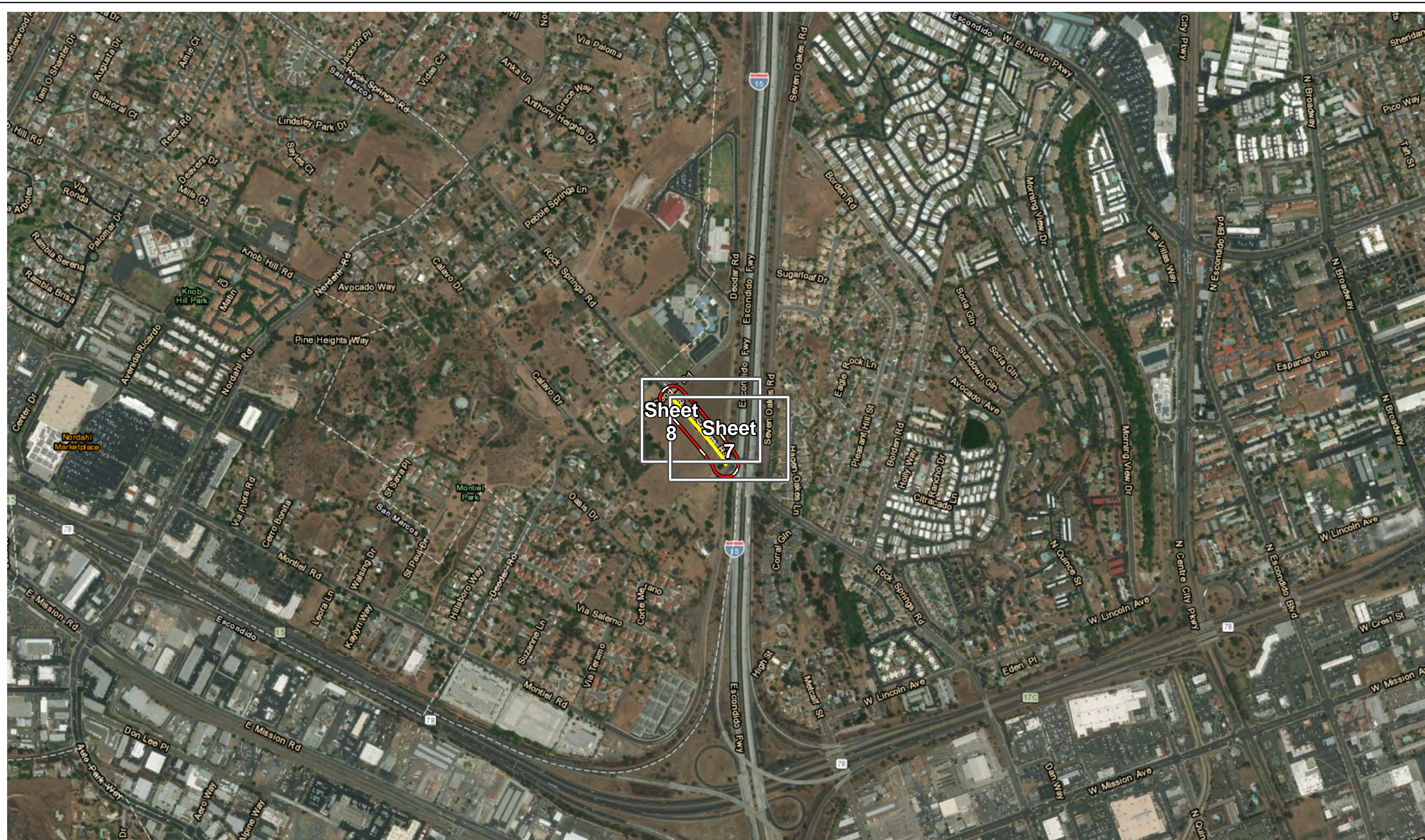


- Legend**
- Wetland Sample Point
 - ▭ 100-ft Buffer
 - ▭ Maintenance Sites
 - USACE/RWQCB Jurisdiction**
 - ▭ Nonwetland Waters
 - ▭ Wetland Waters
 - CDFW Jurisdiction**
 - ▭ Riparian Extent
 - ▭ Channel Bed and Bank
 - Vegetation**
 - ▭ Coastal and Valley Freshwater Marsh
 - ▭ Non-native Woodland
 - ▭ Disturbed Habitat
 - ▭ Urban / Developed

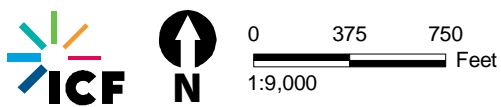
Source: City of Escondido; ICF 2019

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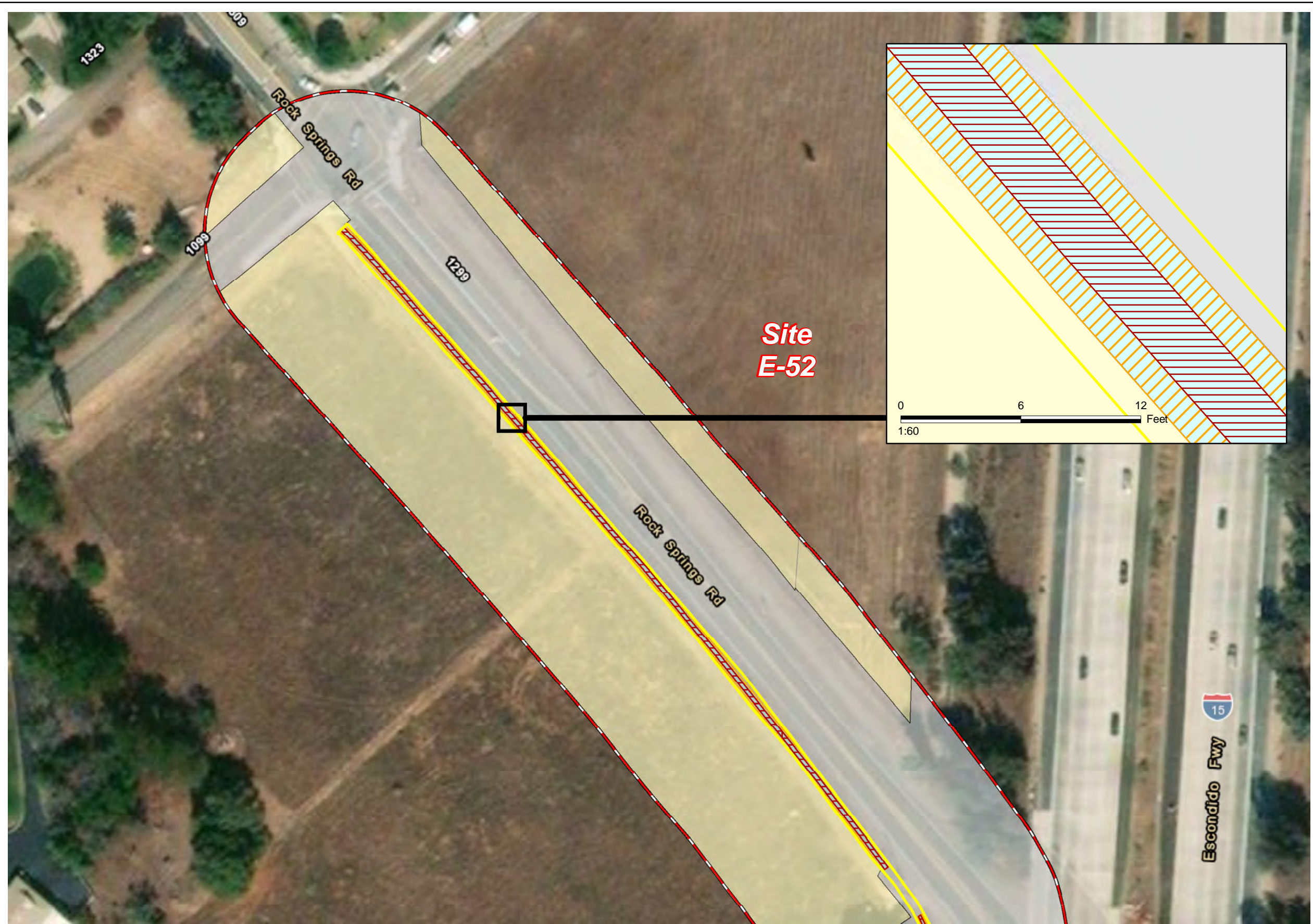




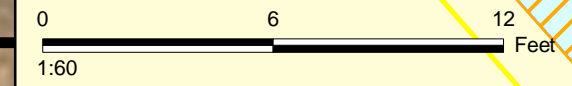
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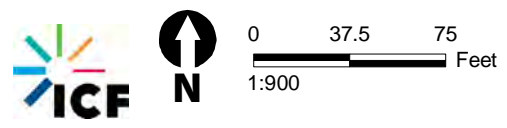
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- Legend**
- Maintenance Sites
 - 100-ft Buffer
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Unvegetated Channel
 - Non-native Grassland
 - Urban / Developed



Source: City of Escondido; ICF 2019

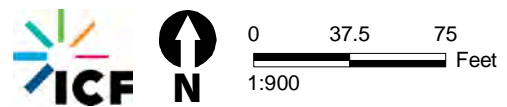


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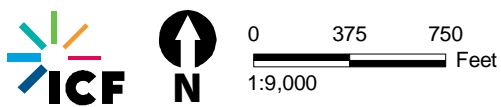
- Legend**
- 100-ft Buffer
 - Maintenance Sites
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Unvegetated Channel
 - Non-native Grassland
 - Urban / Developed

Source: City of Escondido; ICF 2019

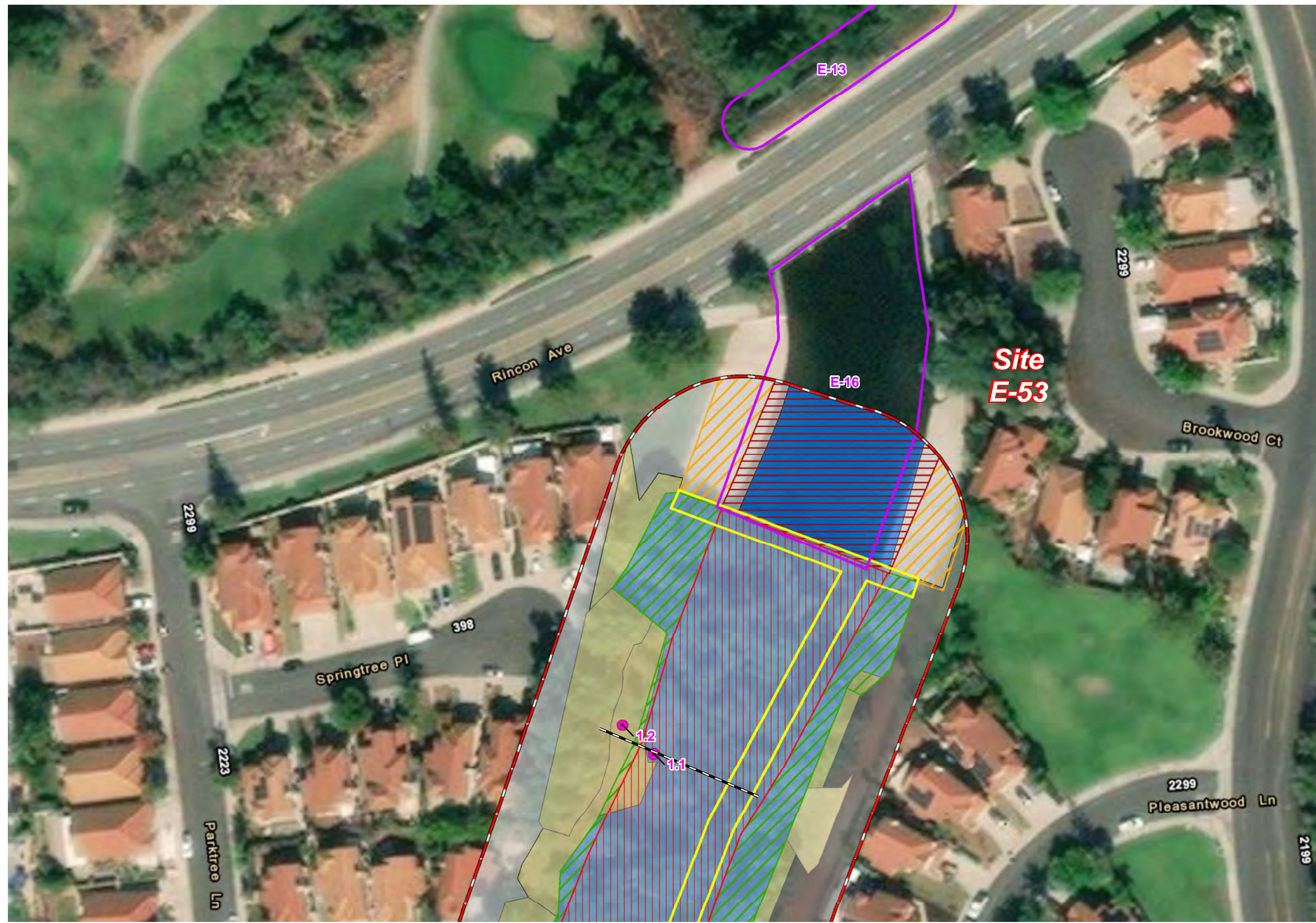




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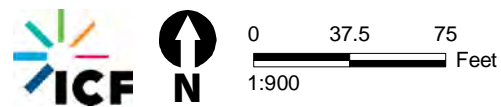


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- Legend**
- OHWM Transects
 - Wetland Sample Point
 - 100-ft Buffer
 - Current RGP Maintenance Footprints
 - Maintenance Sites
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Eucalyptus Grove
 - Open Water
 - So. Cottonwood-Willow Riparian Forest
 - Non-native Grassland
 - Disturbed Habitat
 - Urban / Developed

Source: City of Escondido; ICF 2019

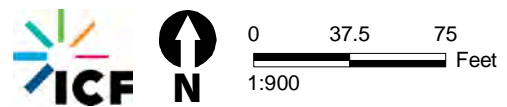


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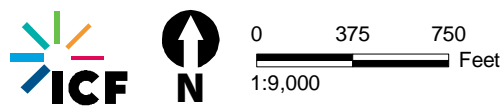


- Legend**
- 100-ft Buffer
 - Maintenance Sites
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Eucalyptus Grove
 - Eucalyptus Woodland
 - So. Cottonwood-Willow Riparian Forest
 - Southern Riparian Scrub
 - Disturbed Habitat
 - Urban / Developed

Source: City of Escondido; ICF 2019

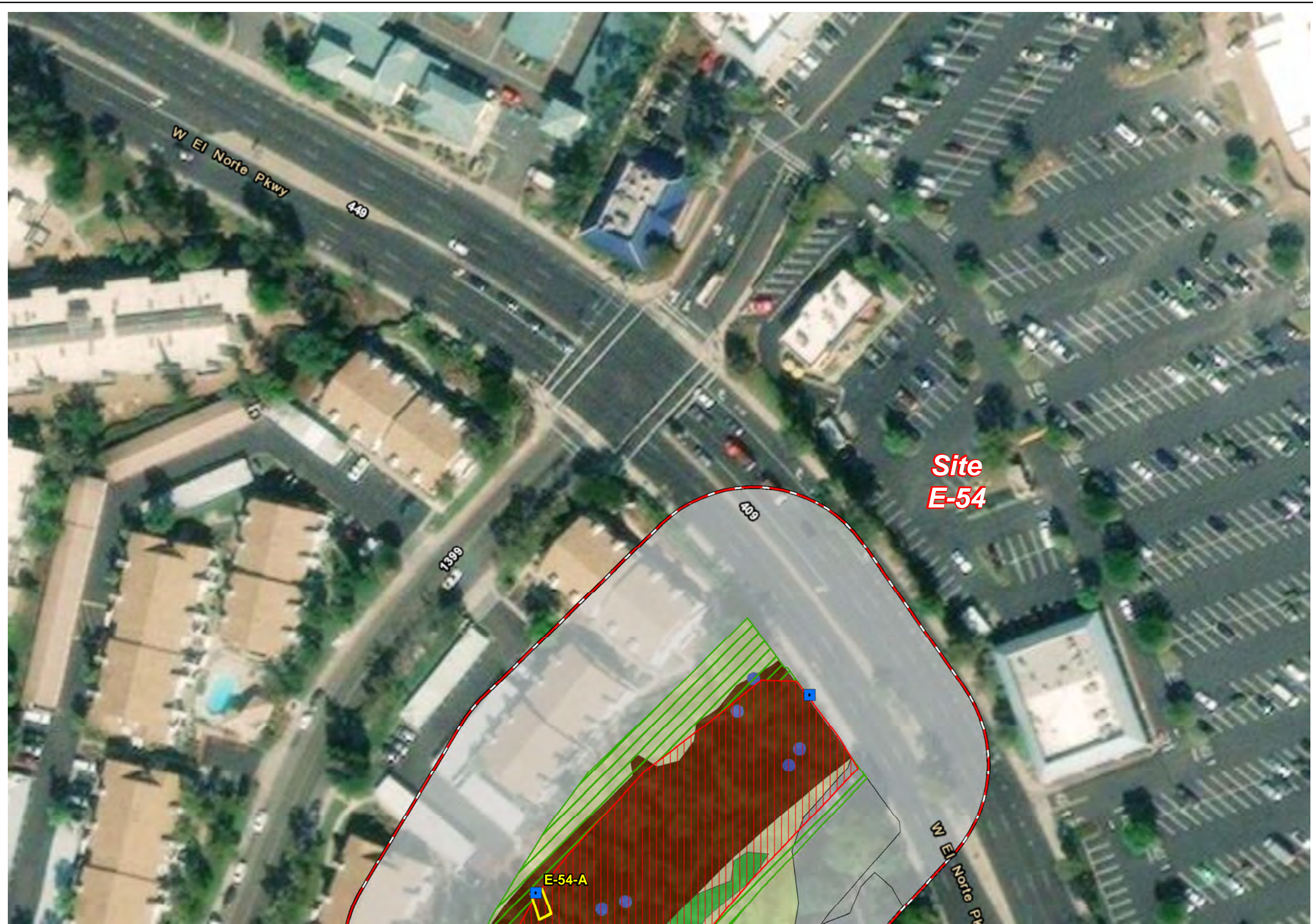


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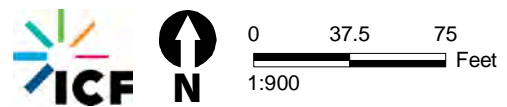
- Legend**
- Maintenance Sites
 - 100-ft Buffer
 - Map Sheet Extent

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- Legend**
- Outlet
 - 100-ft Buffer
 - Maintenance Sites
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Coastal and Valley Freshwater Marsh
 - Disturbed So. Cottonwood-Willow Riparian Forest
 - Non-native Grassland
 - Non-native Woodland
 - Urban / Developed

Source: City of Escondido; ICF 2019



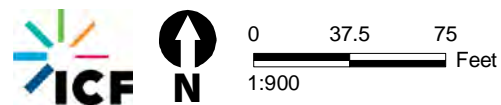
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Legend

- Wetland Sample Point
- Outlet
- 100-ft Buffer
- Maintenance Sites
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
- Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
- Channel Bed and Bank
- Vegetation**
- Eucalyptus Woodland
- Coastal and Valley Freshwater Marsh
- Disturbed So. Cottonwood-Willow Riparian Forest
- So. Cottonwood-Willow Riparian Forest
- Non-native Grassland
- Non-native Woodland
- Urban / Developed

Source: City of Escondido; ICF 2019

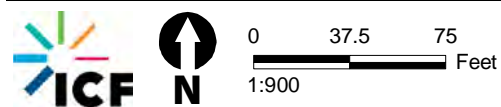


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- Legend**
- Outlet
 - 100-ft Buffer
 - Maintenance Sites
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Disturbed So.Cottonwood-Willow Riparian Forest
 - So.Cottonwood-Willow Riparian Forest
 - Non-native Grassland
 - Non-native Woodland
 - Disturbed Habitat
 - Urban / Developed

Source: City of Escondido; ICF 2019

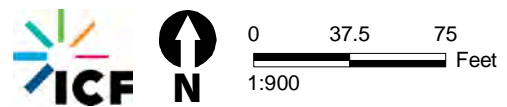


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- Legend**
- OWHM Transects
 - Outlet
 - ▭ 100-ft Buffer
 - ▭ Maintenance Sites
 - USACE/RWQCB Jurisdiction**
 - ▭ Nonwetland Waters
 - ▭ Wetland Waters
 - CDFW Jurisdiction**
 - ▭ Riparian Extent
 - ▭ Channel Bed and Bank
 - Vegetation**
 - Eucalyptus Woodland
 - Disturbed So. Cottonwood-Willow Riparian Forest
 - So. Cottonwood-Willow Riparian Forest
 - Non-native Grassland
 - Non-native Woodland
 - Urban / Developed

Source: City of Escondido; ICF 2019

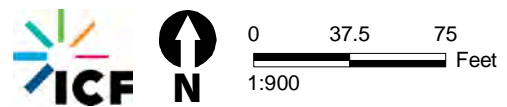


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- Legend**
- 100-ft Buffer
 - Current RGP Maintenance Footprints
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Disturbed So. Cottonwood-Willow Riparian Forest
 - Non-native Grassland
 - Non-native Woodland
 - Urban / Developed

Source: City of Escondido; ICF 2019

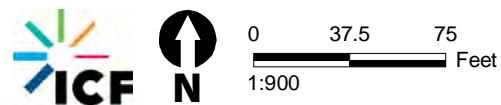


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- Legend**
- Wetland Sample Point
 - ▭ 100-ft Buffer
 - ▭ Current RGP Maintenance Footprints
- USACE/RWQCB Jurisdiction**
- ▭ Nonwetland Waters
 - ▭ Wetland Waters
- CDFW Jurisdiction**
- ▭ Riparian Extent
 - ▭ Channel Bed and Bank
- Vegetation**
- ▭ Disturbed So. Cottonwood-Willow Riparian Forest
 - ▭ Non-native Grassland
 - ▭ Non-native Woodland
 - ▭ Urban / Developed

Source: City of Escondido; ICF 2019

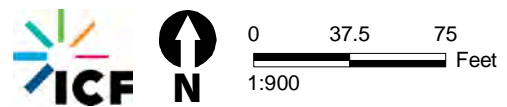


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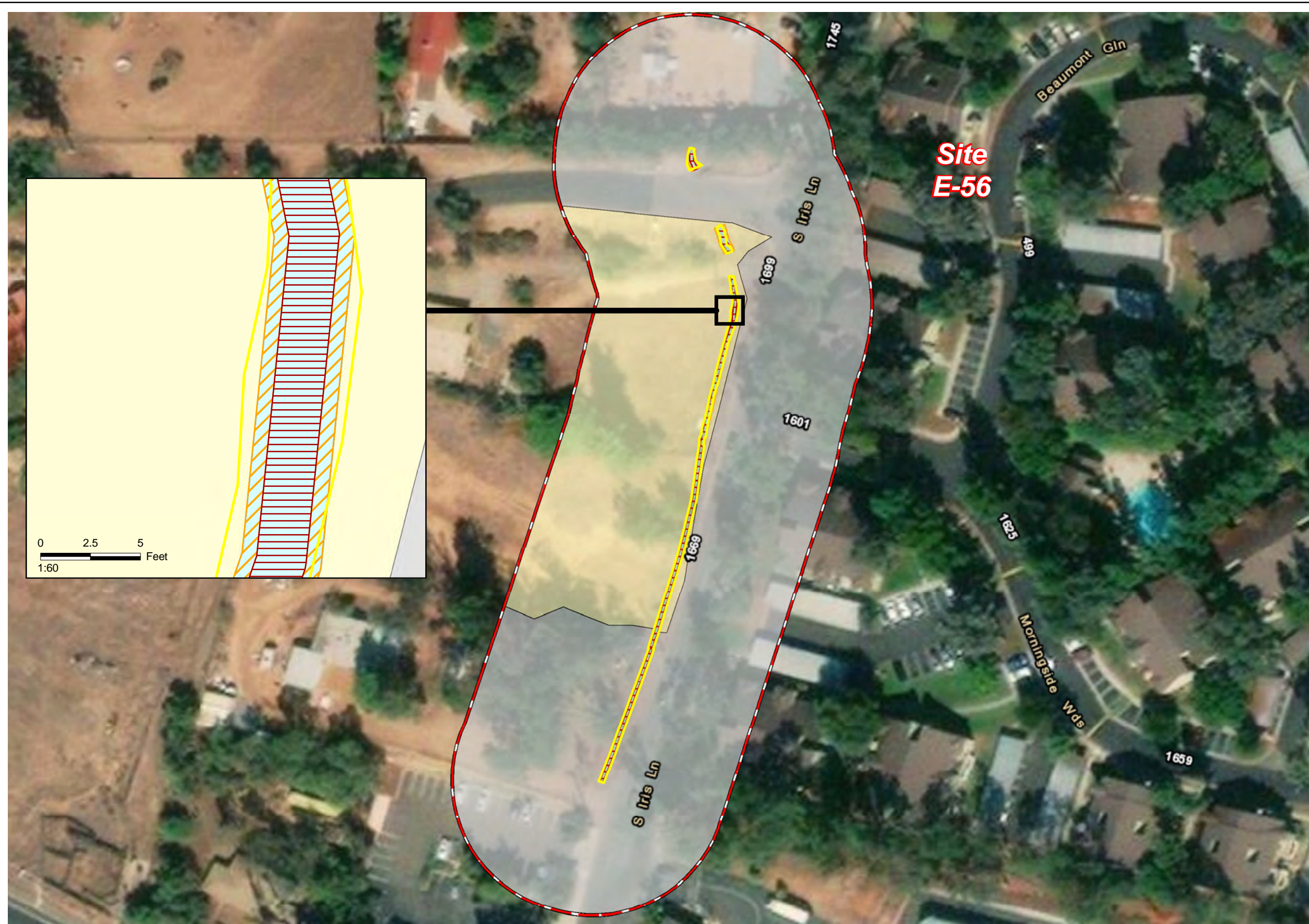


- Legend**
- 100-ft Buffer
 - Maintenance Sites
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Coast Live Oak Woodland
 - So. Cottonwood-Willow Riparian Forest
 - Southern Willow Scrub
 - Non-native Grassland
 - Urban / Developed

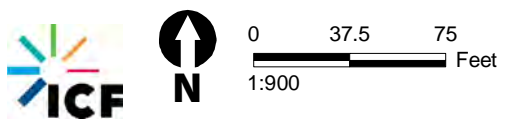
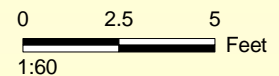
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- Legend**
- Maintenance Sites
 - 100-ft Buffer
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Unvegetated Channel
 - Non-native Grassland
 - Urban / Developed



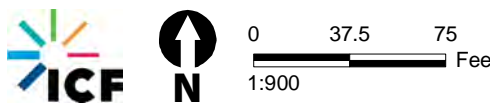
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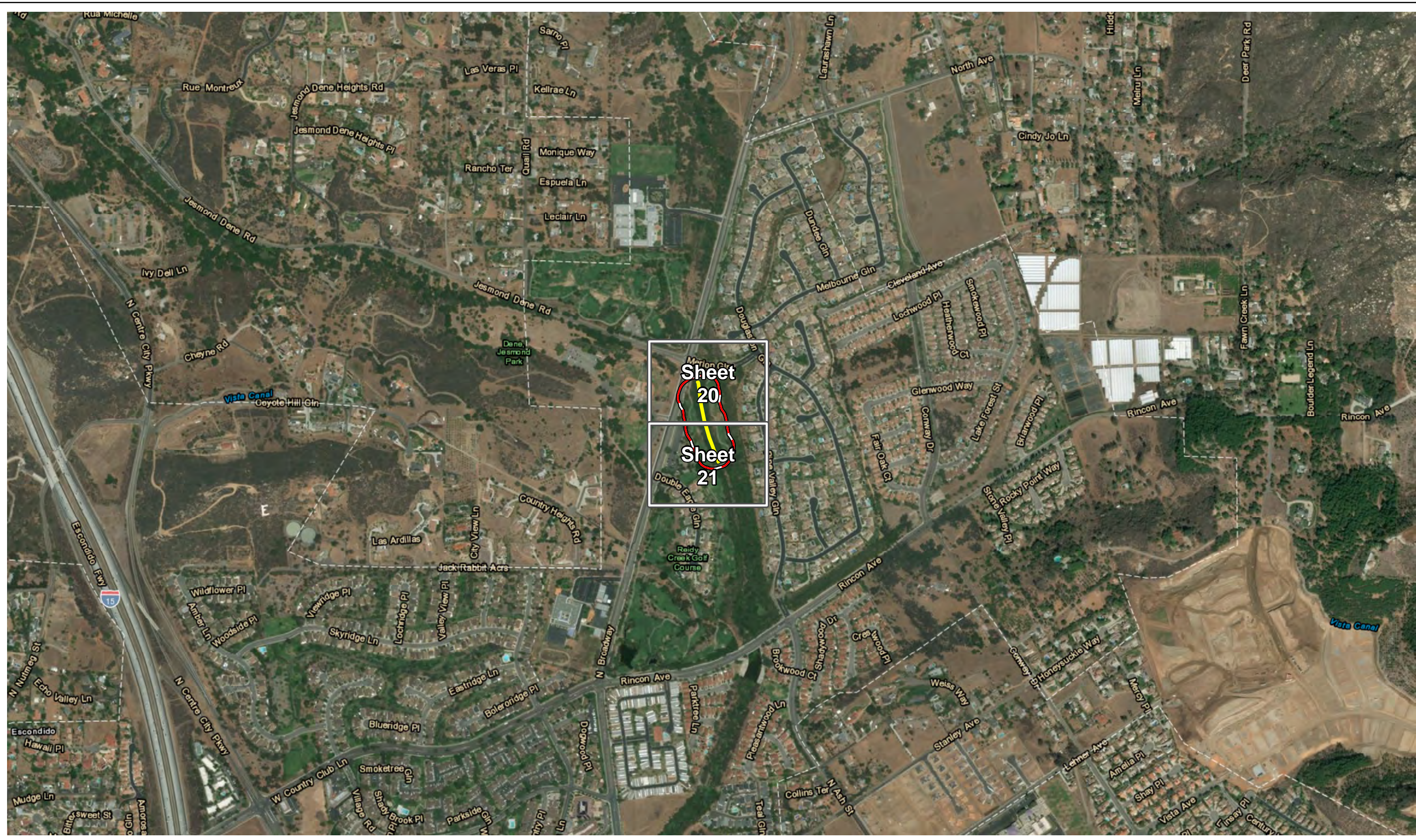
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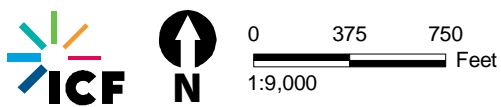
- Legend**
- Inlet
 - Outlet
 - OHWM Transect
 - Maintenance Sites
 - Current RGP Maintenance Footprints
 - 100-ft Buffer
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Disturbed Habitat
 - Urban / Developed

Source: City of Escondido; ICF 2019





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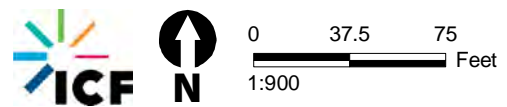


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- Legend**
- Access Route
 - Outlet
 - 100-ft Buffer
 - Current RGP Maintenance Footprints
 - Maintenance Sites
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Non-Native Grassland: Broad-leaf Dominated
 - Mulefat Scrub
 - So. Cottonwood-Willow Riparian Forest
 - Southern Riparian Scrub
 - Urban / Developed

Source: City of Escondido; ICF 2019



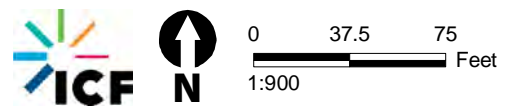
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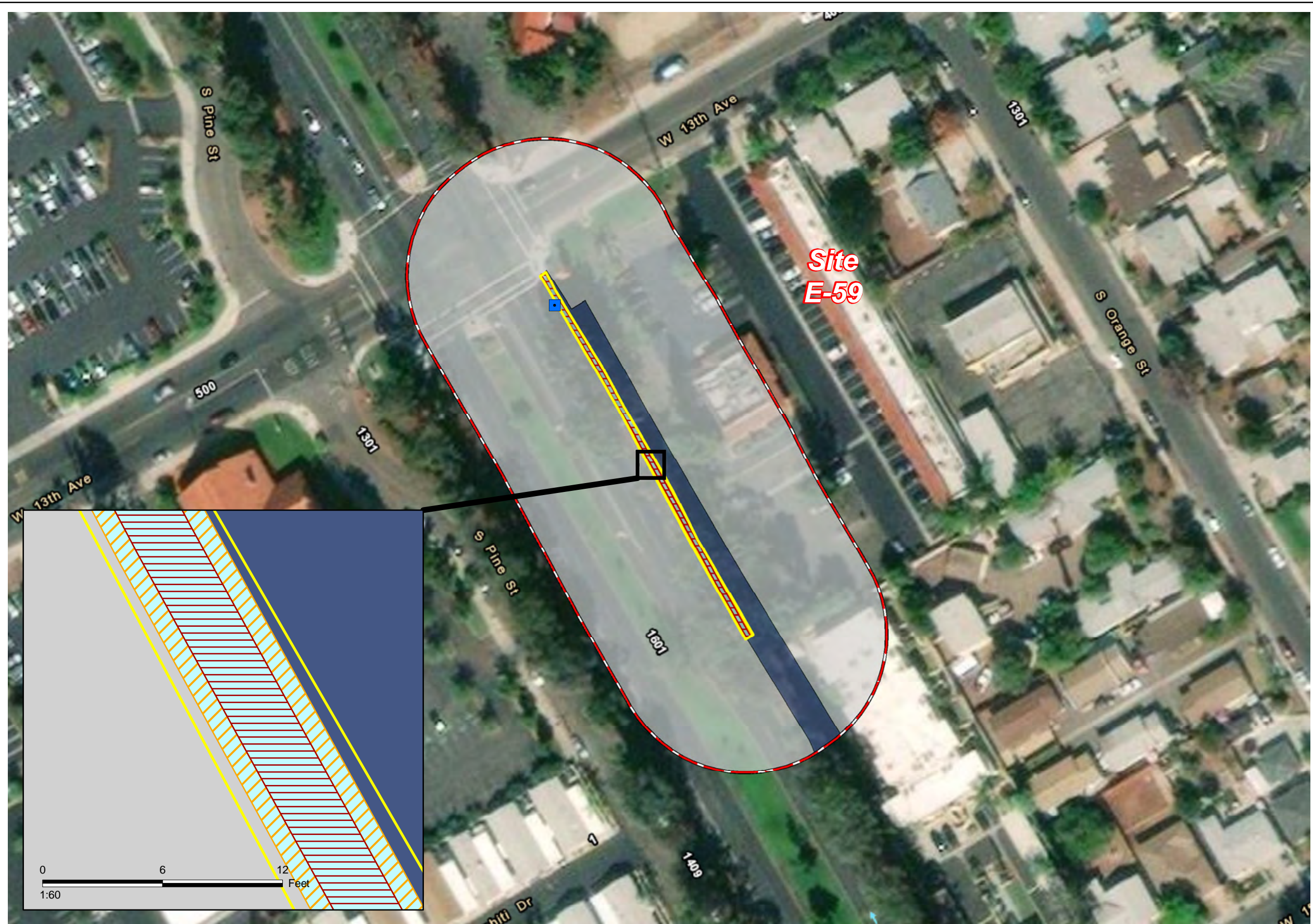
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E-58**

- Legend**
- OHHM Transects
 - Wetland Sample Point
 - Inlet
 - Outlet
 - 100-ft Buffer
 - Current RGP Maintenance Footprints
 - Maintenance Sites
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Coastal and Valley Freshwater Marsh
 - Emergent Wetland
 - Mulefat Scrub
 - So. Cottonwood-Willow Riparian Forest
 - Southern Arroyo Willow Riparian Forest
 - Southern Riparian Scrub
 - Urban / Developed

Source: City of Escondido; ICF 2019

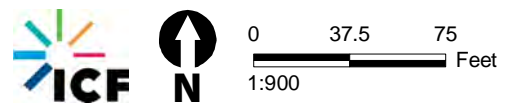


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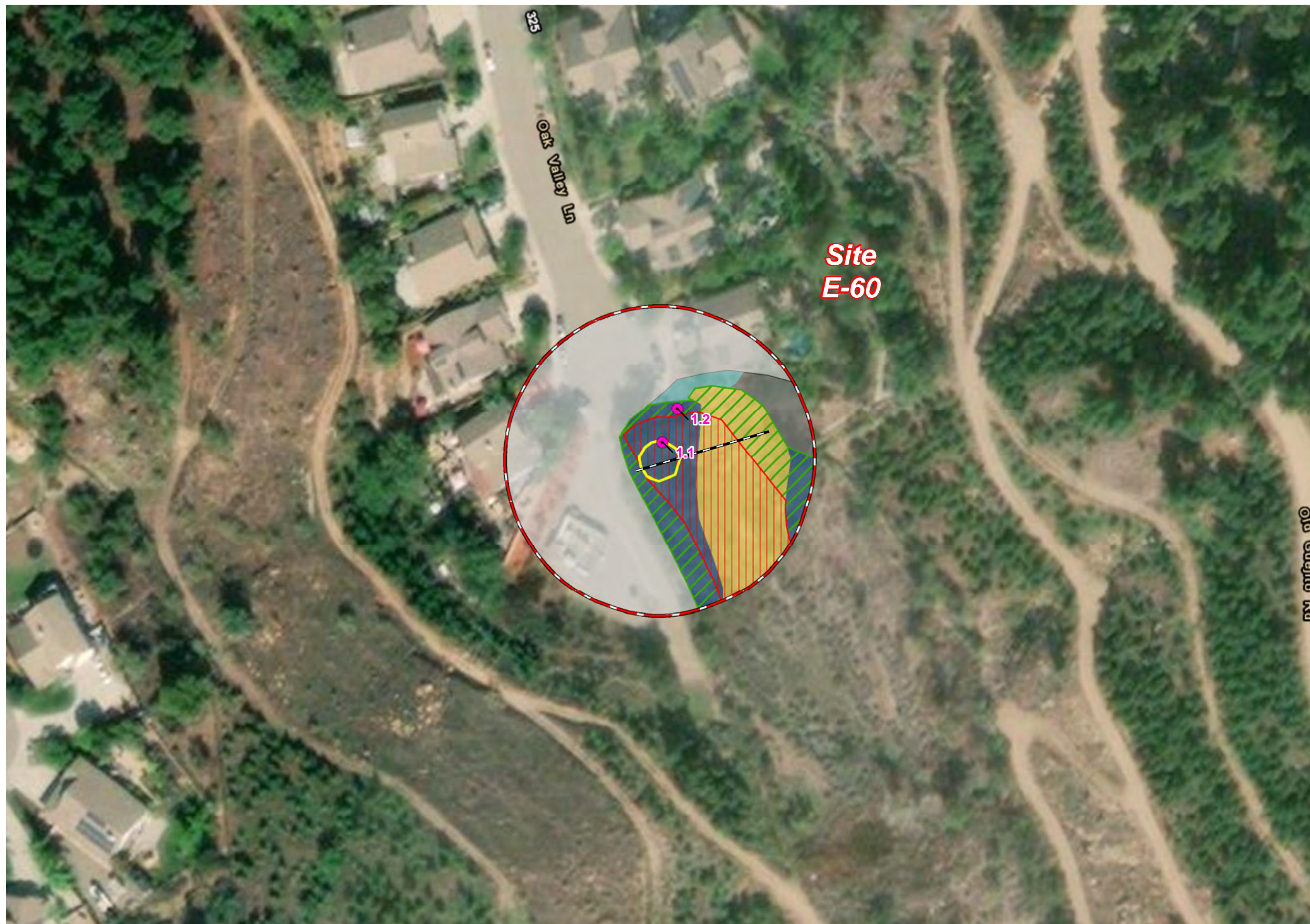


- Legend**
- Outfall
 - Maintenance Sites
 - 100-ft Buffer
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Eucalyptus Woodland
 - Unvegetated Channel
 - Urban / Developed

Source: City of Escondido; ICF 2019

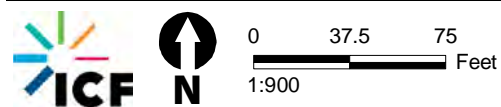


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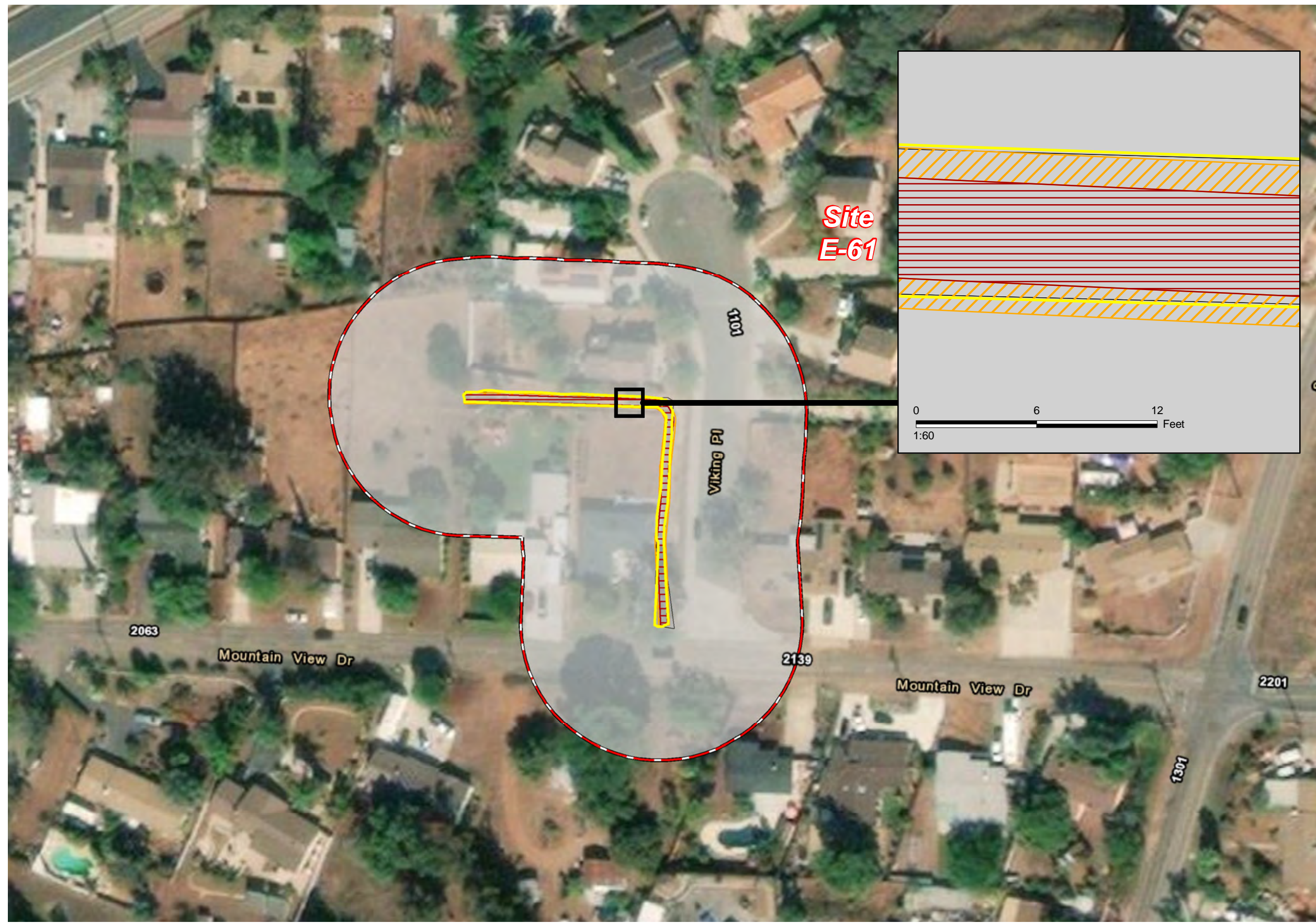


- Legend**
- OHWM Transects
 - Wetland Sample Point
 - 100-ft Buffer
 - Maintenance Sites
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Emergent Wetland
 - Southern Willow Scrub
 - Diegan Coastal Sage Scrub
 - Disturbed Habitat
 - Urban / Developed

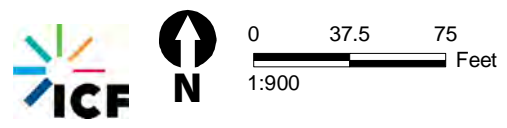
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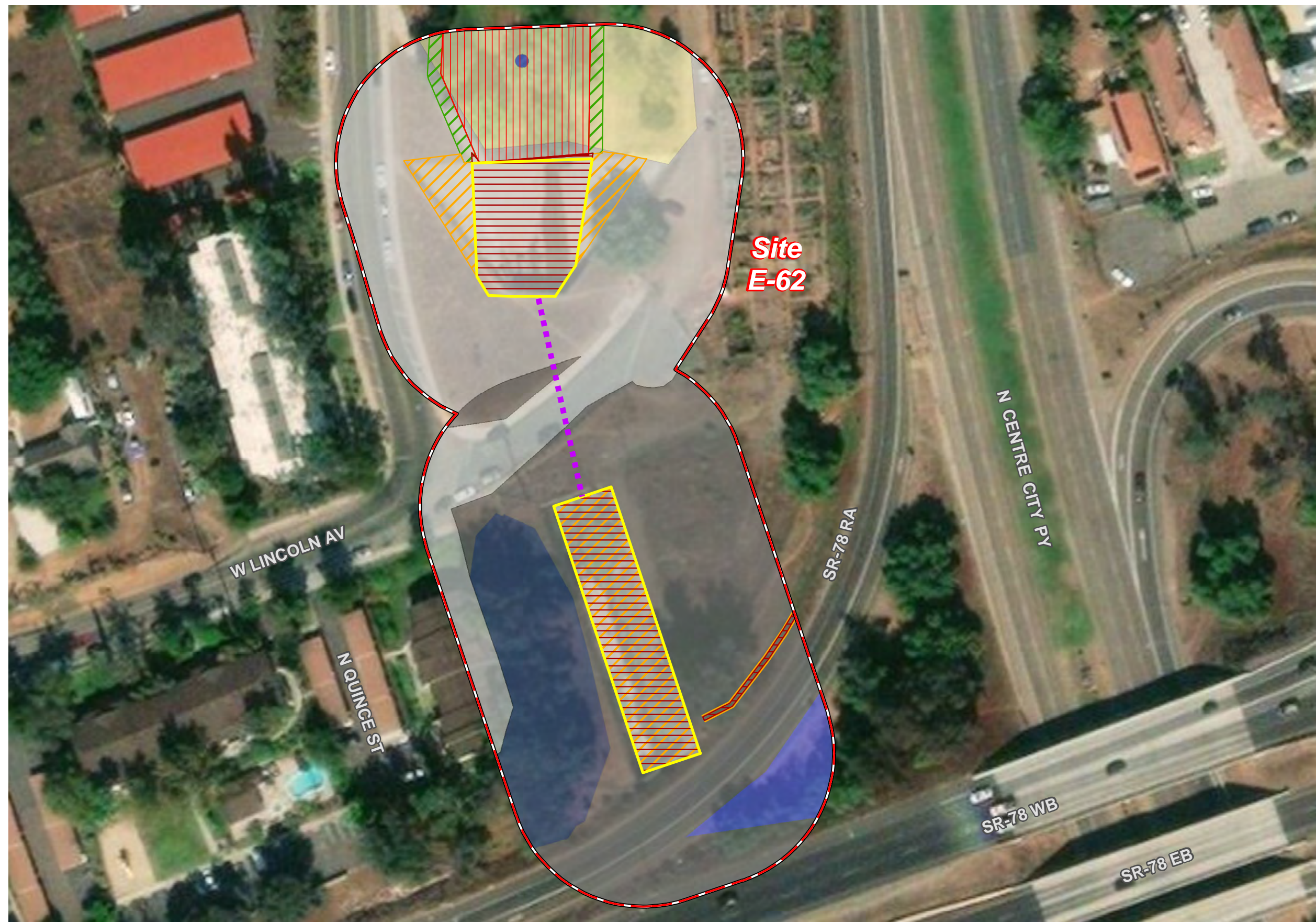


- Legend**
- Maintenance Sites
 - 100-ft Buffer
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Urban / Developed



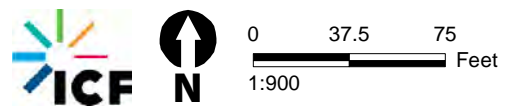
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- Legend**
- Culvert
 - ▭ 100-ft Buffer
 - ▭ Maintenance Sites
 - USACE/RWQCB Jurisdiction**
 - ▭ Nonwetland Waters
 - ▭ Wetland Waters
 - CDFW Jurisdiction**
 - ▭ Riparian Extent
 - ▭ Channel Bed and Bank
 - Vegetation**
 - Eucalyptus Woodland
 - Non-native Grassland
 - Non-native Woodland
 - Disturbed Habitat
 - Urban / Developed

Source: City of Escondido; ICF 2019

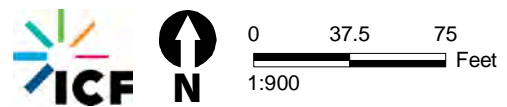


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- Legend**
- Outlet
 - 100-ft Buffer
 - Current RGP Maintenance Footprints
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Unvegetated Channel
 - Urban / Developed

Source: City of Escondido; ICF 2019



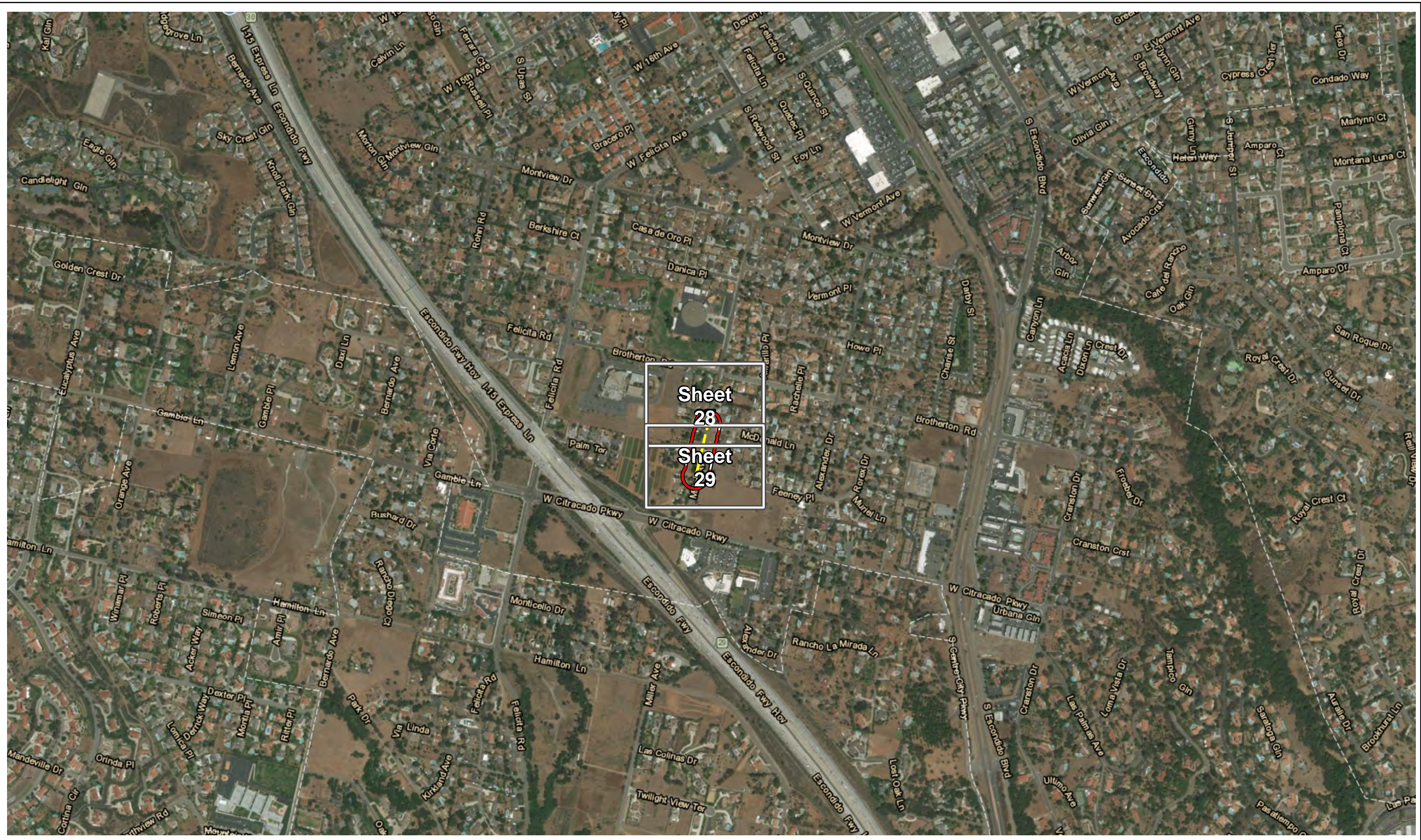
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- Legend**
- Inlet
 - Outlet
 - 100-ft Buffer
 - Current RGP Maintenance Footprints
 - Extended Maintenance Site
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Unvegetated Channel
 - Non-native Woodland
 - Urban / Developed

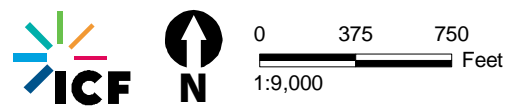
Source: City of Escondido; ICF 2019





Sheet
28
Sheet
29

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- Legend**
- Maintenance Sites
 - 100-ft Buffer
 - Map Sheet Extent

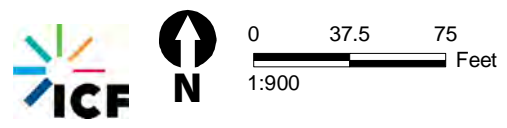
Overview
H-14
Miller Ave (2)
City of Escondido Channel Maintenance Project

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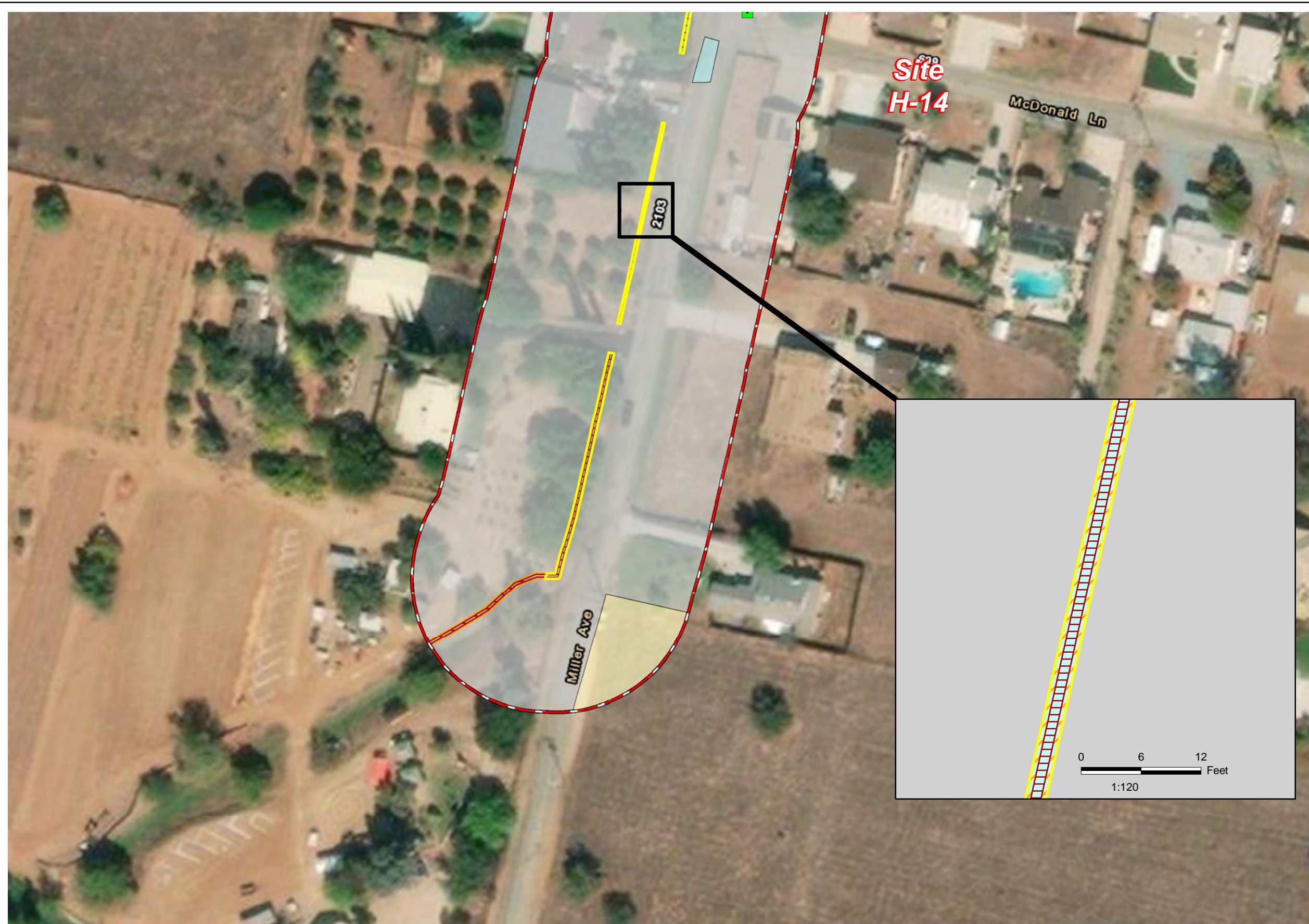


- Legend**
- Culvert
 - Maintenance Sites
 - 100-ft Buffer
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Unvegetated Channel
 - Urban / Developed

Source: City of Escondido; ICF 2019

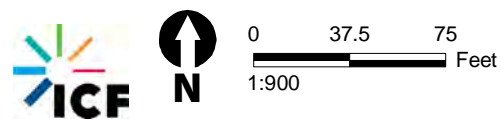


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- Legend**
- Culvert
 - Maintenance Sites
 - 100-ft Buffer
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Unvegetated Channel
 - Non-native Grassland
 - Urban / Developed

Source: City of Escondido; ICF 2019

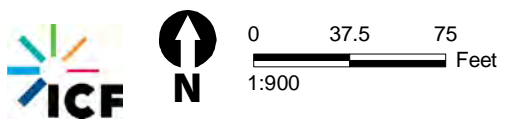


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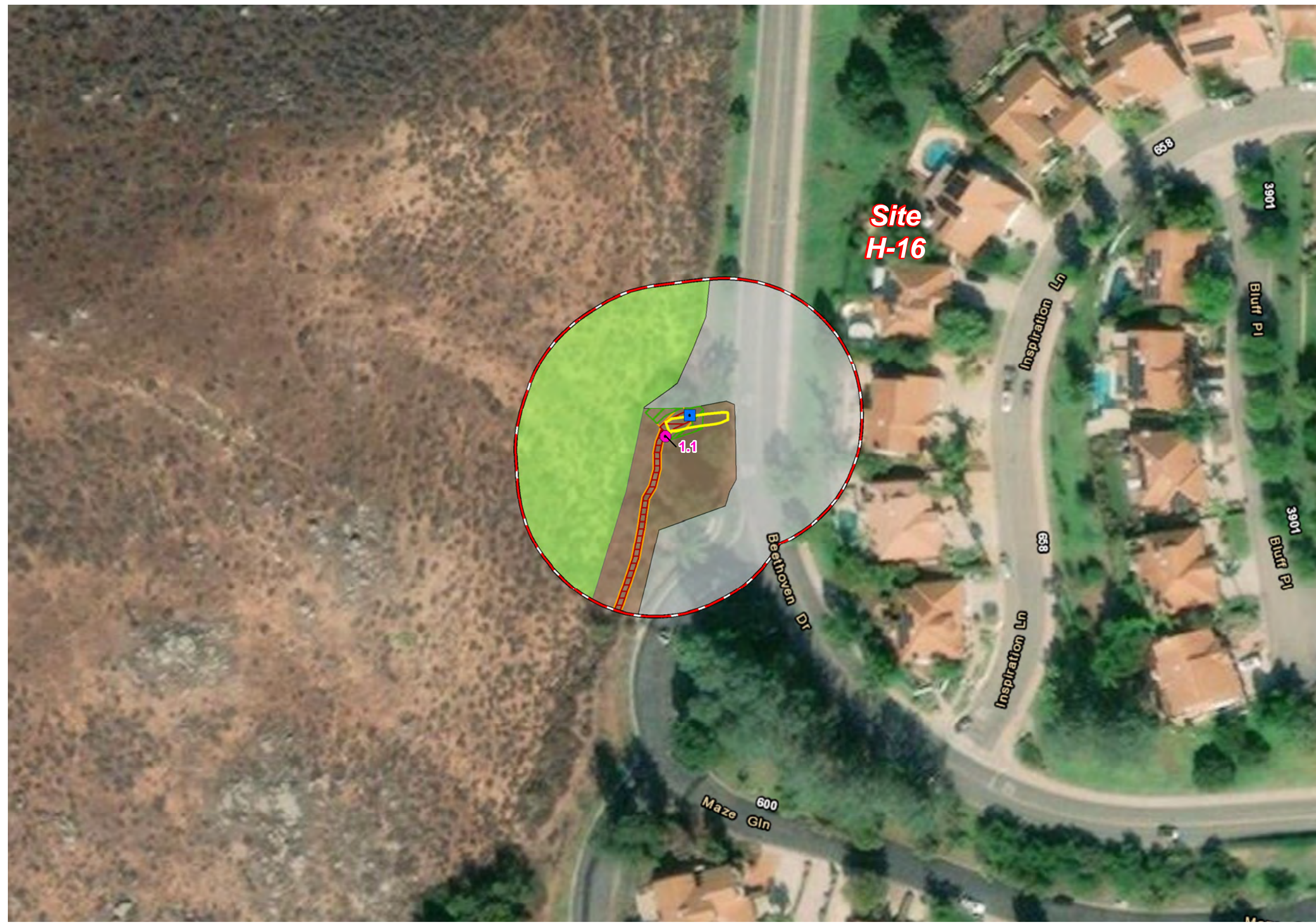


- Legend**
- Outlet
 - Maintenance Sites
 - 100-ft Buffer
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Diegan coastal sage scrub
 - Unvegetated Channel
 - Urban / Developed

Source: City of Escondido; ICF 2019

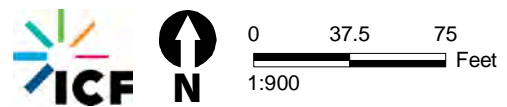


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- Legend**
- Wetland Sample Point
 - Outlet
 - ▭ 100-ft Buffer
 - ▭ Maintenance Sites
- USACE/RWQCB Jurisdiction**
- ▭ Nonwetland Waters
 - ▭ Wetland Waters
- CDFW Jurisdiction**
- ▭ Riparian Extent
 - ▭ Channel Bed and Bank
- Vegetation**
- ▭ Diegan coastal sage scrub
 - ▭ Southern Riparian Scrub
 - ▭ Urban / Developed

Source: City of Escondido; ICF 2019

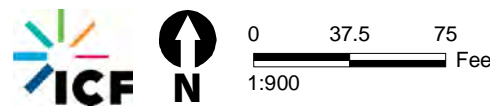


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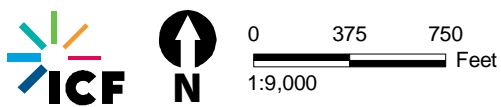
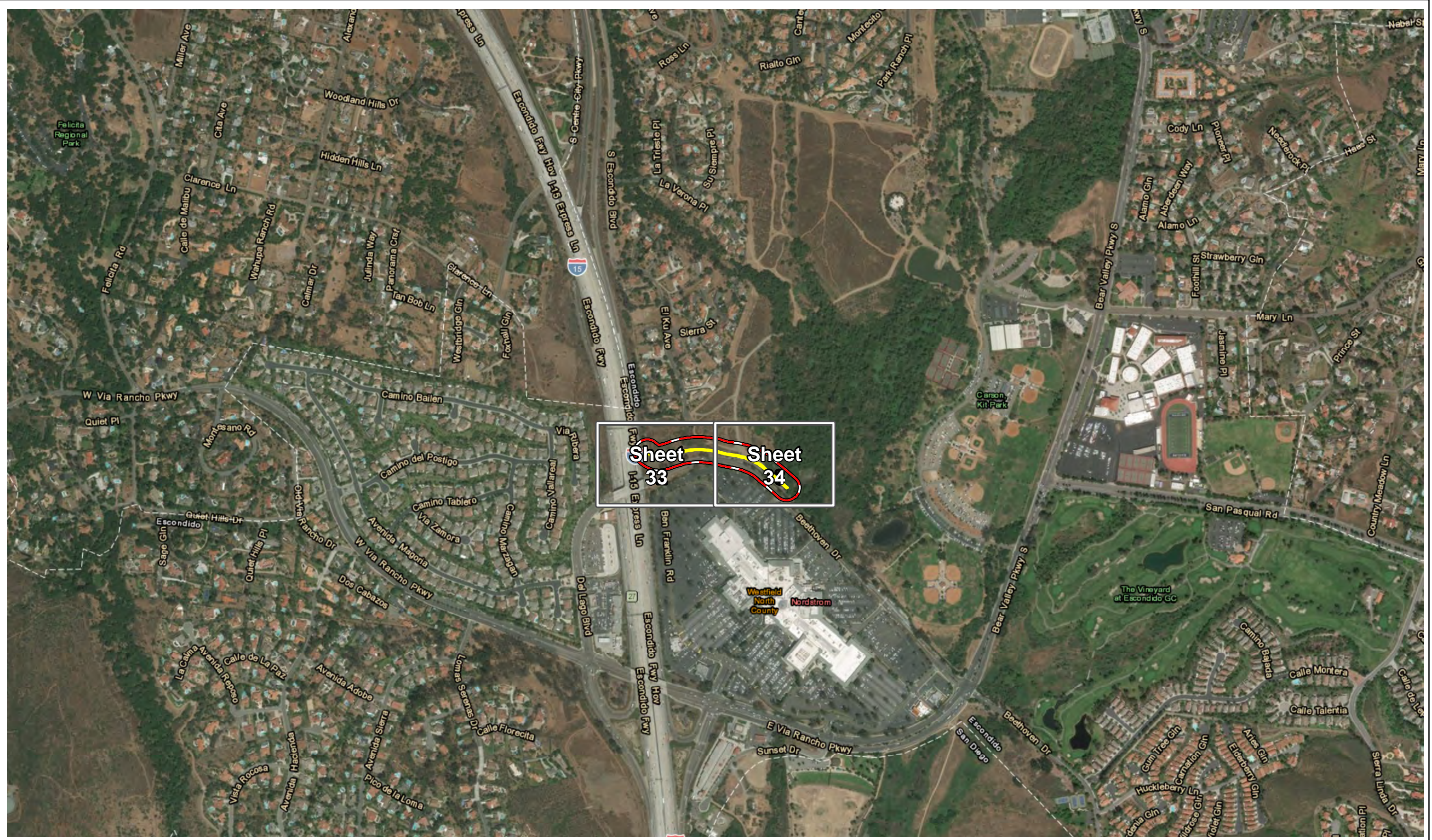


- Legend**
- Wetland Sample Point
 - Outlet
 - 100-ft Buffer
 - Maintenance Sites
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Emergent Wetland
 - Southern Arroyo Willow Riparian Forest
 - Non-native Grassland
 - Non-native Woodland
 - Urban / Developed

Source: City of Escondido; ICF 2019

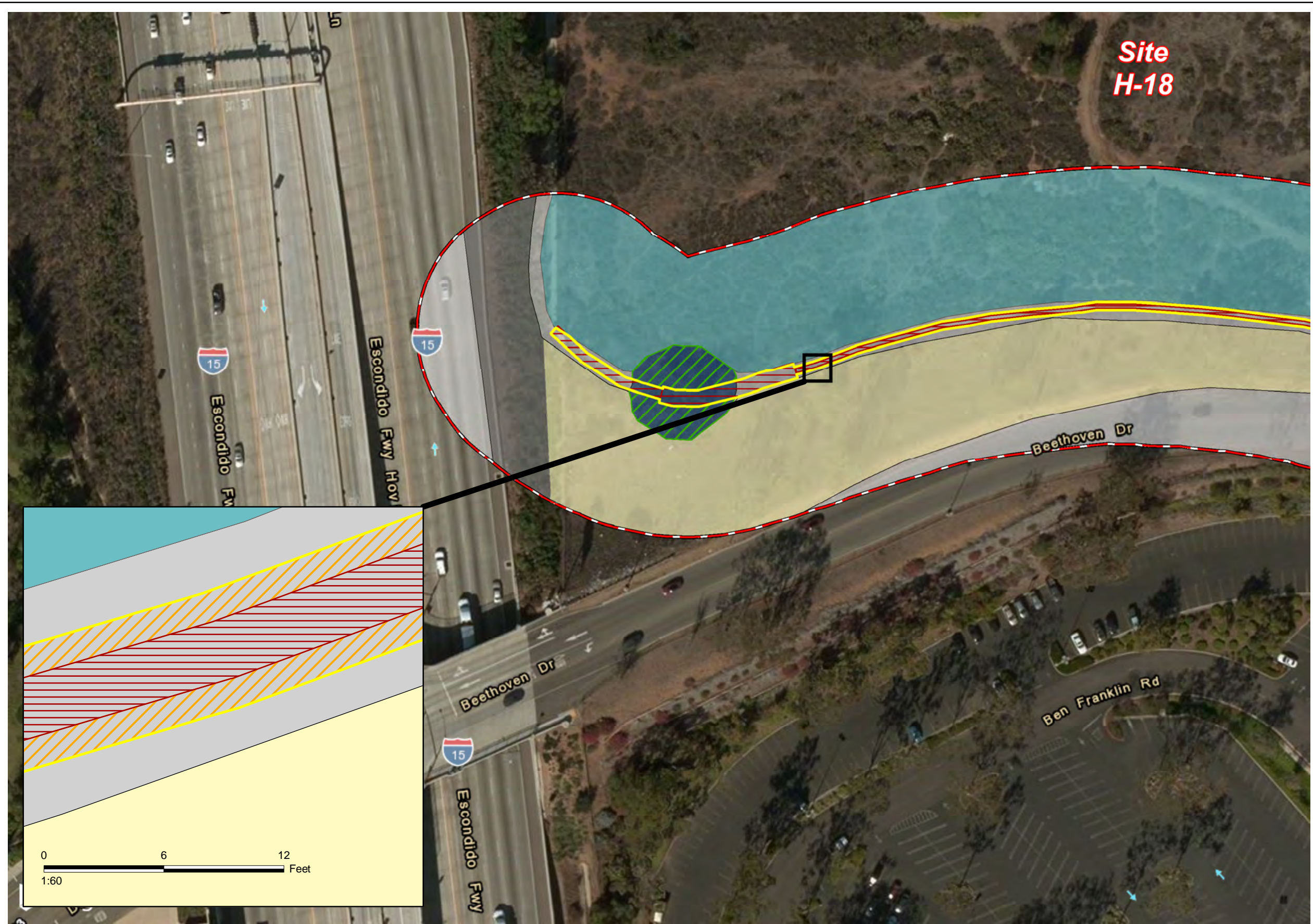


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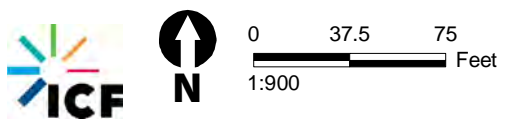
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- Maintenance Sites
 - 100-ft Buffer
 - Map Sheet Extent

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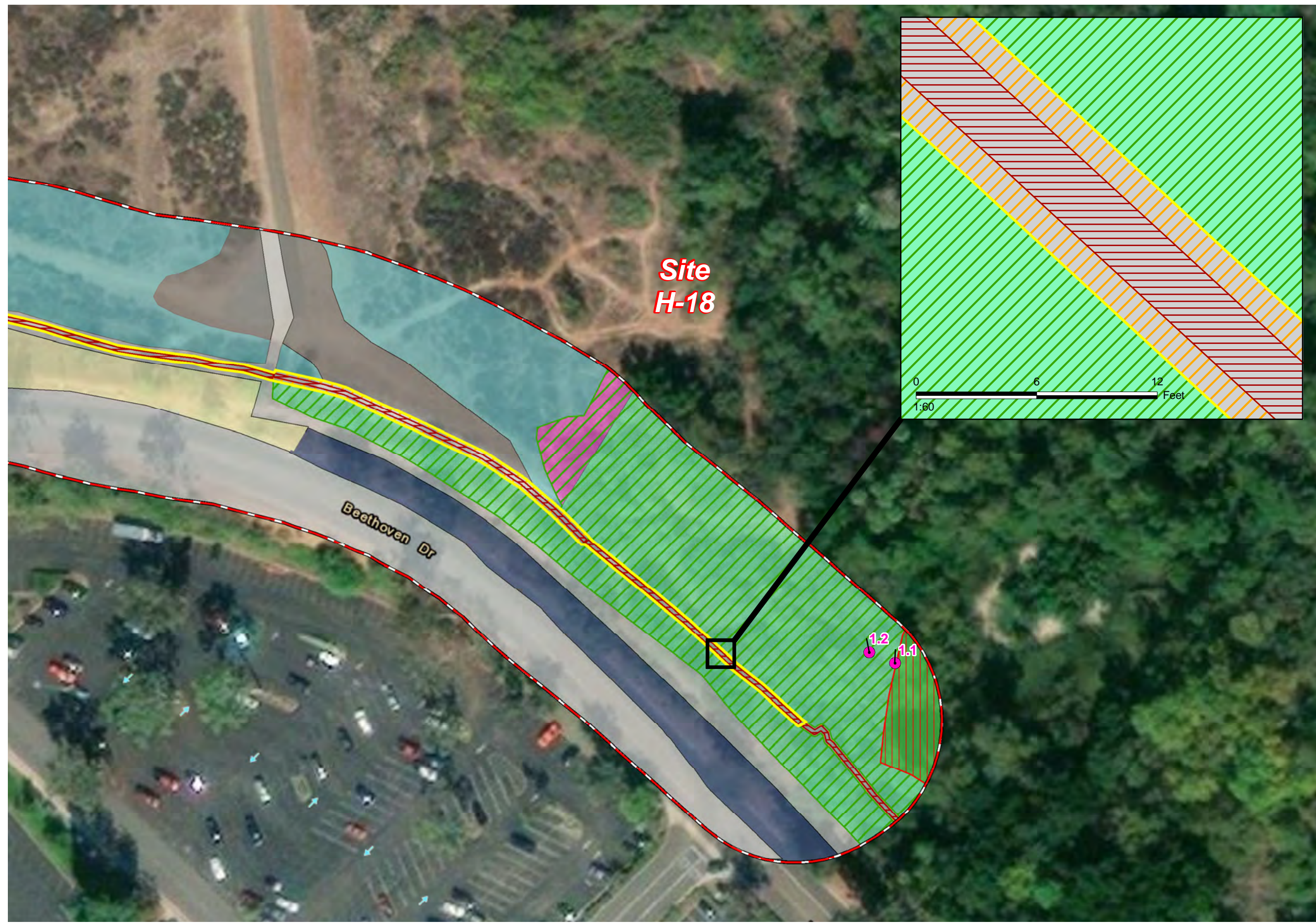


- Legend**
- Maintenance Sites
 - 100-ft Buffer
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Southern Willow Scrub
 - Diegan Coastal Sage Scrub
 - Non-native Grassland
 - Disturbed Habitat
 - Urban / Developed

Source: City of Escondido; ICF 2019

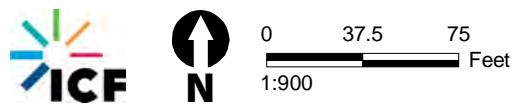


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- Legend**
- Wetland Sample Point
 - Maintenance Sites
 - ▭ 100-ft Buffer
- USACE/RWQCB Jurisdiction**
- ▭ Nonwetland Waters
 - ▭ Wetland Waters
- CDFW Jurisdiction**
- ▭ Riparian Extent
 - ▭ Channel Bed and Bank
- Vegetation**
- ▭ Eucalyptus Woodland
 - ▭ Coastal and Valley Freshwater Marsh
 - ▭ Mulefat Scrub
 - ▭ Southern Arroyo Willow Riparian Forest
 - ▭ Diegan Coastal Sage Scrub
 - ▭ Non-native Grassland
 - ▭ Disturbed Habitat
 - ▭ Urban / Developed

Source: City of Escondido; ICF 2019

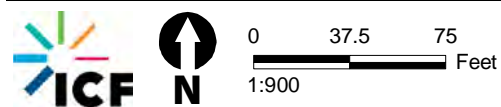


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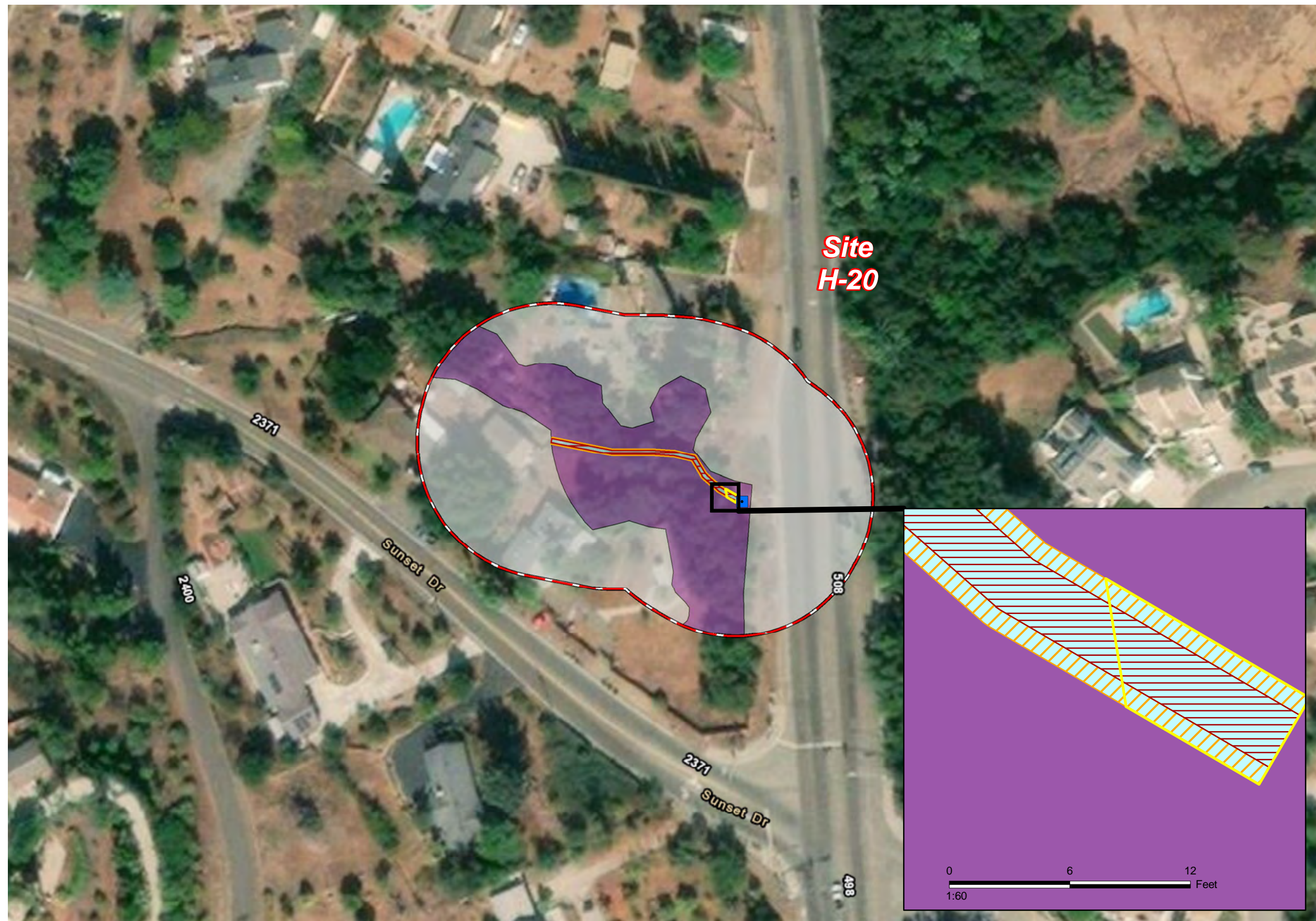


- Legend**
- Inlet
 - Outlet
 - 100-ft Buffer
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Coast Live Oak Woodland
 - Southern Willow Scrub
 - Disturbed Habitat
 - Urban / Developed

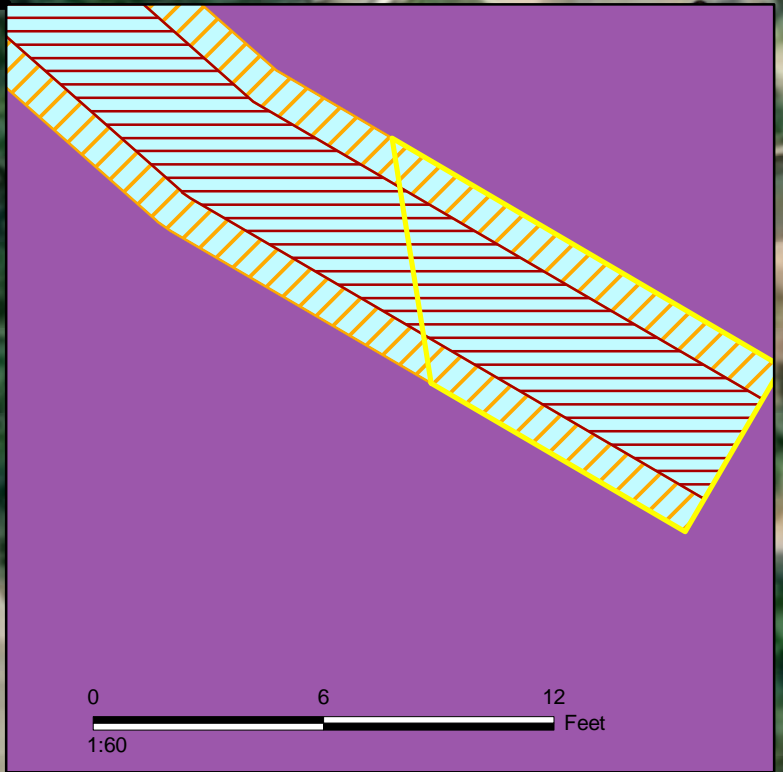
Source: City of Escondido; ICF 2019



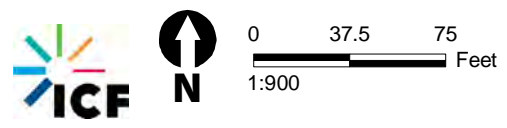
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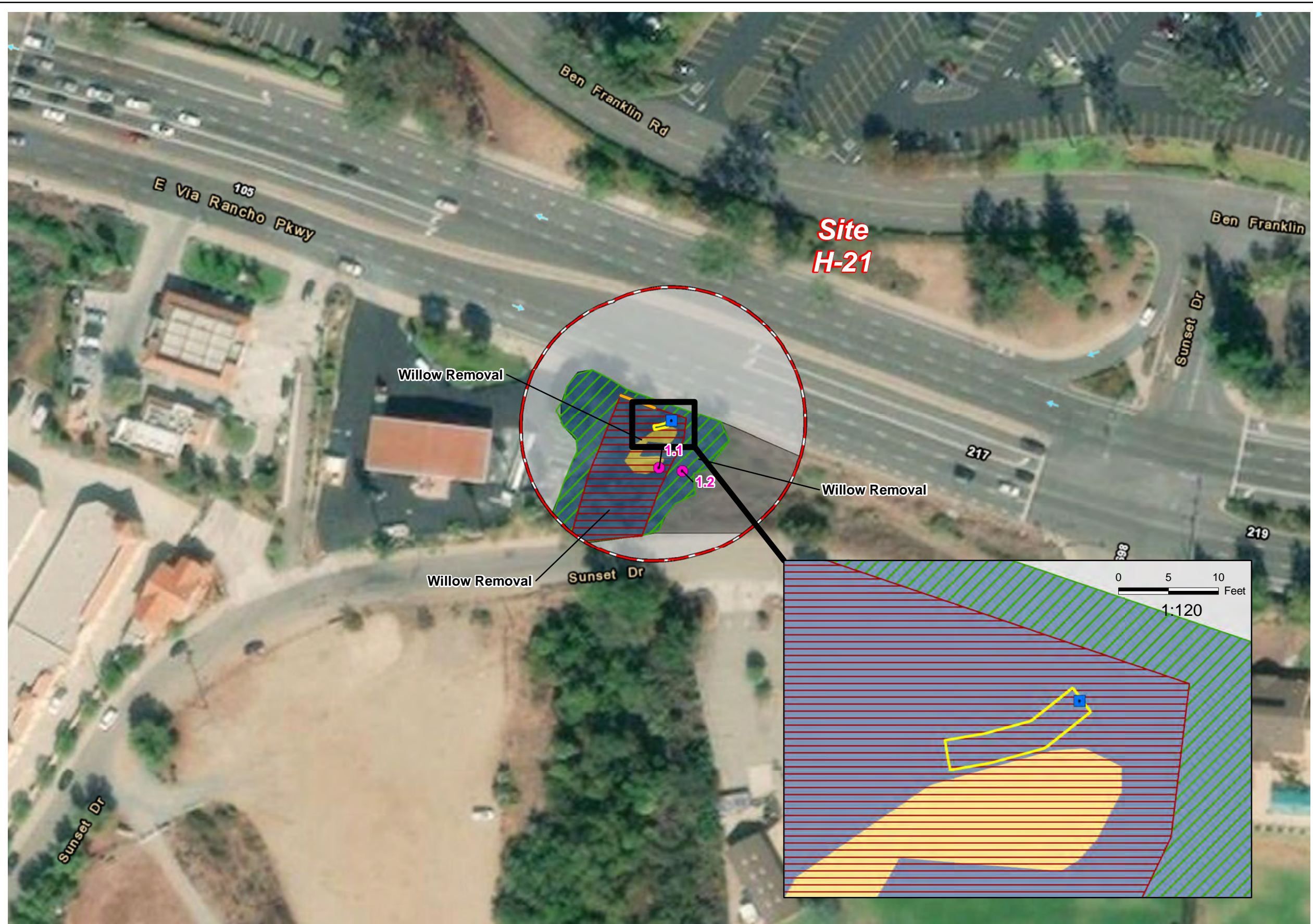
- Legend**
- Outlet
 - Maintenance Sites
 - 100-ft Buffer
 - USACE/RWQCB Jurisdiction**
 - Nonwetland Waters
 - Wetland Waters
 - CDFW Jurisdiction**
 - Riparian Extent
 - Channel Bed and Bank
 - Vegetation**
 - Coast Live Oak Woodland
 - Unvegetated Channel
 - Urban / Developed



Source: City of Escondido; ICF 2019

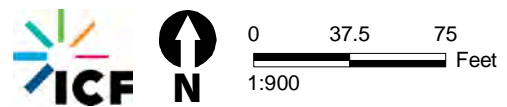


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- Legend**
- Outlet
 - Wetland Sample Point
 - Maintenance Sites
 - 100-ft Buffer
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Emergent Wetland
 - Southern Willow Scrub
 - Disturbed Habitat
 - Urban / Developed

Source: City of Escondido; ICF 2019

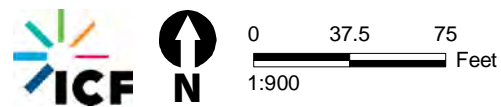


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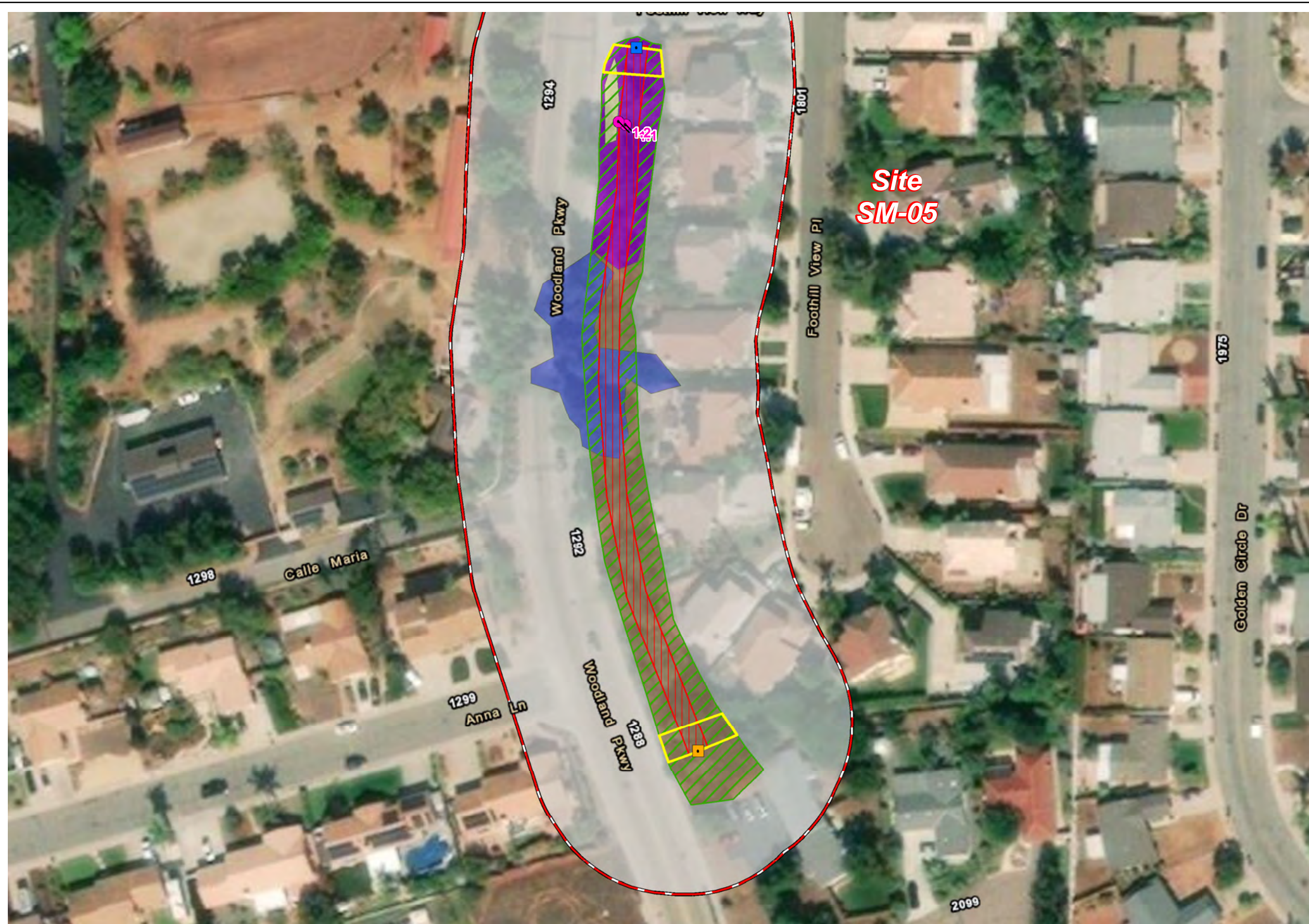


- Legend**
- Inlet
 - Outlet
 - 100-ft Buffer
 - Maintenance Sites
- USACE/RWQCB Jurisdiction**
- Nonwetland Waters
 - Wetland Waters
- CDFW Jurisdiction**
- Riparian Extent
 - Channel Bed and Bank
- Vegetation**
- Southern Coast Live Oak Riparian Forest
 - Southern Arroyo Willow Riparian Forest
 - Non-native Woodland
 - Urban / Developed

Source: City of Escondido; ICF 2019

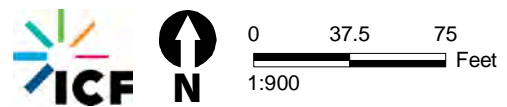


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- Legend**
- Wetland Sample Point
 - Inlet
 - Outlet
 - ▭ 100-ft Buffer
 - ▭ Maintenance Sites
- USACE/RWQCB Jurisdiction**
- ▨ Nonwetland Waters
 - ▨ Wetland Waters
- CDFW Jurisdiction**
- ▨ Riparian Extent
 - ▨ Channel Bed and Bank
- Vegetation**
- Southern Coast Live Oak Riparian Forest
 - Southern Riparian Scrub
 - Non-native Grassland
 - Non-native Woodland
 - Urban / Developed

Source: City of Escondido; ICF 2019



Attachment 2
Facility Location Site Forms

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	W 4 th Ave		Facility ID	E-48	
Location	West 4 th Avenue				
Latitude ¹	33.115975	Longitude ¹	-117.0856664	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Channel		Lining Type	Earthen	
Proposed Maintenance Activities	Remove accumulated sediment and weed removal Equipment will be staged on the street and backhoe or excavator will be used to scoop sediment out of channel for clean excavation. No dragging of equipment along banks and no equipment in channel.				
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

PART II. SURVEY INFORMATION

Surveyors	Lanika Cervantes, William Kohn		Date of Survey	2/26/2019	
Was water in the channel at the time of the survey?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		Hydrology Type ²	P <input type="checkbox"/> I <input type="checkbox"/> E <input checked="" type="checkbox"/> O <input type="checkbox"/>	
Nearest Named Waterbody	Escondido Creek		NWI Index	Not Classified	
NRCS Soils	Placentia sandy loam, 2 to 9 percent slopes				

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		USACE 404 Regulated Activity	Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Only Temporary diversion structures are regulated	
USACE Nonwetland Waters Present	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		USACE Wetland Waters Present	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
Associated Datasheet(s)					
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Nonwetland Waters	U/E		0.032	II
	TOTAL			0.032	

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		CDFW Regulated Activity	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Channel Bank	U/E		0.040	II
	TOTAL			0.040	

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Unvegetated Channel	0.040	0.010	0.050	<i>Bromus diandrus, Bromus madritensis</i>
Subtotal Riparian and Wetland	0.040	0.010	0.050	
Other Land Cover Types				
Urban/Developed	0.006	2.427	2.433	N/A
Subtotal Other Land Cover Types	0.006	2.427	2.433	
GRAND TOTAL⁶	0.045	2.437	2.483	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Poliophtila californica californica</i>) (FT, SSC) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE) Swainson's hawk (<i>Buteo swainsoni</i>) (--, ST) Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>) (FT, SE) California black rail (<i>Laterallus jamaicensis coturniculus</i>) (--, ST/FP)
Other non-listed special status species historically known to occur within the Facility Buffer	None
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>) (CRPR 1B.1) Southern California legless lizard (<i>Anniella stebbinsi</i>) (SSC) Orange-throated whiptail (<i>Aspodpscelis hyperythra</i>) (SSC) Coast horned lizard (<i>Phrynosoma blainvillii</i>) (SSC) Burrowing owl (<i>Athene cunicularia</i>) (SSC) White-faced ibis (<i>Plagadis chihii</i>) (WL) Pallid bat (<i>Antrozous pallidus</i>) (SSC) Dulzura pocket mouse (<i>Chaetodipus californicus femoralis</i>) (SSC) Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) (SSC) Western yellow bat (<i>Lasiurus xanthinus</i>) (SSC) Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>) (SSC) Big free-tailed bat (<i>Nyctinomops macrotis</i>) (SSC) American badger (<i>Taxidea taxus</i>) (SSC)
Are species surveys recommended?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/> If Yes, for what species?
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>

PART III. ADDITIONAL NOTES/COMMENTS

Feature is a nonwetland water that supported standing water at the time of surveys. The channel is characterized as an unvegetated channel supporting non-native patches of grasses along the channel banks. Vegetation present consisted of *Avena sp.*, *Bromus diandrus*, *Bromus madritensis*, chrysanthemum, and *hordeum murinum*. Sediment deposition and shelving was observed within the channel.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing E. non-native grass filled channel



Representative Photograph 2. Facing W. Inlet at west end of channel



Representative Photograph 3. Facing E. Culvert at east end of channel

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	W 5 th and Pine		Facility ID	E-49	
Location	West 5 th Avenue				
Latitude ¹	33.115280	Longitude ¹	-117.084671	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Channel		Lining Type	Earthen	
Proposed Maintenance Activities	Remove accumulated sediment and weed removal Equipment will be staged on the street and backhoe or excavator will be used to scoop sediment out of channel for clean excavation. No dragging of equipment along banks and no equipment in channel.				
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>

PART II. SURVEY INFORMATION

Surveyors	Lanika Cervantes, William Kohn		Date of Survey	2/26/2019
Was water in the channel at the time of the survey?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Hydrology Type ²	P <input type="checkbox"/> I <input type="checkbox"/> E <input checked="" type="checkbox"/> O <input type="checkbox"/>
Nearest Named Waterbody	Escondido Creek		NWI Index	Not classified
NRCS Soils	Placentia sandy loam, 2 to 9 percent slopes			

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE 404 Regulated Activity	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Only Temporary diversion structures are regulated		
USACE Nonwetland Waters Present	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE Wetland Waters Present	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Datapoint(s) Taken	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>
Associated Datasheet(s)								
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description. ³			Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵		
	Nonwetland Waters	U/E			0.002	II		
	TOTAL				0.002			

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	CDFW Regulated Activity	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description. ³			Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Channel Bank	U/E			0.002	II
	TOTAL				0.002	

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Unvegetated Channel	0.002	<0.001	0.002	<i>Erodium sp., schismus sp.</i>
Subtotal Riparian and Wetland	0.002	<0.001	0.002	
Other Land Cover Types				
Urban/Developed	0.001	0.834	0.835	N/A
Subtotal Other Land Cover Types	0.001	0.834	0.835	
GRAND TOTAL⁶	0.003	0.834	0.838	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None	
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A	
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None	
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Polioptila californica californica</i>) (FT, SSC) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE) Swainson's hawk (<i>Buteo swainsoni</i>) (--, ST) Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>) (FT, SE) California black rail (<i>Laterallus jamaicensis coturniculus</i>) (--, ST/FP)	
Other non-listed special status species historically known to occur within the Facility Buffer	None	
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>) (CRPR 1B.1) Southern California legless lizard (<i>Anniella stebbinsi</i>) (SSC) Orange-throated whiptail (<i>Aspodescelis hyperythra</i>) (SSC) Coast horned lizard (<i>Phrynosoma blainvillii</i>) (SSC) Burrowing owl (<i>Athene cunicularia</i>) (SSC) White-faced ibis (<i>Plagadis chihii</i>) (WL) Pallid bat (<i>Antrozous pallidus</i>) (SSC) Dulzura pocket mouse (<i>Chaetodipus californicus femoralis</i>) (SSC) Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) (SSC) Western yellow bat (<i>Lasiurus xanthinus</i>) (SSC) Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>) (SSC) Big free-tailed bat (<i>Nyctinomops macrotis</i>) (SSC) American badger (<i>Taxidea taxus</i>) (SSC)	
Are species surveys recommended?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	If Yes, for what species?
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

PART III. ADDITIONAL NOTES/COMMENTS

Feature is a nonwetland water that supported standing water at the time of surveys. The channel is characterized as an unvegetated channel supporting non-native patches of grasses along the channel banks. Short channel that is only daylight for approximately 20 feet before going underground again. Vegetation present consisted of *Erodium sp.*, *schismus sp.*, and *cynodon dactylon*. Sediment deposition and shelving was observed within the channel.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing E. Culvert



Representative Photograph 2. Facing W. Inlet

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	W 5 th Ave		Facility ID	E-50	
Location	West 5 th Avenue				
Latitude ¹	33.114928	Longitude ¹	-117.085331	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Channel		Lining Type	Earthen	
Proposed Maintenance Activities	Remove accumulated sediment and weed removal Equipment will be staged on the street and backhoe or excavator will be used to scoop sediment out of channel for clean excavation. No dragging of equipment along banks and no equipment in channel.				
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

PART II. SURVEY INFORMATION

Surveyors	Lanika Cervantes, William Kohn		Date of Survey	2/26/2019	
Was water in the channel at the time of the survey?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		Hydrology Type ²	P <input type="checkbox"/> I <input type="checkbox"/> E <input checked="" type="checkbox"/> O <input type="checkbox"/>	
Nearest Named Waterbody	Escondido Creek		NWI Index	Not classified	
NRCS Soils	Placentia sandy loam, 2 to 9 percent slopes				

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		USACE 404 Regulated Activity	Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Only Temporary diversion structures are regulated	
USACE Nonwetland Waters Present	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		USACE Wetland Waters Present	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
Associated Datasheet(s)					
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Nonwetland Waters	U/E		0.011	II
	TOTAL			0.011	

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		CDFW Regulated Activity	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Channel Bank	U/E		0.019	II
	TOTAL			0.019	

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Unvegetated Channel	0.019	0.003	0.022	<i>Erodium sp., schismus sp., and cynodon dactylon</i>
Subtotal Riparian and Wetland	0.019	0.003	0.022	
Other Land Cover Types				
Urban/Developed	0.001	1.468	1.469	N/A
Subtotal Other Land Cover Types	0.001	1.468	1.469	
GRAND TOTAL⁶	0.019	1.471	1.490	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None
--	------

Threatened/Endangered species historically known to occur within the Facility Buffer	N/A		
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Poliophtila californica californica</i>) (FT, SSC) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE) Swainson's hawk (<i>Buteo swainsoni</i>) (--, ST) Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>) (FT, SE) California black rail (<i>Laterallus jamaicensis coturniculus</i>) (--, ST/FP)		
Other non-listed special status species historically known to occur within the Facility Buffer	None		
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>) (CRPR 1B.1) Southern California legless lizard (<i>Anniella stebbinsi</i>) (SSC) Orange-throated whiptail (<i>Aspodpscelis hyperythra</i>) (SSC) Coast horned lizard (<i>Phrynosoma blainvillii</i>) (SSC) Burrowing owl (<i>Athene cunicularia</i>) (SSC) White-faced ibis (<i>Plagadis chihi</i>) (WL) Pallid bat (<i>Antrozous pallidus</i>) (SSC) Dulzura pocket mouse (<i>Chaetodipus californicus femoralis</i>) (SSC) Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) (SSC) Western yellow bat (<i>Lasiurus xanthinus</i>) (SSC) Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>) (SSC) Big free-tailed bat (<i>Nyctinomops macrotis</i>) (SSC) American badger (<i>Taxidea taxus</i>) (SSC)		
Are species surveys recommended?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	If Yes, for what species?
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		

PART III. ADDITIONAL NOTES/COMMENTS

Feature is a nonwetland water that supported standing water at the downstream portion for the channel at the time of surveys. The channel is characterized as an unvegetated channel supporting non-native patches of grasses along the channel banks. Vegetation present consisted of *Erodium sp.*, *schismus sp.*, and *cynodon dactylon*. Sediment deposition and shelving was observed within the channel.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing W. Grass filled channel



Representative Photograph 2. Facing W. Outlet



Representative Photograph 3. Facing E. Inlet

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	800 W Valley		Facility ID	E-51	
Location	Spruce Street				
Latitude ¹	33.118691	Longitude ¹	-117.093295	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Channel		Lining Type	Earthen	
Proposed Maintenance Activities	Use of handtools to remove nonnative vegetation and trim native trees/shrubs, as needed. No mechanized equipment proposed; Use of both manual and mechanical hand tools only to cut and remove nonnative vegetation; Native trees and shrubs that inhibit flows will be trimmed; Newly constructed access ramps will be used to access site.				
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	If Yes, will dewatering or water diversion be needed?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>

PART II. SURVEY INFORMATION

Surveyors	Lanika Cervantes, William Kohn		Date of Survey	2/18/2019			
Was water in the channel at the time of the survey?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Hydrology Type ²	P <input type="checkbox"/>	I <input checked="" type="checkbox"/>	E <input type="checkbox"/>	O <input type="checkbox"/>
Nearest Named Waterbody	Escondido Creek		NWI Index	Riverine and Freshwater Forested/Shrub Wetland			
NRCS Soils	Visalia sandy loam, 2 to 5 percent slopes, Placentia sandy loam, 2 to 9 percent slopes						

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE 404 Regulated Activity	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Only Temporary diversion structures are regulated		
USACE Nonwetland Waters Present	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE Wetland Waters Present	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Datapoint(s) Taken	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
Associated Datasheet(s)	Wetland Sample Point 1.1 and 1.2							
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description. ³		Acres Delineated within Maintenance Footprint ⁴		Impact Tier ⁵		
	Wetland waters	V/E		0.732		I		
	Wetland waters	V/E		0.031		II		
			Subtotal Wetlands Waters		0.763		-	
	Nonwetland Waters	V/E		<0.001		II		
	Nonwetland Waters	V/E		0.018		IV		
			Subtotal Nonwetland Waters		0.018		-	
		TOTAL		0.781				

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	CDFW Regulated Activity	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>		
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description. ³		Acres Delineated within Maintenance Footprint ⁴		Impact Tier ⁵	
	Riparian Extent	V/E		0.732		I	
	Riparian Extent	V/E		0.547		II	
			Subtotal Riparian Extent		1.279		-
	Channel Bank	V/E		0.002		II	
	Channel Bank	V/E		0.030		IV	
			Subtotal Channel Bank		0.033		-
		TOTAL		1.311			

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Disturbed So. Cottonwood-Willow Riparian Forest	0.082	0.132	0.214	<i>Populus fremontii</i> ; <i>Salix lasiolepis</i>
Coastal and Valley Freshwater Marsh	0.732	0.002	0.734	<i>Typha domingensis</i>
<i>Subtotal Riparian and Wetland</i>	<i>0.814</i>	<i>0.134</i>	<i>0.949</i>	
Upland				
Non-Native Woodland	0.408	0.030	0.437	<i>Eucalyptus</i> spp., <i>Washingtonia robusta</i>
Non-Native Grassland	0.058	0.005	0.063	<i>Cynodon dactylon</i>
<i>Subtotal Upland</i>	<i>0.466</i>	<i>0.035</i>	<i>0.500</i>	
Other Land Cover Types				
Disturbed Habitat	0.003	0.016	0.019	
Urban/Developed	0.077	7.572	7.649	
<i>Subtotal Other Land Cover Types</i>	<i>0.080</i>	<i>7.588</i>	<i>8.18</i>	
GRAND TOTAL⁶	1.360	7.757	9.117	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within the	N/A		
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Poliophtila californica californica</i>) (FT, SSC) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE) Swainson's hawk (<i>Buteo swainsoni</i>) (--, ST) Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>) (FT, SE) California black rail (<i>Laterallus jamaicensis coturniculus</i>) (--, ST/FP)		
Other non-listed special status species historically known to occur within the Facility Buffer	None		
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>) (CRPR 1B.1) Southern California legless lizard (<i>Anniella stebbinsi</i>) (SSC) Orange-throated whiptail (<i>Aspodpscelis hyperythra</i>) (SSC) Coast horned lizard (<i>Phrynosoma blainvillii</i>) (SSC) Burrowing owl (<i>Athene cunicularia</i>) (SSC) White-faced ibis (<i>Plagadis chihii</i>) (WL) Pallid bat (<i>Antrozous pallidus</i>) (SSC) Dulzura pocket mouse (<i>Chaetodipus californicus femoralis</i>) (SSC) Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) (SSC) Western yellow bat (<i>Lasiurus xanthinus</i>) (SSC) Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>) (SSC) Big free-tailed bat (<i>Nyctinomops macrotis</i>) (SSC) American badger (<i>Taxidea taxus</i>) (SSC)		
Are species surveys recommended?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	If Yes, for what species?	
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		

PART III. ADDITIONAL NOTES/COMMENTS

The channel supports wetland waters that is dominated by *Typha domingensis* and supports areas of both flowing and ponded water. All wetlands occur within the OHWM of the channel. Lots of wrack and sediment deposition observed within the channel in addition to clear shelving. The downstream segments enters a box culvert that outlets into a short concrete apron before becoming an earthen bottom again. The upstream segment (east of Valley Center Parkway) is dominated by *Typha domingensis* and *Ricinus communis*.

Footnotes:

1. Coordinates are based on the centroid of the facility.
2. Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
3. Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
4. Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
5. The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
6. Totals may not add up due to rounding.
7. Sources: California Natural Diversity Database (CNDDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing NW. Coastal and Valley freshwater marsh within portion of channel on west side of Valley Center Parkway.



Representative Photograph 2. Facing SE. Culvert under Valley Center Parkway



Representative Photograph 4. Facing NW. Freshwater marsh and non-native woodland



Representative Photograph 3. Facing E. Coastal and Valley freshwater marsh within channel portion occurring east of Valley Center Parkway

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/26/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: E-51 WSP 1.1
 Investigator(s): Lanika Cervantes; William Kohn Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): convex Slope (%): 2
 Subregion (LRR): C - Mediterranean California Lat: 33.117957 Long: -117.091964 Datum: _____
 Soil Map Unit Name: Visalia sandy loam, 2 to 5 percent slopes NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: <u>Sample point taken within the OHWM of the channel.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <u>Washingtonia robusta</u>	10	Yes	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																																
2. _____																																				
3. _____																																				
4. _____																																				
Total Cover: <u>10 %</u>																																				
Sapling/Shrub Stratum				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="2">Total % Cover of:</td> <td align="center" colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td align="center">70</td> <td>x 1 =</td> <td align="center">70</td> </tr> <tr> <td>FACW species</td> <td align="center">25</td> <td>x 2 =</td> <td align="center">50</td> </tr> <tr> <td>FAC species</td> <td></td> <td>x 3 =</td> <td align="center">0</td> </tr> <tr> <td>FACU species</td> <td></td> <td>x 4 =</td> <td align="center">0</td> </tr> <tr> <td>UPL species</td> <td align="center">10</td> <td>x 5 =</td> <td align="center">50</td> </tr> <tr> <td>Column Totals:</td> <td align="center">105</td> <td>(A)</td> <td align="center">170 (B)</td> </tr> <tr> <td align="center" colspan="4">Prevalence Index = B/A = <u>1.62</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	70	x 1 =	70	FACW species	25	x 2 =	50	FAC species		x 3 =	0	FACU species		x 4 =	0	UPL species	10	x 5 =	50	Column Totals:	105	(A)	170 (B)	Prevalence Index = B/A = <u>1.62</u>			
Total % Cover of:		Multiply by:																																		
OBL species	70	x 1 =	70																																	
FACW species	25	x 2 =	50																																	
FAC species		x 3 =	0																																	
FACU species		x 4 =	0																																	
UPL species	10	x 5 =	50																																	
Column Totals:	105	(A)	170 (B)																																	
Prevalence Index = B/A = <u>1.62</u>																																				
1. <u>Ricinus communis</u>	15	Yes	FACW																																	
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: <u>15 %</u>																																				
Herb Stratum				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.																																
1. <u>Typha domingensis</u>	70	Yes	OBL																																	
2. <u>vinca major</u>	10	No	Not Listed																																	
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
Total Cover: <u>80 %</u>																																				
Woody Vine Stratum																																				
1. _____																																				
2. _____																																				
Total Cover: _____ %																																				
% Bare Ground in Herb Stratum <u>10 %</u>	% Cover of Biotic Crust _____ %																																			

Remarks: Area is dominated by wetland vegetation.

SOIL

Sampling Point: E-51 WSI

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10-YR 2/1	95	7.5 4/6	5	C	M	Loamy/Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: Redox observed during soils observations.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): 4 inches

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Typha bent over by flows.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/26/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: E-51 WSP 1.2
 Investigator(s): Lanika Cervantes; William Kohn Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 30
 Subregion (LRR): C - Mediterranean California Lat: 33.117934 Long: -117.092015 Datum: _____
 Soil Map Unit Name: Visalia sandy loam, 2 to 5 percent slopes NWI classification: Freshwater Emergent Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: <u>Sample point taken on hillslope outside of OHWM. Approximately 3 feet higher in elevation from 1.1.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <u>Washingtonia robusta</u>	5	Yes	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0 %</u> (A/B)																																
2. _____																																				
3. _____																																				
4. _____																																				
Total Cover: <u>5 %</u>																																				
Sapling/Shrub Stratum																																				
1. _____				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="2">Total % Cover of:</td> <td align="center" colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td align="center"><u> </u></td> <td align="center">x 1 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td align="center"><u>5</u></td> <td align="center">x 2 =</td> <td align="center"><u>10</u></td> </tr> <tr> <td>FAC species</td> <td align="center"><u>15</u></td> <td align="center">x 3 =</td> <td align="center"><u>45</u></td> </tr> <tr> <td>FACU species</td> <td align="center"><u> </u></td> <td align="center">x 4 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td align="center"><u>40</u></td> <td align="center">x 5 =</td> <td align="center"><u>200</u></td> </tr> <tr> <td>Column Totals:</td> <td align="center"><u>60</u></td> <td align="center">(A)</td> <td align="center"><u>255</u> (B)</td> </tr> <tr> <td align="center" colspan="4">Prevalence Index = B/A = <u>4.25</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u> </u>	x 1 =	<u>0</u>	FACW species	<u>5</u>	x 2 =	<u>10</u>	FAC species	<u>15</u>	x 3 =	<u>45</u>	FACU species	<u> </u>	x 4 =	<u>0</u>	UPL species	<u>40</u>	x 5 =	<u>200</u>	Column Totals:	<u>60</u>	(A)	<u>255</u> (B)	Prevalence Index = B/A = <u>4.25</u>			
Total % Cover of:		Multiply by:																																		
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UPL species	<u>40</u>	x 5 =	<u>200</u>																																	
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4. _____																																				
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Total Cover: <u> </u> %																																				
Herb Stratum																																				
1. <u>vinca major</u>	30	Yes	Not Listed	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																
2. <u>oxalis pes-caprae</u>	10	Yes	Not Listed																																	
3. <u>poa sp.</u>	15	Yes	FAC																																	
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>55 %</u>																																				
Woody Vine Stratum																																				
1. _____				¹ Indicators of hydric soil and wetland hydrology must be present.																																
2. _____																																				
Total Cover: <u> </u> %																																				
% Bare Ground in Herb Stratum <u>45 %</u>		% Cover of Biotic Crust <u> </u> %		Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>																																

Remarks: Hillslope supports a mixture of wetland and nonwetland vegetation.

SOIL

Sampling Point: E-51 WSI

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10-YR 3/1	100					Loamy/Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: No redox observed and soils were drier.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology indicators. Sample point taken 3 feet higher in elevation from 1.1.

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	Rock Springs	Facility ID	E-52	
Location	Rock Springs Road			
Latitude ¹	33.136026	Longitude ¹	-117.105559	Maintenance Frequency (years)
				Annually
Maintenance Facility Type	Channel	Lining Type	Earthen and Concrete	
Proposed Maintenance Activities	Remove accumulated sediment and weed removal. Equipment will be staged on the street and backhoe or excavator will be used to scoop sediment out of channel for clean excavation. No dragging of equipment along banks and no equipment in channel.			
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

PART II. SURVEY INFORMATION

Surveyors	Lanika Cervantes and William Kohn	Date of Survey	2/26/2019	
Was water in the channel at the time of the survey?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Hydrology Type ²	P <input type="checkbox"/> I <input type="checkbox"/> E <input checked="" type="checkbox"/> O <input type="checkbox"/>	
Nearest Named Waterbody	Escondido Creek	NWI Index	Not classified	
NRCS Soils	Visalia sandy loam, 2 to 5 percent slopes and Escondido very fine sandy loam, 5 to 9 percent slopes			

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	USACE 404 Regulated Activity	Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Only Temporary diversion structures are regulated	
USACE Nonwetland Waters Present	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	USACE Wetland Waters Present	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	Datapoint(s) Taken Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Only Temporary diversion structures are regulated
Associated Datasheet(s)				
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description ³	Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Nonwetland Waters	U/E	0.043	II
	Nonwetland Waters	U/C	0.001	IV
	TOTAL			0.045

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	CDFW Regulated Activity	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³	Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Channel Bank	U/E	0.087	II
	Channel Bank	U/C	0.003	IV
	TOTAL			0.090

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Unvegetated Channel	0.087	-	0.087	
<i>Subtotal Riparian and Wetland</i>	<i>0.087</i>		<i>0.087</i>	
Upland				
Non-Native Grassland	0.022	2.019	2.041	<i>Bromus sp.</i>
<i>Subtotal Upland</i>	<i>0.022</i>	<i>2.019</i>	<i>2.041</i>	

Other Land Cover Types				
Urban/Developed	0.029	2.030	2.059	
Subtotal Other Land Cover Types	0.029	2.030	2.059	
GRAND TOTAL⁶	0.137	4.049	4.186	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A		
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE)		
Other non-listed special status species historically known to occur within the Facility Buffer	None		
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	None		
Are species surveys recommended?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	If Yes, for what species?
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	

PART III. ADDITIONAL NOTES/COMMENTS

Channel is a roadside ditch that flows directly adjacent to the road. The channel is unvegetated and supported shelving and sediment deposition. The channel also had flowing water at the time of the survey. The downstream segment of the channel is concrete-lined.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing E. Concrete-lined channel at downstream end



Representative Photograph 2. Facing N. Earthen channel



Representative Photograph 3. Facing N. Blocked outlet

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	Reidy Creek: Rincon to Pleasantwood		Facility ID	E-53	
Location	Rincon Avenue				
Latitude ¹	33.160305	Longitude ¹	-117.089170	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Channel		Lining Type	Earthen	
Proposed Maintenance Activities	Maintenance areas include: 15ft from concrete apron (full bank width) and 10ft wide pilot channel.				
	Remove accumulated sediment and herbaceous vegetation for pilot channel. Handwork for trimming of native trees/shrubs, as needed.				
Will work occur when water is in the channel?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	If Yes, will dewatering or water diversion be needed?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>

PART II. SURVEY INFORMATION

Surveyors	Lanika Cervantes and William Kohn		Date of Survey	2/18/2019			
Was water in the channel at the time of the survey?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Hydrology Type ²	P <input type="checkbox"/>	I <input checked="" type="checkbox"/>	E <input type="checkbox"/>	O <input type="checkbox"/>
Nearest Named Waterbody	Reidy Creek		NWI Index	Freshwater Forested/Shrub Wetland			
NRCS Soils	Visalia sandy loam, 0 to 2 percent						

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE 404 Regulated Activity	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
USACE Nonwetland Waters Present	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	USACE Wetland Waters Present	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
Datapoint(s) Taken	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>			
Associated Datasheet(s)	Wetland Sample Points 1.1 and 1.2; OHWM Data Sheet				
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Wetland Waters	V/E		0.381	I
	Nonwetland Waters	V/C		<0.001	IV
	TOTAL			0.38	

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility¹⁰

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	CDFW Regulated Activity	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Riparian Extent	V/E		0.401	I
	Channel Bank			<0.001	II
	Channel Bank			<0.001	IV
	Subtotal Channel Bank			0.002	-
TOTAL			0.402		

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
So. Cottonwood-Willow Riparian Forest	0.401	2.056	2.456	<i>Populus fremontii</i> ; <i>Salix lasiolepis</i>
Southern Riparian Scrub	-	0.060	0.060	<i>Baccharis salicifolia</i> ; <i>Washingtonia</i>
Subtotal Riparian and Wetland	0.401	2.116	2.517	
Upland				
Eucalyptus Woodland	<0.001	0.799	0.75	<i>Eucalyptus ssp.</i>

City of Escondido Channel Maintenance RGP – Facility Summary

Reidy Creek: Rincon to Pleasantwood

Non-Native Grassland	-	0.037	0.037	<i>Cynodon dactylon</i>
Subtotal Upland	0.001	0.837	0.837	
Other				
Disturbed Habitat	<0.001	0.709	0.709	
Open Water	<0.001	0.268	0.27	
Urban/Developed	<0.001	0.550	0.55	
Subtotal Other	0.001	1.527	1.53	
GRAND TOTAL⁶	0.402	4.480	4.881	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A		
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	None		
Other non-listed special status species historically known to occur within the Facility Buffer	None		
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	None		
Are species surveys recommended?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	If Yes, for what	Least Bell's vireo and San Diego Ambrosia
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		

PART III. ADDITIONAL NOTES/COMMENTS

Channel supports a low flow channel on the eastern side of the wetland habitat. Course sand within width of OHWM and all wetlands occur within the limits of the OHWM. Urban development occur on either side of the channel. The active floodplain is very flat and shallow slope occurs along the western edge of the channel.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing SW. Facing downstream of channel at Sample Point 1.1.



Representative Photograph 2. Facing N. Riparian forest dominates the channel.



Representative Photograph 3. Facing N. Flowing low flow channel along the eastern edge.



Representative Photograph 4. Facing SW. Eucalyptus trees adjacent to channel.

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: City of Escondido Project Number: Stream: Reidy Creek Investigator(s): L. Cervantes	Date: 2/18/19 Town: Escondido Photo begin file#: Time: 10:38 State: CA Photo end file#:
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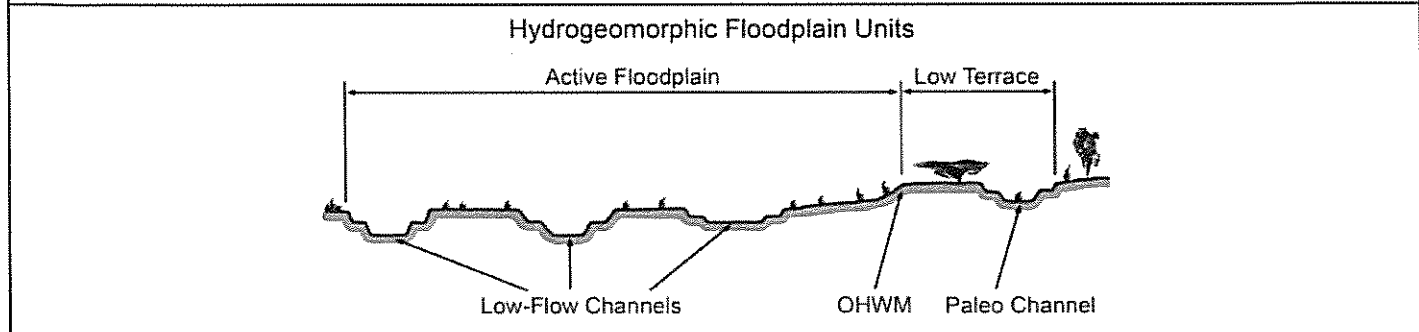
Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> Do normal circumstances exist on the site? Y <input type="checkbox"/> / N <input checked="" type="checkbox"/> Is the site significantly disturbed?	Location Details: Rincon Projection: Datum: Coordinates: See figure
--	---

Potential anthropogenic influences on the channel system:
 This segment of Reidy Creek is surrounded by urban development. Houses abut the riparian canopy.

Brief site description:
 Shallow slope along western edge, active floodplain very flat with gentle transition to uplands.

Checklist of resources (if available):

<input checked="" type="checkbox"/> Aerial photography	<input type="checkbox"/> Stream gage data
Dates:	Gage number:
<input checked="" type="checkbox"/> Topographic maps	Period of record:
<input type="checkbox"/> Geologic maps	<input type="checkbox"/> History of recent effective discharges
<input type="checkbox"/> Vegetation maps	<input type="checkbox"/> Results of flood frequency analysis
<input checked="" type="checkbox"/> Soils maps	<input type="checkbox"/> Most recent shift-adjusted rating
<input type="checkbox"/> Rainfall/precipitation maps	<input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event
<input type="checkbox"/> Existing delineation(s) for site	
<input type="checkbox"/> Global positioning system (GPS)	
<input type="checkbox"/> Other studies	



- Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:**
1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
 2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
 - a) Record the floodplain unit and GPS position.
 - b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
 - c) Identify any indicators present at the location.
 4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
 5. Identify the OHWM and record the indicators. Record the OHWM position via:

<input checked="" type="checkbox"/> Mapping on aerial photograph	<input checked="" type="checkbox"/> GPS
<input type="checkbox"/> Digitized on computer	<input type="checkbox"/> Other:

Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.00	256	Boulder	Gravel
2.56	64	Cobble	
0.157	4	Pebble	
0.079	2.00	Granule	
0.039	1.00	Very coarse sand	Sand
0.020	0.50	Coarse sand	
1/2 0.0098	0.25	Medium sand	
1/4 0.005	0.125	Fine sand	
1/8 0.0025	0.0625	Very fine sand	
1/16 0.0012	0.031	Coarse silt	Silt
1/32 0.00061	0.0156	Medium silt	
1/64 0.00031	0.0078	Fine silt	
1/128 0.00015	0.0039	Very fine silt	
		Clay	Mud



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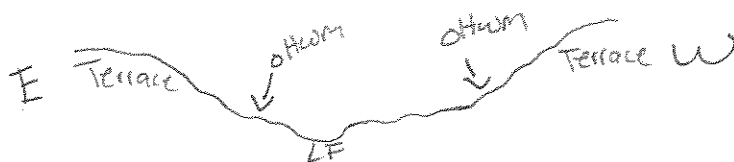
Project ID:

Cross section ID: Rincon

Date: 8/18/19

Time:

Cross section drawing:



OHWM

GPS point: _____

Indicators:

- Change in average sediment texture
- Change in vegetation species
- Change in vegetation cover
- Break in bank slope
- Other: _____
- Other: _____

Comments:

Slopes from terrace to OHWM are gentle. Transitions from Eucalyptus sp + annual grasses to salt grass, willows, typha within OHWM.

Floodplain unit:

- Low-Flow Channel
- Active Floodplain
- Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: fine silt

Total veg cover: 60 % Tree: 0 % Shrub: 0 % Herb: 60 %

Community successional stage:

- NA
- Early (herbaceous & seedlings)
- Mid (herbaceous, shrubs, saplings)
- Late (herbaceous, shrubs, mature trees)

Indicators:

- Mudcracks
- Ripples
- Drift and/or debris
- Presence of bed and bank
- Benches
- Soil development
- Surface relief
- Other: _____
- Other: _____
- Other: _____

Comments:

Low flow supports ponded water and cattails. Distinct bench from low flow channel to active floodplain.

Project ID:

Cross section ID:

Rincon

Date:

2/18/19

Time:

Floodplain unit:

Low-Flow Channel

Active Floodplain

Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: medium silt

Total veg cover: 85 % Tree: 20 % Shrub: 20 % Herb: 45 %

Community successional stage:

NA

Early (herbaceous & seedlings)

Mid (herbaceous, shrubs, saplings)

Late (herbaceous, shrubs, mature trees)

Indicators:

Mudcracks

Ripples

Drift and/or debris

Presence of bed and bank

Benches

Soil development

Surface relief

Other: _____

Other: _____

Other: _____

Comments:

Gentle slope transition to uplands no clear bench due to amount of herbaceous vegetation.
Debris + sediment deposition throughout + drainage patterns.

Floodplain unit:

Low-Flow Channel

Active Floodplain

Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: coarse silt

Total veg cover: 95 % Tree: 35 % Shrub: 0 % Herb: 40 %

Community successional stage:

NA

Early (herbaceous & seedlings)

Mid (herbaceous, shrubs, saplings)

Late (herbaceous, shrubs, mature trees)

Indicators:

Mudcracks

Ripples

Drift and/or debris

Presence of bed and bank

Benches

Soil development

Surface relief

Other: _____

Other: _____

Other: _____

Comments:

Eucalyptus trees dominate terrace slope w/annual grasses as understory.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/18/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: E-53 WSP 1.1
 Investigator(s): Lanika Cervantes; William Kohn Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 15
 Subregion (LRR): C - Mediterranean California Lat: 33.160676 Long: -117.089168 Datum: _____
 Soil Map Unit Name: Visalia sandy loam, 0 to 2 percent slopes NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: <u>Sample point taken owithin OHWM.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <u>Salix lasiolepis</u>	30	Yes	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																																
2. _____																																				
3. _____																																				
4. _____																																				
Total Cover: <u>30 %</u>				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="2">Total % Cover of:</td> <td align="center" colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td align="center">_____</td> <td>x 1 =</td> <td align="center">0</td> </tr> <tr> <td>FACW species</td> <td align="center">30</td> <td>x 2 =</td> <td align="center">60</td> </tr> <tr> <td>FAC species</td> <td align="center">92</td> <td>x 3 =</td> <td align="center">276</td> </tr> <tr> <td>FACU species</td> <td align="center">_____</td> <td>x 4 =</td> <td align="center">0</td> </tr> <tr> <td>UPL species</td> <td align="center">_____</td> <td>x 5 =</td> <td align="center">0</td> </tr> <tr> <td>Column Totals:</td> <td align="center">122</td> <td>(A)</td> <td align="center">336 (B)</td> </tr> <tr> <td align="center" colspan="4">Prevalence Index = B/A = <u>2.75</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	_____	x 1 =	0	FACW species	30	x 2 =	60	FAC species	92	x 3 =	276	FACU species	_____	x 4 =	0	UPL species	_____	x 5 =	0	Column Totals:	122	(A)	336 (B)	Prevalence Index = B/A = <u>2.75</u>			
Total % Cover of:		Multiply by:																																		
OBL species	_____	x 1 =	0																																	
FACW species	30	x 2 =	60																																	
FAC species	92	x 3 =	276																																	
FACU species	_____	x 4 =	0																																	
UPL species	_____	x 5 =	0																																	
Column Totals:	122	(A)	336 (B)																																	
Prevalence Index = B/A = <u>2.75</u>																																				
Sapling/Shrub Stratum																																				
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: _____ %																																				
Herb Stratum																																				
1. <u>Distichlis spicata</u>	90	Yes	FAC																																	
2. <u>Rumex crispus</u>	2	No	FAC																																	
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>92 %</u>																																				
Woody Vine Stratum																																				
1. _____																																				
2. _____																																				
Total Cover: _____ %																																				
% Bare Ground in Herb Stratum <u>10 %</u>		% Cover of Biotic Crust _____ %																																		

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks: _____

SOIL

Sampling Point: E-53 WSI

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10-YR 4/1	90	7.5 YR 4/6	10	C	M	Loamy/Clay	moist soils

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |

Indicators for Problematic Hydric Soils:³

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: Redox observed in soil. Moist soils.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): 2 inches

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Sediment over laid down salt grass.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/18/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: E-53 WSP 1.2
 Investigator(s): Lanika Cervantes; William Kohn Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 15
 Subregion (LRR): C - Mediterranean California Lat: 33.160734 Long: -117.089245 Datum: _____
 Soil Map Unit Name: Visalia sandy loam, 0 to 2 percent slopes NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: <u>Sample point taken on hillslope outside of OHWM.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <u>Eucalyptus sp.</u>	25	Yes	UPL	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0 %</u> (A/B)																																
2. _____																																				
3. _____																																				
4. _____																																				
Total Cover: <u>25 %</u>				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="2">Total % Cover of:</td> <td align="center" colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td align="center"><u>0</u></td> <td align="center">x 1 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td align="center"><u>0</u></td> <td align="center">x 2 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td align="center"><u>0</u></td> <td align="center">x 3 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td align="center"><u>0</u></td> <td align="center">x 4 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td align="center"><u>35</u></td> <td align="center">x 5 =</td> <td align="center"><u>175</u></td> </tr> <tr> <td>Column Totals:</td> <td align="center"><u>35</u> (A)</td> <td></td> <td align="center"><u>175</u> (B)</td> </tr> <tr> <td align="center" colspan="4">Prevalence Index = B/A = <u>5.00</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>35</u>	x 5 =	<u>175</u>	Column Totals:	<u>35</u> (A)		<u>175</u> (B)	Prevalence Index = B/A = <u>5.00</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>35</u>	x 5 =	<u>175</u>																																	
Column Totals:	<u>35</u> (A)		<u>175</u> (B)																																	
Prevalence Index = B/A = <u>5.00</u>																																				
<u>Sapling/Shrub Stratum</u>																																				
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: _____ %																																				
<u>Herb Stratum</u>																																				
1. <u>Bromus sp.</u>	10	Yes	Not Listed	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.																																
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>10 %</u>																																				
<u>Woody Vine Stratum</u>																																				
1. _____																																				
2. _____																																				
Total Cover: _____ %																																				
% Bare Ground in Herb Stratum <u>90 %</u> % Cover of Biotic Crust _____ %																																				

Remarks: mostly Eucalyptus with little understory.

SOIL

Sampling Point: E-53 WSI

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10-YR 3/1	100	N/A				Loamy/Clay	drier soils

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils:³

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: No redox observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

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- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
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- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology indicators. Sample point taken approximately 5 feet higher than 1.1.

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	Reidy Creek- Morning View		Facility ID	E-54	
Location	Reidy Creek/Centre City Parkway				
Latitude ¹	33.136602	Longitude ¹	-117.094876	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Outlets		Lining Type	Earthen	
Proposed Maintenance Activities	<p>Remove accumulated sediment at specific outlet locations. Removal of nonnative vegetation; trimming of native trees/shrubs as needed with handtools.</p> <p>Access from cul-de-sacs or disturbed areas adjacent to the creek.</p> <p>Equipment will be staged on bank and within OHWM to access outlet. Use of backhoe or excavator to unclog outlet and create pilot channel downstream of outlets.</p> <p>Use of both manual and mechanical hand tools only to cut and remove nonnative vegetation.</p> <p>Native trees and shrubs that inhibit flows will be trimmed.</p>				
Will work occur when water is in the channel?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	If Yes, will dewatering or water diversion be needed?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>

PART II. SURVEY INFORMATION

Surveyors	Lanika Cervantes and William Kohn		Date of Survey	2/18/2019			
Was water in the channel at the time of the survey?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Hydrology Type ²	P <input type="checkbox"/>	I <input checked="" type="checkbox"/>	E <input type="checkbox"/>	O <input type="checkbox"/>
Nearest Named Waterbody	Reidy Creek		NWI Index	Freshwater Forested/Shrub Wetland and Riverine			
NRCS Soils	Grangeville fine sandy loam, 0 to 2 percent slopes and Visalia sandy loam, 2 to 5 percent slopes						

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE 404 Regulated Activity	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
USACE Nonwetland Waters Present	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	USACE Wetland Waters Present	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
Datapoint(s) Taken	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>			
Associated Datasheet(s)	Wetland Sample Points 1.1, 1.2, 2.1, and 2.2; OHWM Data Sheet				
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Wetland Waters	V/E		0.003	I
	Wetland Waters	V/E		0.011	II
	TOTAL			0.015	

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	CDFW Regulated Activity	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Riparian Extent	V/E		0.003	I
	Riparian Extent	V/E		0.015	II
	TOTAL			0.018	

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Coastal and Valley Freshwater Marsh	-	0.076	0.076	<i>Typha domingensis</i>
Disturbed So. Cottonwood-Willow Riparian Forest	0.008	6.725	6.733	<i>Sparsely vegetated with Populus fremontii and Salix lasiolepis with scattered Palms</i>
So. Cottonwood-Willow Riparian Forest	0.003	1.528	1.531	<i>Populus fremontii and Salix lasiolepis</i>
Subtotal Riparian and Wetland	0.011	8.329	8.340	

Upland				
Non-Native Woodland	0.001	2.400	2.401	<i>Washingtonia robusta</i> and ornamentals
Non-Native Grassland	0.007	8.697	8.704	<i>Cynodon dactylon</i>
Subtotal Upland	0.008	11.097	11.105	
Other Land Cover Types				
Disturbed habitat	-	0.585	0.585	
Urban/Developed	-	11.274	11.274	
Subtotal Other Land Cover Types	-	11.859	11.859	
GRAND TOTAL⁶	0.019	31.643	31.662	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility

Special status species observed during 2019 field surveys within the Facility Buffer	None			
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A			
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None			
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Polioptila californica californica</i>) (FT, SSC) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE) Swainson's hawk (<i>Buteo swainsoni</i>) (--, ST) Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>) (FT, SE) California black rail (<i>Laterallus jamaicensis coturniculus</i>) (--, ST/FP)			
Other non-listed special status species historically known to occur within the Facility Buffer	None			
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>) (CRPR 1B.1) Southern California legless lizard (<i>Anniella stebbinsi</i>) (SSC) Orange-throated whiptail (<i>Aspodpscelis hyperythra</i>) (SSC) Coast horned lizard (<i>Phrynosoma blainvillii</i>) (SSC) Burrowing owl (<i>Athene cunicularia</i>) (SSC) White-faced ibis (<i>Plagadis chihî</i>) (WL) Pallid bat (<i>Antrozous pallidus</i>) (SSC) Dulzura pocket mouse (<i>Chaetodipus californicus femoralis</i>) (SSC) Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) (SSC) Western yellow bat (<i>Lasiurus xanthinus</i>) (SSC) Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>) (SSC) Big free-tailed bat (<i>Nyctinomops macrotis</i>) (SSC) American badger (<i>Taxidea taxus</i>) (SSC)			
Are species surveys recommended?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	If Yes, for what	Least Bell's vireo and San Diego Ambrosia
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>		

PART III. ADDITIONAL NOTES/COMMENTS

The channel starts at a large box culvert and flows south. Channel is earthen for the full length with large amounts of wrack and sediment deposition observed through the channel. Flowing water within the low-flow channel at the time of the survey. Channel is heavily disturbed, dominated by non-native vegetation and only sparse patches of native tree vegetation present. Additionally, limited understory and urban encampments and trash evident throughout the channel. All wetlands are contained within the OHWM.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing S. near wetland sample points 1.1 and 1.2



Representative Photograph 2. Facing S. Wetland sample point 2



Representative Photograph 3. Facing W. Open outfall that will be maintained



Representative Photograph 4. Facing W. Blocked outfall that will be maintained

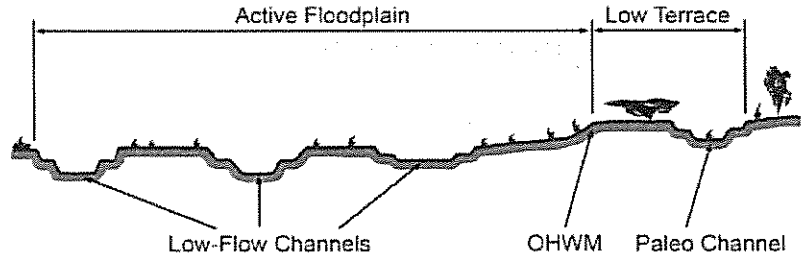


Representative Photograph 5. Facing NE. Riparian and emergent wetland.



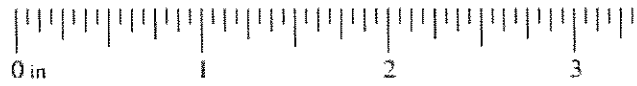
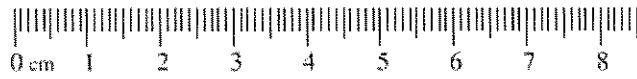
Representative Photograph 6. Facing NE. Fan palm grove within drainage

Arid West Ephemeral and Intermittent Streams OTHM Datasheet

Project: City of Escondido Project Number: Stream: Reidy Creek Investigator(s):	Date: 2/18/19 Town: Escondido Photo begin file#:	Time: 2:00 pm State: CA Photo end file#:				
Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> Do normal circumstances exist on the site? Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> Is the site significantly disturbed?	Location Details: E-54 Projection: Datum: Coordinates: see figure					
Potential anthropogenic influences on the channel system: Creek is surrounded by apartment complexes. Encampments and lots of trash in drainage.						
Brief site description: Usage by transients and dump area as lots of trash. Sparsely vegetated with tree canopy, mostly herbaceous understory. Disturbed site.						
Checklist of resources (if available): <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <input checked="" type="checkbox"/> Aerial photography Dates: <input checked="" type="checkbox"/> Topographic maps <input type="checkbox"/> Geologic maps <input type="checkbox"/> Vegetation maps <input checked="" type="checkbox"/> Soils maps <input type="checkbox"/> Rainfall/precipitation maps <input type="checkbox"/> Existing delineation(s) for site <input type="checkbox"/> Global positioning system (GPS) <input type="checkbox"/> Other studies </td> <td style="width: 50%; border: none;"> <input type="checkbox"/> Stream gage data Gage number: Period of record: <input type="checkbox"/> History of recent effective discharges <input type="checkbox"/> Results of flood frequency analysis <input type="checkbox"/> Most recent shift-adjusted rating <input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event </td> </tr> </table>			<input checked="" type="checkbox"/> Aerial photography Dates: <input checked="" type="checkbox"/> Topographic maps <input type="checkbox"/> Geologic maps <input type="checkbox"/> Vegetation maps <input checked="" type="checkbox"/> Soils maps <input type="checkbox"/> Rainfall/precipitation maps <input type="checkbox"/> Existing delineation(s) for site <input type="checkbox"/> Global positioning system (GPS) <input type="checkbox"/> Other studies	<input type="checkbox"/> Stream gage data Gage number: Period of record: <input type="checkbox"/> History of recent effective discharges <input type="checkbox"/> Results of flood frequency analysis <input type="checkbox"/> Most recent shift-adjusted rating <input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event		
<input checked="" type="checkbox"/> Aerial photography Dates: <input checked="" type="checkbox"/> Topographic maps <input type="checkbox"/> Geologic maps <input type="checkbox"/> Vegetation maps <input checked="" type="checkbox"/> Soils maps <input type="checkbox"/> Rainfall/precipitation maps <input type="checkbox"/> Existing delineation(s) for site <input type="checkbox"/> Global positioning system (GPS) <input type="checkbox"/> Other studies	<input type="checkbox"/> Stream gage data Gage number: Period of record: <input type="checkbox"/> History of recent effective discharges <input type="checkbox"/> Results of flood frequency analysis <input type="checkbox"/> Most recent shift-adjusted rating <input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event					
Hydrogeomorphic Floodplain Units 						
Procedure for identifying and characterizing the floodplain units to assist in identifying the OTHM: <ol style="list-style-type: none"> 1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site. 2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. <ol style="list-style-type: none"> a) Record the floodplain unit and GPS position. b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit. c) Identify any indicators present at the location. 4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section. 5. Identify the OTHM and record the indicators. Record the OTHM position via: <table style="width: 100%; border: none; margin-top: 5px;"> <tr> <td style="width: 50%;"><input checked="" type="checkbox"/> Mapping on aerial photograph</td> <td style="width: 50%;"><input checked="" type="checkbox"/> GPS</td> </tr> <tr> <td><input type="checkbox"/> Digitized on computer</td> <td><input type="checkbox"/> Other:</td> </tr> </table> 			<input checked="" type="checkbox"/> Mapping on aerial photograph	<input checked="" type="checkbox"/> GPS	<input type="checkbox"/> Digitized on computer	<input type="checkbox"/> Other:
<input checked="" type="checkbox"/> Mapping on aerial photograph	<input checked="" type="checkbox"/> GPS					
<input type="checkbox"/> Digitized on computer	<input type="checkbox"/> Other:					

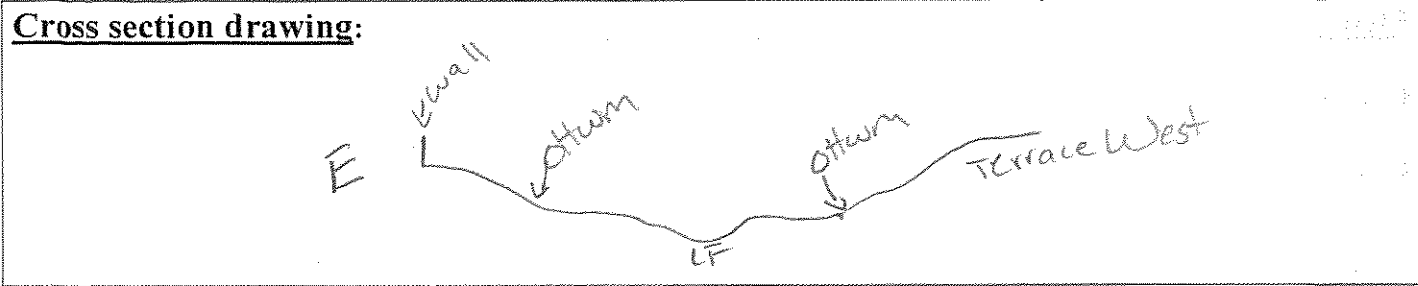
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class
10.08	256	Boulder
2.56	64	Cobble
0.157	4	Pebble
0.079	2.00	Granule
0.039	1.00	Very coarse sand
0.020	0.50	Coarse sand
1/2 0.0068	0.25	Medium sand
1/4 0.005	0.125	Fine sand
1/8 0.0025	0.0625	Very fine sand
1/16 0.0012	0.031	Coarse silt
1/32 0.00061	0.0156	Medium silt
1/64 0.00031	0.0078	Fine silt
1/128 0.00015	0.0039	Very fine silt
		Clay



100
 90
 80
 70
 60
 50
 40
 30
 20
 10
 0

Project ID: _____ Cross section ID: E-54 Date: 2/18/19 Time: _____



OHWM

GPS point: _____

Indicators:

<input checked="" type="checkbox"/> Change in average sediment texture	<input checked="" type="checkbox"/> Break in bank slope
<input checked="" type="checkbox"/> Change in vegetation species	<input type="checkbox"/> Other: _____
<input checked="" type="checkbox"/> Change in vegetation cover	<input type="checkbox"/> Other: _____

Comments: Break in slope and change in vegetation. Transition to urban landscape

Floodplain unit: Low-Flow Channel Active Floodplain Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: Fine sand

Total veg cover: _____% Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

<input type="checkbox"/> NA	<input type="checkbox"/> Mid (herbaceous, shrubs, saplings)
<input type="checkbox"/> Early (herbaceous & seedlings)	<input type="checkbox"/> Late (herbaceous, shrubs, mature trees)

Indicators:

<input type="checkbox"/> Mudcracks	<input type="checkbox"/> Soil development
<input checked="" type="checkbox"/> Ripples	<input type="checkbox"/> Surface relief
<input checked="" type="checkbox"/> Drift and/or debris	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Presence of bed and bank	<input type="checkbox"/> Other: _____
<input checked="" type="checkbox"/> Benches	<input type="checkbox"/> Other: _____

Comments: For the most of this stretch of creek, the low flow channel supports flowing water and is unvegetated.

Project ID: _____ Cross section ID: E-54 Date: 2/18/19 Time: _____

Floodplain unit: Low-Flow Channel Active Floodplain Low Terrace

GPS point: _____

Characteristics of the floodplain unit:
Average sediment texture: medium sand

Total veg cover: 80 % Tree: 20 % Shrub: 0 % Herb: 60 %

Community successional stage:
 NA Mid (herbaceous, shrubs, saplings)
 Early (herbaceous & seedlings) Late (herbaceous, shrubs, mature trees)

Indicators:
 Mudcracks Soil development
 Ripples Surface relief
 Drift and/or debris Other: _____
 Presence of bed and bank Other: _____
 Benches Other: _____

Comments:
Ponded water throughout. Drainage patterns and lots of debris + sediment deposition.
Gradual transition in slope to uplands, but clear change in vegetation at ohwm limits

Floodplain unit: Low-Flow Channel Active Floodplain Low Terrace

GPS point: _____

Characteristics of the floodplain unit:
Average sediment texture: coarse sand

Total veg cover: 55 % Tree: 25 % Shrub: 0 % Herb: 30 %

Community successional stage:
 NA Mid (herbaceous, shrubs, saplings)
 Early (herbaceous & seedlings) Late (herbaceous, shrubs, mature trees)

Indicators:
 Mudcracks Soil development
 Ripples Surface relief
 Drift and/or debris Other: _____
 Presence of bed and bank Other: _____
 Benches Other: _____

Comments:
small slope to road with urban landscape.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/18/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: E-54 WSP 1.1
 Investigator(s): Lanika Cervantes; William Kohn Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): drainage Local relief (concave, convex, none): concave Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 33.140324 Long: -117.096215 Datum: _____
 Soil Map Unit Name: Grangeville fine sandy loam, 0 to 2 percent slopes NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: <u>Sample point taken within OHWM.</u>	

VEGETATION

<u>Tree Stratum</u> (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <u>Populus fremontii</u>	20	Yes	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																																
2. <u>Washingtonia robusta</u>	15	Yes	FACW																																	
3. _____																																				
4. _____																																				
Total Cover: <u>35 %</u>				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="2">Total % Cover of:</td> <td align="center" colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td align="center">_____</td> <td align="center">x 1 =</td> <td align="center">0</td> </tr> <tr> <td>FACW species</td> <td align="center">15</td> <td align="center">x 2 =</td> <td align="center">30</td> </tr> <tr> <td>FAC species</td> <td align="center">60</td> <td align="center">x 3 =</td> <td align="center">180</td> </tr> <tr> <td>FACU species</td> <td align="center">_____</td> <td align="center">x 4 =</td> <td align="center">0</td> </tr> <tr> <td>UPL species</td> <td align="center">_____</td> <td align="center">x 5 =</td> <td align="center">0</td> </tr> <tr> <td>Column Totals:</td> <td align="center">75</td> <td align="center">(A)</td> <td align="center">210 (B)</td> </tr> <tr> <td align="center" colspan="4">Prevalence Index = B/A = <u>2.80</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	_____	x 1 =	0	FACW species	15	x 2 =	30	FAC species	60	x 3 =	180	FACU species	_____	x 4 =	0	UPL species	_____	x 5 =	0	Column Totals:	75	(A)	210 (B)	Prevalence Index = B/A = <u>2.80</u>			
Total % Cover of:		Multiply by:																																		
OBL species	_____	x 1 =	0																																	
FACW species	15	x 2 =	30																																	
FAC species	60	x 3 =	180																																	
FACU species	_____	x 4 =	0																																	
UPL species	_____	x 5 =	0																																	
Column Totals:	75	(A)	210 (B)																																	
Prevalence Index = B/A = <u>2.80</u>																																				
<u>Sapling/Shrub Stratum</u>																																				
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: _____ %																																				
<u>Herb Stratum</u>																																				
1. <u>Distichlis spicata</u>	30	Yes	FAC	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																
2. <u>Rumex crispus</u>	10	Yes	FAC																																	
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>40 %</u>																																				
<u>Woody Vine Stratum</u>																																				
1. _____																																				
2. _____																																				
Total Cover: _____ %																																				
% Bare Ground in Herb Stratum <u>60 %</u> % Cover of Biotic Crust _____ %																																				

Remarks:

SOIL

Sampling Point: E-54 WSI

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10-YR 3/2	95	Gley 1 2.5/N	5	C	PL	Loamy/Clay	hydrogen odor

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) |
| <input checked="" type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |

Indicators for Problematic Hydric Soils:³

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

Secondary Indicators (2 or more required)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)
- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): 1 inch
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): surface
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Multiple hydrology indicators.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/18/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: E-54 WSP 1.2
 Investigator(s): Lanika Cervantes; William Kohn Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 15
 Subregion (LRR): C - Mediterranean California Lat: 33.140339 Long: -117.096366 Datum: _____
 Soil Map Unit Name: Grangeville fine sandy loam, 0 to 2 percent slopes NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: <u>Sample point taken on hillslope outside of OHWM.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <u>Eucalyptus sp.</u>	20	Yes	UPL	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0 %</u> (A/B)																																
2. _____																																				
3. _____																																				
4. _____																																				
Total Cover: <u>20 %</u>				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="2">Total % Cover of:</td> <td align="center" colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td align="center"><u>0</u></td> <td align="center">x 1 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td align="center"><u>0</u></td> <td align="center">x 2 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td align="center"><u>0</u></td> <td align="center">x 3 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td align="center"><u>0</u></td> <td align="center">x 4 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td align="center"><u>30</u></td> <td align="center">x 5 =</td> <td align="center"><u>150</u></td> </tr> <tr> <td>Column Totals:</td> <td align="center"><u>30</u> (A)</td> <td></td> <td align="center"><u>150</u> (B)</td> </tr> <tr> <td align="center" colspan="4">Prevalence Index = B/A = <u>5.00</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>30</u>	x 5 =	<u>150</u>	Column Totals:	<u>30</u> (A)		<u>150</u> (B)	Prevalence Index = B/A = <u>5.00</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>30</u>	x 5 =	<u>150</u>																																	
Column Totals:	<u>30</u> (A)		<u>150</u> (B)																																	
Prevalence Index = B/A = <u>5.00</u>																																				
Sapling/Shrub Stratum																																				
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: _____ %																																				
Herb Stratum																																				
1. <u>Cynodon dactylon</u>	10	Yes	Not Listed	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>10 %</u>																																				
Woody Vine Stratum																																				
1. _____																																				
2. _____																																				
Total Cover: _____ %																																				
% Bare Ground in Herb Stratum <u>90 %</u> % Cover of Biotic Crust _____ %																																				

Remarks: mostly Eucalyptus with little understory.

SOIL

Sampling Point: E-54 WSI

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-13	10 YR 4/4	100	N/A				Loamy/Clay	drier soils

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: No redox observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology indicators. Sample point taken approximately 3 feet higher than 1.1.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/18/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: E-54 WSP 2.1
 Investigator(s): Lanika Cervantes; William Kohn Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): drainage Local relief (concave, convex, none): none Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 33.132379 Long: -117.094320 Datum: _____
 Soil Map Unit Name: Visalia sandy loam, 2 to 5 percent slopes NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: <u>Sample point taken within OHWM.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Populus fremontii</u>	10	Yes	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60.0 %</u> (A/B)
2. <u>Salix lasiolepis</u>	20	Yes	FACW	
3. _____				
4. _____				
Total Cover: <u>30 %</u>				
<u>Sapling/Shrub Stratum</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = <u>0</u> FACW species <u>20</u> x 2 = <u>40</u> FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>10</u> x 4 = <u>40</u> UPL species <u>40</u> x 5 = <u>200</u> Column Totals: <u>90</u> (A) <u>340</u> (B) Prevalence Index = B/A = <u>3.78</u>
1. _____				
2. _____				
3. _____				
4. _____				
Total Cover: _____ %				
<u>Herb Stratum</u>				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>cynodon dactylon</u>	40	Yes	Not Listed	
2. <u>Rumex crispus</u>	10	Yes	FAC	
3. <u>Melilotus albus</u>	10	Yes	FACU	
4. _____				
5. _____				
6. _____				
7. _____				
Total Cover: <u>60 %</u>				
<u>Woody Vine Stratum</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____				
2. _____				
Total Cover: _____ %				
% Bare Ground in Herb Stratum <u>40 %</u>		% Cover of Biotic Crust _____ %		

Remarks: Area supports wetland and nonwetland vegetation.

SOIL

Sampling Point: E-54 WSI

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10 YR 3/2	95	Gley 1 2.5/N	5	C	PL	Loamy/Clay	hydrogen odor

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils:³

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:vegetation laying down flat. several hydrology indicators.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/18/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: E-54 WSP 2.2
 Investigator(s): Lanika Cervantes; William Kohn Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 5
 Subregion (LRR): C - Mediterranean California Lat: 33.132292 Long: -117.094389 Datum: _____
 Soil Map Unit Name: Visalia sandy loam, 2 to 5 percent slopes NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: <u>Sample point taken on hillslope outside of OHWM.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <u>Ornamental tree (unknown)</u>	15	Yes	NI	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0 %</u> (A/B)																																
2. _____																																				
3. _____																																				
4. _____																																				
Total Cover: <u>15 %</u>				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="2">Total % Cover of:</td> <td align="center" colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td><td align="center"><u>0</u></td> <td>x 1 =</td><td align="center"><u>0</u></td> </tr> <tr> <td>FACW species</td><td align="center"><u>0</u></td> <td>x 2 =</td><td align="center"><u>0</u></td> </tr> <tr> <td>FAC species</td><td align="center"><u>0</u></td> <td>x 3 =</td><td align="center"><u>0</u></td> </tr> <tr> <td>FACU species</td><td align="center"><u>0</u></td> <td>x 4 =</td><td align="center"><u>0</u></td> </tr> <tr> <td>UPL species</td><td align="center"><u>95</u></td> <td>x 5 =</td><td align="center"><u>475</u></td> </tr> <tr> <td>Column Totals:</td><td align="center"><u>95</u> (A)</td><td></td><td align="center"><u>475</u> (B)</td> </tr> <tr> <td align="center" colspan="4">Prevalence Index = B/A = <u>5.00</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>95</u>	x 5 =	<u>475</u>	Column Totals:	<u>95</u> (A)		<u>475</u> (B)	Prevalence Index = B/A = <u>5.00</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>95</u>	x 5 =	<u>475</u>																																	
Column Totals:	<u>95</u> (A)		<u>475</u> (B)																																	
Prevalence Index = B/A = <u>5.00</u>																																				
<u>Sapling/Shrub Stratum</u>																																				
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: _____ %																																				
<u>Herb Stratum</u>																																				
1. <u>Hirshfeldia incana</u>	40	Yes	Not Listed																																	
2. <u>Hordeum murinum</u>	20	Yes	Not Listed																																	
3. <u>Erodium sp</u>	15	Yes	Not Listed																																	
4. <u>Bromus diandrus</u>	5	No	Not Listed																																	
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>80 %</u>																																				
<u>Woody Vine Stratum</u>																																				
1. _____																																				
2. _____																																				
Total Cover: _____ %																																				
% Bare Ground in Herb Stratum <u>20 %</u>	% Cover of Biotic Crust _____ %																																			

Hydrophytic Vegetation Indicators:

Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks: mostly nonnative weeds along hillslope

SOIL

Sampling Point: E-54 WSI

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10 YR 4/4	100					Loamy/Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils:³

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology indicators within this area. Sample point approximately 2 feet higher than 2.1.

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	HARRF		Facility ID	E-55	
Location	Citracado Parkway/Avenue del Diablo				
Latitude ¹	33.105561	Longitude ¹	-117.115978	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Channel		Lining Type	Concrete	
Proposed Maintenance Activities	Remove accumulated sediment and vegetation within Concrete Channel. Maintenance of serviceable structure Equipment will be staged on developed areas adjacent to channel. May need to have equipment within channel to clear downstream segment.				
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>

PART II. SURVEY INFORMATION

Surveyors	Lanika Cervantes and William Kohn		Date of Survey	2/26/2019			
Was water in the channel at the time of the survey?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Hydrology Type ²	P <input type="checkbox"/>	I <input type="checkbox"/>	E <input checked="" type="checkbox"/>	O <input type="checkbox"/>
Nearest Named Waterbody	Escondido Creek		NWI Index	Riverine			
NRCS Soils	Visalia sandy loam, 2 to 5 percent slopes						

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE 404 Regulated Activity	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Only Temporary diversion structures are regulated		
USACE Nonwetland Waters Present	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE Wetland Waters Present	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Datapoint(s) Taken	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>
Associated Datasheet(s)								
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description ³			Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵		
	Nonwetland Waters	V/C			0.105	IV		
	TOTAL				0.105			

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	CDFW Regulated Activity	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³			Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Channel Bank	V/C			0.107	IV
	TOTAL				0.107	

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁵			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Southern Willow Scrub	-	0.417	0.417	Salix lasiolepis, Salix laevigata
Coast Live Oak Woodland	-	0.285	0.285	Quercus agrifolia
So. Cottonwood-Willow Riparian Forest	-	0.294	0.294	Populus fremontii and Salix lasiolepis
Subtotal Riparian and Wetland	-	0.995	0.995	
Upland				
Non-native Grassland	-	0.171	0.171	
Subtotal Upland	-	0.171	0.171	

Other Land Cover Types				
Urban/Developed	0.114	2.256	2.370	
Subtotal Other Land Cover Types	0.114	2.256	2.370	
GRAND TOTAL⁶	0.114	3.422	3.536	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A		
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Poliophtila californica californica</i>) (FT, SSC)		
Other non-listed special status species historically known to occur within the Facility Buffer	None		
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Wart-stemmed ceanothus (<i>Ceanothus cerrucosus</i>) (CRPR 2B.2) Summer holly (<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i>) (CRPR 1B.2) Western spadefoot (<i>Spea hammondi</i>) (SSC) Coastal whiptail (<i>Aspodpscelis tigris stejnegeri</i>) (SSC) San Diego black-tailed jackrabbit (<i>Lepus californicus bennettii</i>) (SSC)		
Are species surveys recommended?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	If Yes, for what species?	Least Bell's vireo during breeding season
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		

PART III. ADDITIONAL NOTES/COMMENTS

Channel is a concrete-lined channel with flowing water at the time of the survey. Wrack was observed within the channel and the OHWM was taken based on water marks present approximately 1.5 feet above the channel bottom. Channel is unvegetated with small patches of grasses. An earthen channel flows into this channel from outside of the HARRF facility. The earthen channel is outside of the maintenance area and is classified as wetland waters due to presence of wetland vegetation. There was no access to the buffer area therefore jurisdictional determination was conservative for buffer area.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDb) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing NW. Concrete drainage channel



Representative Photograph 2. Facing S. Inlet for adjacent natural channel flowing into concrete-lined channel.



Representative Photograph 3. Facing S. Adjacent riparian woodland south of drainage.

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	McLeod Park	Facility ID	E-56	
Location	South Iris Lane			
Latitude ¹	33.145985	Longitude ¹	-117.097582	Maintenance Frequency (years)
				Annually
Maintenance Facility Type	Channel	Lining Type	Earthen and Asphalt	
Proposed Maintenance Activities	Remove accumulated sediment and weed removal Equipment to be within channel to remove and restore drainage ditch to original contours.			
Will work occur when water is in the channel?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	If Yes, will dewatering or water diversion be needed?	Y <input type="checkbox"/>
				N <input checked="" type="checkbox"/>

PART II. SURVEY INFORMATION

Surveyors	Lanika Cervantes and William Kohn	Date of Survey	2/18/2019	
Was water in the channel at the time of the survey?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Hydrology Type ²	P <input type="checkbox"/>
				I <input type="checkbox"/>
				E <input checked="" type="checkbox"/>
				O <input type="checkbox"/>
Nearest Named Waterbody	Escondido Creek	NWI Index	Not classified	
NRCS Soils	Vista coarse sandy loam, 5 to 9 percent slopes			

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE 404 Regulated Activity	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
USACE Nonwetland Waters Present	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE Wetland Waters Present	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>
			Datapoint(s) Taken	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>
Associated Datasheet(s)					
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Nonwetland Waters	U/E		0.025	II
	TOTAL			0.025	

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	CDFW Regulated Activity	Y <input type="checkbox"/>	N <input type="checkbox"/>
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Channel Bank	U/E		0.039	II
	TOTAL			0.039	

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Unvegetated Channel	0.039	0.004	0.042	
Subtotal Riparian and Wetland	0.039	0.004	0.042	
Upland				
Non-Native Grassland	0.001	0.796	0.797	
Subtotal Upland	0.001	0.796	0.797	
Other Land Cover Types				
Urban/Developed	<0.001	2.237	2.237	
Subtotal Other Land Cover Types	<0.001	2.237	2.237	
GRAND TOTAL⁶	0.040	3.036	3.076	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A		
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Polioptila californica californica</i>) (FT, SSC)		
Other non-listed special status species historically known to occur within the Facility Buffer	None		
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	None		
Are species surveys recommended?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	If Yes, for what species?
Will work occur in the breeding season (Feb-August)?	Y <input type="checkbox"/>	<input checked="" type="checkbox"/>	N <input type="checkbox"/>

PART III. ADDITIONAL NOTES/COMMENTS

The majority of the channel is earthen (upstream end) and the downstream most end becomes asphalt-lined. Channel is a roadside ditch that runs along the roads edge and is primarily unvegetated. Channel supported shelving and had flowing water at the time of the survey.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing S. Unvegetated channel and inlet



Representative Photograph 2. Facing S. Channel running parallel to road.



Representative Photograph 3. Facing N. Storm drain at downstream end of channel

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	Bienvenido and Vista		Facility ID	E-57	
Location	Bienvenido Lane and Vista Avenue				
Latitude ¹	33.154236	Longitude ¹	-117.089045	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Inlet		Lining Type	Earthen	
Proposed Maintenance Activities	Remove accumulated sediment and weed removal Equipment will be staged on the street and backhoe or excavator will be used to scoop sediment out of channel for clean excavation. No dragging of equipment along banks and no equipment in channel.				
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

PART II. SURVEY INFORMATION

Surveyors	Lanika Cervantes and William Kohn		Date of Survey	2/18/2019	
Was water in the channel at the time of the survey?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		Hydrology Type ²	P <input type="checkbox"/> I <input type="checkbox"/> E <input checked="" type="checkbox"/> O <input type="checkbox"/>	
Nearest Named Waterbody	Escondido Creek		NWI Index	Not classified	
NRCS Soils	Ramona sandy loam, 2 to 5 percent slopes				

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		USACE 404 Regulated Activity	Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Only Temporary diversion structures are regulated	
USACE Nonwetland Waters Present	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		USACE Wetland Waters Present	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
Associated Datasheet(s)	OHWM Data Sheet				
Datapoint(s) Taken	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				

Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description ³	Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Nonwetland Waters		U/E	0.002
TOTAL			0.002	

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		CDFW Regulated Activity	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³	Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵	
	Channel Bank	U/E	0.003	II	
TOTAL			0.003		

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Other Land Cover Types				
Urban/Developed	-	0.817	0.817	
Disturbed Habitat	0.003	0.145	0.14	
Subtotal Other Land Cover Types	0.003	0.962	0.965	
GRAND TOTAL⁶	-	0.962	0.965	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A		
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Polioptila californica californica</i>) (FT, SSC) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE)		
Other non-listed special status species historically known to occur within the Facility Buffer	None		
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	None		
Are species surveys recommended?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	If Yes, for what species?
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	

PART III. ADDITIONAL NOTES/COMMENTS

Channel is a small roadside ditch that supported flowing water at the time of the survey. Channel bottom is unvegetated with iceplant and ornamental trees on banks and directly adjacent to channel. Shelving and clear break in slope observed. A OHWM data sheet was completed for this site to be used as a representative transect for earthen roadside ditches.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing N. Channel with non-native vegetation



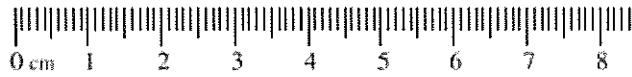
Representative Photograph 2. Facing E. Inlets

Arid West Ephemeral and Intermittent Streams OHW M Datasheet

Project: <i>City of Escondido</i> Project Number: Stream: Investigator(s): <i>L. Cervantes</i>	Date: <i>2/18/19</i> Town: <i>Escondido</i> Photo begin file#: Time: State: <i>CA</i> Photo end file#:				
Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> Do normal circumstances exist on the site? Y <input type="checkbox"/> / N <input checked="" type="checkbox"/> Is the site significantly disturbed?	Location Details: <i>E-57</i> Projection: Datum: Coordinates: <i>See figure</i>				
Potential anthropogenic influences on the channel system: <i>Highly urbanized area, storm water flows directed into this area.</i>					
Brief site description: <i>Small roadside ditch along road. Area surrounded by housing development and dominated by ruminants.</i>					
Checklist of resources (if available): <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <input checked="" type="checkbox"/> Aerial photography Dates: <input checked="" type="checkbox"/> Topographic maps <input type="checkbox"/> Geologic maps <input type="checkbox"/> Vegetation maps <input checked="" type="checkbox"/> Soils maps <input type="checkbox"/> Rainfall/precipitation maps <input type="checkbox"/> Existing delineation(s) for site <input type="checkbox"/> Global positioning system (GPS) <input type="checkbox"/> Other studies </td> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Stream gage data Gage number: Period of record: <input type="checkbox"/> History of recent effective discharges <input type="checkbox"/> Results of flood frequency analysis <input type="checkbox"/> Most recent shift-adjusted rating <input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event </td> </tr> </table>		<input checked="" type="checkbox"/> Aerial photography Dates: <input checked="" type="checkbox"/> Topographic maps <input type="checkbox"/> Geologic maps <input type="checkbox"/> Vegetation maps <input checked="" type="checkbox"/> Soils maps <input type="checkbox"/> Rainfall/precipitation maps <input type="checkbox"/> Existing delineation(s) for site <input type="checkbox"/> Global positioning system (GPS) <input type="checkbox"/> Other studies	<input type="checkbox"/> Stream gage data Gage number: Period of record: <input type="checkbox"/> History of recent effective discharges <input type="checkbox"/> Results of flood frequency analysis <input type="checkbox"/> Most recent shift-adjusted rating <input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event		
<input checked="" type="checkbox"/> Aerial photography Dates: <input checked="" type="checkbox"/> Topographic maps <input type="checkbox"/> Geologic maps <input type="checkbox"/> Vegetation maps <input checked="" type="checkbox"/> Soils maps <input type="checkbox"/> Rainfall/precipitation maps <input type="checkbox"/> Existing delineation(s) for site <input type="checkbox"/> Global positioning system (GPS) <input type="checkbox"/> Other studies	<input type="checkbox"/> Stream gage data Gage number: Period of record: <input type="checkbox"/> History of recent effective discharges <input type="checkbox"/> Results of flood frequency analysis <input type="checkbox"/> Most recent shift-adjusted rating <input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event				
Hydrogeomorphic Floodplain Units					
Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM: <ol style="list-style-type: none"> 1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site. 2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. <ol style="list-style-type: none"> a) Record the floodplain unit and GPS position. b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit. c) Identify any indicators present at the location. 4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section. 5. Identify the OHWM and record the indicators. Record the OHWM position via: <table style="width: 100%; border: none; margin-top: 5px;"> <tr> <td style="width: 50%;"><input checked="" type="checkbox"/> Mapping on aerial photograph</td> <td style="width: 50%;"><input checked="" type="checkbox"/> GPS</td> </tr> <tr> <td><input type="checkbox"/> Digitized on computer</td> <td><input type="checkbox"/> Other:</td> </tr> </table> 		<input checked="" type="checkbox"/> Mapping on aerial photograph	<input checked="" type="checkbox"/> GPS	<input type="checkbox"/> Digitized on computer	<input type="checkbox"/> Other:
<input checked="" type="checkbox"/> Mapping on aerial photograph	<input checked="" type="checkbox"/> GPS				
<input type="checkbox"/> Digitized on computer	<input type="checkbox"/> Other:				

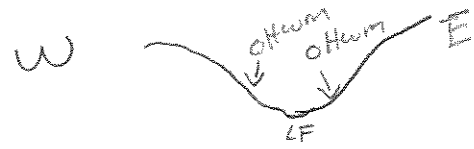
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class
10.08	256	Boulder
2.56	64	Cobble
0.157	4	Pebble
0.079	2.00	Granule
0.039	1.00	Very coarse sand
0.020	0.50	Coarse sand
1/2 0.0098	0.25	Medium sand
1/4 0.005	0.125	Fine sand
1/8 0.0025	0.0625	Very fine sand
1/16 0.0012	0.031	Coarse silt
1/32 0.00061	0.0156	Medium silt
1/64 0.00031	0.0078	Fine silt
1/128 0.00015	0.0039	Very fine silt
		Clay



Project ID: _____ Cross section ID: E-57 Date: 2/18/19 Time: _____

Cross section drawing:



OHWM

GPS point: _____

Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Change in average sediment texture | <input checked="" type="checkbox"/> Break in bank slope |
| <input checked="" type="checkbox"/> Change in vegetation species | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Change in vegetation cover | <input type="checkbox"/> Other: _____ |

Comments:

*Trapezoidal roadside drainage.
Clear change in vegetation + break in slope.*

Floodplain unit:

- Low-Flow Channel Active Floodplain Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: medium sand
Total veg cover: 10 % Tree: 0 % Shrub: 0 % Herb: 15 %

Community successional stage:

- | | |
|--|--|
| <input type="checkbox"/> NA | <input type="checkbox"/> Mid (herbaceous, shrubs, saplings) |
| <input checked="" type="checkbox"/> Early (herbaceous & seedlings) | <input type="checkbox"/> Late (herbaceous, shrubs, mature trees) |

Indicators:

- | | |
|---|---|
| <input type="checkbox"/> Mudcracks | <input type="checkbox"/> Soil development |
| <input type="checkbox"/> Ripples | <input type="checkbox"/> Surface relief |
| <input type="checkbox"/> Drift and/or debris | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Presence of bed and bank | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Benches | <input type="checkbox"/> Other: _____ |

Comments:

Flowing water in low flow. Unvegetated

Project ID: _____ Cross section ID: E-59 Date: 2/18/19 Time: _____

Floodplain unit: Low-Flow Channel Active Floodplain Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: coarse sand
Total veg cover: 70 % Tree: 0 % Shrub: 10 % Herb: 60 %

Community successional stage:

- | | |
|---|--|
| <input type="checkbox"/> NA | <input checked="" type="checkbox"/> Mid (herbaceous, shrubs, saplings) |
| <input type="checkbox"/> Early (herbaceous & seedlings) | <input type="checkbox"/> Late (herbaceous, shrubs, mature trees) |

Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Mudcracks | <input type="checkbox"/> Soil development |
| <input type="checkbox"/> Ripples | <input type="checkbox"/> Surface relief |
| <input checked="" type="checkbox"/> Drift and/or debris | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Presence of bed and bank | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Benches | <input type="checkbox"/> Other: _____ |

Comments:

Drainage patterns. Dominated by iceplant, tumbleweed, and bromus sp.

Floodplain unit: Low-Flow Channel Active Floodplain Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: coarse sand
Total veg cover: 75 % Tree: 15 % Shrub: 10 % Herb: 50 %

Community successional stage:

- | | |
|---|---|
| <input type="checkbox"/> NA | <input type="checkbox"/> Mid (herbaceous, shrubs, saplings) |
| <input type="checkbox"/> Early (herbaceous & seedlings) | <input checked="" type="checkbox"/> Late (herbaceous, shrubs, mature trees) |

Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Mudcracks | <input checked="" type="checkbox"/> Soil development |
| <input type="checkbox"/> Ripples | <input type="checkbox"/> Surface relief |
| <input type="checkbox"/> Drift and/or debris | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Presence of bed and bank | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Benches | <input type="checkbox"/> Other: _____ |

Comments:

Mature pepper tree, mostly urban landscape. (ice plant).

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	Reidy Creek Golf Course		Facility ID	E-58	
Location	North Broadway and Merion Glen				
Latitude ¹	33.166997	Longitude ¹	-117.090040	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Channel		Lining Type	Earthen	
Proposed Maintenance Activities	<p>Remove accumulated sediment and herbaceous vegetation for pilot channel. Trimming of native trees/shrubs as needed with handtools.</p> <p>Equipment to be within channel to clear for pilot channel. Native vegetation will be trimmed using handtools within pilot channel area to allow access for equipment</p> <p>Access routes as shown on figures will be trimmed using handtools to allow access out of channel to remove sediment and debris.</p> <p>Sediment and debris will be removed from site. If needed, temporarily spoil pile will be located outside of jurisdictional waters within the golf course.</p>				
Will work occur when water is in the channel?	Y	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	
If Yes, will dewatering or water diversion be needed?	Y	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	

PART II. SURVEY INFORMATION

Surveyors	Lanika Cervantes and William Kohn		Date of Survey	2/18/2019	
Was water in the channel at the time of the survey?	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	
Hydrology Type ²	P	<input type="checkbox"/>	I	<input checked="" type="checkbox"/>	E <input type="checkbox"/> O <input type="checkbox"/>
Nearest Named Waterbody	Reidy Creek		NWI Index	Freshwater Emergent Wetland	
NRCS Soils	Visalia sandy loam, 0 to 2 percent slopes and Ramona sandy loam, 2 to 5 percent slopes				

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	USACE 404 Regulated Activity	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>
USACE Nonwetland Waters Present	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	USACE Wetland Waters Present	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>
Datapoint(s) Taken	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>					
Associated Datasheet(s)	Wetland Sample Points 1.1 and 1.2; OHWM Data Sheet								
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description. ³			Acres Delineated within Maintenance Footprint ⁴		Impact Tier ⁵		
	Wetland Waters	V/E			0.166		I		
	Nonwetland Waters	U/C			0.003		IV		
	TOTAL				0.169				

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	CDFW Regulated Activity	Y	<input type="checkbox"/>	N	<input type="checkbox"/>
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description. ³			Acres Delineated within Maintenance Footprint ⁴		Impact Tier ⁵		
	Riparian Extent	V/E			0.166		I		
	Streambed	U/C			0.003		IV		
	TOTAL				0.169				

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Coastal and Valley Freshwater Marsh	-	0.027	0.027	<i>Typha domingensis</i>
Emergent Wetland	-	0.118	0.118	<i>Juncus sp.</i>
Mulefat Scrub	-	0.074	0.074	<i>Baccharis salicifolia</i>

City of Escondido Channel Maintenance RGP – Facility Summary

E-58 - Reidy Creek Golf Course

So. Cottonwood-willow Riparian Forest	0.166	2.345	2.510	<i>Salix lasiolepis and Populus fremontii</i>
Southern Arroyo Willow Riparian Forest	-	0.218	0.218	<i>Salix lasiolepis</i>
Southern Riparian Scrub	-	0.300	0.300	
Subtotal Riparian and Wetland	0.166	3.082	3.244	
Upland				
Non-Native Grassland	-	0.022	0.022	
Subtotal Upland	-	0.022	0.022	
Other Land Cover Types				
Urban/ Developed	0.003	2.241	2.244	
Subtotal Other Land Cover Type	0.003	2.241	2.244	
GRAND TOTAL⁶	0.169	5.341	5.510	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A		
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Coastal California gnatcatcher (<i>Poliopitila californica californica</i>) (FT, SSC) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE)		
Other non-listed special status species historically known to occur within the Facility Buffer	None		
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Summer holly (<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i>) (CRPR 1B.2) Southern rufous-crowned sparrow (<i>Aimophila ruficeps canescens</i>) (WL)		
Are species surveys recommended?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	If Yes, for what species?	Least Bell's vireo and San Diego Ambrosia
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		

PART III. ADDITIONAL NOTES/COMMENTS

Channel is within a golf course, therefore receives additional hydrology from the irrigation of the surrounding course. Low flow channel supports flowing water with steep banks on either side of the channel on the upstream end. All wetlands occur within the OHWM. A small wetland basin is located west of this channel. It is outside of the maintenance footprint, however mapped within the buffer area.

Footnotes:

1. Coordinates are based on the centroid of the facility.
2. Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
3. Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
4. Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
5. The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
6. Totals may not add up due to rounding.
7. Sources: California Natural Diversity Database (CNDDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing NW. Large box culvert outlet at upstream portion of channel.



Representative Photograph 2. Facing N. Smaller outfall entering the maintenance area. This area is also proposed to be cleaned out. A 15'-long concrete apron is present.



Representative Photograph 3. Facing S. Looking downstream at channel. Low flow channel near center with wetland riparian habitat on either side.

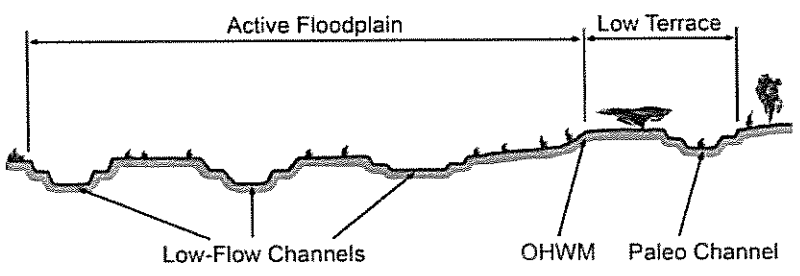


Representative Photograph 4. Facing N. Looking upstream of channel.



Representative Photograph 5. Facing NE. Wetland basin that is located west of the channel.

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: City of Escondido RGP Project Number: Stream: Reidy Creek Investigator(s): L. Cervantes	Date: 2/18/19 Town: Escondido Photo begin file#:	Time: 8:30 am State: CA Photo end file#:				
Y <input type="checkbox"/> / N <input type="checkbox"/> Do normal circumstances exist on the site? Y <input type="checkbox"/> / N <input type="checkbox"/> Is the site significantly disturbed?	Location Details: <div style="text-align: center; font-size: 1.2em;">E-58</div> Projection: Datum: Coordinates: see figure					
Potential anthropogenic influences on the channel system: E-58 is located in a golf course, therefore human usage and irrigation affects this site						
Brief site description: Cottonwood-willow forest. Low flow has flowing water. Confined drainage due to golf course.						
Checklist of resources (if available): <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <input checked="" type="checkbox"/> Aerial photography Dates: <input checked="" type="checkbox"/> Topographic maps <input type="checkbox"/> Geologic maps <input type="checkbox"/> Vegetation maps <input checked="" type="checkbox"/> Soils maps <input type="checkbox"/> Rainfall/precipitation maps <input type="checkbox"/> Existing delineation(s) for site <input type="checkbox"/> Global positioning system (GPS) <input type="checkbox"/> Other studies </td> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Stream gage data Gage number: Period of record: <input type="checkbox"/> History of recent effective discharges <input type="checkbox"/> Results of flood frequency analysis <input type="checkbox"/> Most recent shift-adjusted rating <input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event </td> </tr> </table>			<input checked="" type="checkbox"/> Aerial photography Dates: <input checked="" type="checkbox"/> Topographic maps <input type="checkbox"/> Geologic maps <input type="checkbox"/> Vegetation maps <input checked="" type="checkbox"/> Soils maps <input type="checkbox"/> Rainfall/precipitation maps <input type="checkbox"/> Existing delineation(s) for site <input type="checkbox"/> Global positioning system (GPS) <input type="checkbox"/> Other studies	<input type="checkbox"/> Stream gage data Gage number: Period of record: <input type="checkbox"/> History of recent effective discharges <input type="checkbox"/> Results of flood frequency analysis <input type="checkbox"/> Most recent shift-adjusted rating <input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event		
<input checked="" type="checkbox"/> Aerial photography Dates: <input checked="" type="checkbox"/> Topographic maps <input type="checkbox"/> Geologic maps <input type="checkbox"/> Vegetation maps <input checked="" type="checkbox"/> Soils maps <input type="checkbox"/> Rainfall/precipitation maps <input type="checkbox"/> Existing delineation(s) for site <input type="checkbox"/> Global positioning system (GPS) <input type="checkbox"/> Other studies	<input type="checkbox"/> Stream gage data Gage number: Period of record: <input type="checkbox"/> History of recent effective discharges <input type="checkbox"/> Results of flood frequency analysis <input type="checkbox"/> Most recent shift-adjusted rating <input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event					
Hydrogeomorphic Floodplain Units 						
Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM: <ol style="list-style-type: none"> 1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site. 2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. <ol style="list-style-type: none"> a) Record the floodplain unit and GPS position. b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit. c) Identify any indicators present at the location. 4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section. 5. Identify the OHWM and record the indicators. Record the OHWM position via: <table style="width: 100%; border: none; margin-top: 5px;"> <tr> <td style="width: 50%;"><input type="checkbox"/> Mapping on aerial photograph</td> <td style="width: 50%;"><input checked="" type="checkbox"/> GPS</td> </tr> <tr> <td><input type="checkbox"/> Digitized on computer</td> <td><input type="checkbox"/> Other:</td> </tr> </table> 			<input type="checkbox"/> Mapping on aerial photograph	<input checked="" type="checkbox"/> GPS	<input type="checkbox"/> Digitized on computer	<input type="checkbox"/> Other:
<input type="checkbox"/> Mapping on aerial photograph	<input checked="" type="checkbox"/> GPS					
<input type="checkbox"/> Digitized on computer	<input type="checkbox"/> Other:					

Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class
10.00	256	Boulder
2.56	64	Cobble
0.157	4	Pebble
0.079	2.00	Granule
0.039	1.00	Very coarse sand
0.020	0.50	Coarse sand
1/2 0.0098	0.25	Medium sand
1/4 0.005	0.125	Fine sand
1/8 0.0025	0.0625	Very fine sand
1/16 0.0012	0.031	Coarse silt
1/32 0.00061	0.0156	Medium silt
1/64 0.00031	0.0078	Fine silt
1/128 0.00015	0.0039	Very fine silt
		Clay



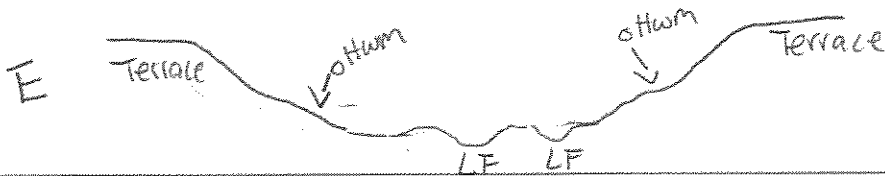
Project ID:

Cross section ID: E-98

Date: 2/18/19

Time:

Cross section drawing:



OHWM

GPS point: _____

Indicators:

- Change in average sediment texture
- Change in vegetation species
- Change in vegetation cover
- Break in bank slope
- Other: _____
- Other: _____

Comments:

within otwm = cattails, willows, cottonwood, + wild grape.
 outside otwm = mulefat, coyote brush, isacoma
 Immediate slope out of otwm, confined system.

Floodplain unit:

- Low-Flow Channel
- Active Floodplain
- Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: Fine silt

Total veg cover: 60 % Tree: 0 % Shrub: 5 % Herb: 60 %

Community successional stage:

- NA
- Early (herbaceous & seedlings)
- Mid (herbaceous, shrubs, saplings)
- Late (herbaceous, shrubs, mature trees)

Indicators:

- Mudcracks
- Ripples
- Drift and/or debris
- Presence of bed and bank
- Benches
- Soil development
- Surface relief
- Other: _____
- Other: _____
- Other: _____

Comments:

Low flow dominated by cattails and standing water.
 Low areas within larger otwm.
 Drift + sediment deposition. Drainage patterns

Project ID:

Cross section ID: E-58

Date: 2/18/19

Time:

Floodplain unit: Low-Flow Channel Active Floodplain Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: medium silt

Total veg cover: 40 % Tree: 30 % Shrub: 0 % Herb: 60 %

Community successional stage:

- NA
- Early (herbaceous & seedlings)
- Mid (herbaceous, shrubs, saplings)
- Late (herbaceous, shrubs, mature trees)

Indicators:

- Mudcracks
- Ripples
- Drift and/or debris
- Presence of bed and bank
- Benches
- Soil development
- Surface relief
- Other: _____
- Other: _____
- Other: _____

Comments:

Active floodplain supports mature trees + cattails. Debris and sediment deposition throughout

Floodplain unit: Low-Flow Channel Active Floodplain Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: medium silt

Total veg cover: 50 % Tree: 0 % Shrub: 50 % Herb: 0 %

Community successional stage:

- NA
- Early (herbaceous & seedlings)
- Mid (herbaceous, shrubs, saplings)
- Late (herbaceous, shrubs, mature trees)

Indicators:

- Mudcracks
- Ripples
- Drift and/or debris
- Presence of bed and bank
- Benches
- Soil development
- Surface relief
- Other: _____
- Other: _____
- Other: _____

Comments:

No evidence of flow. Area is 15ft higher in elevation from otwm limits. Steep slopes.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/18/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: E-58 WSP 1.1
 Investigator(s): Lanika Cervantes; William Kohn Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): drainage Local relief (concave, convex, none): concave Slope (%): 2
 Subregion (LRR): C - Mediterranean California Lat: 33.166846 Long: -117.089945 Datum: _____
 Soil Map Unit Name: Ramona sandy loam, 2 to 5 percent slopes NWI classification: Freshwater Emergent Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: <u>Sample point taken within OHWM.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <u>Populus fremontii</u>	25	Yes	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																																
2. <u>Salix lasiolepis</u>	20	Yes	FACW																																	
3. _____																																				
4. _____																																				
Total Cover: <u>45 %</u>				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="2">Total % Cover of:</td> <td align="center" colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td align="center">50</td> <td>x 1 =</td> <td align="center">50</td> </tr> <tr> <td>FACW species</td> <td align="center">20</td> <td>x 2 =</td> <td align="center">40</td> </tr> <tr> <td>FAC species</td> <td align="center">40</td> <td>x 3 =</td> <td align="center">120</td> </tr> <tr> <td>FACU species</td> <td></td> <td>x 4 =</td> <td align="center">0</td> </tr> <tr> <td>UPL species</td> <td></td> <td>x 5 =</td> <td align="center">0</td> </tr> <tr> <td>Column Totals:</td> <td align="center">110</td> <td>(A)</td> <td align="center">210 (B)</td> </tr> <tr> <td align="center" colspan="4">Prevalence Index = B/A = <u>1.91</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	50	x 1 =	50	FACW species	20	x 2 =	40	FAC species	40	x 3 =	120	FACU species		x 4 =	0	UPL species		x 5 =	0	Column Totals:	110	(A)	210 (B)	Prevalence Index = B/A = <u>1.91</u>			
Total % Cover of:		Multiply by:																																		
OBL species	50	x 1 =	50																																	
FACW species	20	x 2 =	40																																	
FAC species	40	x 3 =	120																																	
FACU species		x 4 =	0																																	
UPL species		x 5 =	0																																	
Column Totals:	110	(A)	210 (B)																																	
Prevalence Index = B/A = <u>1.91</u>																																				
<u>Sapling/Shrub Stratum</u>																																				
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: _____ %																																				
<u>Herb Stratum</u>																																				
1. <u>Typha domingensis</u>	50	Yes	OBL	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>50 %</u>																																				
<u>Woody Vine Stratum</u>																																				
1. <u>Rubus ursinus</u>	15	Yes	FAC																																	
2. _____																																				
Total Cover: <u>15 %</u>																																				
% Bare Ground in Herb Stratum <u>50 %</u>		% Cover of Biotic Crust _____ %																																		

Remarks:

SOIL

Sampling Point: E-58 WSI

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10-YR 4/2	90	5 YR 4/3	10	C	M	Loamy/Clay	soils very wet.

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: Water encountered at 10 inches.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): 10 inches
 Saturation Present? Yes No Depth (inches): surface
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Multiple hydrology indicators.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/18/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: E-58 WSP 1.2
 Investigator(s): Lanika Cervantes; William Kohn Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): convex Slope (%): 30
 Subregion (LRR): C - Mediterranean California Lat: 33.166864 Long: -117.089892 Datum: _____
 Soil Map Unit Name: Visalia sandy loam, 0 to 2 percent slopes NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: <u>Sample point taken on hillslope outside of OHWM.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <i>Populus fremontii</i>	10	Yes	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60.0 %</u> (A/B)																																
2. <i>Salix lasiolepis</i>	10	Yes	FACW																																	
3. _____																																				
4. _____																																				
Total Cover: <u>20 %</u>																																				
Sapling/Shrub Stratum																																				
1. <i>Baccharis sarothoides</i>	25	Yes	FACU	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="2">Total % Cover of:</td> <td align="center" colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td align="center"><u> </u></td> <td align="center">x 1 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td align="center"><u>10</u></td> <td align="center">x 2 =</td> <td align="center"><u>20</u></td> </tr> <tr> <td>FAC species</td> <td align="center"><u>20</u></td> <td align="center">x 3 =</td> <td align="center"><u>60</u></td> </tr> <tr> <td>FACU species</td> <td align="center"><u>35</u></td> <td align="center">x 4 =</td> <td align="center"><u>140</u></td> </tr> <tr> <td>UPL species</td> <td align="center"><u> </u></td> <td align="center">x 5 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td align="center"><u>65</u></td> <td align="center">(A)</td> <td align="center"><u>220</u> (B)</td> </tr> <tr> <td align="center" colspan="4">Prevalence Index = B/A = <u>3.38</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u> </u>	x 1 =	<u>0</u>	FACW species	<u>10</u>	x 2 =	<u>20</u>	FAC species	<u>20</u>	x 3 =	<u>60</u>	FACU species	<u>35</u>	x 4 =	<u>140</u>	UPL species	<u> </u>	x 5 =	<u>0</u>	Column Totals:	<u>65</u>	(A)	<u>220</u> (B)	Prevalence Index = B/A = <u>3.38</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u> </u>	x 1 =	<u>0</u>																																	
FACW species	<u>10</u>	x 2 =	<u>20</u>																																	
FAC species	<u>20</u>	x 3 =	<u>60</u>																																	
FACU species	<u>35</u>	x 4 =	<u>140</u>																																	
UPL species	<u> </u>	x 5 =	<u>0</u>																																	
Column Totals:	<u>65</u>	(A)	<u>220</u> (B)																																	
Prevalence Index = B/A = <u>3.38</u>																																				
2. <i>Baccharis salicifolia</i>	10	Yes	FAC																																	
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: <u>35 %</u>																																				
Herb Stratum																																				
1. <i>Cortaderia seloana</i>	10	Yes	FACU	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>10 %</u>																																				
Woody Vine Stratum																																				
1. _____				¹ Indicators of hydric soil and wetland hydrology must be present.																																
2. _____																																				
Total Cover: <u> </u> %																																				
% Bare Ground in Herb Stratum <u>80 %</u>		% Cover of Biotic Crust <u> </u> %		Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>																																

Remarks: Hillslope supports a mixture of wetland and nonwetland vegetation.

SOIL

Sampling Point: E-58 WSI

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10-YR 3/3	100	N/A				Loamy/Clay	moist soils but no redox.

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils:³

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: No redox observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology indicators observed. Sample Point approximately 6 feet higher in elevation from 1.1

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	E. Side Centre City Pkwy and 13 th		Facility ID	E-59	
Location	Centre City Parkway (east side) and West 13 th Avenue				
Latitude ¹	33.107853	Longitude ¹	-117.078549	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Channel		Lining Type	Earthen	
Proposed Maintenance Activities	Remove accumulated sediment and weed removal Equipment will be staged on the street and backhoe or excavator will be used to scoop sediment out of channel for clean excavation. No dragging of equipment along banks and no equipment in channel.				
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>

PART II. SURVEY INFORMATION

Surveyors	Lanika Cervantes and William Kohn		Date of Survey	2/26/2019			
Was water in the channel at the time of the survey?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Hydrology Type ²	P <input type="checkbox"/>	I <input type="checkbox"/>	E <input checked="" type="checkbox"/>	O <input type="checkbox"/>
Nearest Named Waterbody	Escondido Creek		NWI Index	Not Classified			
NRCS Soils	Placentia sandy loam, 2 to 9 percent slopes						

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE 404 Regulated Activity	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Only Temporary diversion structures are regulated		
USACE Nonwetland Waters Present	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE Wetland Waters Present	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Datapoint(s) Taken	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>
Associated Datasheet(s)								
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description. ³			Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵		
	Nonwetland Waters	U/E			0.022	II		
	TOTAL				0.022			

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	CDFW Regulated Activity	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ⁶			Acres Delineated within Maintenance Footprint ^{7,8}	Impact Tier ⁹
	Channel Bank	U/E			0.035	II
	TOTAL				0.035	

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Unvegetated Channel	0.001	0.035	0.035	
Subtotal Riparian and Wetland	0.001	0.035	0.035	
Upland				
Eucalyptus Woodland	0.003	0.147	0.150	
Subtotal Upland	0.003	0.147	0.150	

Other Land Cover Types				
Urban/Developed	0.003	2.039	2.039	
Subtotal Other Land Cover Types	0.003	2.039	2.042	
GRAND TOTAL⁶	0.041	2.187	2.228	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A		
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Polioptila californica californica</i>) (FT, SSC) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE) Swainson's hawk (<i>Buteo swainsoni</i>) (--, ST) Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>) (FT, SE) California black rail (<i>Laterallus jamaicensis coturniculus</i>) (--, ST/FP)		
Other non-listed special status species historically known to occur within the Facility Buffer	None		
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>) (CRPR 1B.1) Southern California legless lizard (<i>Anniella stebbinsi</i>) (SSC) Orange-throated whiptail (<i>Aspodpscelis hyperythra</i>) (SSC) Coast horned lizard (<i>Phrynosoma blainvillii</i>) (SSC) Southern California rufous-crowned sparrow (<i>Aimophila ruficeps canescens</i>) (WL) Bell's sage sparrow (<i>Artemisiospiza belli belli</i>) (WL) Burrowing owl (<i>Athene cunicularia</i>) (SSC) White-faced ibis (<i>Plagadis chihii</i>) (WL) Pallid bat (<i>Antrozous pallidus</i>) (SSC) Dulzura pocket mouse (<i>Chaetodipus californicus femoralis</i>) (SSC) Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) (SSC) Western yellow bat (<i>Lasiurus xanthinus</i>) (SSC) Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>) (SSC) Big free-tailed bat (<i>Nyctinomops macrotis</i>) (SSC) American badger (<i>Taxidea taxus</i>) (SSC)		
Are species surveys recommended?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	If Yes, for what species?
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		

PART III. ADDITIONAL NOTES/COMMENTS

Channel is a roadside ditch that supports shelving and wrack throughout. Channel is mostly unvegetated with some patches of nonnative grasses including *Bromus diandrus*, *Erodium sp.*, *cynodon dactylon*, and *Lactuca serriola*. No water was present during the time of the survey.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing SE. Unvegetated channel



Representative Photograph 2. Facing NW. Upstream outlet



Representative Photograph 3. Facing SE. Downstream inlet.

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	Oak Valley Lane		Facility ID	E-60	
Location	Oak Valley Lane				
Latitude ¹	33.142645	Longitude ¹	-117.020359	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Outlet		Lining Type	Earthen	
Proposed Maintenance Activities	Accumulated sediment and herbaceous vegetation will be removed. Trimming of native trees/shrubs as needed with handtools. One-time willow tree will be fully removed (root and all). Willow directly downstream of outlet and blocking flow.				
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>

PART II. SURVEY INFORMATION

Surveyors	Lanika Cervantes and William Kohn		Date of Survey	2/26/2019			
Was water in the channel at the time of the survey?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Hydrology Type ²	P <input type="checkbox"/>	I <input checked="" type="checkbox"/>	E <input type="checkbox"/>	O <input type="checkbox"/>
Nearest Named Waterbody	San Dieguito Creek		NWI Index	Freshwater Pond			
NRCS Soils	Escondido very fine sandy loam, 15 to 30 percent slopes						

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE 404 Regulated Activity	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Only Temporary diversion structures are regulated		
USACE Nonwetland Waters Present	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	USACE Wetland Waters Present	Y <input type="checkbox"/>	N <input type="checkbox"/>	Datapoint(s) Taken	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
Associated Datasheet(s)	Wetland Sample Point 1.1 and 1.2							
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description ³			Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵		
	Wetland Waters	V/E			0.016	I		
	TOTAL				0.016			

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	CDFW Regulated Activity	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³			Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Riparian Extent	V/E			0.016	I
	TOTAL				0.016	

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Emergent Wetland	-	0.196	0.196	<i>Juncus acutus, Distichlis spicata</i>
Southern Willow Scrub	0.016	0.143	0.159	<i>Salix lasiolepis</i>
Subtotal Riparian and Wetland	0.016	0.340	0.355	

Upland				
Diegan Coastal Sage Scrub	-	0.017	0.017	<i>Eriogonum fasciculatum</i>
<i>Subtotal Upland</i>	-	0.017	0.017	
Other Land Cover Types				
Urban/Developed	-	0.540	0.540	
Disturbed Habitat	-	0.040	0.040	
<i>Subtotal Other Land Cover Types</i>	-	0.579	0.579	
GRAND TOTAL⁶	0.016	0.936	0.951	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷				
Special status species observed during 2019 field surveys within the Facility Buffer	None			
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A			
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None			
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Polioptila californica californica</i>) (FT, SSC) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE)			
Other non-listed special status species historically known to occur within the Facility Buffer	None			
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Dulzura pocket mouse (<i>Chaetodipus californicus femoralis</i>) (SSC)			
Are species surveys recommended?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	If Yes, for what species?	Least Bell's vireo during breeding season and San Diego Ambrosia	
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			

PART III. ADDITIONAL NOTES/COMMENTS

Channel starts at an outfall structure, flow indicators such as wrack, sediment deposition, and minor shelving observed. Area tends to sheetflow the area as a clear channel was not observed however the area supports wetland habitat. Within the buffer area there are old irrigation lines and dead Typha that seems to indicate that the downstream area was irrigated frequently in the past, however no current hydrology was observed within that area.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing N. Sample Point 1 within the wetland areas just downstream of the outfall structure.



Representative Photograph 2. Facing NW. Outlet in drainage channel.



Representative Photograph 3. Facing N. Willow scrub in drainage channel.



Representative Photograph 4. Facing N. Emergent wetland within channel.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/26/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: E-60 WSP 1.1
 Investigator(s): Lanika Cervantes; William Kohn Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR): C - Mediterranean California Lat: 33.142687 Long: -117.020346 Datum: _____
 Soil Map Unit Name: Escondido very fine sandy loam, 15 to 30 percent slopes NWI classification: Freshwater Pond

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: <u>Sample point taken near outfall structure within the dense wetland area.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <u>Salix lasiolepis</u>	50	Yes	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.0 %</u> (A/B)																																
2. _____																																				
3. _____																																				
4. _____																																				
Total Cover: <u>50 %</u>																																				
Sapling/Shrub Stratum																																				
1. <u>Baccharis salicifolia</u>	10	Yes	FAC	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="2">Total % Cover of:</td> <td align="center" colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td align="center">_____</td> <td>x 1 =</td> <td align="center">0</td> </tr> <tr> <td>FACW species</td> <td align="center">75</td> <td>x 2 =</td> <td align="center">150</td> </tr> <tr> <td>FAC species</td> <td align="center">10</td> <td>x 3 =</td> <td align="center">30</td> </tr> <tr> <td>FACU species</td> <td align="center">_____</td> <td>x 4 =</td> <td align="center">0</td> </tr> <tr> <td>UPL species</td> <td align="center">5</td> <td>x 5 =</td> <td align="center">25</td> </tr> <tr> <td>Column Totals:</td> <td align="center">90</td> <td align="center">(A)</td> <td align="center">205 (B)</td> </tr> <tr> <td align="center" colspan="4">Prevalence Index = B/A = <u>2.28</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	_____	x 1 =	0	FACW species	75	x 2 =	150	FAC species	10	x 3 =	30	FACU species	_____	x 4 =	0	UPL species	5	x 5 =	25	Column Totals:	90	(A)	205 (B)	Prevalence Index = B/A = <u>2.28</u>			
Total % Cover of:		Multiply by:																																		
OBL species	_____	x 1 =	0																																	
FACW species	75	x 2 =	150																																	
FAC species	10	x 3 =	30																																	
FACU species	_____	x 4 =	0																																	
UPL species	5	x 5 =	25																																	
Column Totals:	90	(A)	205 (B)																																	
Prevalence Index = B/A = <u>2.28</u>																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: <u>10 %</u>																																				
Herb Stratum																																				
1. <u>Juncus acutus</u>	25	Yes	FACW	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.																																
2. <u>Heterotheca grandiflora</u>	5	Yes	Not Listed																																	
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>30 %</u>																																				
Woody Vine Stratum																																				
1. _____				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>																																
2. _____																																				
Total Cover: _____ %																																				
% Bare Ground in Herb Stratum <u>70 %</u>	% Cover of Biotic Crust _____ %																																			

Remarks: Area is dominated with wetland vegetation. Very flat area.

SOIL

Sampling Point: E-60 WSI

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10-YR 2/1	100	N/A				Loamy/Clay	moist soils
4-16	10 YR 4/2	85	5YR 4/6	15	C	M	Loamy/Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: Redox observed within this area.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Sediment and drift deposition observed. Lots of sediment deposition directly downstream of outfall. Area is very flat and water tends to slowing flow downstream. No very clear break in slope in this area indicating main channel.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/26/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: E-60 WSP 1.2
 Investigator(s): Lanika Cervantes; William Kohn Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Outerfloodplain Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR): C - Mediterranean California Lat: 33.142756 Long: -117.020310 Datum: _____
 Soil Map Unit Name: Escondido very fine sandy loam, 15 to 30 percent slopes NWI classification: Freshwater Pond

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: <u>Sample point taken approximately 1.5 feet higher in elevation from 1.1.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																									
1. <u>Salix lasiolepis</u>	10	Yes	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																								
2. _____																												
3. _____																												
4. _____																												
Total Cover: <u>10 %</u>																												
<u>Sapling/Shrub Stratum</u>				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td align="center">Total % Cover of:</td> <td align="center">Multiply by:</td> <td></td> </tr> <tr> <td>OBL species</td> <td align="center">x 1 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>FACW species <u>70</u></td> <td align="center">x 2 =</td> <td align="center"><u>140</u></td> </tr> <tr> <td>FAC species</td> <td align="center">x 3 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td align="center">x 4 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>UPL species <u>10</u></td> <td align="center">x 5 =</td> <td align="center"><u>50</u></td> </tr> <tr> <td>Column Totals:</td> <td></td> <td align="center"><u>80</u> (A) <u>190</u> (B)</td> </tr> <tr> <td align="center" colspan="3">Prevalence Index = B/A = <u>2.38</u></td> </tr> </table>	Total % Cover of:	Multiply by:		OBL species	x 1 =	<u>0</u>	FACW species <u>70</u>	x 2 =	<u>140</u>	FAC species	x 3 =	<u>0</u>	FACU species	x 4 =	<u>0</u>	UPL species <u>10</u>	x 5 =	<u>50</u>	Column Totals:		<u>80</u> (A) <u>190</u> (B)	Prevalence Index = B/A = <u>2.38</u>		
Total % Cover of:	Multiply by:																											
OBL species	x 1 =	<u>0</u>																										
FACW species <u>70</u>	x 2 =	<u>140</u>																										
FAC species	x 3 =	<u>0</u>																										
FACU species	x 4 =	<u>0</u>																										
UPL species <u>10</u>	x 5 =	<u>50</u>																										
Column Totals:		<u>80</u> (A) <u>190</u> (B)																										
Prevalence Index = B/A = <u>2.38</u>																												
1. _____																												
2. _____																												
3. _____																												
4. _____																												
5. _____																												
Total Cover: _____ %																												
<u>Herb Stratum</u>				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																								
1. <u>Juncus acutus</u>	60	Yes	FACW																									
2. <u>Erodium sp.</u>	10	No	Not Listed																									
3. _____																												
4. _____																												
5. _____																												
6. _____																												
7. _____																												
8. _____																												
Total Cover: <u>70 %</u>																												
<u>Woody Vine Stratum</u>																												
1. _____																												
2. _____																												
Total Cover: _____ %																												
% Bare Ground in Herb Stratum <u>20 %</u>		% Cover of Biotic Crust _____ %																										

Remarks: Area is dominated by juncus but no hydrology indicators within this area.

SOIL

Sampling Point: E-60 WSI

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10-YR 4/3	100	N/A				Loamy/Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils:³

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: No Redox observed within this area.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology indicators observed within this area. Soils were still moist, but no redox. Area about 1.5 feet higher in elevation from 1.1.

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	Viking Place	Facility ID	E-61	
Location	Mountain View Drive and Viking Place			
Latitude ¹	33.127008	Longitude ¹	-117.040172	Maintenance Frequency (years)
				Annually
Maintenance Facility Type	Channel	Lining Type	Concrete	
Proposed Maintenance Activities	Remove accumulated sediment and vegetation within Concrete Channel Equipment will be staged on developed areas adjacent to channel.			
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/>
				N <input type="checkbox"/>

PART II. SURVEY INFORMATION

Surveyors	Lanika Cervantes and William Kohn	Date of Survey	2/26/2019	
Was water in the channel at the time of the survey?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Hydrology Type ²	P <input type="checkbox"/>
				I <input type="checkbox"/>
				E <input checked="" type="checkbox"/>
				O <input type="checkbox"/>
Nearest Named Waterbody	Escondido Creek	NWI Index	Not classified	
NRCS Soils	Placentia sandy loam, 2 to 9 percent slopes			

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE 404 Regulated Activity	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Only Temporary diversion structures are regulated
USACE Nonwetland Waters Present	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE Wetland Waters Present	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Datapoint(s) Taken
				Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	
Associated Datasheet(s)	OHWM Data Sheet					
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description ³			Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Nonwetland Waters	U/C			0.035	IV
	TOTAL				0.035	

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	CDFW Regulated Activity	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³			Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Channel Bank	U/C			0.047	IV
	TOTAL				0.047	

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Flood Buffer	Total	
Upland				
Urban/Developed	0.050	2.158	2.209	
GRAND TOTAL⁶	0.050	2.158	2.209	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A

Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE)		
Other non-listed special status species historically known to occur within the Facility Buffer	None		
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Dulzura pocket mouse (<i>Chaetodipus californicus femoralis</i>) (SSC)		
Are species surveys recommended?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	If Yes, for what species?
Will work occur in the breeding season (Feb-August)?	Y <input type="checkbox"/>	<input checked="" type="checkbox"/>	N <input type="checkbox"/>

PART III. ADDITIONAL NOTES/COMMENTS

Concrete-lined channel surrounded by urban development. Approximately 4 inches of sediment in some sections of the channel and patches of *Erodium sp.* and *Avena sp.* OHWM taken approximately 1 foot from bottom of channel based on water staining present.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS

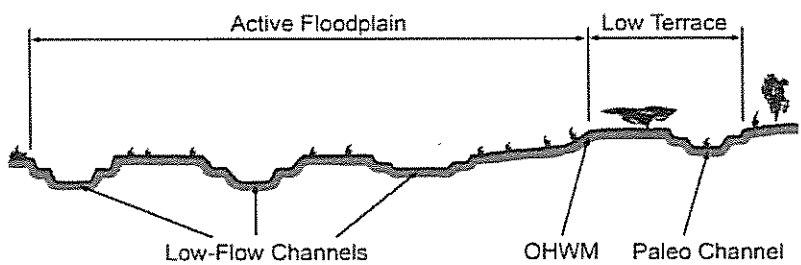


Representative Photograph 1. Facing N. Concrete-lined channel



Representative Photograph 2. Facing W. Concrete-lined channel

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: City of Escondido Project Number: Stream: / Investigator(s): L. Cervantes	Date: 2/26/19 Town: Escondido Photo begin file#:	Time: 10:00am State: CA Photo end file#:				
Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> Do normal circumstances exist on the site? Y <input type="checkbox"/> / N <input checked="" type="checkbox"/> Is the site significantly disturbed?	Location Details: E-61 Projection: Datum: Coordinates: See figure					
Potential anthropogenic influences on the channel system: Concrete-lined channel surrounded by urban development						
Brief site description: Concrete channel with sections of ~4inch sediment mostly unvegetated with sections of erodium, avena, and malva.						
Checklist of resources (if available): <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <input checked="" type="checkbox"/> Aerial photography Dates: <input checked="" type="checkbox"/> Topographic maps <input type="checkbox"/> Geologic maps <input type="checkbox"/> Vegetation maps <input checked="" type="checkbox"/> Soils maps <input type="checkbox"/> Rainfall/precipitation maps <input type="checkbox"/> Existing delineation(s) for site <input type="checkbox"/> Global positioning system (GPS) <input type="checkbox"/> Other studies </td> <td style="width: 50%; border: none;"> <input type="checkbox"/> Stream gage data Gage number: Period of record: <input type="checkbox"/> History of recent effective discharges <input type="checkbox"/> Results of flood frequency analysis <input type="checkbox"/> Most recent shift-adjusted rating <input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event </td> </tr> </table>			<input checked="" type="checkbox"/> Aerial photography Dates: <input checked="" type="checkbox"/> Topographic maps <input type="checkbox"/> Geologic maps <input type="checkbox"/> Vegetation maps <input checked="" type="checkbox"/> Soils maps <input type="checkbox"/> Rainfall/precipitation maps <input type="checkbox"/> Existing delineation(s) for site <input type="checkbox"/> Global positioning system (GPS) <input type="checkbox"/> Other studies	<input type="checkbox"/> Stream gage data Gage number: Period of record: <input type="checkbox"/> History of recent effective discharges <input type="checkbox"/> Results of flood frequency analysis <input type="checkbox"/> Most recent shift-adjusted rating <input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event		
<input checked="" type="checkbox"/> Aerial photography Dates: <input checked="" type="checkbox"/> Topographic maps <input type="checkbox"/> Geologic maps <input type="checkbox"/> Vegetation maps <input checked="" type="checkbox"/> Soils maps <input type="checkbox"/> Rainfall/precipitation maps <input type="checkbox"/> Existing delineation(s) for site <input type="checkbox"/> Global positioning system (GPS) <input type="checkbox"/> Other studies	<input type="checkbox"/> Stream gage data Gage number: Period of record: <input type="checkbox"/> History of recent effective discharges <input type="checkbox"/> Results of flood frequency analysis <input type="checkbox"/> Most recent shift-adjusted rating <input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event					
Hydrogeomorphic Floodplain Units 						
Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM: <ol style="list-style-type: none"> 1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site. 2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. <ol style="list-style-type: none"> a) Record the floodplain unit and GPS position. b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit. c) Identify any indicators present at the location. 4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section. 5. Identify the OHWM and record the indicators. Record the OHWM position via: <table style="width: 100%; border: none; margin-top: 5px;"> <tr> <td style="width: 50%; border: none;"><input checked="" type="checkbox"/> Mapping on aerial photograph</td> <td style="width: 50%; border: none;"><input checked="" type="checkbox"/> GPS</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Digitized on computer</td> <td style="border: none;"><input type="checkbox"/> Other:</td> </tr> </table> 			<input checked="" type="checkbox"/> Mapping on aerial photograph	<input checked="" type="checkbox"/> GPS	<input type="checkbox"/> Digitized on computer	<input type="checkbox"/> Other:
<input checked="" type="checkbox"/> Mapping on aerial photograph	<input checked="" type="checkbox"/> GPS					
<input type="checkbox"/> Digitized on computer	<input type="checkbox"/> Other:					

Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class
10.08	256	Boulder
2.56	64	Cobble
0.157	4	Pebble
0.079	2.00	Granule
0.039	1.00	Very coarse sand
0.020	0.50	Coarse sand
1/2 0.0098	0.25	Medium sand
1/4 0.005	0.125	Fine sand
1/8 0.0025	0.0625	Very fine sand
1/16 0.0012	0.031	Coarse silt
1/32 0.00061	0.0156	Medium silt
1/64 0.00031	0.0078	Fine silt
1/128 0.00015	0.0039	Very fine silt
		Clay



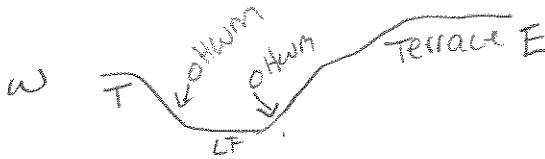
100
 90
 80
 70
 60
 50
 40
 30
 20
 10
 0

Project ID:

Cross section ID: E-61

Date: 2/26/19 Time:

Cross section drawing:



OHWM

GPS point: _____

Indicators:

- Change in average sediment texture
- Change in vegetation species
- Change in vegetation cover
- Break in bank slope
- Other: _____
- Other: _____

Comments:

concrete channel, change in slope. OHWM taken about 1ft above channel bottom based on water staining

Floodplain unit:

- Low-Flow Channel
- Active Floodplain
- Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: n/A concrete
Total veg cover: 15 % Tree: 0 % Shrub: 0 % Herb: 15 %

Community successional stage:

- NA
- Early (herbaceous & seedlings)
- Mid (herbaceous, shrubs, saplings)
- Late (herbaceous, shrubs, mature trees)

Indicators:

- Mudcracks
- Ripples
- Drift and/or debris
- Presence of bed and bank
- Benches
- Soil development
- Surface relief
- Other: _____
- Other: _____
- Other: _____

Comments:

Low flow and active are similar. Trapezoidal concrete channel.

Project ID:

Cross section ID: E-61

Date: 2/26/19 Time:

Floodplain unit: Low-Flow Channel Active Floodplain Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: pebble

Total veg cover: 10 % Tree: 15 % Shrub: 5 % Herb: 50 %

Community successional stage:

- NA
- Early (herbaceous & seedlings)
- Mid (herbaceous, shrubs, saplings)
- Late (herbaceous, shrubs, mature trees)

Indicators:

- Mudcracks
- Ripples
- Drift and/or debris
- Presence of bed and bank
- Benches
- Soil development
- Surface relief
- Other: _____
- Other: _____
- Other: _____

Comments:

upper banks are earthen supporting a dominance of nonnative herb species.

Floodplain unit: Low-Flow Channel Active Floodplain Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____ % Shrub: _____ % Herb: _____ %

Community successional stage:

- NA
- Early (herbaceous & seedlings)
- Mid (herbaceous, shrubs, saplings)
- Late (herbaceous, shrubs, mature trees)

Indicators:

- Mudcracks
- Ripples
- Drift and/or debris
- Presence of bed and bank
- Benches
- Soil development
- Surface relief
- Other: _____
- Other: _____
- Other: _____

Comments:

Upper bank is earthen supporting a dominance of nonnative herb species.

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	Reidy Creek – Lincoln Ave		Facility ID	E-62	
Location	Reidy Creek/Lincoln Avenue				
Latitude ¹	33.13113889	Longitude ¹	-117.0940111	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Channel		Lining Type	Concrete	
Proposed Maintenance Activities	Remove accumulated sediment and vegetation within concrete channel. Equipment will be enter the concrete channel to conduct maintenance activities.				
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
			Temporary cofferdam or diversion structure will be implemented.		

PART II. SURVEY INFORMATION

Surveyors	Lanika Cervantes and Kelsey Dix		Date of Survey	11/1/2019	
Was water in the channel at the time of the survey?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Hydrology Type ²	P <input type="checkbox"/>	I <input checked="" type="checkbox"/>
Nearest Named Waterbody	Reidy Creek		NWI Index	Riverine	
NRCS Soils	Visalia sandy loam, 2 to 5 percent slopes				

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE 404 Regulated Activity	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>
			Temporary diversion is regulated.		
USACE Nonwetland Waters Present	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE Wetland Waters Present	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>
Datapoint(s) Taken	Y <input type="checkbox"/>				
Associated Datasheet(s)	N/A				
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Nonwetland Waters	U/C		0.40	IV
	TOTAL			0.40	

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	CDFW Regulated Activity	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Streambed	U/C		0.40	IV
	TOTAL			0.40	

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Upland				
Non-Native Woodland	-	0.11	0.11	Schinus molle
Eucalyptus Woodland	-	0.36	0.36	Eucalyptus sp.
Non-native Grassland	-	0.37	0.37	
Subtotal Upland	-	0.84	0.84	

Other Land Cover Types				
Disturbed habitat	-	1.16	1.16	
Urban/Developed	0.40	1.30	1.69	
Subtotal Other Land Cover Types	0.40	2.45	2.85	
GRAND TOTAL⁶	0.40	3.29	3.69	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility

Special status species observed during 2019 field surveys within the Facility Buffer	None			
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A			
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None			
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Polioptila californica californica</i>) (FT, SSC) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE) Swainson's hawk (<i>Buteo swainsoni</i>) (--, ST) Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>) (FT, SE) California black rail (<i>Laterallus jamaicensis coturniculus</i>) (--, ST/FP)			
Other non-listed special status species historically known to occur within the Facility Buffer	None			
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>) (CRPR 1B.1) Southern California legless lizard (<i>Anniella stebbinsi</i>) (SSC) Orange-throated whiptail (<i>Aspodpscelis hyperythra</i>) (SSC) Coast horned lizard (<i>Phrynosoma blainvillii</i>) (SSC) Burrowing owl (<i>Athene cunicularia</i>) (SSC) White-faced ibis (<i>Plagadis chihii</i>) (WL) Pallid bat (<i>Antrozous pallidus</i>) (SSC) Dulzura pocket mouse (<i>Chaetodipus californicus femoralis</i>) (SSC) Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) (SSC) Western yellow bat (<i>Lasiurus xanthinus</i>) (SSC) Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>) (SSC) Big free-tailed bat (<i>Nyctinomops macrotis</i>) (SSC) American badger (<i>Taxidea taxus</i>) (SSC)			
Are species surveys recommended?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	If Yes, for what	N/A
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			

PART III. ADDITIONAL NOTES/COMMENTS

Maintenance area starts at concrete apron north of Lincoln Avenue and then a concrete-lined box channel with vertical walls located south of Lincoln Avenue. Flowing water was present within the channel at the time of the surveys and other than algae no vegetation was present. Access into this site can occur from entering the concrete apron north of Lincoln and entering the box culvert. This is the downstream segment of Reidy Creek.

A small ephemeral drainage occurs in the buffer area. This drainage is natural bottom and unvegetated. It flows into Reidy Creek. No maintenance activities are proposed within this area.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative photo of the southern section of the maintenance site, a concrete-lined channel.



Representative photo of the adjacent disturbed habitat.



Representative photos of small ephemeral drainage that occurs within the survey buffer. No impacts proposed in this area.

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	1840 S Centre City Pkwy		Facility ID	H-02 A	
Location	1840 South Centre City Parkway				
Latitude ¹	33.100010	Longitude ¹	-117.040172	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Channel		Lining Type	Earthen	
Proposed Maintenance Activities	Existing RGP Site proposed for Expansion. Remove accumulated sediment and weed removal. Equipment will be staged on the street and backhoe or excavator will be used to scoop sediment out of channel for clean excavation. No dragging of equipment along banks and no equipment in channel.				
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

PART II. SURVEY INFORMATION

Surveyors	Lanika Cervantes and William Kohn		Date of Survey	2/26/2019	
Was water in the channel at the time of the survey?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		Hydrology Type ²	P <input type="checkbox"/> I <input type="checkbox"/> E <input checked="" type="checkbox"/> O <input type="checkbox"/>	
Nearest Named Waterbody	San Dieguito River		NWI Index	Not classified	
NRCS Soils	Placentia sandy loam, 2 to 9 percent slopes				

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		USACE 404 Regulated Activity	Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Only Temporary diversion structures are regulated	
USACE Nonwetland Waters Present	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		USACE Wetland Waters Present	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
Datapoint(s) Taken	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>				
Associated Datasheet(s)					
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Nonwetland Waters	V/E		0.090	II
	TOTAL			0.090	

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility⁷

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		CDFW Regulated Activity	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Riparian Extent	V/E		0.088	II
	Channel Bank	V/E		0.091	II
TOTAL			0.178		

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Unvegetated Channel	0.090	<0.001	0.090	
<i>Subtotal Riparian and Wetland</i>	<i>0.090</i>	<i><0.001</i>	<i>0.090</i>	
Upland				
Non-Native Woodland	0.088	0.407	0.495	<i>Eucalyptus ssp., Washingtonia robusta,</i>
<i>Subtotal Upland</i>	<i>0.088</i>	<i>0.407</i>	<i>0.495</i>	

Other Land Cover Types				
Urban/developed	0.001	3.630	3.631	
Subtotal Other Land Cover Types	0.001	3.630	3.631	
GRAND TOTAL⁶	0.179	4.038	4.216	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None			
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A			
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None			
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Poliophtila californica californica</i>) (FT, SSC) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE) Swainson's hawk (<i>Buteo swainsoni</i>) (--, ST) Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>) (FT, SE) California black rail (<i>Laterallus jamaicensis coturniculus</i>) (--, ST/FP)			
Other non-listed special status species historically known to occur within the Facility Buffer	None			
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>) (CRPR 1B.1) Southern California legless lizard (<i>Anniella stebbinsi</i>) (SSC) Orange-throated whiptail (<i>Aspodpscelis hyperythra</i>) (SSC) Coast horned lizard (<i>Phrynosoma blainvillii</i>) (SSC) Coronado skink (<i>Plestiodon skiltonianus interparietalis</i>) (SSC) Burrowing owl (<i>Athene cunicularia</i>) (SSC) Coastal cactus wren (<i>Campylorhynchus brunneicapillus sandiegensis</i>) (SSC) White-faced ibis (<i>Plagadis chihi</i>) (WL) Pallid bat (<i>Antrozous pallidus</i>) (SSC) Dulzura pocket mouse (<i>Chaetodipus californicus femoralis</i>) (SSC) Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) (SSC) Western yellow bat (<i>Lasiurus xanthinus</i>) (SSC) Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>) (SSC) Big free-tailed bat (<i>Nyctinomops macrotis</i>) (SSC) American badger (<i>Taxidea taxus</i>) (SSC)			
Are species surveys recommended?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	If Yes, for what species?	
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			

PART III. ADDITIONAL NOTES/COMMENTS

Upstream segment of this channel is a roadside ditch that supports shelving and sediment deposition. No water was observed within this section of channel and channel is dominated with *Bromus diandrus*, *Erodium* sp., *Malva* sp., and *Hordeum murinum*. A 4-foot-wide outfall enters the channel and downstream of that outlet the channel supported flowing water and lots of wrack and sediment deposition. Within the channel it was mostly unvegetated supporting palms, *Eucalyptus* sp., and *Quercus agrifolia*.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDb) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing S. Channel at upstream end.



Representative Photograph 2. Facing N. Outfall at upstream end of channel.



Representative Photograph 3. Facing S. Inlet at downstream end of channel



Representative Photograph 4. Facing NW. Outlet where channel becomes wider and more defined.



Representative Photograph 5. Facing N. Downstream segment of channel.

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	Miller Ave	Facility ID	H-14	
Location	Miller Avenue			
Latitude ¹	33.095045	Longitude ¹	-117.079358	Maintenance Frequency (years)
				Annually
Maintenance Facility Type	Channel	Lining Type	Earthen	
Proposed Maintenance Activities	Remove accumulated sediment and weed removal Equipment will be staged on the street and backhoe or excavator will be used to scoop sediment out of channel for clean excavation. No dragging of equipment along banks and no equipment in channel.			
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>

PART II. SURVEY INFORMATION

Surveyors	William Kohn and Ryan Layden	Date of Survey	2/27/2019	
Was water in the channel at the time of the survey?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	Hydrology Type ²	P <input type="checkbox"/> I <input type="checkbox"/> E <input checked="" type="checkbox"/> O <input type="checkbox"/>	
Nearest Named Waterbody	San Dieguito River	NWI Index	Not classified	
NRCS Soils	Bonsall sandy loam, 2 to 9 percent slopes			

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	USACE 404 Regulated Activity	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	Only Temporary diversion structures are regulated
USACE Nonwetland Waters Present	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	USACE Wetland Waters Present	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	Datapoint(s) Taken
			Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	

Associated Datasheet(s)

Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description ³	Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Nonwetland Waters	U/E	0.016	II
	TOTAL		0.016	

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	CDFW Regulated Activity	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>
--	--	-------------------------	--

Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³	Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Channel Bank	U/E	0.030	II
	TOTAL		0.030	

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Unvegetated Channel	0.030	0.009	0.039	
Subtotal Riparian and Wetland	0.030	0.009	0.039	
Upland				
Nonnative Grassland	-	0.097	0.097	Cynodon dactylon
Subtotal Upland	-	0.097	0.097	
Other Land Cover Types				
Urban/Developed	-	2.731	2.731	
Subtotal Other Land Cover Types	-	2.731	2.731	
GRAND TOTAL⁶	0.030	2.837	2.867	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Poliopitila californica californica</i>) (FT, SSC) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE) Swainson's hawk (<i>Buteo swainsoni</i>) (--, ST) Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>) (FE, ST) California black rail (<i>Laterallus jamaicensis coturniculus</i>) (--, ST/FP)
Other non-listed special status species historically known to occur within the Facility Buffer	None
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>) (CRPR 1B.1) Southern California legless lizard (<i>Anniella stebbinsi</i>) (SSC) Orange-throated whiptail (<i>Aspodpscelis hyperythra</i>) (SSC) Coast horned lizard (<i>Phrynosoma blainvillii</i>) (SSC) Coronado skink (<i>Plestiodon skiltonianus interparietalis</i>) (SSC) Burrowing owl (<i>Athene cunicularia</i>) (SSC) White-faced ibis (<i>Plagadis chihi</i>) (WL) Pallid bat (<i>Antrozous pallidus</i>) (SSC) Coastal cactus wren (<i>Campylorhynchus brunneicapillus sandiegensis</i>) (SSC) Dulzura pocket mouse (<i>Chaetodipus californicus femoralis</i>) (SSC) Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) (SSC) Western yellow bat (<i>Lasiurus xanthinus</i>) (SSC) Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>) (SSC) Big free-tailed bat (<i>Nyctinomops macrotis</i>) (SSC) American badger (<i>Taxidea taxus</i>) (SSC)
Are species surveys recommended?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/> If Yes, for what species?
Will work occur in the breeding season (Feb-August)?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>

PART III. ADDITIONAL NOTES/COMMENTS

Within the maintenance facility, there is only an asphalt dip within the road. No jurisdictional waters occur within this area. Within the buffer area, there is an earthen roadside ditch that supports shelving and is unvegetated.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing S. Roadside drainage, mostly unvegetated.



Representative Photograph 2. Facing S. Downstream segment of roadside drainage.



Representative Photograph 3. Facing N. Downstream limit of maintenance, facing upstream.

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	Sierra Linda		Facility ID	H-15	
Location	Sierra Linda Drive				
Latitude ¹	33.068112	Longitude ¹	-117.050255	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Outlet		Lining Type	Earthen	
Proposed Maintenance Activities	Remove accumulated sediment and weed removal Equipment will be staged on the street or disturbed areas and backhoe or excavator will be used to scoop out sediment to unclog outlet. No dragging of equipment along banks and no equipment in channel.				
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>

PART II. SURVEY INFORMATION

Surveyors	William Kohn		Date of Survey	2/27/2019			
Was water in the channel at the time of the survey?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Hydrology Type ²	P <input type="checkbox"/>	I <input type="checkbox"/>	E <input checked="" type="checkbox"/>	O <input type="checkbox"/>
Nearest Named Waterbody	San Dieguito River		NWI Index	Not classified			
NRCS Soils	Vista coarse sandy loam, 15 to 30 percent slopes						

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE 404 Regulated Activity	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Only Temporary diversion structures are regulated		
USACE Nonwetland Waters Present	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE Wetland Waters Present	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Datapoint(s) Taken	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>
Associated Datasheet(s)								
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water		Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴		Impact Tier ⁵	
	Nonwetland Waters		V/E		0.001		II	
	TOTAL				0.001			

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	CDFW Regulated Activity	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>		
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water		Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴		Impact Tier ⁵
	Channel Bank		V/E		0.001		I
	Channel Bank		V/E		0.001		II
	TOTAL				0.003		

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Unvegetated Channel	0.001	0.007	0.009	
<i>Subtotal Riparian and Wetland</i>	<i>0.001</i>	<i>0.007</i>	<i>0.009</i>	
Upland				
Diegan Coastal Sage Scrub	0.001	0.559	0.560	<i>Artemisia californica, Eriogonum fasciculatum</i>
<i>Subtotal Upland</i>	<i>0.001</i>	<i>0.559</i>	<i>0.560</i>	

Other Land Cover Types				
Urban/Developed	-	0.276	0.276	
Subtotal Other Land Cover Types	-	0.276	0.276	
GRAND TOTAL⁶	0.003	0.843	0.845	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None			
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A			
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	Coastal California gnatcatcher (<i>Polioptila californica californica</i>) (FT, SSC)			
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Polioptila californica californica</i>) (FT, SSC) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE) Swainson's hawk (<i>Buteo swainsoni</i>) (--, ST)			
Other non-listed special status species historically known to occur within the Facility Buffer	None			
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>) (CRPR 1B.1) Smooth tarplant (<i>Centromadia pungens</i> ssp. <i>laevis</i>) (CRPR 1B.1) Decumbent goldenbush (<i>Isocoma menziesii</i> var. <i>decumbens</i>) (CRPR 1B.2) Western spadefoot (<i>Spea hammondi</i>) (SSC) Orange-throated whiptail (<i>Aspodpscelis hyperythra</i>) (SSC) Southern rufous-crowned sparrow (<i>Aimophila ruficeps canescens</i>) (WL) Bell's sage sparrow (<i>Artemisiospiza belli belli</i>) (WL) Coastal cactus wren (<i>Campylorhynchus brunneicapillus sandiegensis</i>) (SSC) San Diego black-tailed jackrabbit (<i>Lepus californicus bennittii</i>) (SSC) San Diego woodrat (<i>Neotoma lepida intermedia</i>) (SSC)			
Are species surveys recommended?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	If Yes, for what species?	Coastal California gnatcatcher year-round
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			

PART III. ADDITIONAL NOTES/COMMENTS

Ephemeral channel starts from and outlet structure. Channel bottom is unvegetated while the banks and surrounding habitat is dominated by coastal sage scrub. Approximately 50 feet downstream of the outfall structure the channel forms a large gully as it travels west.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing W. Channel in Diegan Coastal Sage Scrub



Representative Photograph 2. Facing E. Blocked outfall



Representative Photograph 3. Facing E. Headcut in channel approximately 50 feet downstream.

PART I. MAINTENANCE FACILITY INFORMATION					
Facility Name	Concerto and Beethoven		Facility ID	H-16	
Location	Concerto Glen and Beethoven Drive				
Latitude ¹	33.064025	Longitude ¹	-117.057497	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Outlet		Lining Type	Earthen	
Proposed Maintenance Activities	Remove accumulated sediment and weed removal Equipment will be staged on the street or disturbed areas and backhoe or excavator will be used to scoop out sediment to unclog outlet and create pilot channel. No dragging of equipment along banks and no equipment in channel.				
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
PART II. SURVEY INFORMATION					
Surveyors	William Kohn and Ryan Layden			Date of Survey	2/27/2019
Was water in the channel at the time of the survey?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Hydrology Type ²	P <input type="checkbox"/>	I <input type="checkbox"/>
Nearest Named Waterbody	San Dieguito River		NWI Index	Freshwater Forested/Shrub Wetland	
NRCS Soils	Cieneba coarse sandy loam, 15 to 30 percent slopes				
Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility					
USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE 404 Regulated Activity	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>
				Only Temporary diversion structures are regulated	
USACE Nonwetland Waters Present	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE Wetland Waters Present	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>
			Datapoint(s) Taken	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
Associated Datasheet(s)	Wetland Sample Point 1.1				
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description. ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Nonwetland Waters	V/E		0.003	I
	TOTAL			0.003	
Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility					
CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	CDFW Regulated Activity	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description. ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Riparian Extent	V/E		0.005	I
	TOTAL			0.005	
Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility					
Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species	
	Maintenance Footprint	100-Foot Buffer	Total		
Riparian and Wetland					
Southern Riparian Scrub	0.009	0.191	0.199	Acacia	
Subtotal Riparian and Wetland	0.009	0.191	0.199		
Upland					
Diegan Coastal Sage Scrub	-	0.422	0.422	Artemisia californica, Eriogonum fasciculatum	

Subtotal Upland	-	0.422	0.422	
Other Land Cover Types				
Urban/Developed	-	0.532	0.532	N/A
Subtotal Other Land Cover Types	-	0.532	0.532	
GRAND TOTAL⁶	0.009	1.145	1.154	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A		
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	San Diego ambrosia (<i>Ambrosia pumila</i>) (FE, --, CRPR 1B.1) Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Polioptila californica californica</i>) (FT, SSC) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE) Swainson's hawk (<i>Buteo swainsoni</i>) (--, ST)		
Other non-listed special status species historically known to occur within the Facility Buffer	None		
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Decumbent goldenbush (<i>Isocoma mensiesii</i> var. <i>decumbens</i>) (CRPR 1B.2) Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>) (CRPR 1B.1) Western spadefoot (<i>Spea hammondi</i>) (SSC) Orange-throated whiptail (<i>Aspodpscelis hyperythra</i>) (SSC) Southern California rufous-crowned sparrow (<i>Aimophila ruficeps canescens</i>) (WL) Bell's sage sparrow (<i>Artemisiospiza belli belli</i>) (WL) Coastal cactus wren (<i>Campylorhynchus brunneicapillus sandiegensis</i>) (SSC) San Diego desert woodrat (<i>Neotoma lepida intermedia</i>) (SSC) San Diego black-tailed jackrabbit (<i>Lepus californicus bennettii</i>) (SSC)		
Are species surveys recommended?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	If Yes, for what species?	Coastal California gnatcatcher year-round and San Diego Ambrosia
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		

PART III. ADDITIONAL NOTES/COMMENTS

Channel begins at outfall structure and runs south. Directly downstream of outfall there are *Salix lasiolepis* and *Scirpus californicus*, a wetland sample point was taken in this location and confirmed that the area did not meet the criteria for wetlands. The majority of this channel is unvegetated within the channel bottom and support sage and acacia along the banks.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDb) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing S. Channel within riparian scrub at outlet.



Representative Photograph 2. Facing N. Outfall

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/27/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: H-16 WSP 1.1
 Investigator(s): William Kohn; Ryan Layden Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): concave Slope (%): 2
 Subregion (LRR): C - Mediterranean California Lat: 33.064028 Long: -117.057507 Datum: _____
 Soil Map Unit Name: Cieneba coarse sandy loam, 15 to 30 percent slopes, eroded NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: <u>Sample point taken near outfall structure where a mixture of wetland and nonwetland vegetation occurred.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <i>Salix lasiolepis</i>	25	Yes	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60.0 %</u> (A/B)																																
2.																																				
3.																																				
4.																																				
Total Cover:	<u>25 %</u>																																			
Sapling/Shrub Stratum																																				
1. <i>Baccharis salicifolia</i>	20	Yes	FAC	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="2">Total % Cover of:</td> <td align="center" colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td align="center">5</td> <td align="center">x 1 =</td> <td align="center">5</td> </tr> <tr> <td>FACW species</td> <td align="center">25</td> <td align="center">x 2 =</td> <td align="center">50</td> </tr> <tr> <td>FAC species</td> <td align="center">20</td> <td align="center">x 3 =</td> <td align="center">60</td> </tr> <tr> <td>FACU species</td> <td align="center">5</td> <td align="center">x 4 =</td> <td align="center">20</td> </tr> <tr> <td>UPL species</td> <td align="center">10</td> <td align="center">x 5 =</td> <td align="center">50</td> </tr> <tr> <td>Column Totals:</td> <td align="center"><u>65</u></td> <td align="center">(A)</td> <td align="center"><u>185</u> (B)</td> </tr> <tr> <td align="center" colspan="4">Prevalence Index = B/A = <u>2.85</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	5	x 1 =	5	FACW species	25	x 2 =	50	FAC species	20	x 3 =	60	FACU species	5	x 4 =	20	UPL species	10	x 5 =	50	Column Totals:	<u>65</u>	(A)	<u>185</u> (B)	Prevalence Index = B/A = <u>2.85</u>			
Total % Cover of:		Multiply by:																																		
OBL species	5	x 1 =	5																																	
FACW species	25	x 2 =	50																																	
FAC species	20	x 3 =	60																																	
FACU species	5	x 4 =	20																																	
UPL species	10	x 5 =	50																																	
Column Totals:	<u>65</u>	(A)	<u>185</u> (B)																																	
Prevalence Index = B/A = <u>2.85</u>																																				
2.																																				
3.																																				
4.																																				
5.																																				
Total Cover:	<u>30 %</u>																																			
Herb Stratum																																				
1. <i>Scirpus californica</i>	5	Yes	OBL	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																
2.																																				
3.																																				
4.																																				
5.																																				
Total Cover:	<u>5 %</u>																																			
Woody Vine Stratum																																				
1. <i>Toxicodendron diversiloba</i>	5	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must be present.																																
2.																																				
Total Cover:	<u>5 %</u>																																			
% Bare Ground in Herb Stratum <u>55 %</u> % Cover of Biotic Crust _____ %																																				

Remarks: Area is dominated with wetland vegetation. Vegetation changes to upland vegetation as drainage flows downstream.

SOIL

Sampling Point: H-16 WS

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10-YR 2/1	100	N/A				Loamy/Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Rocky bottom
Depth (inches): 12 inches

Hydric Soil Present? Yes No

Remarks: No redox observed in soils. Soils are dry and there are no indication of ponded water in this area for long durations. May only pond after storm events near outfall then flow downstream.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Only drift deposits observed within the channel. These are also OHWM indicators.

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	Bear Valley Pkwy		Facility ID	H-17	
Location	Bear Valley Parkway				
Latitude ¹	33.070402	Longitude ¹	-117.060563	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Outlet		Lining Type	Earthen	
Proposed Maintenance Activities	Remove accumulated sediment and weed removal Equipment will be staged on the street or disturbed areas and backhoe or excavator will be used to scoop out sediment to unclog outlet. No dragging of equipment along banks and no equipment in channel.				
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

PART II. SURVEY INFORMATION

Surveyors	William Kohn and Ryan Layden		Date of Survey	2/27/2019	
Was water in the channel at the time of the survey?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>		Hydrology Type ²	P <input type="checkbox"/> I <input checked="" type="checkbox"/> E <input type="checkbox"/> O <input type="checkbox"/>	
Nearest Named Waterbody	San Dieguito River		NWI Index	Freshwater Forested/Shrub Wetland	
NRCS Soils	Ramona sandy loam, 2 to 5 percent slopes				

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		USACE 404 Regulated Activity	Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Only Temporary diversion structures are regulated	
USACE Nonwetland Waters Present	Y <input type="checkbox"/> N <input type="checkbox"/>		USACE Wetland Waters Present	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Associated Datasheet(s)	Wetland Sample Point 1.1 and 1.2.				
Datapoint(s) Taken	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				

Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description. ³	Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Wetland Waters	V/E		0.003
TOTAL			0.003	

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		CDFW Regulated Activity	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³	Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵	
	Riparian Extent	V/E	0.003	II	
TOTAL			0.003		

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Emergent Wetland	-	0.068	0.068	Anemopsis californica, Distichlis spicata
Southern Arroyo Willow Riparian Forest	-	0.711	0.711	Salix lasiolepis
Subtotal Riparian and Wetland	0.01	0.81	0.82	

Upland				
Non-native grassland	-	0.215	0.215	
Non-Native Woodland	0.013	0.030	0.043	
<i>Subtotal Upland</i>	-	0.21	0.21	
Other Land Cover Types				
Urban/Developed	-	0.677	0.677	
<i>Subtotal Other Land Cover Types</i>	-	0.68	0.68	
GRAND TOTAL⁶	0.013	1.701	1.714	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A		
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	San Diego ambrosia (<i>Ambrosia pumila</i>) (FE, --, CRPR 1B.1) Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Poliophtila californica californica</i>) (FT, SSC) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE) Swainson's hawk (<i>Buteo swainsoni</i>) (--, ST)		
Other non-listed special status species historically known to occur within the Facility Buffer	None		
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Decumbent goldenbush (<i>Isocoma mensiesii</i> var. <i>decumbens</i>) (CRPR 1B.2) Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>) (CRPR 1B.1) Southern California rufous-crowned sparrow (<i>Aimophila ruficeps canescens</i>) (WL) Coastal cactus wren (<i>Campylorhynchus brunneicapillus sandiegensis</i>) (SSC) San Diego desert woodrat (<i>Neotoma lepida intermedia</i>) (SSC) San Diego black-tailed jackrabbit (<i>Lepus californicus bennettii</i>) (SSC)		
Are species surveys recommended?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	If Yes, for what species?	Least Bell's vireo during breeding season and San Diego Ambrosia
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		

PART III. ADDITIONAL NOTES/COMMENTS

The maintenance area is an outfall that drains into an unnamed tributary to Santa Ysabel Creek. The channel supports wetland habitat within the OHWM, wetlands are dominated by *Anemopsis californica*, *Scirpus californicus*, and *Salix lasiolepis*. No defined channel or wetland habitat occurs at the outfall structure; wetland sample point 1.2 was taken directly downstream of the outfall structure to confirm no wetlands occur within that area. Additionally, no shelving or OHWM indicators or swale feature occurs downstream of the outfall.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Wetland sample point 1.1 within channel downstream of outfall.



Representative Photograph 2. Facing E. Wetland sample point 1.2 taken at outfall outlet area. No defined channel within this area. Maintenance area.



Representative Photograph 3. Facing E. Outfall

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/27/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: H-17 WSP 1.1
 Investigator(s): William Kohn; Ryan Layden Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR): C - Mediterranean California Lat: 33.070441 Long: -117.060651 Datum: _____
 Soil Map Unit Name: Ramona sandy loam, 2 to 5 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: <u>Sample point taken within willow riparian habitat and emergent wetland area.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <u>Salix lasiolepis</u>	60	Yes	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																																
2. _____																																				
3. _____																																				
4. _____																																				
Total Cover: <u>60 %</u>																																				
Sapling/Shrub Stratum																																				
1. _____				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="2">Total % Cover of:</td> <td align="center" colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td align="center">40</td> <td>x 1 =</td> <td align="center">40</td> </tr> <tr> <td>FACW species</td> <td align="center">60</td> <td>x 2 =</td> <td align="center">120</td> </tr> <tr> <td>FAC species</td> <td></td> <td>x 3 =</td> <td align="center">0</td> </tr> <tr> <td>FACU species</td> <td></td> <td>x 4 =</td> <td align="center">0</td> </tr> <tr> <td>UPL species</td> <td></td> <td>x 5 =</td> <td align="center">0</td> </tr> <tr> <td>Column Totals:</td> <td align="center">100</td> <td>(A)</td> <td align="center">160 (B)</td> </tr> <tr> <td align="center" colspan="2">Prevalence Index = B/A =</td> <td></td> <td align="center">1.60</td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	40	x 1 =	40	FACW species	60	x 2 =	120	FAC species		x 3 =	0	FACU species		x 4 =	0	UPL species		x 5 =	0	Column Totals:	100	(A)	160 (B)	Prevalence Index = B/A =			1.60
Total % Cover of:		Multiply by:																																		
OBL species	40	x 1 =	40																																	
FACW species	60	x 2 =	120																																	
FAC species		x 3 =	0																																	
FACU species		x 4 =	0																																	
UPL species		x 5 =	0																																	
Column Totals:	100	(A)	160 (B)																																	
Prevalence Index = B/A =			1.60																																	
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: _____ %																																				
Herb Stratum																																				
1. <u>Scirpus californica</u>	30	Yes	OBL	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																
2. <u>Anemopsis californica</u>	10	Yes	OBL																																	
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>40 %</u>																																				
Woody Vine Stratum																																				
1. _____				¹ Indicators of hydric soil and wetland hydrology must be present.																																
2. _____																																				
Total Cover: _____ %																																				
% Bare Ground in Herb Stratum <u>60 %</u>		% Cover of Biotic Crust _____ %		Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>																																

Remarks: Area is at the edge of riparian and emergent wetland habitat dominated by wetland vegetation.

SOIL

Sampling Point: H-17 WS

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 3/1	100	N/A				Loamy/Clay	
5-16	10 YR 4/2	92	7.5 YR 4/5	8	C	M	Loamy/Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: Redox observed at 5 inches. Area supports hydric soils.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Sediment and drift deposits located throughout the channel. Area is flat and appears to pond when inundated.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/27/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: H-17 WSP 1.2
 Investigator(s): William Kohn; Ryan Layden Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 2
 Subregion (LRR): C - Mediterranean California Lat: 33.070401 Long: -117.060598 Datum: _____
 Soil Map Unit Name: Ramona sandy loam, 2 to 5 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: <u>Sample point taken at outlet of the outfall structure. Located approximately 2 feet higher in elevation from 1.1.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata:	<u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>0.0</u> % (A/B)
4. _____					
Total Cover: _____ %					
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:	
1. <u>Baccharis sarathoides</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>	Total % Cover of:	Multiply by:
2. _____				OBL species	<u>0</u>
3. _____				FACW species	<u>0</u>
4. _____				FAC species	<u>0</u>
5. _____				FACU species	<u>60</u>
Total Cover: <u>15</u> %				UPL species	<u>400</u>
				Column Totals:	<u>95</u> (A) <u>460</u> (B)
				Prevalence Index = B/A = <u>4.84</u>	
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:	
1. <u>Cynodon dactylon</u>	<u>75</u>	<u>Yes</u>	<u>Not Listed</u>	<input checked="" type="checkbox"/> Dominance Test is >50%	
2. <u>Hirshfeldia incana</u>	<u>5</u>	<u>Yes</u>	<u>Not Listed</u>	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
3. _____				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____				¹ Indicators of hydric soil and wetland hydrology must be present.	
6. _____					
7. _____					
8. _____					
Total Cover: <u>80</u> %					
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?	
1. _____				Yes <input type="radio"/>	No <input checked="" type="radio"/>
2. _____					
Total Cover: _____ %					
% Bare Ground in Herb Stratum <u>20</u> %		% Cover of Biotic Crust _____ %			

Remarks: Area is dominated by upland vegetation.

SOIL

Sampling Point: H-17 WS

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 2/1	100	N/A				Loamy/Clay	dry soils

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils:³

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Cobble/Rock
Depth (inches): 8 inches

Hydric Soil Present? Yes No

Remarks: No redox observed and soils drying than those observed within the wetland area.
Rocks and cobbles in area making it difficult to dig deeper.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Sediment and drift deposits within this area as the area is located downstream of an outfall structure. No defined channel or swale, only sheetflow from outfall into the channel at bottom of slope.

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	Kit Carson Bike Trail		Facility ID	H-18	
Location	Beethoven Drive				
Latitude ¹	33.074552	Longitude ¹	-117.068063	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Channel		Lining Type	Concrete	
Proposed Maintenance Activities	Remove accumulated sediment and vegetation within concrete channel. A portion of concrete is broken and requires repairs. Equipment/temporary spoil piles within on trail/disturbed areas. A bobcat will drive to the downstream end of the concrete channel and push accumulated sediment upstream to temporary spoil pile location.				
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

PART II. SURVEY INFORMATION

Surveyors	William Kohn and Lanika Cervantes		Date of Survey	2/26/2019	
Was water in the channel at the time of the survey?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>		Hydrology Type ²	P <input type="checkbox"/> I <input type="checkbox"/> E <input checked="" type="checkbox"/> O <input type="checkbox"/>	
Nearest Named Waterbody	San Dieguito River		NWI Index	Riverine	
NRCS Soils	Ramona sandy loam, 2 to 5 percent slopes				

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		USACE 404 Regulated Activity	Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Only Temporary diversion structures are regulated	
USACE Nonwetland Waters Present	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		USACE Wetland Waters Present	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
Datapoint(s) Taken	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				
Associated Datasheet(s)	Wetland Sample Point 1.1 and 1.2				

Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description ³	Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Wetland Waters	V/C	0.020	III
	Nonwetland Waters	U/C	0.099	IV
	TOTAL			0.119

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		CDFW Regulated Activity	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
--	--	--	-------------------------	--	--

Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³	Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Riparian Extent	V/E	<0.001	I
	Riparian Extent	V/C	0.020	III
	Channel Bank		0.169	
TOTAL			0.189	

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Coastal and Valley Freshwater Marsh	-	0.080	0.080	<i>Typha domingensis</i>
Southern Arroyo Willow Riparian Forest	<0.001	1.005	1.005	<i>Salix lasiolepis</i>
Southern Willow Scrub	0.020	0.079	0.099	<i>Salix lasiolepis</i>

City of Escondido Channel Maintenance RGP – Facility Summary

Mulefat Scrub	-	0.066	0.066	<i>Baccharis salicifolia</i>
Subtotal Riparian and Wetland	0.020	1.230	1.250	
Upland				
Diegan Coastal Sage Scrub	-	2.011	2.011	<i>Eriogonum fasciculatum</i>
Eucalyptus Woodland	-	0.315	0.315	<i>Eucalyptus sp.</i>
Non-native Grassland	-	1.199	1.199	
Subtotal Upland	-	3.524	3.524	
Other Land Cover Types				
Urban/Developed	0.185	1.402	1.588	
Disturbed Habitat	-	0.505	0.505	
Subtotal Other Land Cover Types	0.185	1.907	2.093	
GRAND TOTAL⁶	0.206	6.662	6.868	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A		
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	Coastal California gnatcatcher (<i>Polioptila californica californica</i>) (FT, SSC)		
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	San Diego ambrosia (<i>Ambrosia pumila</i>) (FE, --, CRPR 1B.1) Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Polioptila californica californica</i>) (FT, SSC) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE) Swainson's hawk (<i>Buteo swainsoni</i>) (--, ST)		
Other non-listed special status species historically known to occur within the Facility Buffer	None		
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Wart-stemmed ceanothus (<i>Ceanothus cerrucosus</i>) (CRPR 2B.2) Southern tarplant (<i>Centromadia parryi ssp. australis</i>) (CRPR 1B.1) Decumbent goldenbush (<i>Isocoma menziesii var. decumbens</i>) (CRPR 1B.2) Western spadefoot (<i>Spea hammondii</i>) (SSC) Coastal cactus wren (<i>Campylorhynchus brunneicapillus sandiegensis</i>) (SSC)		
Are species surveys recommended?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	If Yes, for what species?	Least Bell's vireo during breeding season, Coastal California gnatcatcher year-round and San Diego Ambrosia
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		

PART III. ADDITIONAL NOTES/COMMENTS

Channel is concrete-lined channel that flows along the bike trail and into a riparian area. As the concrete-lined channel enters the riparian habitat, small sections of the concrete has been undermined in both the channel bottom and a section of the western concrete bank has collapsed. Buffer area is within a large floodplain area that support small depressions, but is mostly dominated by higher floodplain habitat. Downstream portion of concrete channel is full of sediment, approximately 1-2 feet in depth.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing SE. Concrete-lined channel facing downstream



Representative Photograph 2. Facing NW. Concrete channel at upstream end as it flows under a pedestrian bridge crossing.



Representative Photograph 3. Facing NW. Portions of concrete is broken and in need of repairs.



Representative Photograph 4. Facing NW. Upland habitat immediately adjacent to concrete channel along the western portion of the buffer area.



Representative Photograph 5. Facing SE. Small depressional area supporting freshwater marsh north of the concrete channel. A berm separates this area from the concrete channel.



Representative Photograph 6. Facing E. Higher floodplain habitat located adjacent to the concrete channel at the eastern end the buffer area. Location of Wetland Sample Point 1.2

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/18/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: H-18 WSP 1.1
 Investigator(s): Lanika Cervantes; William Kohn Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR): C - Mediterranean California Lat: 33.073834 Long: -117.065588 Datum: _____
 Soil Map Unit Name: Chino silt loam, saline, 0 to 2 percent slopes NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: <u>Sample point taken near edge of depression</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <u>Salix lasiolepis</u>	20	Yes	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																																
2. <u>salix gooddingii</u>	20	Yes	FACW																																	
3. _____																																				
4. _____																																				
Total Cover: <u>40 %</u>				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="2">Total % Cover of:</td> <td align="center" colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td align="center">60</td> <td>x 1 =</td> <td align="center">60</td> </tr> <tr> <td>FACW species</td> <td align="center">40</td> <td>x 2 =</td> <td align="center">80</td> </tr> <tr> <td>FAC species</td> <td></td> <td>x 3 =</td> <td align="center">0</td> </tr> <tr> <td>FACU species</td> <td></td> <td>x 4 =</td> <td align="center">0</td> </tr> <tr> <td>UPL species</td> <td></td> <td>x 5 =</td> <td align="center">0</td> </tr> <tr> <td>Column Totals:</td> <td align="center">100</td> <td>(A)</td> <td align="center">140 (B)</td> </tr> <tr> <td align="center" colspan="4">Prevalence Index = B/A = <u>1.40</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	60	x 1 =	60	FACW species	40	x 2 =	80	FAC species		x 3 =	0	FACU species		x 4 =	0	UPL species		x 5 =	0	Column Totals:	100	(A)	140 (B)	Prevalence Index = B/A = <u>1.40</u>			
Total % Cover of:		Multiply by:																																		
OBL species	60	x 1 =	60																																	
FACW species	40	x 2 =	80																																	
FAC species		x 3 =	0																																	
FACU species		x 4 =	0																																	
UPL species		x 5 =	0																																	
Column Totals:	100	(A)	140 (B)																																	
Prevalence Index = B/A = <u>1.40</u>																																				
<u>Sapling/Shrub Stratum</u>																																				
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: _____ %																																				
<u>Herb Stratum</u>																																				
1. <u>Scirpus californica</u>	60	Yes	OBL	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>60 %</u>																																				
<u>Woody Vine Stratum</u>																																				
1. _____																																				
2. _____																																				
Total Cover: _____ %																																				
% Bare Ground in Herb Stratum <u>40 %</u>		% Cover of Biotic Crust _____ %																																		

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks:

SOIL

Sampling Point: H-18 WS

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10-YR 3/2	100					Loamy/Clay	moist soils
6-12	10YR 4/3	100					Sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) |
| <input checked="" type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |

Indicators for Problematic Hydric Soils:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: No redox observed however hydrogen sulfide odor.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): at surface
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): at surface

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: several hydrology indicators. a berm separates this depression from concrete-lined channel.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/18/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: H-18 WSP 1.2
 Investigator(s): Lanika Cervantes; William Kohn Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): outerfloodplain Local relief (concave, convex, none): convex Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 33.073856 Long: -117.065650 Datum: _____
 Soil Map Unit Name: Chino silt loam, saline, 0 to 2 percent slopes NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: <u>Sample point taken within the outerfloodplain that surrounds the concrete channel and the depression. Area is 4 feet higher in elevation from 1.1.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <u>Salix gooddingii</u>	50	Yes	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7 %</u> (A/B)																																
2. <u>unknown tree (ornamental)</u>	15	Yes	Not Listed																																	
3. _____																																				
4. _____																																				
Total Cover: <u>65 %</u>				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="2">Total % Cover of:</td> <td align="center" colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td align="center"><u> </u></td> <td align="center">x 1 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td align="center"><u>50</u></td> <td align="center">x 2 =</td> <td align="center"><u>100</u></td> </tr> <tr> <td>FAC species</td> <td align="center"><u>10</u></td> <td align="center">x 3 =</td> <td align="center"><u>30</u></td> </tr> <tr> <td>FACU species</td> <td align="center"><u> </u></td> <td align="center">x 4 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td align="center"><u>15</u></td> <td align="center">x 5 =</td> <td align="center"><u>75</u></td> </tr> <tr> <td>Column Totals:</td> <td align="center"><u>75</u></td> <td align="center">(A)</td> <td align="center"><u>205</u> (B)</td> </tr> <tr> <td align="center" colspan="4">Prevalence Index = B/A = <u>2.73</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u> </u>	x 1 =	<u>0</u>	FACW species	<u>50</u>	x 2 =	<u>100</u>	FAC species	<u>10</u>	x 3 =	<u>30</u>	FACU species	<u> </u>	x 4 =	<u>0</u>	UPL species	<u>15</u>	x 5 =	<u>75</u>	Column Totals:	<u>75</u>	(A)	<u>205</u> (B)	Prevalence Index = B/A = <u>2.73</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u> </u>	x 1 =	<u>0</u>																																	
FACW species	<u>50</u>	x 2 =	<u>100</u>																																	
FAC species	<u>10</u>	x 3 =	<u>30</u>																																	
FACU species	<u> </u>	x 4 =	<u>0</u>																																	
UPL species	<u>15</u>	x 5 =	<u>75</u>																																	
Column Totals:	<u>75</u>	(A)	<u>205</u> (B)																																	
Prevalence Index = B/A = <u>2.73</u>																																				
<u>Sapling/Shrub Stratum</u>																																				
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: <u> </u> %																																				
<u>Herb Stratum</u>																																				
1. <u>Conium maculatum</u>	10	Yes	FAC	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.																																
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>10 %</u>																																				
<u>Woody Vine Stratum</u>																																				
1. _____																																				
2. _____																																				
Total Cover: <u> </u> %																																				
% Bare Ground in Herb Stratum <u>90 %</u>		% Cover of Biotic Crust <u> </u> %																																		

Remarks: _____

SOIL

Sampling Point: H-18 WS

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10-YR 3/1	100					Loamy/Clay	
6-12	10YR 4/4	100					Sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: No redox observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology indicators observed within this area. approximately 4 feet higher in elevation from wetland area.

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	Encino and Amparo		Facility ID	H-19	
Location	Encino Drive and Amparo Drive				
Latitude ¹	33.098916	Longitude ¹	-117.060170	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Outlet and Inlet		Lining Type	Earthen	
Proposed Maintenance Activities	Remove accumulated sediment and weed removal				
	Equipment will be staged on the street or disturbed areas and backhoe or excavator will be used to scoop out sediment to unclog outlet.				
	No dragging of equipment along banks and no equipment in channel.				
	All native trees (willows) occurring within the basin will be removed (root and all).				
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

PART II. SURVEY INFORMATION

Surveyors	William Kohn and Ryan Layden		Date of Survey	2/27/2019	
Was water in the channel at the time of the survey?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>		Hydrology Type ²	P <input type="checkbox"/> I <input checked="" type="checkbox"/> E <input type="checkbox"/> O <input type="checkbox"/>	
Nearest Named Waterbody	San Dieguito River		NWI Index	Riverine	
NRCS Soils	Ramona sandy loam, 2 to 5 percent slopes				

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		USACE 404 Regulated Activity	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
USACE Nonwetland Waters Present	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>		USACE Wetland Waters Present	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
			Datapoint(s) Taken	Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/>	
Associated Datasheet(s)					
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Wetland Waters	V/E		0.054	I
	TOTAL			0.054	

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		CDFW Regulated Activity	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Riparian Extent	V/E		0.054	I
	TOTAL			0.054	

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Southern willow scrub	0.055	-	0.055	<i>Salix lasiolepis, Cortaderia selloana</i>
Subtotal Riparian and Wetland	0.055	-	0.055	
Upland				
Coast live oak woodland	-	0.082	0.082	<i>Quercus agrifolia</i>
Subtotal Upland	-	0.082	0.082	
Other Land Cover Types				
Urban/developed	-	1.006	1.006	

City of Escondido Channel Maintenance RGP – Facility Summary

Encino and Amparo

Disturbed Habitat	-	0.104	0.104	
Subtotal Other Land Cover Types	-	1.110	1.110	
GRAND TOTAL⁶	0.055	1.192	1.246	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A		
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Poliopitila californica californica</i>) (FT, SSC) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE) Swainson's hawk (<i>Buteo swainsoni</i>) (--, ST) Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>) (FT, SE) California black rail (<i>Laterallus jamaicensis coturniculus</i>) (--, ST/FP)		
Other non-listed special status species historically known to occur within the Facility Buffer	None		
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>) (CRPR 1B.1) Southern California legless lizard (<i>Anniella stebbinsi</i>) (SSC) Orange-throated whiptail (<i>Aspodpscelis hyperythra</i>) (SSC) Coast horned lizard (<i>Phrynosoma blainvillii</i>) (SSC) Burrowing owl (<i>Athene cunicularia</i>) (SSC) Coastal cactus wren (<i>Campylorhynchus brunneicapillus sandiegensis</i>) (SSC) White-faced ibis (<i>Plagadis chihii</i>) (WL) Pallid bat (<i>Antrozous pallidus</i>) (SSC) Dulzura pocket mouse (<i>Chaetodipus californicus femoralis</i>) (SSC) Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) (SSC) Western yellow bat (<i>Lasiurus xanthinus</i>) (SSC) Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>) (SSC) Big free-tailed bat (<i>Nyctinomops macrotis</i>) (SSC) American badger (<i>Taxidea taxus</i>) (SSC)		
Are species surveys recommended?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	If Yes, for what species?	Least Bell's vireo during breeding season
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		

PART III. ADDITIONAL NOTES/COMMENTS

Area is within a locked gate, therefore assessment completed around the maintenance area where access was available. Wetland basin occurs at outlet structure, the area is dominated by *Salix lasiolepis* and some *Cortaderia selloana* at the basin bottom.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing NW. Willow riparian woodland within basin.



Representative Photograph 2. Facing SE. Fence surrounding basin

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	Sunset and Bear Valley	Facility ID	H-20	
Location	Sunset Drive and Bear Valley Parkway			
Latitude ¹	33.094609	Longitude ¹	-117.059167	Maintenance Frequency (years)
				Annually
Maintenance Facility Type	Channel	Lining Type	Earthen	
Proposed Maintenance Activities	Remove accumulated sediment and weed removal Equipment will be staged on the street and backhoe or excavator will be used to scoop out sediment to unclog outlet. No dragging of equipment along banks and no equipment in channel.			
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>

PART II. SURVEY INFORMATION

Surveyors	William Kohn and Ryan Layden	Date of Survey	2/27/2019	
Was water in the channel at the time of the survey?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Hydrology Type ²	P <input type="checkbox"/> I <input type="checkbox"/> E <input checked="" type="checkbox"/> O <input type="checkbox"/>
Nearest Named Waterbody	San Dieguito River	NWI Index	Not classified	
NRCS Soils	Ramona sandy loam, 5 to 9 percent slopes			

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE 404 Regulated Activity	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Only Temporary diversion structures are regulated
USACE Nonwetland Waters Present	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE Wetland Waters Present	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Datapoint(s) Taken
Associated Datasheet(s)						
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵	
	Nonwetland Waters	U/E		0.001	II	
	TOTAL			0.001		

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	CDFW Regulated Activity	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Channel Bank	U/E		0.001	II
	TOTAL			0.001	

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Unvegetated Channel	0.001	0.016	0.017	
<i>Subtotal Riparian and Wetland</i>	-	0.02	0.02	
Upland				
Coast Live Oak Woodland	-	0.428	0.428	Quercus agrifolia
<i>Subtotal Upland</i>	-	0.428	0.428	

Other Land Cover Types				
Urban/Developed	-	1.01	1.01	
Subtotal Other Land Cover Types	-	1.01	1.01	
GRAND TOTAL⁶	0.001	1.456	1.458	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A		
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Coastal California gnatcatcher (<i>Poliophtila californica californica</i>) (FT, SSC) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE) Swainson's hawk (<i>Buteo swainsoni</i>) (--, ST) Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>) (FT, SE) California black rail (<i>Laterallus jamaicensis coturniculus</i>) (--, ST/FP)		
Other non-listed special status species historically known to occur within the Facility Buffer	None		
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>) (CRPR 1B.1) Southern California legless lizard (<i>Anniella stebbinsi</i>) (SSC) Orange-throated whiptail (<i>Aspodpscelis hyperythra</i>) (SSC) Coast horned lizard (<i>Phrynosoma blainvillii</i>) (SSC) Burrowing owl (<i>Athene cunicularia</i>) (SSC) Coastal cactus wren (<i>Campylorhynchus brunneicapillus sandiegensis</i>) (SSC) White-faced ibis (<i>Plagadis chihii</i>) (WL) Pallid bat (<i>Antrozous pallidus</i>) (SSC) Dulzura pocket mouse (<i>Chaetodipus californicus femoralis</i>) (SSC) Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) (SSC) Western yellow bat (<i>Lasiurus xanthinus</i>) (SSC) Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>) (SSC) Big free-tailed bat (<i>Nyctinomops macrotis</i>) (SSC) American badger (<i>Taxidea taxus</i>) (SSC)		
Are species surveys recommended?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	If Yes, for what species?	Least Bell's vireo during breeding season and San Diego Ambrosia
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		

PART III. ADDITIONAL NOTES/COMMENTS

Earthen channel supporting ponded water at the time of the surveys. Channel bottom is unvegetated with cobble and shelving observed throughout. Nonnative grass species along banks of the channel and Coast live oak present adjacent to the channel on terrace.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing E. Unvegetated channel at downstream end.



Representative Photograph 2. Facing NW. Channel through Coast live oak woodland



Representative Photograph 3. Facing E. Culvert under Bear Valley Road

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	Via Rancho Parkway and Sunset Drive	Facility ID	H-21	
Location	Via Rancho Parkway and Sunset Drive			
Latitude ¹	33.067988	Longitude ¹	-117.065989	Maintenance Frequency (years)
				Annually
Maintenance Facility Type	Outlet	Lining Type	Earthen	
Proposed Maintenance Activities	Remove accumulated sediment and weed removal One-time willow tree removal. Willows will be cut at base and roots left in place. Handtools used for removal. One willow blocking access to the site, 2-3 willows have large branches that are perpendicular to the drainage flow and has the potential to act as a debris jam during storm events. Equipment will need to be within wetlands to access outlet area. Backhoe or excavator will be used to scoop out sediment to unclog outlet and create pilot channel to larger drainage. Handtools to trim native shrubs and trees, as needed.			
Will work occur when water is in the channel?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	If Yes, will dewatering or water diversion be needed?	Y <input type="checkbox"/>
				N <input checked="" type="checkbox"/>

PART II. SURVEY INFORMATION

Surveyors	Lanika Cervantes	Date of Survey	2/27/2019	
Was water in the channel at the time of the survey?	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Hydrology Type ²	P <input type="checkbox"/>
				I <input checked="" type="checkbox"/>
				E <input type="checkbox"/>
				O <input type="checkbox"/>
Nearest Named Waterbody	San Dieguito River	NWI Index	Not classified	
NRCS Soils	Ramona sandy loam, 5 to 9 percent slopes			

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE 404 Regulated Activity	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>
				Only Temporary diversion structures are regulated	
USACE Nonwetland Waters Present	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	USACE Wetland Waters Present	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>
			Datapoint(s) Taken	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>
Associated Datasheet(s)					
Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Wetland Waters	V/E		0.001	I
	TOTAL			0.001	

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	CDFW Regulated Activity	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³		Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Riparian Extent	V/E		0.001	I
	TOTAL			0.001	

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Emergent Wetland	-	0.015	0.015	Anemopsis californica; Eleocharis sp.
Southern Willow Scrub	0.001	0.235	0.236	Salix lasiolepis
Subtotal Riparian and Wetland	0.001	0.249	0.250	

Other Land Cover Types				
Urban/Developed	-	0.428	0.428	
Disturbed Habitat	-	0.110	0.110	
Subtotal Other Land Cover Types	-	0.538	0.538	
GRAND TOTAL⁶	0.001	0.787	0.788	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A		
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None		
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	Tricolored blackbird (<i>Agelaius tricolor</i>) (--, CE) Least Bell's vireo (<i>Vireo bellii pusillus</i>) (FE, SE) Swainson's hawk (<i>Buteo swainsoni</i>) (--, ST) Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>) (FE, ST) California black rail (<i>Laterallus jamaicensis coturniculus</i>) (--, ST/FP)		
Other non-listed special status species historically known to occur within the Facility Buffer	None		
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	Southern California legless lizard (<i>Anniella stebbinsi</i>) (SSC) Orange-throated whiptail (<i>Aspodpscelis hyperythra</i>) (SSC) Coast horned lizard (<i>Phrynosoma blainvillii</i>) (SSC) Burrowing owl (<i>Athene cunicularia</i>) (SSC) White-faced ibis (<i>Plagadis chihi</i>) (WL) Pallid bat (<i>Antrozous pallidus</i>) (SSC) Coastal cactus wren (<i>Campylorhynchus brunneicapillus sandiegensis</i>) (SSC) Dulzura pocket mouse (<i>Chaetodipus californicus femoralis</i>) (SSC) Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) (SSC) Western yellow bat (<i>Lasiurus xanthinus</i>) (SSC) Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>) (SSC) Big free-tailed bat (<i>Nyctinomops macrotis</i>) (SSC) American badger (<i>Taxidea taxus</i>) (SSC)		
Are species surveys recommended?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	If Yes, for what species?	Least Bell's vireo during breeding season
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		

PART III. ADDITIONAL NOTES/COMMENTS

Earthen channel supporting water at time of survey. Main channel that supports wide wetland floodplain dominated by southern willow scrub and emergent wetland. Small outfall enters site east of main channel, this outfall needs maintenance. In addition, three willows have branches that are growing perpendicular to flow and occur over the main channel, creating a dam effect when large storms occur.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing N. Outfall within wetlands that will be maintained.



Representative Photograph 2. Facing N. Main channel and willows growing perpendicular to channel flows. This tree will need to be cut down to avoid debris jams.



Representative Photograph 3. Facing W. Existing access road to the site that will need vegetation trimming and a willow tree removal for access.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido RGP City/County: Escondido/San Diego Sampling Date: 5/8/19
 Applicant/Owner: Via Rancho/Sunset State: CA Sampling Point: 1.1
 Investigator(s): L.Cervantes Section, Township, Range: Undefined
 Landform (hillslope, terrace, etc.): Active Floodplain Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR): C - Mediterranean California Lat: 33.067967 Long: -117.065881 Datum: NAD 1963
 Soil Map Unit Name: Chino Silt Loam NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: <u>Flowing water was observed within the low flow portion of the channel.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <i>Salix laevigata</i>	30	Yes	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A) Total Number of Dominant Species Across All Strata: 5 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0 % (A/B)																																
2. <i>Salix lasiolepis</i>	20	Yes	FACW																																	
3. <i>Washingtonia sp.</i>	10	No	FAC																																	
4. _____																																				
Total Cover: 60 %																																				
Sapling/Shrub Stratum																																				
1. <i>Baccharis sarothroides</i>	2	Yes	FACU	Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Total % Cover of:</td> <td></td> <td style="text-align: right;">Multiply by:</td> <td></td> </tr> <tr> <td>OBL species</td> <td style="text-align: center;">65</td> <td>x 1 =</td> <td style="text-align: center;">65</td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">50</td> <td>x 2 =</td> <td style="text-align: center;">100</td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;">10</td> <td>x 3 =</td> <td style="text-align: center;">30</td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">2</td> <td>x 4 =</td> <td style="text-align: center;">8</td> </tr> <tr> <td>UPL species</td> <td></td> <td>x 5 =</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;">127</td> <td>(A)</td> <td style="text-align: center;">203 (B)</td> </tr> <tr> <td colspan="2" style="text-align: right;">Prevalence Index = B/A =</td> <td></td> <td style="text-align: center;">1.60</td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	65	x 1 =	65	FACW species	50	x 2 =	100	FAC species	10	x 3 =	30	FACU species	2	x 4 =	8	UPL species		x 5 =	0	Column Totals:	127	(A)	203 (B)	Prevalence Index = B/A =			1.60
Total % Cover of:		Multiply by:																																		
OBL species	65	x 1 =	65																																	
FACW species	50	x 2 =	100																																	
FAC species	10	x 3 =	30																																	
FACU species	2	x 4 =	8																																	
UPL species		x 5 =	0																																	
Column Totals:	127	(A)	203 (B)																																	
Prevalence Index = B/A =			1.60																																	
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: 2 %																																				
Herb Stratum																																				
1. <i>Anemopsis californica</i>	40	Yes	OBL	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.																																
2. <i>Eleocharis palustris</i>	25	Yes	OBL																																	
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: 65 %																																				
Woody Vine Stratum																																				
1. _____				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>																																
2. _____																																				
Total Cover: %																																				
% Bare Ground in Herb Stratum _____ % % Cover of Biotic Crust _____ %																																				

Remarks: The sample area is dominated with OBL and FACW vegetation.

SOIL

Sampling Point: 1.1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10 YR 2/2	100					Sandy	
6-18	10 YR 4/2	95	7.5 YR 4/6	5	C	PL	Sandy	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: Redox was observed with the sample area, meets depleted matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Two secondary wetland hydrology were observed with the sample area. The wetlands are also located within the OHWM. Abundant racks were also located along the tree trunks.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido RGP City/County: Escondido/San Diego Sampling Date: 5/8/19
 Applicant/Owner: Via Rancho/Sunset State: CA Sampling Point: 1.2
 Investigator(s): L.Cervantes Section, Township, Range: Undefined
 Landform (hillslope, terrace, etc.): Outer floodplain Local relief (concave, convex, none): convex Slope (%): 2
 Subregion (LRR): C - Mediterranean California Lat: 33.067960 Long: -117.065824 Datum: NAD 1963
 Soil Map Unit Name: Chino Silt Loam NWI classification: Emergent Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: <u>The sample point was approximately 1 foot higher in elevation than sample point 1.1.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <u>Salix laevigata</u>	25	Yes	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.0 %</u> (A/B)																																
2. <u>Salix lasiolepis</u>	15	Yes	FACW																																	
3. _____																																				
4. _____																																				
Total Cover: <u>40 %</u>																																				
Sapling/Shrub Stratum																																				
1. _____				Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Total % Cover of:</td> <td></td> <td style="text-align: right;">Multiply by:</td> <td></td> </tr> <tr> <td>OBL species</td> <td style="text-align: center;">5</td> <td>x 1 =</td> <td style="text-align: center;">5</td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">40</td> <td>x 2 =</td> <td style="text-align: center;">80</td> </tr> <tr> <td>FAC species</td> <td></td> <td>x 3 =</td> <td style="text-align: center;">0</td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">3</td> <td>x 4 =</td> <td style="text-align: center;">12</td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;">10</td> <td>x 5 =</td> <td style="text-align: center;">50</td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;">58</td> <td>(A)</td> <td style="text-align: center;">147 (B)</td> </tr> <tr> <td colspan="2" style="text-align: right;">Prevalence Index = B/A =</td> <td></td> <td style="text-align: center;">2.53</td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	5	x 1 =	5	FACW species	40	x 2 =	80	FAC species		x 3 =	0	FACU species	3	x 4 =	12	UPL species	10	x 5 =	50	Column Totals:	58	(A)	147 (B)	Prevalence Index = B/A =			2.53
Total % Cover of:		Multiply by:																																		
OBL species	5	x 1 =	5																																	
FACW species	40	x 2 =	80																																	
FAC species		x 3 =	0																																	
FACU species	3	x 4 =	12																																	
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Column Totals:	58	(A)	147 (B)																																	
Prevalence Index = B/A =			2.53																																	
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: _____ %																																				
Herb Stratum																																				
1. <u>Hirschfeldia incana</u>	10	Yes	Not Listed	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.																																
2. <u>Anemopsis californica</u>	5	Yes	OBL																																	
3. <u>Ambrosia psilostachya</u>	3	No	FACU																																	
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>18 %</u>																																				
Woody Vine Stratum																																				
1. _____				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>																																
2. _____																																				
Total Cover: _____ %																																				
% Bare Ground in Herb Stratum _____ % % Cover of Biotic Crust _____ %																																				

Remarks: The sample area is dominated with FACW tree vegetation and the herbaceous vegetation observed within the sample area is mixed with upland and wetland vegetation.

SOIL

Sampling Point: 1.2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10 YR 3/2	100					Loamy Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils:³

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: No hydric soil indicators were observed within the sample area.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary nor secondary wetland hydrology indicators were observed with the sample area. The sample area was observed outside of the OHWM and no flow indicators were observed.

PART I. MAINTENANCE FACILITY INFORMATION

Facility Name	Woodland Parkway		Facility ID	SM-05	
Location	Woodland Parkway and Foothill View Way				
Latitude ¹	33.159618	Longitude ¹	-117.128832	Maintenance Frequency (years)	Annually
Maintenance Facility Type	Outlet and Inlet		Lining Type	Earthen	
Proposed Maintenance Activities	Remove accumulated sediment and weed removal and dead vegetation/debris throughout entire drainage. Equipment will be staged on the street and backhoe or excavator will be used to scoop out sediment to unclog inlets and outlets. No dragging of equipment along banks and no equipment in channel. Native tree trimming as needed to allow equipment access. Manual handtools will be used to remove dead vegetation or debris that may be blocking flow.				
Will work occur when water is in the channel?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		If Yes, will dewatering or water diversion be needed?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

PART II. SURVEY INFORMATION

Surveyors	Lanika Cervantes and William Kohn		Date of Survey	2/26/2019	
Was water in the channel at the time of the survey?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		Hydrology Type ²	P <input type="checkbox"/> I <input checked="" type="checkbox"/> E <input type="checkbox"/> O <input type="checkbox"/>	
Nearest Named Waterbody	San Marcos Creek		NWI Index	Not classified	
NRCS Soils	Las Posas fine sandy loam, 9 to 15 percent slopes; Las Posas stony fine sandy loam, 30 to 65 percent slopes				

Section II.a. Summary of USACE/RWQCB/CDFW Waters of the U.S. and State Within the Maintenance Facility

USACE 404/RWQCB 401 Jurisdiction	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		USACE 404 Regulated Activity	Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Only Temporary diversion structures are regulated	
USACE Nonwetland Waters Present	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>		USACE Wetland Waters Present	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Associated Datasheet(s)	Wetland Sample Points 1.1 and 1.2				

Summary of Aquatic Habitats (Waters of the U.S. and State)	Type of Jurisdictional Water	Habitat Description ³	Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵
	Wetland Waters	V/E	0.028	I
	TOTAL			0.028

Section II.b. Summary of CDFW Waters of the State Only Within the Maintenance Facility

CDFW 1600 Jurisdiction Beyond USACE Waters	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		CDFW Regulated Activity	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Summary of Aquatic Habitats (Waters of the State Only)	Type of Jurisdictional Water	Habitat Description ³	Acres Delineated within Maintenance Footprint ⁴	Impact Tier ⁵	
	Riparian Extent	V/E	0.077	I	
	Riparian Extent	V/E	0.001	II	
	TOTAL			0.078	

Section II.c. Summary of Vegetation Communities and Cover Types Within and Adjacent to the Maintenance Facility

Vegetation Communities and Cover Types	Acres within Study Area ⁶			Dominant/Significant Species
	Maintenance Footprint	100-Foot Buffer	Total	
Riparian and Wetland				
Southern Arroyo Willow Riparian Forest	0.018	0.146	0.164	Salix lasiolepis
Southern Riparian Scrub	0.025	0.301	0.325	Eucalyptus sp., Sambucus sp., Salix lasiolepis

City of Escondido Channel Maintenance RGP – Facility Summary

SM-05 - Woodland Parkway

Subtotal Riparian and Wetland	0.043	0.447	0.489	
Upland				
Southern Coast Live Oak Riparian Forest	0.035	0.248	0.283	<i>Quercus agrifolia</i>
Non-Native Grassland	0.001	0.011	0.012	
Non-Native Woodland	-	0.296	0.296	<i>Schinus terebinthifolia</i>
Subtotal Upland	0.036	0.556	0.592	
Other				
Urban/ Developed	-	5.69	5.69	
Subtotal Other	-	5.69	5.69	
GRAND TOTAL⁶	0.079	6.689	6.768	

Section II.d. Threatened/Endangered/Special Status Species Within the Vicinity of the Maintenance Facility⁷

Special status species observed during 2019 field surveys within the Facility Buffer	None			
Threatened/Endangered species historically known to occur within the Facility Buffer	N/A			
Threatened/Endangered species having Designated Critical Habitat within the Facility Buffer	None			
Threatened/Endangered species historically known to occur within 1.0 mile of the Facility Buffer	San Diego button-celery (<i>Eryngium aristulatum</i> var. <i>parishii</i>) (FE, SE, CRPR 1B.1) Spreading navarretia (<i>Navarretia fossalis</i>) (FT, --, CRPR 1B.1)			
Other non-listed special status species historically known to occur within the Facility Buffer	None			
Other non-listed special status species historically known to occur within 1.0 mile of the Facility Buffer	San Diego thorn-mint (<i>Acanthomintha ilicifolia</i>) CRPR 1B.2) Rainbow manzanita (<i>Arctostaphylos rainbowensis</i>) (CRPR 1B.1) Summer holly (<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i>) (CRPR 1B.2) Parry's tetraococcus (<i>Tetraococcus dioicus</i>) (CRPR 1B.2) Western spadefoot (<i>Spea hammondi</i>) (SSC)			
Are species surveys recommended?	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>	If Yes, for what species?	Least Bell's vireo during breeding season and San Diego Ambroisa
Will work occur in the breeding season (Feb-August)?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			

PART III. ADDITIONAL NOTES/COMMENTS

Channel begins at outfall structure and supported ponded water at the time of the survey. Shelving was evident throughout and wrack, sediment deposition, and drainage patterns were also observed. Wetlands occur within the OHWM. Channel is dominated by *Vitis californica* and *Salix lasiolepis* with lots of organic debris within channel bottom. North of the upstream outfall structure there is no jurisdictional drainage, this area is a toe of slope dominated by coast live oak.

Footnotes:

- Coordinates are based on the centroid of the facility.
- Hydrology Types: P = Perennial, I = Intermittent, E = Ephemeral, O = Open Water
- Habitat Descriptions: V = Vegetated, U = Unvegetated / E = Earthen, C = Concrete
- Impact areas are subject to change based on agency recommendations and/or maintenance design changes.
- The impact tier determines thresholds for O&M activities under this RGP, and prescribes mitigation ratios for permanent/repeated impacts. A methodology for determining impact tier is included in the permit package.
- Totals may not add up due to rounding.
- Sources: California Natural Diversity Database (CNDDDB) (CDFW 2019) and U.S. Fish and Wildlife Critical Habitat Data (USFWS 2019).

PART IV. REPRESENTATIVE FACILITY PHOTOGRAPHS



Representative Photograph 1. Facing E. Sample Point 1.1 within channel bottom.



Representative Photograph 3. Facing E. Channel bottom dominated by Vitis and Salix.



Representative Photograph 4. Facing SW. Downstream segment of the channel.



Representative Photograph 5. Facing SW. Coast live oak toe of slope that occurs north of the mapped channel.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/26/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: SM-05 WSP 1
 Investigator(s): Lanika Cervantes; William Kohn Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): drainage Local relief (concave, convex, none): concave Slope (%): 3
 Subregion (LRR): C - Mediterranean California Lat: 33.160289 Long: -117.128788 Datum: _____
 Soil Map Unit Name: Las Posas fine sandy loam, 9 to 15 percent slopes, eroded NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: <u>Sample point taken within the drainage.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <u>Salix lasiolepis</u>	15	Yes	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.0 %</u> (A/B)																																
2. _____																																				
3. _____																																				
4. _____																																				
Total Cover: <u>15 %</u>																																				
<u>Sapling/Shrub Stratum</u>				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="2">Total % Cover of:</td> <td align="center" colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td align="center">_____</td> <td>x 1 =</td> <td align="center">0</td> </tr> <tr> <td>FACW species</td> <td align="center">35</td> <td>x 2 =</td> <td align="center">70</td> </tr> <tr> <td>FAC species</td> <td align="center">15</td> <td>x 3 =</td> <td align="center">45</td> </tr> <tr> <td>FACU species</td> <td align="center">_____</td> <td>x 4 =</td> <td align="center">0</td> </tr> <tr> <td>UPL species</td> <td align="center">5</td> <td>x 5 =</td> <td align="center">25</td> </tr> <tr> <td>Column Totals:</td> <td align="center">55</td> <td>(A)</td> <td align="center">140 (B)</td> </tr> <tr> <td align="center" colspan="4">Prevalence Index = B/A = <u>2.55</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	_____	x 1 =	0	FACW species	35	x 2 =	70	FAC species	15	x 3 =	45	FACU species	_____	x 4 =	0	UPL species	5	x 5 =	25	Column Totals:	55	(A)	140 (B)	Prevalence Index = B/A = <u>2.55</u>			
Total % Cover of:		Multiply by:																																		
OBL species	_____	x 1 =	0																																	
FACW species	35	x 2 =	70																																	
FAC species	15	x 3 =	45																																	
FACU species	_____	x 4 =	0																																	
UPL species	5	x 5 =	25																																	
Column Totals:	55	(A)	140 (B)																																	
Prevalence Index = B/A = <u>2.55</u>																																				
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: _____ %																																				
<u>Herb Stratum</u>				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.																																
1. <u>Cyperus involucratus</u>	20	Yes	FACW																																	
2. <u>Bromus diandrus</u>	5	Yes	Not Listed																																	
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>25 %</u>																																				
<u>Woody Vine Stratum</u>																																				
1. <u>Vitis girdiana</u>	15	Yes	FAC																																	
2. _____																																				
Total Cover: <u>15 %</u>																																				
% Bare Ground in Herb Stratum <u>75 %</u>		% Cover of Biotic Crust _____ %																																		
Remarks: <u>Area is sparsely vegetated but is dominated by wetland vegetation.</u>																																				

SOIL

Sampling Point: SM-05 W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	7.5 YR 4/2	90	Gley 1 2.5/N	10	C	PL	Loamy/Clay	wet soils

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Groundwater at 12 inches. Soils wet with redox in the form of concentrations of Magnesium.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): 12 inches
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): 8 inches

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Large amounts of sediment and drift deposits within channel. In addition, vegetation is pushed down due to flow.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: City of Escondido Channel Maintenance RGP City/County: Escondido/San Diego Sampling Date: 2/26/2019
 Applicant/Owner: City of Escondido State: CA Sampling Point: SM-05 WSP 1
 Investigator(s): Lanika Cervantes; William Kohn Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 35
 Subregion (LRR): C - Mediterranean California Lat: 33.160295 Long: -117.128805 Datum: _____
 Soil Map Unit Name: Las Posas fine sandy loam, 9 to 15 percent slopes, eroded NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: <u>Sample point taken on channel bank approximately 3.5 feet higher in elevation from 1.1.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>33.3 %</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:	
Total Cover: <u>5 %</u>				Total % Cover of: _____ Multiply by: _____	
Sapling/Shrub Stratum				OBL species	<u>0</u>
1. <u>Quercus agrifolia</u>	<u>5</u>	<u>Yes</u>	<u>Not Listed</u>	FACW species	<u>0</u>
2. _____	_____	_____	_____	FAC species	<u>10</u> x 3 = <u>30</u>
3. _____	_____	_____	_____	FACU species	<u>0</u>
4. _____	_____	_____	_____	UPL species	<u>30</u> x 5 = <u>150</u>
5. _____	_____	_____	_____	Column Totals:	<u>40</u> (A) <u>180</u> (B)
Total Cover: <u>5 %</u>				Prevalence Index = B/A = <u>4.50</u>	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <u>Bromus diandrus</u>	<u>25</u>	<u>Yes</u>	<u>Not Listed</u>	<input checked="" type="checkbox"/> Dominance Test is >50%	
2. _____	_____	_____	_____	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
3. _____	_____	_____	_____	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present.	
6. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
Total Cover: <u>25 %</u>					
Woody Vine Stratum					
1. <u>Vitis girdiana</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>		
2. _____	_____	_____	_____		
Total Cover: <u>10 %</u>					
% Bare Ground in Herb Stratum <u>75 %</u>		% Cover of Biotic Crust _____ %			

Remarks: Steep hillslope dominated by upland vegetation.

SOIL

Sampling Point: SM-05 W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	7.5 YR 4/4	100	N/A				Loamy/Clay	dry soils

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils:³

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: No redox observed and soils drying than those observed within the wetland area.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Recent Iron Reduction in Plowed Soils (C6)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology indicators observed within this area. Sample point taken 3 feet higher in elevation from 1.1.

APPENDIX D. CULTURAL RESOURCES TECHNICAL REPORT

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ESCONDIDO RGP 94 CHANNEL MAINTENANCE PROGRAM CULTURAL RESOURCES INVENTORY, CITY OF ESCONDIDO, SAN DIEGO COUNTY, CALIFORNIA

PREPARED FOR:

City of Escondido
210 North Broadway
Escondido, California 92025

PREPARED BY:

ICF
525 B Street, Suite 1700
San Diego, CA 92101
Contact: Patrick McGinnis
858.444.3913

OCTOBER 2020



ICF. 2020. Escondido RGP 94 Channel Maintenance Program Cultural Resources
Inventory, City of Escondido, San Diego County, California. (ICF 59.19) Escondido, CA.
Prepared for City of Escondido, San Diego County, CA.

NATIONAL ARCHAEOLOGICAL DATABASE INFORMATION

Author(s): Patrick McGinnis, MA, RPA
Nara Cox, BA
Karen Crawford, MA, RPA

Consulting Firm: ICF
525 B Street, Suite 1700
San Diego, CA 92101
858.444.3913

Client: City of Escondido

Report Date: October 2020

Report Title: Escondido RGP 94 Channel Maintenance Program Cultural Resources Inventory, City of Escondido, San Diego County, California.

Type of Study: Cultural Resources Inventory

New Sites: ICF-ESC94-P-001

Updated Sites: CA-SDI-572, CA-SDI-6726 CA-SDI-6727, CA-SDI-8220, CA-SDI-12601, P-37-015577, P-37-017871, P-37-30889

USGS Quadrangle: San Marcos, Valley Center, and Escondido, California; 7.5-minute series (1:24,000)

Acreage: Study area 361 acres

Keywords: Inventory; California Register of Historical Resources

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Acronyms and Abbreviations

Acronym	Definition
AB 52	Assembly Bill 52
amsl	above mean sea level
APE	Area of Potential Effects
BMPs	Best Management Practices
BP	before present
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
Channel Maintenance Project RGP 94 Renewal or RGP 94 Renewal	94 – Channel Maintenance Program
City	City of Escondido
CRHR	California Register of Historical Resources
FLPMA	Federal Land Policy Management Act
MS4	Municipal Separate Storm Sewer System
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
PRC	Public Resources Code
RGP	Regional General Permit
SCIC	South Coastal Information Center
SDCWA	San Diego County Water Authority
SHPO	State Historic Preservation Officer
USGS	U.S. Geological Survey
VID	Vista Irrigation District
WoS	waters of the State
WoUS	waters of the U.S.

Executive Summary

The City of Escondido (City) is applying for mitigation for the renewal of the City of Escondido's Regional General Permit (RGP) 94 – Channel Maintenance Program (Channel Maintenance Project RGP 94 Renewal or RGP 94 Renewal). The City owns and operates Municipal Separate Storm Sewer System (MS4) infrastructure, including facilities that manage drainages within the city and in flood control channels. The Channel Maintenance Project RGP 94 was approved by State and Federal permitting authorities in 2015 to perform operations and maintenance activities at 63 storm water facilities. As the current Channel Maintenance Project RGP 94 permits expire in May 2020, the City is seeking to renew and amend the permit to include 24 additional maintenance locations and one expanded maintenance location, along with additional mitigation for associated impacts. Additionally, the City will seek separate permitting for two one-time improvement projects.

Work performed in these facilities and on associated roads has the potential to cause impacts to significant historic resources. ICF was contracted to conduct an archaeological survey of the facilities in support of the permit process. A records search was conducted in May and June 2019, at the South Coastal Information Center (SCIC). The records search indicates that 92 cultural resources are located within a 0.5-mile radius of the study area, eight of which intersect with project facilities and the 50-foot survey buffer: a prehistoric lithic scatter (P-37-000572); a prehistoric habitation site (P-37-008280); prehistoric bedrock milling sites and associated artifacts (P-37-006726; P-74-6727; and P-37-012601); a prehistoric isolated mano and flake (P-37-015577); a historic residence (P-37-017871); and a historic flume (P-37-030889).

ICF archaeologists conducted a pedestrian survey of the 361-acre survey area in October and November 2019. The survey area consisted of each facility location and a 50-foot buffer. During the field surveys, none of the eight previously recorded archaeological resources were relocated during the pedestrian surveys. One new prehistoric bedrock milling site, ICF-ESC94-P-001, was identified. However, several of the facilities could not be surveyed adequately due to poor visibility. It is recommended that a qualified archaeologist monitor the initial maintenance activities at these facilities. Based upon the results of initial ground disturbance, the monitor would be able to determine if the potential for subsurface disturbance warrants further monitoring. Monitoring requirements will be included in the Monitoring and Discovery Plan, along with measures to address any cultural discoveries during project-related activities. Once the areas have been inspected by an archaeologist and monitoring has been completed, documentation will be prepared confirming that there is no further need to monitor future maintenance activities at the same facility locations.

Project Description

The proposed project is within the City of Escondido, San Diego County, California. The project site is mapped within the Escondido, California, U.S. Geological Survey (USGS) 7.5-minute topographic map quadrangle (Figure 1 and 2).

The Channel Maintenance Project RGP 94 was approved by State and Federal permitting authorities in 2015 to perform operations and maintenance activities at 63 storm water facilities. As the current Channel Maintenance Project RGP 94 permits expire in May 2020, the City is seeking to renew and amend the permit to include 24 additional maintenance locations and one expanded maintenance locations, along with additional mitigation for associated impacts (see Table 1, to follow). The amended permit would allow the City to conduct Operations and Management (O&M) activities at 87 existing concrete and earthen storm water facilities. These activities would impact functions and services of non-wetland and wetland waters of the U.S. (WoUS) and waters of the State (WoS), as well as California Department of Fish and Wildlife (CDFW) riparian habitat and streambed.

Work activities will be conducted approximately annually or biannually as needed and as staff and budget allocations allow at each location. Most work activities at each site will be conducted and completed within 2-5 days.

Stream Diversions and BMPS

Stream diversions and Best Management Practices (BMPs) will be implemented for all facility locations during maintenance activities. If water is present during the time of the maintenance activity, flows/ponded water will be dammed by the installation of either gravel or sediment bags. Due to the varying channel widths, implementation of a coffer dam is not possible at all locations. Therefore, work within wetted portion of some channels may be needed. If work is conducted within the wetted portion of a channel, the City will employ a series of check dams downstream of the maintenance location to reduce flow velocities and allow any suspended particulates to settle out of the water column. Additionally, a pump diversion system may be used when appropriate.

If streams are dry, BMPs in the form of straw wattles will be used to prevent sediment or debris from entering downstream waters.

Staging and Access

Equipment staging and stockpiling of spoils will not occur within the limits of jurisdictional waters. Equipment will be staged on existing developed surface roads, lots, or disturbed habitat, when feasible. Sediment, debris, and vegetative material will be removed from the immediate area, stockpiled within surface roads, lots, or disturbed habitat, and then moved off-site to City Public Works facilities. Spoils will be disposed of appropriately or reused for other projects throughout the City, where appropriate.

New Project Activities to be Included in RGP

As part of the amendment, the City would like to request that additional project activities be added and covered under the renewed RGP 94 for all facility locations included in the RGP (i.e., both new facility locations and the current facility locations already included). These new project activities are further described below.

Repairs/Maintenance of Existing Hardscaped Structures

The City proposes to include the repairs of existing concrete aprons and/or concrete-lined drainages as part of the RGP. Repairs will include minor repairs to segments of concrete-lined channels or riprap-lined segments that will not result in the modification of the character, size, or scope of the original fill design. Additionally, these repairs will be limited to either current or new RGP sites. Larger drainages, such as Indian Wells or Escondido Creek, would not be included/covered.

Only one facility location, H-18 Kit Carson Bike Trail, currently is noted as needing repairs to a segment of its Concrete Channel. However, the City would like the ability to complete these types of repairs to any hardscape facility included in the RGP.

In addition to the RGP Area of Potential Effects (APE) discussed above, the City is also proposing two one-time improvement projects that will occur at two facility locations that are currently maintained as part of RGP 94. These projects will be permitted separate from RGP 94. The specific activities proposed at these sites are further described below.

H-02A – 1840 S Centre City Parkway

The maintenance of this facility is already included as a current site, and an expanded area is proposed under the RGP renewal. In addition to the proposed annual maintenance, the City would also like to concrete-line the roadside drainage portion of this facility because this portion of the roadside channel erodes severely every year.

E-47 – Fleetwood Street

The maintenance of this facility is already included as a current RGP site. In addition to the proposed annual maintenance, the City is also proposing the following one-time work activities:

- Repair the existing concrete apron.
- Expand the current RGP site by dredging/removing old material directly upstream of the concrete apron and adding up to 10 feet of rip rap.
- Replace an existing 18-inch diameter reinforced concrete pipeline (RCP) that runs beneath the concrete apron, parallel to the drainage, which would result in temporary impacts associated with trenching the pipeline alignment to uncover the existing pipeline and complete the replacement activities. All temporary impacts will be restored to pre-construction contours.
- The maintenance footprint for E-47 will then be extended to include both the concrete apron and the added riprap area for maintenance work under the RGP in subsequent years.

Cultural Resources Inventory Report

Introduction

The City is requesting the extension of the existing RGP 94 permit for the City of Escondido's Regional General Permit 94 – Channel Maintenance Program and the amendment of this permit to add an additional 24 facility locations, expand a current facility location (already included in the RGP), and include additional work activities.

The project description and work proposed at the existing 63 facility locations currently authorized under RGP 94 will remain the same. The overall project description for all new facility locations is provided below, under *Project Description*.

The types of facilities that will be added as new facilities under RGP 94 include:

- Earthen streams/creeks and storm water channels with hydrologic regimes ranging from ephemeral to perennial.
- Concrete bottom channels with hydrologic regimes of ephemeral and intermittent.
- Culverts and their associated inlets and outlets.
- A storm water basin.

The following work activities will be conducted at the facility locations:

- Accumulated sediment and herbaceous vegetation within Concrete Channels and earthen streams/creeks will be excavated to allow for positive flow.
- Culvert inlets and outlets will be excavated and cleared within a specified radius.
- Nonnative trees will be removed within specified facility locations.
- One-time native tree removal to gain access and/or allow for positive flows will occur at specific facility locations (either cut at stump, leaving root in place, or root and all removal depending upon its location).
- Native shrub and tree cover that inhibits positive flow and creates debris jams will be trimmed.
- Accumulated sediment and vegetation within a basin will be excavated.
- Repairs of concrete to original design conditions (if approved).

In support of this permit, ICF conducted an archaeological survey of the 24 new facilities, two one-time improvements at existing facilities, and the proposed mitigation site, and prepared a technical report. An intensive pedestrian survey was conducted in October and November 2019.

Area of Potential Effects

The APE includes the 24 added facilities, one expanded facility, two improvement areas, and the proposed mitigation site and a 50-foot buffer and associated roads that could be impacted by project activities.

Table 1. Project Site Locations and Proposed Activities

Facility ID	Site Name	Maintenance footprint	Maintenance Activities	Lining Type
E-48	W 4th Ave	Full site	Remove accumulated sediment and weed removal	Earthen ditch
E-49	W 5th and Pine	Full site	Remove accumulated sediment and weed removal	Earthen ditch
E-50	W 5th Ave	Full site	Remove accumulated sediment and weed removal	Earthen ditch
E-51	800 W Valley	Earthen segment – handwork only	Removal of nonnative vegetation; trimming of native trees/shrubs as needed	Earthen ditch
E-52	Rock Springs	Full site	Remove accumulated sediment and weed removal	Earthen ditch and concrete
E-53	Reidy Creek – Rincon to Pleasantwood	15ft from concrete apron (full bank width) 10ft wide pilot channel	Remove accumulated sediment and herbaceous vegetation for pilot channel	Earthen ditch
E-54	Reidy Creek – Morning View	Varies Handwork/Tree Removal for full site	At outlets – Remove accumulated sediment Handwork – Removal of nonnative vegetation; trimming of native trees/shrubs as needed	Earthen ditch
E-55	HARRF	Full site Concrete Channel	Remove accumulated sediment and vegetation within Concrete Channel	Concrete
E-56	McLeod Park	Full site	Remove accumulated sediment and weed removal	Asphalt
E-57	Bienvenido and Vista	20 feet from headwall x full bank width	Remove accumulated sediment and weed removal	Earthen ditch
E-58	Reidy Creek Golf Course	10 feet total wide pilot channel	Remove accumulated sediment and herbaceous vegetation for pilot channel Handwork – trimming of native trees/shrubs as needed	Earthen ditch
E-59	E Side CCP and 13th	Full site	Remove accumulated sediment and weed removal	Earthen ditch
E-60	Oak Valley Lane	20ft radius from headwall	Remove accumulated sediment and herbaceous vegetation	Earthen ditch
E-61	Viking Place	Full site Concrete Channel	Remove accumulated sediment and vegetation within Concrete Channel	Concrete
E-62	Reidy Creek – Lincoln Ave	Full site Concrete Channel	Remove accumulated sediment and vegetation within Concrete Channel	Concrete
H-14	Miller Ave	Full site	Remove accumulated sediment and weed removal	Asphalt and Earthen
H-15	Sierra Linda	20 feet from headwall	Remove accumulated sediment and weed removal	Earthen ditch

Facility ID	Site Name	Maintenance footprint	Maintenance Activities	Lining Type
H-16	Concerto and Beethoven	Access to outlet and 20 feet from headwall	Remove accumulated sediment and weed removal	Earthen ditch
H-17	Bear Valley Pkwy	20 feet from headwall x 5 feet wide	Remove accumulated sediment and weed removal	Earthen ditch
H-18	Kit Carson Bike Trail	Full site Concrete Channel	Remove accumulated sediment and vegetation within Concrete Channel	Concrete
H-19	Encino and Amparo	Full site	Remove accumulated sediment and weed removal	Earthen ditch
H-20	Sunset and Bear Valley	30 feet from headwall	Remove accumulated sediment and weed removal	Earthen ditch
H-21	Via Rancho Pkwy and Sunset Dr	15 feet x 3 feet wide from small outlet.	Removal of 3–4 willow trees	Earthen ditch
SM-05	Woodland Pkwy	20ft from each headwall x width of bank	Remove accumulated sediment and weed removal Remove dead vegetation/debris throughout entire drainage	Earthen ditch
<i>Proposed Extension of Existing Site</i>				
H-02 A	1840 S Centre City Pkwy	Current RGP Site proposed for expansion	Remove accumulated sediment and weed removal	Earthen ditch
<i>Proposed one-time improvement projects</i>				
H-02 A	1840 S Centre City Pkwy	Segment proposed for concrete-lining or hardening	Earthen ditch will be concrete-lined	Earthen ditch
E-47	Fleetwood Street	Replacement of an existing pipeline	Replacement of an existing pipeline, addition of 10 linear feet of riprap, and replacement of concrete apron	Earthen ditch
<i>Mitigation Site to Compensate for Impacts from Projects above</i>				
Kit Carson Park Downstream		Full area will be enhanced	Enhancement would include removal of nonnative vegetation. Rehabilitation areas will require planting and seeding of native vegetation.	Earthen ditch

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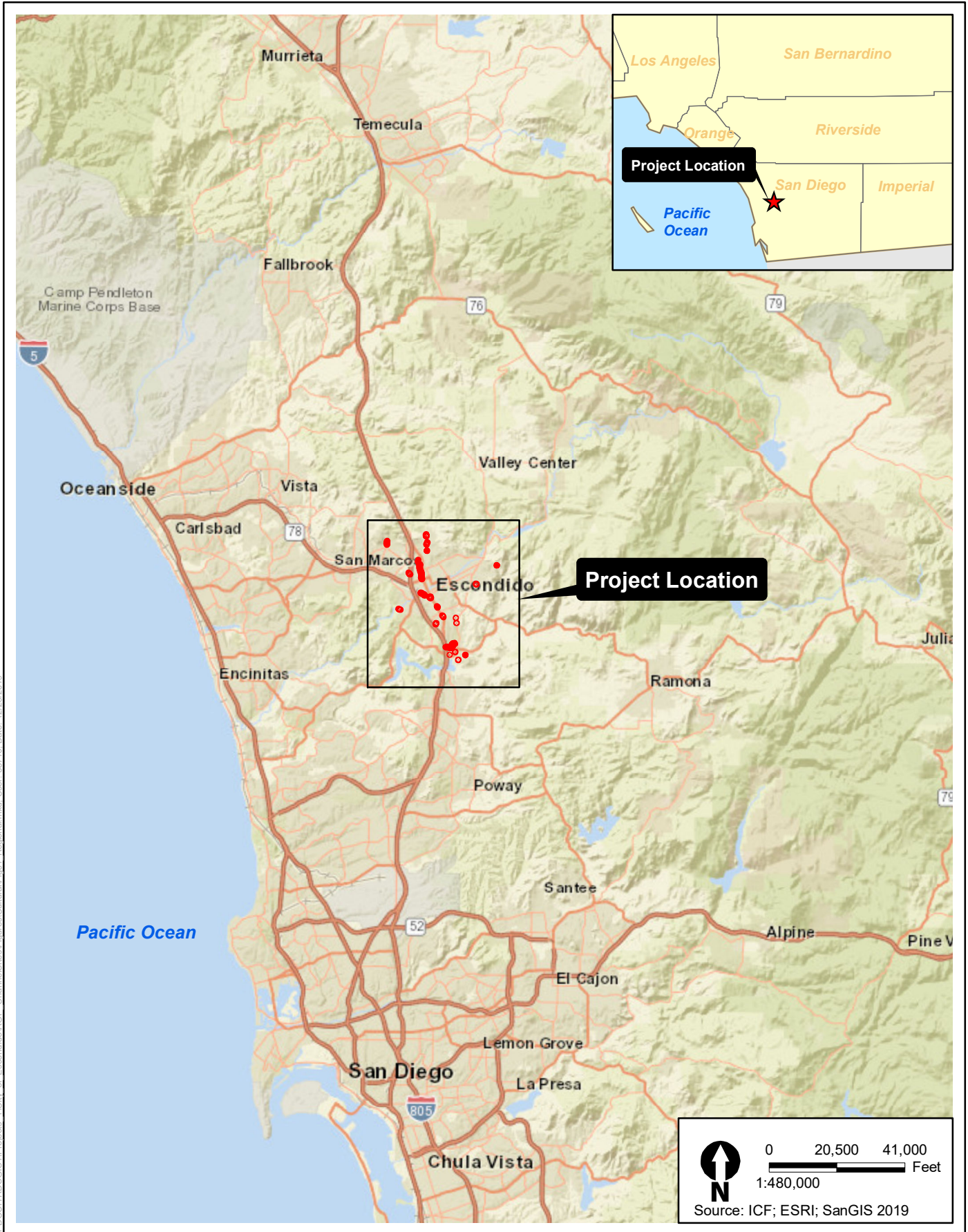


Figure 1
Regional Vicinity
Escondido RGP 94 Channel Maintenance

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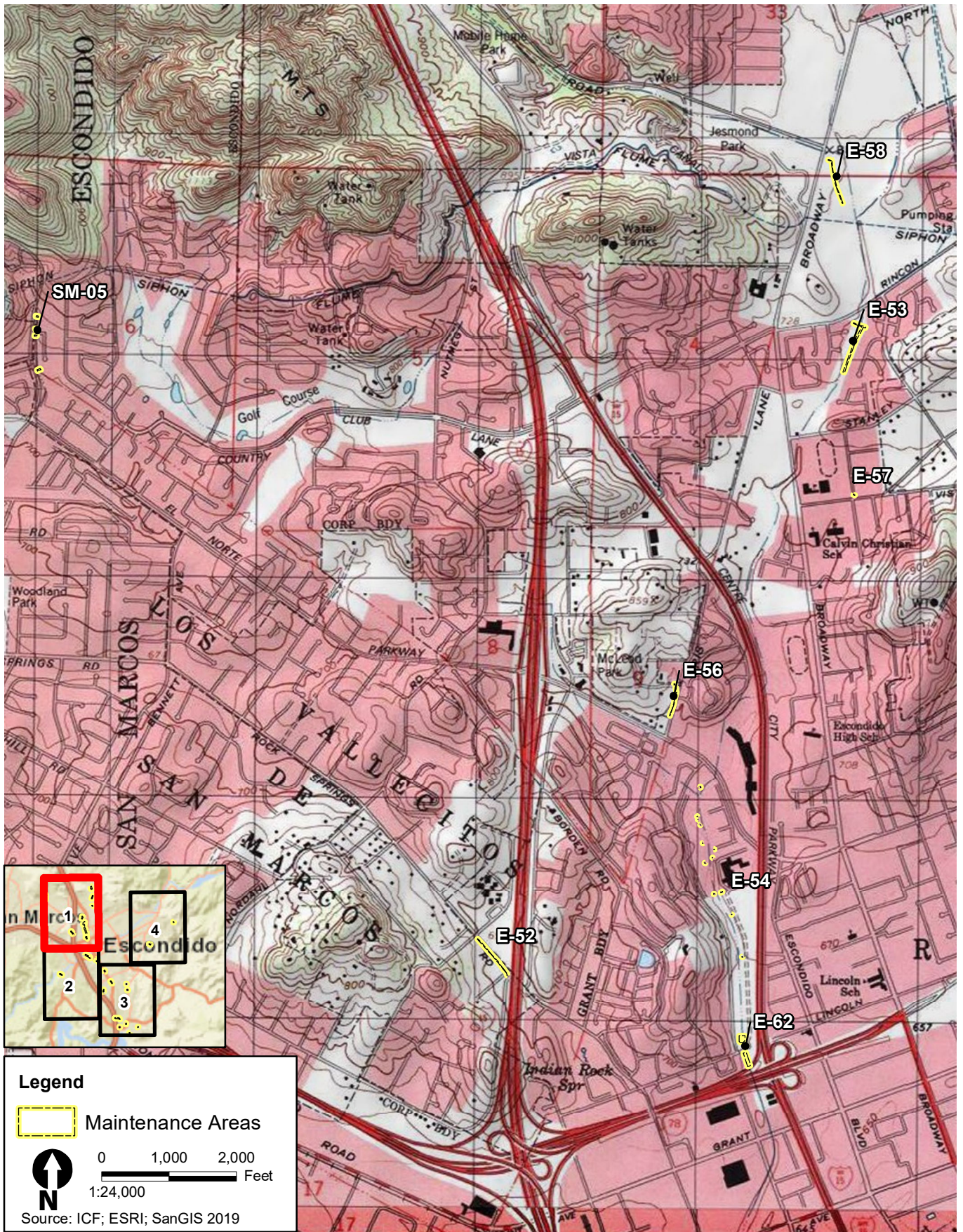


Figure 2, Sheet 1
Project Location
Escondido RGP 94 Channel Maintenance



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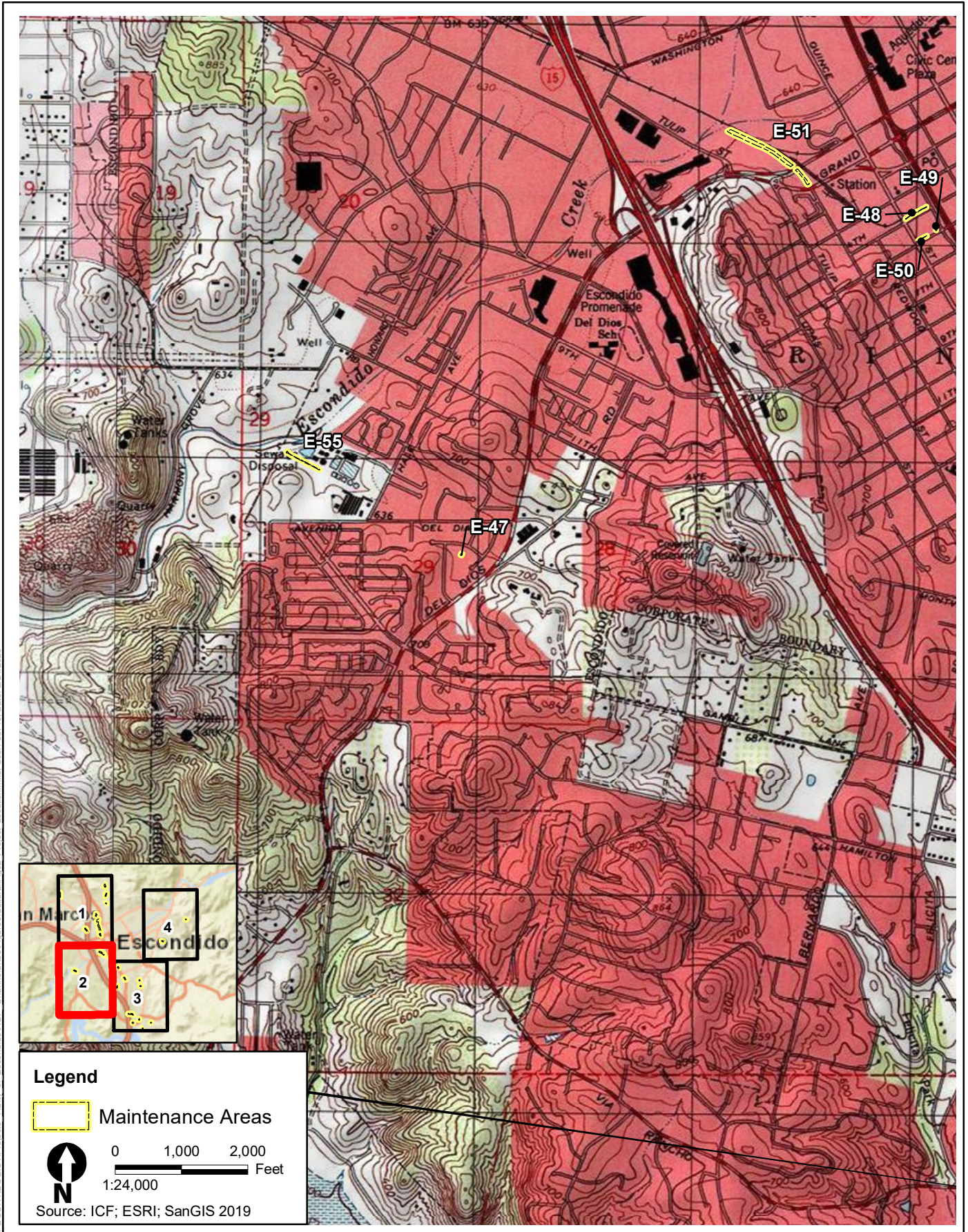


Figure 2, Sheet 2
Project Location
Escondido RGP 94 Channel Maintenance

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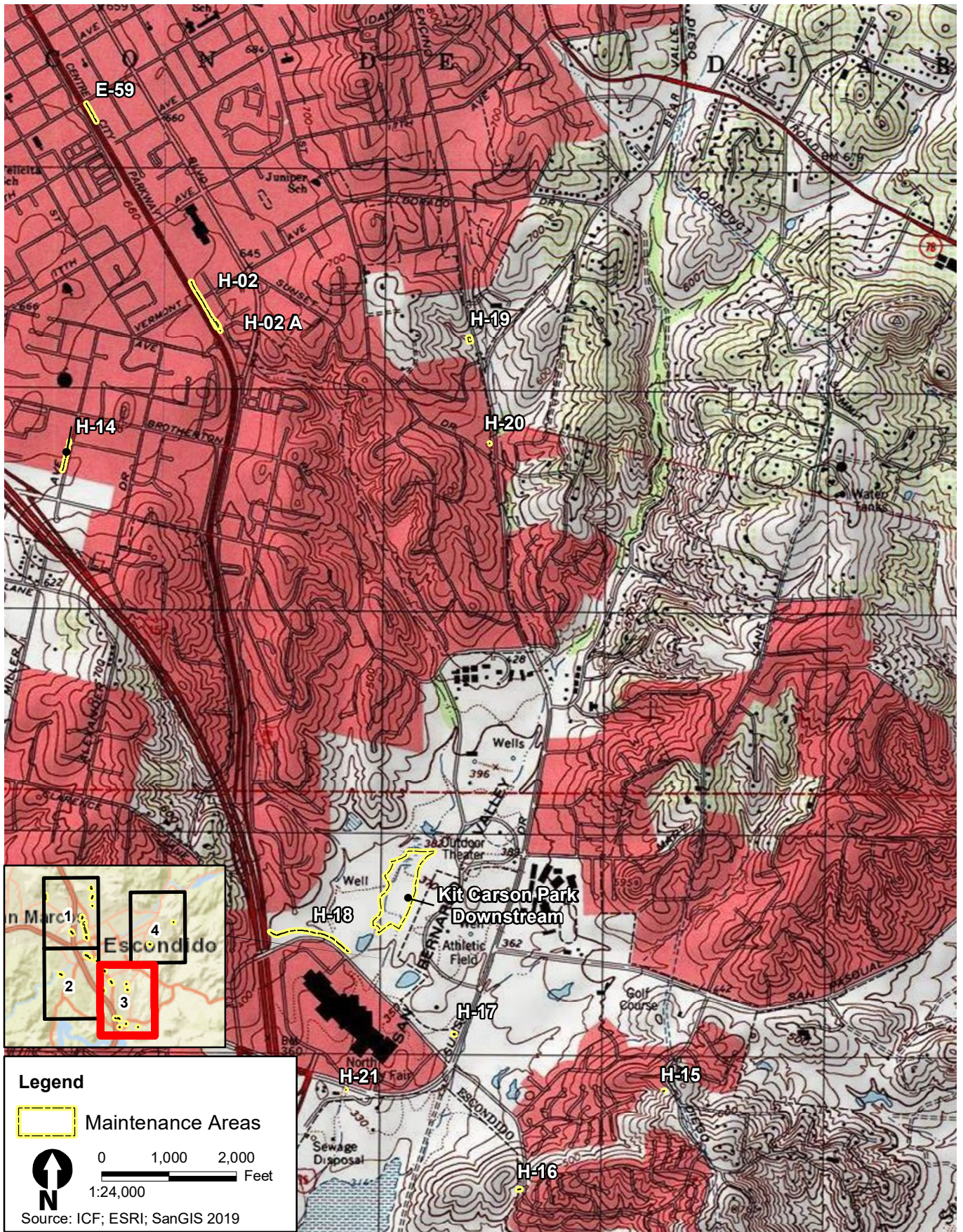


Figure 2, Sheet 3
Project Location
Escondido RGP 94 Channel Maintenance

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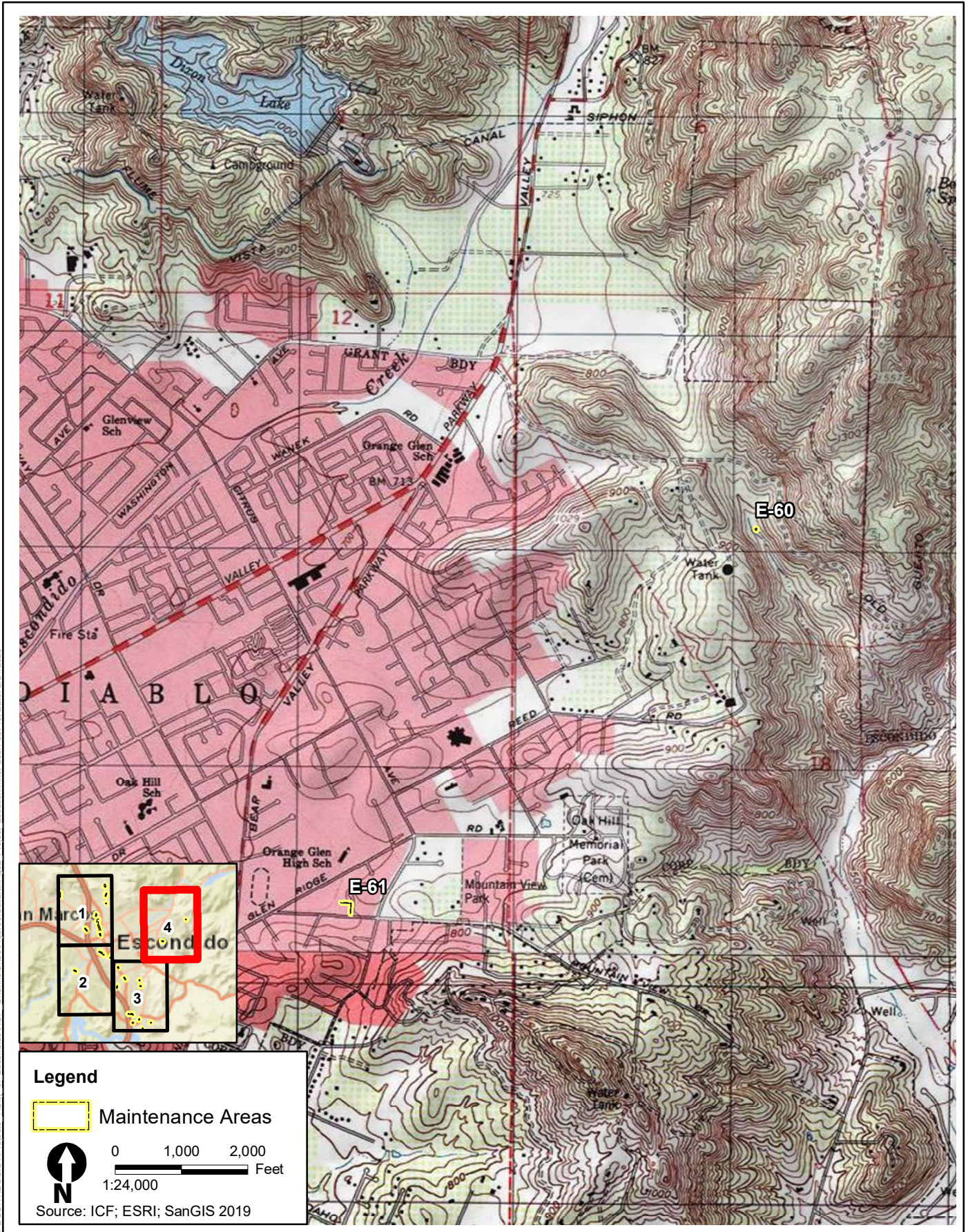


Figure 2, Sheet 4
Project Location
Escondido RGP 94 Channel Maintenance

Project Setting

Regulatory Setting

Federal Regulations

Antiquities Act of 1906, Title 16 United States Code Sections 431–433

This Act establishes criminal penalties for unauthorized destruction or appropriation of “any historic or prehistoric ruin or monument, or any object of antiquity” on Federal land.

National Historic Preservation Act, Title 16 United States Code Section 470 et seq.

Among the provisions of Section 101 of the National Historic Preservation Act (NHPA), a State Historic Preservation Program was established in each state and a State Historic Preservation Officer (SHPO) was given the responsibility to consult with the appropriate federal agencies in accordance with the NHPA regarding:

- i. Federal undertakings that may affect historic properties; and
- ii. the content and sufficiency of any plans developed to protect, manage, or to reduce or mitigate harm to such properties;

Section 106 of the NHPA requires federal agencies to:

take into account the effect of their undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The head of any such Federal agency shall afford the Advisory Council on Historic Preservation...a reasonable opportunity to comment with regard to such undertaking.

Archaeological Resources Protection Act of 1979, Title 16 United States Code Section 470aa–470mm

This Act provides protection of archaeological resources from vandalism and unauthorized collecting on Federal land.

Executive Order 11593 of May 13, 1971, 36 *Federal Register* 8921

This Executive Order focuses on the protection and enhancement of the cultural environment. It outlines responsibilities of the Federal agencies and Secretary of the Interior with regard to cultural resources.

Archaeology and Historic Preservation: Secretary of Interior’s Standards and Guidelines 48 FR 44716-42

This document establishes standards and guidelines regarding professional qualification requirements for archaeological and historic preservation professionals, technical report format and content, and standards for resource evaluation required by the State Historic Preservation Officer.

Federal Land Policy Management Act of 1976 43 United States Code Section 1701 etseq.

The Federal Land Policy Management Act (FLPMA) declares that it is the policy of the United States that public lands be managed so as to protect historical and archaeological resources, and that the Secretary of Interior will establish rules and regulations regarding resource protection on public lands.

Native American Graves Protection and Repatriation Act, Title 25 United States Code Sections 3001–3013

This law provides for ownership of Native American graves and grave goods on Federal lands.

American Indian Religious Freedom Act, Title 42 United States Code Section 1996

This measure establishes a national policy to protect the right of Native Americans and other indigenous groups to exercise their traditional religions. Federal agencies issuing permits are required to comply with this Act if Native Americans identify issues regarding their right to exercise traditional religious practices.

CEQA and Cultural Resources

The California Environmental Quality Act (CEQA), which requires public agencies to evaluate the implications of their project(s) on the environment, includes significant historical resources as part of the environment. Public agencies must treat any cultural resource as significant, unless the preponderance of evidence demonstrates that it is not historically or culturally significant (California Code of Regulations [CCR] Title 14, Section 15064.5). A historical resource is considered significant if it meets the definition of a historical resource or a unique archaeological resource, as defined below.

Historical Resources

The term *historical resource* includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, per Public Resources Code (PRC) Section 5020.1(j). Historical resources may be designated as such through three different processes:

1. Official designation or recognition by a local government, pursuant to local ordinance or resolution per PRC Section 5020.1(k).
2. A local survey conducted pursuant to PRC Section 5024.1(g).
3. Listing in, or eligibility for listing in, the National Register of Historic Places (NRHP), per PRC Section 5024.1(d)(1).

The process for identifying historical resources is typically accomplished by applying the criteria for listing in the California Register of Historical Resources (CRHR), per CCR Title 14 Section 4852, which states that a historical resource must be significant at the local, state, or national level under one or more of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. It is associated with the lives of persons important in our past.
3. It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of a master; or possesses high artistic values.
4. It has yielded, or may be likely to yield, information important in prehistory or history.

To be considered a historical resource for the purpose of CEQA, the resource must also have integrity, which is the authenticity of a resource's physical identity, evidenced by the survival of characteristics that existed during the resource's period of significance. Resources, therefore, must retain enough of their historic character or appearance to be recognizable as historical resources and convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. It must also be judged with reference to the particular criteria under which the resource is eligible for listing in the CRHR, per CCR Title 14 Section 4852(c).

Unique Archaeological Resources

A *unique archaeological resource* is defined in PRC Section 21083.2 as an archaeological artifact, object, or site, about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is high probability that it meets the following criteria:

- Contains information needed to answer important scientific research questions and for which there is a demonstrable public interest.
- Has a special and particular quality, such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

In most situations, resources that meet the definition of a unique archaeological resource also meet the definition of historical resource. As a result, it is current professional practice to evaluate cultural resources for significance according to their eligibility for listing in the CRHR. For the purposes of this CEQA cultural resources study, a resource is considered significant if it meets the CRHR eligibility (significance and integrity) criteria. Individual resource recommendations of eligibility are provided in this report.

Even without a formal determination of significance and nomination for listing in the CRHR, the lead agency can determine that a resource is potentially eligible for such listing to aid in determining whether a significant impact would occur. The fact that a resource is not listed in the CRHR, or has not been determined eligible for such listing, and not included in a local register of historic resources does not preclude an agency from determining that a resource may be a historical resource for the purposes of CEQA.

Thresholds of Significance

According to CEQA, a project that causes a substantial adverse change in the significance of a historical resource or a unique archaeological resource has a significant effect on the environment

(CCR Title 14 § 15064.5; PRC Section 21083.2). CEQA defines *substantial adverse change* as follows (CCR Title 14 § 15064.5(b)):

Physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired.

- Demolition or material alteration in an adverse manner those physical characteristics of a historical resource that convey its historical significance and justify its inclusion in, or eligibility for inclusion in, the CRHR.
- Demolition or material alteration in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources, pursuant to Section 5020.1(k) of the PRC, or its identification in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant.
- Demolition or material alteration in an adverse manner those physical characteristics of a historical resource that convey its historical significance and justify its eligibility for inclusion in the CRHR, as determined by the lead agency.

Local Regulations and Guidelines

City of Escondido

The City of Escondido Municipal Code Article 40, Sections 33-790 through 33-807 are related to the preservation of cultural resources. The articles are designed to:

- Protect, enhance, and perpetuate historical resources, sites, and districts that represent or reflect elements of the City's cultural, social, economic, political, and architectural history for the public health, safety, and welfare of the people of the City.
- Safeguard the City's historical heritage as embodied and reflected in its historical resources, sites, and historical districts.
- Stabilize and improve property values.
- Foster civic pride in the character and accomplishments of the past.
- Strengthen the City's economy by protecting and enhancing the City's attractions to residents, tourists, and visitors and serve as a support and stimulus to business and industry.
- Enhance the visual character of the City by encouraging the preservation of unique and established architectural traditions.
- Promote the use of historical landmarks and districts for the education, pleasure, and welfare of the people of the City.
- Permit historical and archaeological sites to be identified, documented, and recorded by written and photographic means and allow an opportunity for preservation of historical and archaeological sites.

The City has established a nine-member Historic Preservation Commission to assist and advise the mayor and council in all matters relating to historic preservation in the city. The City also maintains a local register of historic resources. Additionally, the municipal code outlines the procedures and

criteria for designation or rescinding of local landmark and historic districts status, incentives for preserving historical resources, and permitting procedures. The *City of Escondido General Plan* (2012) does not refer to specific policies or procedures for cultural resources but does state the benefits of conservation of cultural resources.

Discovery of Human Remains

With respect to the potential discovery of human remains, Sections 7050.5(b) and (c) of the California Health and Human Safety Code state the following:

- a. In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with § 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner, and cause of any death and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. The coroner shall make his or her determination within 2 working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.
- b. If the coroner determines that the remains are not subject to his or her authority and recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she will contact by telephone, within 24 hours, the Native American Heritage Commission (NAHC) (California Health and Human Safety Code Section 7050.5).

Of note to cultural resources is Subsection (c), which requires the coroner to contact the NAHC within 24 hours if discovered human remains are thought to be of Native American origin. After notification, NAHC will follow the procedures outlined in PRC Section 5097.98, which include notification of the most likely descendants, if possible, and the recommendations for treatment of the remains. Also, willful possession of Native American human remains or artifacts taken from a grave or cairn is a felony under state law (PRC § 5097.99).

Environmental Setting

Natural Setting

The Proposed project straddles the boundary between the San Diego Coastal Plain and the Peninsular Ranges. Temperatures in the region are mild, with highs averaging 77.5 degrees Fahrenheit in the summer and lows nearing 50 degrees Fahrenheit in the winter. Average rainfall is approximately 15 inches per year (U.S. Climate Data 2019).

The study area, which is in the Mediterranean climate zone, ranges in elevation from 600 feet above mean sea level (amsl), to 800 feet amsl. Numerous faults cross the area. The Proposed Project and associated components are situated along the boundary between the San Diego Coastal Plain and the

Peninsular Ranges. Along the coastal plain, the Mesozoic basement rocks of the Jurassic-Cretaceous Santiago Peak Volcanics and the Cretaceous Peninsular Ranges Batholith are non-conformably overlain by a layered sequence of sedimentary rocks of late Cretaceous Eocene, Oligocene, Miocene, Pliocene, and Pleistocene age (McComas et al. 2017). The dominant vegetation community within the study area is characterized by coastal sage scrub and chaparral (i.e., sumac, buckwheat, Cleveland sage, lavender, rosemary, thistle, mustard, and grasses). Large mammals in the vicinity include mountain lion, mule deer, coyote, and bobcat. Small animals include rabbits, squirrels, rats, and mice. Reptiles, such as snakes and lizards, and many different bird species are also present (ICF 2017).

Cultural Setting

Prehistoric Context

The study area is in the foothills of northern San Diego County. Numerous cultural chronologies have been developed for this region (Bettinger and Taylor 1974; Warren 1980; Warren and Crabtree 1986). The setting provided below summarizes some of these chronologies into an overview of regional cultural trends over time. This setting divides the pre-contact cultural sequence into three periods. These periods are analytical constructs and do not necessarily reflect Native American views.

Paleo-Indian Period

Scholarly theory suggests that the earliest human occupants of North America were highly mobile terrestrial hunters. Paleo-Indian cultures (e.g., Clovis, Folsom, Llano) dating to this period are often marked by archaeological assemblages of bone and stone technology. Over the last few decades, several North American archaeological sites and sets of human remains have been documented in various contexts that date to this Paleo-Indian Period (e.g., Erlandson et al. 2007). These discoveries have required researchers to reconsider the migratory and land use strategies of early people within the Americas. Within California, Paleo-Indian assemblages are characterized by a wide but sparse distribution of isolated tools and caches dated to between 12,000 and 10,000 years before present (BP) (Meltzer 2004; Dillon 2002:115; Byerly and Roberson 2015). The Clovis complex is the only cultural complex that has been confidently dated to this period. Clovis sites are identified by large fluted projectile points and are assumed to have been occupied by the relatively small populations of highly mobile groups that lived in small, temporary camps near permanent water sources. Although no Paleo-Indian sites have been documented in the APE and vicinity, the absence of sites does not negate the possible presence of human occupants during this period.

Archaic Period

Within the coastal plains of Southern California, a technological shift toward processing small, hard seeds from plants associated with scrub and shrub plant communities with ground stone tools, such as manos and metates, began to appear around 7500 BP. This period is referred to as the Millingstone Period for the abundant ground stone tools found at sites dating from this time until roughly 1500 BP. Groups continued to travel and follow game and plant resources as they became seasonally available (Moratto 1984).

Late Prehistoric Period

Starting at around 1500 BP, the archaeological record reflects the emergence of the cultural patterns attributed to Shoshonean peoples, who moved into southern California from the Great Basin and either assimilated with existing populations or displaced them. In the Late Prehistoric Period, the study area was occupied by the Gabrieliño (also referred to as Tongva or Kizh), who were probably well known by the Juaneno who lived in adjacent areas to the south and appear to have developed land use patterns around the intensive exploitation of a range of local resources and established semi-permanent camps and villages (Bean and Smith 1978a). Archaeological sites attributed to the Gabrieliño and Juaneno are characterized by a range of artifact types, including mortars and pestles, manos and metates, flaked stone tools, small projectile points, ceramics, basketry and woven textiles, and cremation sites.

Ethnographic Context

The Proposed Project is located within the geographic boundaries of both the Luiseño and the Kumeyaay/Ipai. The Kumeyaay were divided linguistically by dialects spoken by people called Ipai in the north and Tipai in south, but culturally the two groups were largely the same. The Shoshonean inhabitants of northern San Diego County were called Luiseños by Franciscan friars, who named the San Luis Rey River and established the San Luis Rey Mission in the heart of Luiseño territory. Their territory encompassed an area from roughly Agua Hedionda on the coast, east to Lake Henshaw, north into Riverside County, and west through San Juan Capistrano to the coast (Bean and Shipek 1978).

The Luiseño shared boundaries with the Gabrieliño and Serrano to the west and northwest, the Cahuilla from the deserts to the east, the Cupeño to the southeast, and the Kumeyaay/ Ipai to the south. All but the Kumeyaay/Ipai are linguistically similar to the Luiseño, belonging to the Takic subfamily of Uto-Aztecan (Bean and Shipek 1978). The Yuman Kumeyaay/Ipai have a different language and cultural background, but shared certain similarities in social structure, and some Ipai incorporated Luiseño religious practices.

The Luiseño were divided into several autonomous lineages or kin groups. The lineage represented the basic political unit among most southern California Indians. According to Bean and Shipek (1978), each Luiseño lineage possessed a permanent base camp, or village, in the San Luis Rey Valley and another in the mountain region for the exploitation of acorns, although this mobility pattern may apply only to the ethnohistoric present.

Acorns were the single most important food source used by the Luiseño. Their villages were usually located near water, which was necessary for leaching acorn meal. Seeds from grasses, manzanita, sage, sunflowers, lemonade berry, chia, and other plants were also used, along with various wild greens and fruits. Deer, small game, and birds were hunted, and fish and marine foods were eaten. Generally, women collected the plant resources, and the men hunted, but there was no rigid sexual division of labor (Bean and Shipek 1978).

Houses were arranged in the village without apparent pattern. The houses in primary villages were conical structures with excavated floors and central hearths and were covered with tule bundles. Domestic implements included wooden utensils, baskets, and ceramic cooking and storage vessels.

Hunting implements consisted of the bow and arrow, curved throwing sticks, nets, and snares. Shell and bone hooks, as well as nets, were used for fishing. Lithic resources of quartz and metavolcanics,

as well as some cherts, were available locally in some areas. Exotic materials, such as obsidian and steatite, were acquired through trade.

The Kumeyaay/Ipai who inhabited the northern part of San Diego County are the direct descendants of the early Yuman speaking hunter-gatherers of the Late Prehistoric Period. The Kumeyaay in general appear to have had considerable variability in the level of social organization and settlement (Luomala 1978). The Kumeyaay were organized into patrilineal, patrilocal lineages that claimed prescribed territories, but did not own the resources in general (Shipek 1982).

The Kumeyaay occupied bipolar villages during the year and would occupy residential bases in the foothills/mountains during the summer and the lower elevations in the winter, with numerous campsites throughout, as they exploited seasonally available resources (Carrico 2008). Acorns were the most important staple of the diet, as indicated by the presence of numerous large habitation sites near the locations of abundant oaks and bedrock suitable for milling. Grass seeds, sages, berries, wild greens, and fruits were eaten. Houses, usually only built for the winter, were conical structures covered with tule bundles or willow and had excavated floors and central hearths (Spier 1923). Houses and campsites are believed to have been relatively dispersed, with no formal layout or discrete boundaries for structures or campsites. In addition to stone tools, the Kumeyaay utilized pottery and basketry. Religious activities were practiced with the assistance of shaman and a *cimul* (Shipek 1991).

Spanish explorers first encountered coastal Luiseño villages and Kumeyaay villages to the south in 1769, when they established the Mission San Diego de Alcalá near the mouth of the San Diego River and later established Mission San Luis Rey de Francia in 1798, 4 miles inland from the mouth of the river. The missions “recruited” the Luiseño and Kumeyaay to use as laborers and convert them to Catholicism. The inland Luiseño and Ipai were not heavily affected by Spanish influence until 1816, when outposts of the missions were established 20 miles farther inland, at Pala and Santa Ysabel (Sparkman 1908).

At the time of contact, Luiseño population estimates ranged from 5,000 to as many as 10,000 individuals. Missionization, along with the introduction of European diseases, greatly reduced the Luiseño population. Most villagers, however, continued to maintain many of their aboriginal customs and simply adopted the agricultural and animal husbandry practices learned from the Spaniards. The Kumeyaay were generally resistant to Spanish attempts to coerce them into the Euro-American culture, but the change in location of the mission enabled the priests to gain more converts. As the Spanish gained influence many of the Kumeyaay became resentful, which culminated in the sacking and burning of Mission San Diego de Alcalá in 1775 (Carrico 2008).

By the early 1820s, California came under Mexico’s rule, and, in 1834, the missions were secularized, resulting in a political imbalance that caused Native American uprisings against the Mexican rancheros. Many Native Americans left the missions and ranchos and returned to their original village settlements.

When California became a sovereign state in 1849, local Native Americans were recruited more heavily as laborers and experienced even harsher treatment. Conflicts between Native Americans and encroaching Anglos finally led to the establishment of reservations for some Luiseño and Kumeyaay populations. The reservation system interrupted Native American social organization and settlement patterns, yet many aspects of the original cultures persist today. Certain rituals and religious practices are maintained, and traditional games, songs, and dances continue, as does the use of foods such as acorns, yucca, and wild game.

Historic Context

Spanish and Mexican Periods

Over the course of approximately 5 decades, beginning in 1769, Spanish Franciscan missionaries, military officials and soldiers, and civilian colonists created a chain of 21 missions, four presidios, and three pueblos across coastal Alta California. Native American control of the southern California region ended, in the political view of western nations, with Spanish colonization of the area. De facto Native American control of the majority of the population of California did not end until several decades later.

These developments occurred as the Spanish attempted to solidify their claims to California through colonization by Euro-Americans and subjugation of the Native American inhabitants to their culture and control. None of the Spanish missions or mission-associated institutions (i.e., *estancias* [ranch outposts] or *asistencias* [small-scale missions lacking a resident priest]) that were found farther inland were established in the vicinity of the study area during the Spanish period. The closest missions were those at San Diego, established in 1769, and San Luis Rey, established in 1798, which are approximately 30 and 15 miles away from the study area, respectively (Englehardt 1921).

By 1810, many of Spain's New World colonies were openly dissatisfied with colonial rule, and independence movements spread throughout the empire. By 1821, Mexico had achieved its independence, but continued many Spanish traditions. The Mexican government began distributing large land grants as rewards to those who had supported independence to help settle the sparsely populated region of Alta California. Unfortunately, little changed for the Native American population during this time. The project area was part the Rincon del Diablo land grant (12, 653 acres) on the east that was owned by Juan Bautista Alvarado. The Alvarados were descended from Juan Bautista Alvarado, Sr., a soldier with the Portola expedition of 1769 that established the missions in Alta California. Rincon del Diablo was granted in 1843 by Governor Manuel Micheltoarena. Alvarado built an adobe and raised cattle on the property. Euro-American control of California was firmly established by the end of the Garra uprising in the early 1850s (Phillips 1975).

American Period

California became part of the United States in 1848 as part of the conditions of the Treaty of Guadalupe Hidalgo, which ended the war between the United States and Mexico that began in 1846 and saw battles in Los Angeles during 1846 and 1847. Two years later, California became the Union's 31st state. Property ownership among Californios granted lands under Mexican rule became a matter of considerable legal wrangling. After California became a state, it was subsequently divided into 27 counties, including San Diego County. After the war with Mexico ended in 1848, the study area and vicinity remained sparsely populated. Soon after American control was established (1848–present), gold was discovered in California. The tremendous influx of American and Europeans that resulted quickly drowned out much of the Spanish and Mexican cultural influences and eliminated the last vestiges of de facto Native American control. Because of land claim disputes, few Mexican ranchos remained intact. In addition, the homestead system increased American settlement beyond the coastal plain.

Both Juan Bautista Alvarado and his wife had passed away by the early 1850s, and their remaining children sold their interests first to Judge Oliver S. Witherby between 1855 and 1866 and later to the Wolfskill Brothers. The land changed hands over the years until finally a group of land speculators

from Stockton purchased it in 1883 and began viticultural pursuits in the valley. Churches, schools, and the Escondido Hotel would be constructed in a short time. In 1886, a 12,000-acre tract was purchased by a group of investors that formed the Escondido Land and Town Company, which platted the city of Escondido and lobbied for construction of a railroad connection to the coast. The railroad was completed in late 1887, and the first freight was shipped from the Santa Fe depot at the west end of Grand Avenue in early 1888. During this time, most of Escondido was agricultural land and would not be developed until well into the twentieth century. Land promotions during the land boom in San Diego County in the late 1880s brought new settlers to the area. By the 1890s the boom had failed, and although growth had slowed considerably during the 1890s, settlers continued to arrive in the back country, establishing small farms and ranches throughout the area. This migration took a sharp decline with the onset of the Depression during the 1930s, as many of the rural farmers abandoned their farms and moved to urban areas. The number of people living on farms fell 63 percent during the 1930s, while San Diego County's overall population increased by 38 percent (Van Wormer and Walter 2011). Nevertheless, farming and ranching continued to be the major focus of Escondido's economy until the 1960s.

History of Water Supply Development

The following is taken directly from Jow and Dolan's 2012 *Archaeological Survey Report for the Escondido Regional General Permit Project, City of Escondido, San Diego County, California*. The Escondido Irrigation District was formed in the late nineteenth century to supplement local agricultural water supplies. The Escondido Canal was constructed to bring water from the San Luis Rey River basin, and the original Lake Wohlford dam was constructed to store this supply. In the early twentieth century, the Escondido Mutual Water Company (Escondido Mutual) was formed to improve these existing facilities and, by 1914, the City had constructed several public wells (three near Beech and Valley Boulevard and three near Rose and Washington), a reservoir on Park Hill, and a 12-mile water distribution system to accommodate the growing population. In 1923, the San Diego County Water Company constructed Lake Henshaw by damming the San Luis Rey River. Rather than build a completely independent system, the company jointly funded certain improvements with Escondido Mutual to transmit the water from Lake Henshaw to Lake Wohlford, and then to the service area of what is now Vista. This resulted in a dual-agency water supply arrangement that persists to the present day. In 1945, the present Vista Irrigation District (VID) acquired the interest of the older San Diego County Water Company. The jointly owned supply was inadequate by the 1950s, and a well field was constructed to deliver groundwater into Lake Henshaw.

Meanwhile, in the 1940s, abundant supplies of water became available with the construction of the Colorado River Aqueduct, and the San Diego County Water Authority (SDCWA) began delivering the imported supplies to San Diego County. Only public agencies were permitted access to this water; therefore, the City of Escondido could obtain this water directly, but the Escondido Mutual Company could not. As a result, in 1954, the Rincon del Diablo Municipal Water District was formed and began to supply water within its area, particularly the portion of that area near the new aqueduct.

In 1970, the City of Escondido acquired the Escondido Mutual Water Company. The City and Escondido Mutual systems were joined, and the new City system shares with VID the local water supply delivery system and obtains imported water, as well. Rincon provides water derived solely from the SDCWA aqueduct within its historic service area. Under the present arrangement, the City and VID have jointly undertaken major improvements to the water supply system, including the construction of Dixon Lake and a major treatment plant. Since 1969, however, ownership of water

derived from the San Luis Rey River has been disputed by members of the Rincon and La Jolla tribes. [Update: A settlement agreement was completed in 2015].

Methods

The effort to identify cultural resources in the study area included records searches of previous cultural resources studies and recorded resources and pedestrian surveys. Additional background research and a literature review were also performed to characterize the physical environment, prehistory, ethnography, and history of the study area vicinity. The results of the background research and literature review are provided in the Results section, below.

Background research and field studies were conducted in compliance with CEQA, as amended (PRC § 21000 et seq.), pursuant to the Guidelines for Implementation of the California Environmental Quality Act (CCR Title 14 § 15000 et seq.) and Section 106 of the NHPA.

Records Search

A records search was conducted at the South Coastal Information Center (SCIC) in May and June of 2019, using a 0.5-mile buffer around each of the facility locations. The records search indicates that 92 cultural resources are located within a 0.5-mile radius of the study area, eight of which intersect with project facilities and the 50-foot survey buffer. The eight resources include a prehistoric lithic scatter (P-37-000572), a prehistoric habitation site (P-37-008280), prehistoric bedrock milling sites and associated artifacts (P-37-006726, P-74-6727, and P-37-012601), a prehistoric isolated mano and flake (P-37-015577), a historic residence (P-37-017871), and a historic flume (P-37-030889). The results of this records search are provided below along with in depth descriptions of the resources that intersect with the facilities and 50-buffer (see Appendix A, *Record Search Results*).

Table 2. Records Search Result for the APE and a One-Half Mile Buffer

Primary	Trinomial	Recorders, date	Description	Type: Site/Built Environment/Isolate	Intersects survey buffer or outside	Work Location
P-37-000152	CA-SDI-000152	Treganza, n.d.; Chase and Sutton, 1978	Prehistoric campsite including midden and milling feature.	Site	Outside	E-54
P-37-000154	CA-SDI-000154	Treganza, n.d.	Prehistoric site (specifics not provided)	Site	Outside	E-47
P-37-000564	CA-SDI-000564	True, n.d.	Prehistoric milling feature	Site	Outside	H-16
P-37-000565	CA-SDI-000565	True, n.d.	Prehistoric lithic scatter	Site	Outside	H-16
P-37-000566	CA-SDI-000566	True, n.d.	Prehistoric lithic scatter, midden soil, and boulder outcrop	Site	Outside	H-16
P-37-000572	CA-SDI-000572	True, n.d.	Prehistoric lithic scatter	Site	Intersects	H-16 Not relocated very disturbed
P-37-000573	CA-SDI-000573	True, n.d.	Prehistoric lithic scatter	Site	Outside	H-16
P-37-001036	CA-SDI-001036	True, 1962	Prehistoric site including a bedrock milling feature and a lithic scatter	Site	Outside	E-54
P-37-001046	CA-SDI-001046	True, 1962; Buysse, 1994	Prehistoric milling feature	Site	Outside	E-60
P-37-001047	CA-SDI-001047	True, 1962; Buysse, 1994	Prehistoric lithic scatter	Site	Outside	E-60
P-37-001049	CA-SDI-001049	True, 1962; Wade et al, 1985	Prehistoric milling features and subsurface artifacts.	Site	Outside	E-57
P-37-001050	CA-SDI-001050	True, 1962	Prehistoric lithic scatter	Site	Outside	E-53
P-37-001057	CA-SDI-001057	True, 1962	Prehistoric village site	Site	Outside	E-53
P-37-004943	CA-SDI-004943	Eckhardt, 1977	Prehistoric milling feature	Site	Outside	E-58

Primary	Trinomial	Recorders, date	Description	Type: Site/Built Environment/Isolate	Intersects survey buffer or outside	Work Location
P-37-004944	CA-SDI-004944	Eckhardt, 1977	Prehistoric artifact scatter and midden	Site	Outside	E-58
P-37-004960	CA-SDI-004960	Carrico, 1978	Prehistoric lithic scatter	Site	Outside	H-16
P-37-004961	CA-SDI-004961	Carrico, 1978	Prehistoric milling complex over two loci	Site	Outside	H-16
P-37-004962	CA-SDI-004962	Carrico, 1978	Prehistoric milling feature	Site	Outside	H-16
P-37-004963	CA-SDI-004963	Smith and Pierson, 1981	Prehistoric lithic scatter	Site	Outside	H-16
P-37-004967	CA-SDI-004967	Carrico, 1978	Prehistoric rock enclosures on crest of Mule Hill	Site	Outside	H-16
P-37-005088	CA-SDI-005088	Thesken, 1983; Chase and Collins, 1987	Prehistoric village site including milling features, midden, and artifacts over 6 loci.	Site	Outside	H-18
P-37-005088	CA-SDI-005088	Thesken, 1983; Chace and Collins, 1987	Prehistoric village site including milling features, midden, and artifacts over 6 loci.	Site	Outside	H-18
P-37-005210	CA-SDI-005210	Chace, 1977; Chase, 1979; James et al, 1991	Prehistoric habitation site over two loci. Locus B includes a historic component.	Site	Outside	E-52
P-37-005355	CA-SDI-005355	VanCamp, 1977	Prehistoric lithic scatter	Site	Outside	SM-05
P-37-005367	CA-SDI-005367	Norwood, 1977	Prehistoric shell fragment	Isolate	Outside	SM-05
P-37-005368	CA-SDI-005368	Norwood, 1977	Historic bridge	Built Environment	Outside	SM-05
P-37-006726	CA-SDI-006726	Bickford, 1978	Prehistoric milling complex over two loci	Site	Intersects	E-54

Primary	Trinomial	Recorders, date	Description	Type: Site/Built Environment/Isolate	Intersects survey buffer or outside	Work Location
P-37-006727	CA-SDI-006727	Bickford, 1978	Prehistoric milling complex and artifact scatter over three loci	Site	Intersects	E-54
P-37-006728	CA-SDI-006728	Bickford, 1978	Prehistoric milling feature	Site	Outside	E-54
P-37-006729	CA-SDI-006729	Bickford, 1978	Prehistoric milling feature and lithic scatter	Site	Outside	E-54
P-37-007785	CA-SDI-007785	Laylander, 1980	Prehistoric milling complex	Site	Outside	E-54
P-37-007871	CA-SDI-007871	Underwood and Shackley, 1980	Prehistoric milling feature, midden, and historic component	Site	Outside	E-55
P-37-008280	CA-SDI-008280	Knutson, 1976; Linehan and Strudwick, 1991; James et al, 1992; Bowden-Renna and York, 1996; Morgan and Clowery 2010; Stropes, 2016	Prehistoric component of village complex. Historic structural remains are also present	Site	Intersects	E-55 Portion with APE developed and paved over
P-37-008305	CA-SDI-008305	Thelen, 1977; Chace, 1980	Prehistoric lithic artifacts scatter- collected	Site	Outside	E-47
P-37-008698	CA-SDI-008698	Gardner, 1981; Apple, 1982	Prehistoric milling complex and subsurface artifacts over 3 loci	Site	Outside	H-18
P-37-008699	CA-SDI-008699	Gardner, 1981; Apple, 1982	Prehistoric milling complex	Site	Outside	H-18
P-37-008700	CA-SDI-008700	Gardner, 1981; Apple, 1982	Prehistoric milling complex and subsurface artifacts	Site	Outside	H-18
P-37-008749	CA-SDI-008749		Tribal Land- Contact SCIC	Site	Outside	H-16
P-37-008776	CA-SDI-008776	Smith and Pierson, 1981	Prehistoric milling features and subsurface artifacts	Site	Outside	H-16

Primary	Trinomial	Recorders, date	Description	Type: Site/Built Environment/Isolate	Intersects survey buffer or outside	Work Location
P-37-009828	CA-SDI-009828	Chase, 1983	Prehistoric milling features	Site	Outside	E-54
P-37-009829	CA-SDI-009829	Chase, 1983	Prehistoric milling feature	Site	Outside	E-54
P-37-009830	CA-SDI-009830	Chase, 1983	Prehistoric milling feature	Site	Outside	E-54
P-37-010882	CA-SDI-010882	Hector and Haynal, 1987	Prehistoric milling features	Site	Outside	H-18
P-37-011466	CA-SDI-011466	Serr and Shackley, 1989; Pignolo, 1999; Manchen and DeCarlo, 2015	Prehistoric milling features and one hammerstone, and a historic road alignment and painted sign.	Site	Outside	H-16
P-37-012209	CA-SDI-012209	Lenker, 1978; Linehan and Strudwick, 1991; Underwod et al., 2001; Morgan and Clowery, 2010; Stropes, 2016; Accardy, 2018	Prehistoric component of village complex including extensive milling, subsurface artifacts, and a pictograph. Historic road, reservoir, machinery, and structures also present.	Site	Outside	E-55
P-37-012459	CA-SDI-012459	Linehan and Strudwick, 1991	Prehistoric milling feature and a mano	Site	Outside	E-47
P-37-012460	CA-SDI-012460	Linehan and Strudwick, 1991	Prehistoric milling feature	Site	Outside	E-55
P-37-012461	CA-SDI-012461	Linehan and Strudwick, 1991	Prehistoric milling feature	Site	Outside	E-55
P-37-012546	CA-SDI-012546	Glenn et al, 1991	Prehistoric milling features and an artifact scatter. Historic mortared rock features and historic artifact scatter	Site	Outside	E-58
P-37-012597	CA-SDI-012597	Bibb, 1992	Historic site of Rancho San Bernardo adobe ranch house, historic artifact scatter	Site	Outside	H-18

Primary	Trinomial	Recorders, date	Description	Type: Site/Built Environment/Isolate	Intersects survey buffer or outside	Work Location
P-37-012597	CA-SDI-012597	Bibb, 1992	Historic site of Rancho San Bernardo adobe ranch house, historic artifact scatter	Site	Outside	H-27
P-37-012601	CA-SDI-012601	Smith, 1992	Prehistoric milling features and subsurface artifacts	Site	Intersects	E-55
P-37-012649	CA-SDI-012649	Unknown, n.d.; Lorrey, 1992; Pigniolo, 1999	Site of historic battle of Mule Hill, 1846. Many historical artifacts recovered. Prehistoric component includes 1 flake and a possible pictograph.	Site	Outside	H-16
P-37-012650	CA-SDI-012650	Lorrey, 1992; Lorrey, 1993	Historic Zena Sikes adobe building.	Site	Outside	H-21
P-37-012919	CA-SDI-012919	Robbins-Wade et al., 1992; Ashkar and Hilton, 2000; Piek and DeCarlo, 2015	Historic domestic refuse deposit	Site		H-19
P-37-012920	CA-SDI-012920	Robbins-Wade et al., 1992; Piek and DeCarlo, 2015	Historic domestic refuse deposit	Site		H-19
P-37-013477	CA-SDI-013477	Buysse, 1994	Prehistoric milling feature	Site	Outside	E-60
P-37-013482	CA-SDI-013482		Prehistoric milling feature	Site	Outside	E-60
P-37-015577		James et al., 1996	Prehistoric isolated mano fragment and flake	Isolate	Intersects	E-51
P-37-015892		Case, 1997	Prehistoric isolated core	Isolate	Outside	H-16
P-37-015893		Case, 1997	Prehistoric isolated portable stone mortar	Isolate	Outside	H-16
P-37-017871		Marsh, 1983	Private residence, built 1938	Built Environment	Intersects	E-50 adjacent
P-37-018732		Leary, 1983	Private residence, built 1938	Built Environment	Outside	E-61
P-37-018745		Leary, 1983	Private residence, built ~1930	Built Environment	Outside	E-54

Primary	Trinomial	Recorders, date	Description	Type: Site/Built Environment/Isolate	Intersects survey buffer or outside	Work Location
P-37-018899		Leary, 1983	Private residence, built ~1930	Built Environment	Outside	E-54
P-37-019064		Pigniolo and Dietler, 2000	Historic Escondido Gravity Float Line, Built 1932	Built Environment	Outside	E-61
P-37-019112	CA-SDI-015843	James and Briggs, 2000	Prehistoric artifact scatter	Site	Outside	H-29
P-37-019202	CA-SDI-015882	Pigniolo, 1999	Prehistoric milling features and a surface artifact scatter	Site	Outside	H-24
P-37-019317		Leary, 1983	Private residence, built ~1920	Built Environment	Outside	E-54
P-37-019437		Leary, 1983	Private residence, built ~1890	Built Environment	Outside	E-55
P-37-019518		Leary, 1983	Private residence, built 1920s	Built Environment	Outside	E-54
P-37-019519		Leary, 1983	Private residence, built ~1930	Built Environment	Outside	E-54
P-37-019520		Leary, 1983	Private residence, built ~1890	Built Environment	Outside	E-54
P-37-019622		Leary, 1983	Private residence, built 1930s	Built Environment	Outside	E-54
P-37-019623		Leary, 1983	Private residence, built ~1930	Built Environment	Outside	E-54
P-37-019624		Leary, 1983	Private residence, built ~1930	Built Environment	Outside	E-54
P-37-019625		Leary, 1983	Private residence, built 1930s	Built Environment	Outside	E-54
P-37-023913		Unknown, n.d.	Historic Zena Sikes Adobe San Diego Historic Landmark Register form	Built Environment	Outside	H-21
P-37-024169		McLean and Michalsky, 2001	Escondido Mutual Water Company Collection Point	Site	Outside	Multiple
P-37-024458		Underwood and Fitzsimmons, 2001	Historic isolated farming equipment	Isolate	Outside	E-55
P-37-028555	CA-SDI-018585	Unknown, 1970	Battle of Mule Hill San Diego Historic Landmark (#452) Register form	Site	Outside	H-21
P-37-029808		Solis, 2008	Prehistoric isolated mano	Isolate	Outside	H-21
P-37-030889		Van Wormer, 2009; Piek and DeCarlo, 2015	Vista Irrigation District Bench Flumes and Siphon built in the 1920s	Built Environment	Intersects	E-58

Primary	Trinomial	Recorders, date	Description	Type: Site/Built Environment/Isolate	Intersects survey buffer or outside	Work Location
P-37-030889		Van Wormer, 2009; Piek and DeCarlo, 2015	Vista Irrigation District Bench Flumes and Siphon built in the 1920s	Built Environment	Outside	SM-05
P-37-030889		Van Wormer, 2009; Piek and DeCarlo, 2015	Vista Irrigation District Bench Flumes and Siphon built in the 1920s	Site	Intersects	E-58
P-37-032539	CA-SDI-020662	Rodgers, n.d., Gallegos and Trampier, 1997 and 2012	Prehistoric milling features and a surface artifact scatter	Site	Outside	E-47
P-37-033269	CA-SDI-020941	Lenker, 1978; Stropes; 2013	Prehistoric subsurface surface artifacts	Site	Outside	E-55
P-37-035581		Stringer-Bowsher, 2012	Historic residential complex	Built Environment	Outside	H-19
P-37-035623	CA-SDI-021808	Daniels, 2016	Prehistoric milling features	Site	Outside	H-19
P-37-035866	CA-SDI-021873	Smolik et al, 2015	Adobe brick manufacturing site including an adobe brick making machine in operation from 1949-1971. 15 features over 4 loci	Site	Outside	H-17
P-37-036603		Davidson, 2017	Quince Street Warehouse Complex	Built Environment	Outside	E-51
P-37-037734	CA-SDI-022477	Piek and DeCarlo, 2015	Historic structure foundation	Site	Outside	H-19

Note: Gray shading denotes resources that intersect with the cultural resources survey area.

Note: Gray shading denotes resources that intersect with the cultural resources survey area.

P-37-000572/CA-SDI-572

This prehistoric resource is lithic scatter of flakes, manos, and a hammerstone, first recorded by Delbert True in the early 1950s, before the area was developed. No updates to the original record have been submitted. The site has not been evaluated for its potential eligibility to the CRHR or NRHP.

P-37-006726/CA-SDI-6726

This prehistoric archaeological site was recorded in 1978 as one of series of bedrock milling locations in the area. The site was reported of consisting of two bedrock milling features with a total of seven milling elements, including six mortars and one slick. No artifacts were recorded at the time. The site has not been evaluated for eligibility to the CRHR or NRHP.

P-37-006727/CA-SDI-6727

This prehistoric archaeological site was recorded in 1978 as one of series of bedrock milling locations in the area. The site was reported of consisting of three bedrock milling features with a total of 11 milling elements, including one mortar and 10 slicks. A stone pestle was observed on the ground surface. When the site was recorded, it was noted that it was in eminent danger of being destroyed by development of a shopping center. The site has not been evaluated for eligibility to the CRHR or NRHP.

P-37-008280/CA-SDI-8280

This resource is a prehistoric habitation site and probably part of a larger village complex, but also includes a historical component. Site constituents include bedrock milling features, lithic waste, groundstone, pictographs and historical foundation, and building remains. The site is very large and related to site CA-SDI-12,209, which was recorded just to the north. The site has been affected by development of a wastewater treatment facility and surrounding industrial/business parks, but much of the site remains undeveloped, although not undisturbed. The portion of the site recorded within the current study area is within an area that has been developed and is mostly paved over. The site was previously evaluated through test excavation and found to be eligible for the CRHR and NRHP, although it was noted that not all portions of the site contribute to its significance.

P-37-012601/CA-SDI-12,601

This archaeological site is a prehistoric bedrock milling site with associated sparse lithic artifacts. The site was identified as containing three bedrock milling features with seven slicks. In 1992, the site was tested with the excavation of eight shovel test probes and a single 1 x 1-meter test unit. A total of 10 flakes were recovered during significance testing of the site. The site has previously been determined to be ineligible for NRHP through the Section 106 process, but was not evaluated for the CRHR.

P-37-015577

P-37-015577 is a prehistoric isolate resource consisting of single, secondary porphyritic metavolcanic flake and a granitic mano fragment. The artifacts were in 1996 within a disturbed

setting within the Atchison, Topeka, and Santa Fe Railway right-of-way. As an isolate, the resource is not eligible for the CRHR or NRHP.

P-37-017871

This built environment cultural resource is a private residence built in 1938. The house was recorded in 1983, and the builder and architect of the structure are unknown. The structure appears to have been demolished since the time it was recorded.

P-37-030889

This built environment cultural resource is the Vista Irrigation flume and siphons constructed in the 1920s. The water system was built using a combination of gunite bench flumes along various ridges and connecting steel and concrete siphons to convey water across canyons and valleys between the ridges where the flumes are located. The system was originally a little over 12 miles long and carried water from Vista/San Marcos to Escondido. The resource was previously evaluated in 2009 and considered to be eligible for both the CRHR and the NRHP, but SHPO concurrence for this determination is unknown.

Native American Contact and Outreach

ICF submitted a request to the NAHC for information in the Sacred Lands File database on May 21, 2019, in order to acquire more information about potential cultural resources within the APE and vicinity. A response from the NAHC was received on June 5, 2019. The NAHC indicated that no traditional cultural places are located within the APE that may be affected by the proposed project. Additionally, the NAHC provided a list of 31 Native American tribes and individuals to contact about the proposed project and requested follow-up phone calls. Letters were sent to the Native American tribes and individuals on October 28, 2019. Responses were received from the Viejas Band of Kumeyaay Indians, who recommended contacting the San Pasqual Band of Mission Indians, and from the San Pasqual Band of Mission Indians, who requested additional maps of the earthen facilities and monitoring by Native Americans for work in the vicinity of recorded archaeological sites. A follow up letter was sent to the San Pasqual Tribe with updated project maps and earthen berm locations on January 8, 2020. The Rincon Band of Luiseno Indians considers the project to be within the Tribe's specific area of historic interest. The Pala Band of Mission Indians considers the Project outside their Traditional Use Area and requested Native American monitors be present for survey and ground-disturbing activities. All the tribes requested to be kept in the information loop in case of project changes and have copies of reports sent to them. Copies of Native American contact correspondence can be found in Appendix C, *Native American Consultation*.

The City of Escondido received responses to consult under Assembly Bill 52 (Chapter 532, Statutes 2014) (AB 52) from the Rincon Band of Luiseno Indians and the San Luis Rey Band of Mission Indians. The Rincon Band requested tribal monitoring at a number of facilities at a meeting in June of 2020. The San Luis Rey Band also requested the presence of tribal monitors for ground disturbing activities at a number of facilities via email in September 2020.

Results

Pedestrian Survey

ICF archaeologists conducted a pedestrian survey of the 361-acre survey area in October and November 2019. The survey area consisted of each facility location and a 50-foot buffer. The archaeologists examined the ground surface within each survey area for the presence of prehistoric artifacts and features, prehistoric milling surfaces on exposed bedrock, and historic artifacts and features. Visibility ranged from good in road shoulders to extremely poor in areas with dense vegetation. Vegetation within the APE consisted of agricultural land, native and non-native grasses, disturbed native chaparral, and landscaped residential yards and roadsides. For this survey, visibility was characterized as good to excellent if 75 percent or more of the ground was visible, fair to good if 25–75 percent was visible, and poor to fair if 5–25 percent of the ground was visible. The archaeologists took notes and photographs of the project survey area and all identified cultural resources (See Photos 1 and 2, to follow).

During the field surveys, none of the eight previously recorded archaeological resources were relocated. One new prehistoric bedrock milling site, ICF-ESC94-P-001, was identified. For the most part, this appears to be due to environmental conditions that have occurred since the resources were originally recorded. Some of the resources appear to have been buried or eroded away, destroyed by later development, or were inaccessible because of dense vegetation. Discrepancies may also be due to sites being recorded prior to the common use of Geographic Information Systems (GIS) in site recording, resulting in the original recorded locations being off or erroneously mapped (Table 3, to follow) (Figure 3, *Cultural Survey Results*, in Appendix B [Confidential]).

Detailed Project Report forms were updated for sites identified in the APE and are in attached Appendix D.



Photo 1. E-54 Reidy Creek and Centre City Parkway Overview



Photo 2. Overview at RGP 94 Kit Carson Downstream Mitigation Area

Table 3. Cultural Resources Identified within the APE and Survey Results

Site/Isolate Designation	Project Component	Description	NRHP/CRHR Status	Relocated/Observations
P-37-000572/CA-SDI-572	Kit Carson Mitigation Area	Prehistoric lithic scatter	Unevaluated	Not relocated; very disturbed and appears destroyed
P-37-004963/CA-SDI-4963	H-16	Prehistoric lithic scatter	Unevaluated	Not relocated; possibly mismapped and disturbed
P-37-006726/CA-SDI-6726	E-54	Bedrock milling site	Unevaluated	Not relocated; boulder outcrops observed but have been mostly buried by soil
P-37-006727/CA-SDI-6727	E-54	Bedrock milling site	Unevaluated	Not relocated; boulder outcrops and placed boulders observed, but have been mostly buried by soil
P-37-008280/CA-SDI-8280	E-55	Large prehistoric habitation site with historical remains	Eligible, but portion within APE destroyed through previous development	Not relocated; portion within APE is developed and partially paved over
P-37-012601/CA-SDI-12601	E-55	Prehistoric milling features and subsurface artifacts	Not eligible	Not relocated in APE
P-37-015577	E-51	Prehistoric isolate	Not eligible	Not relocated
P-37-017871	E-50	Historical residence	Not eligible	Appears demolished
P-37-30889	E-58	Vista Irrigation District Bench Flumes and Siphon built in the 1920s	Recommended eligible	Not relocated due to being subterranean in this area
ICF-ESC94-P-001	None, possible mitigation area since removed from current project.	Bedrock milling site not previously recorded.	Unevaluated	New site identified during survey; more milling may be present; additional bedrock was buried or covered in dense vegetation

Conclusions

None of the previously recorded cultural resources were identified, and one previously unidentified cultural resource was located within the APE. A variety of reasons is possible for this result. Many of the locations were overgrown with vegetation that hindered visibility and access to areas where sites were previously recorded. In some cases, bedrock was identified where bedrock milling was recorded; however, the bedrock is either buried or eroded, and milling surfaces were not relocated. Additionally, some areas have been developed since the resources were originally recorded, and the sites may have been destroyed or paved and developed over. Many of the site records are relatively old, and the location information on some of the forms may be incorrect and misplotted.

Recommendations

ICF conducted a pedestrian survey to identify cultural resources in the APE. The field efforts identified one new archaeological site, but no evidence of the previously recorded cultural resources within the APE. However, several of the facilities could not be adequately surveyed due to poor visibility. It is recommended that the initial maintenance activities at these facilities (Table 4, to follow) are monitored by a qualified archaeologist. Based upon the results of initial ground disturbance, the monitor would be able to determine if the potential for subsurface disturbance warrants further monitoring.

Table 4. Facilities Recommended for Archaeological Monitoring

Rationale for Archaeological Monitoring	
E-54	Previously recorded resource nearby.
E-55	Previously recorded resource nearby.
E-58	Dense vegetation. Previously recorded resource nearby.
E-60	Dense vegetation. Previously recorded resources nearby.
H-19	Lack of access.
H-16	Dense vegetation precluded relocating previously recorded site in APE.
SM-05	Monitor due to limited visibility and recorded resources nearby.

Due to concerns expressed by the Native American community, additional consultation(s) is recommended prior to implementation of routine maintenance activities slated for the earthen-lined facilities. Native American monitoring is recommended for during the first maintenance activity that involves ground disturbing activities at the following earthen facilities: E-53, E-54, E-55, E-56, E-58, E-60, H-15, H-16, H-17, H-18, H-19, H-20, H-21, SM-05, and HAARF. Monitoring requirements will be included in the Monitoring and Discovery Plan, along with measures to address any cultural discoveries during project-related activities. Once the areas have been inspected by an archaeologist and monitoring has been completed, documentation will be prepared confirming that there is no further need to monitor future maintenance activities at the same facility locations.

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Appendix A

Record Search Results

Appendix A- Record Search Results

Record Search Maps and Site Forms constitute over 800 pages and are on file at ICF, 525 B Street, Suite 1700, San Diego, CA . In order to reduce paperwork and digital space the information will be made available upon request by the City of Escondido



South Coastal Information Center
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-5320
Office: (619) 594-5682
www.scic.org
scic@mail.sdsu.edu

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM CLIENT IN-HOUSE RECORDS SEARCH

Company: ICF
Company Representative: Nara Cox
Date: 5/22/2019
Project Identification: Escondido Creek 59.19
Search Radius: 1/4 mile

Historical Resources: SELF
Trinomial and Primary site maps have been reviewed. All sites within the project boundaries and the specified radius of the project area have been plotted. Copies of the site record forms have been included for all recorded sites.

Previous Survey Report Boundaries: SELF
Project boundary maps have been reviewed. National Archaeological Database (NADB) citations for reports within the project boundaries and within the specified radius of the project area have been included.

Historic Addresses: SELF
A map and database of historic properties (formerly Geofinder) has been included.

Historic Maps: SELF
The historic maps on file at the South Coastal Information Center have been reviewed, and copies have been included.

Copies: 272

Hours: 3

Excel Lms = 33 Lines



South Coastal Information Center
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-5320
Office: (619) 594-5682
www.scic.org
scic@mail.sdsu.edu

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM CLIENT IN-HOUSE RECORDS SEARCH

Company: ICF
Company Representative: Nara Cox
Date: 6/3/2019
Project Identification: Escondido Creek RGP94
Search Radius: 1/4 mile

Historical Resources: SELF
Trinomial and Primary site maps have been reviewed. All sites within the project boundaries and the specified radius of the project area have been plotted. Copies of the site record forms have been included for all recorded sites.

Previous Survey Report Boundaries: SELF
Project boundary maps have been reviewed. National Archaeological Database (NADB) citations for reports within the project boundaries and within the specified radius of the project area have been included.

Historic Addresses: SELF
A map and database of historic properties (formerly Geofinder) has been included.

Historic Maps: SELF
The historic maps on file at the South Coastal Information Center have been reviewed, and copies have been included.

Copies: 596
Hours: 7

Excel lines = 141 Lines

Appendix B

Figure 3 Cultural Survey Results (CONFIDENTIAL)

Appendix C
Native American Consultation

Sacred Lands File & Native American Contacts List Request

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd, Suite 100
West Sacramento, CA 95501
(916) 373-3710
(916) 373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: _____

County: _____

USGS Quadrangle

Name: _____

Township: _____ Range: _____ Section(s): _____

Company/Firm/Agency:

Contact Person: _____

Street Address: _____

City: _____ Zip: _____

Phone: _____ Extension: _____

Fax: _____

Email: _____

Project Description:

____ Project Location Map is attached

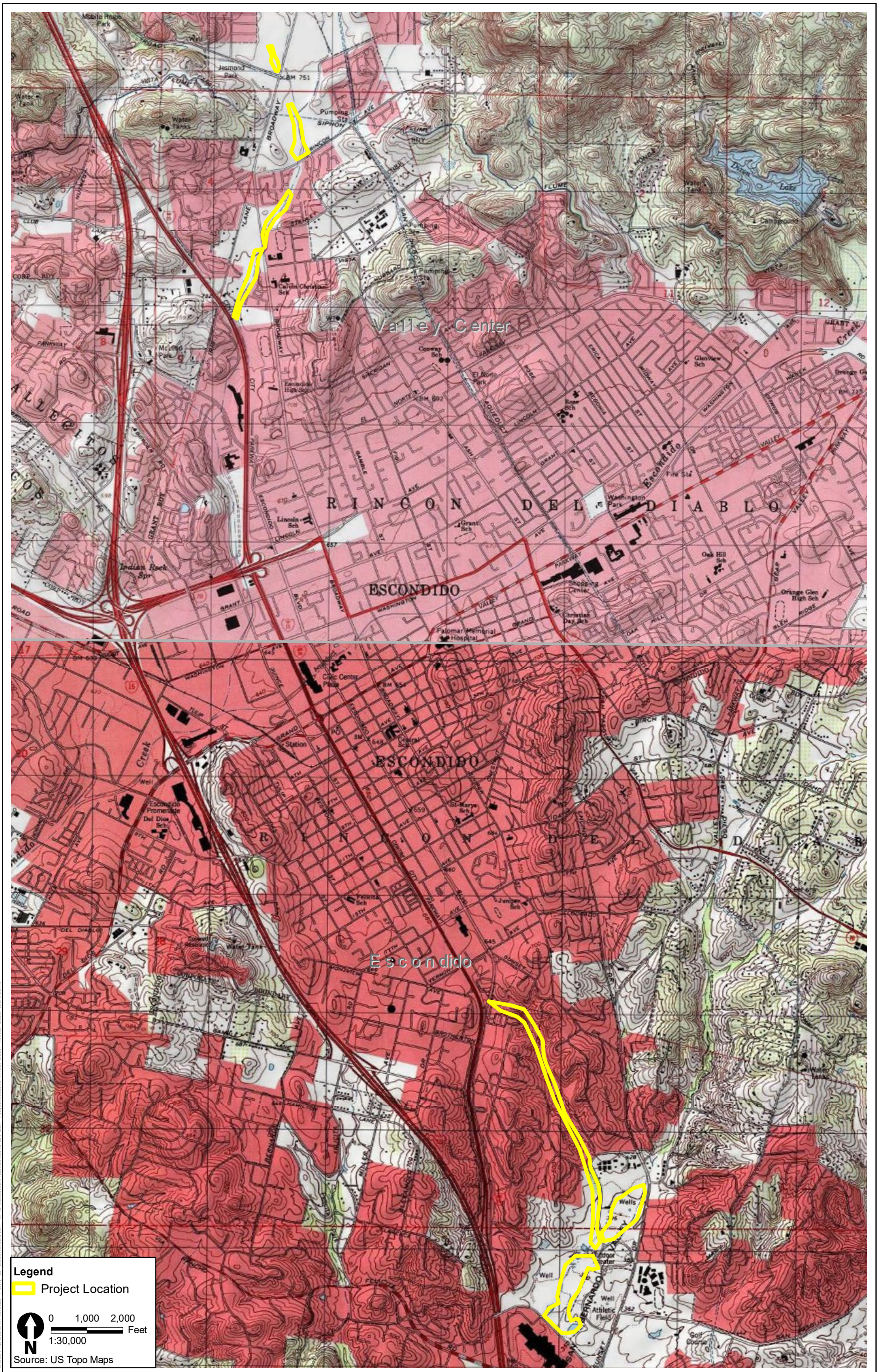


Figure 1
Project Location

**Native American Heritage Commission
Native American Contact List
San Diego County
6/5/2019**

**Agua Caliente Band of Cahuilla
Indians**

Jeff Grubbe, Chairperson
5401 Dinah Shore Drive Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6800
Fax: (760) 699-6919

lipay Nation of Santa Ysabel

Clint Linton, Director of Cultural
Resources
P.O. Box 507 Diegueno
Santa Ysabel, CA, 92070
Phone: (760) 803 - 5694
cjlinton73@aol.com

**Agua Caliente Band of Cahuilla
Indians**

Patricia Garcia-Plotkin, Director
5401 Dinah Shore Drive Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6907
Fax: (760) 699-6924
ACBCI-THPO@aguacaliente.net

lipay Nation of Santa Ysabel

Virgil Perez, Chairperson
P.O. Box 130 Diegueno
Santa Ysabel, CA, 92070
Phone: (760) 765 - 0845
Fax: (760) 765-0320

**Barona Group of the Capitan
Grande**

Edwin Romero, Chairperson
1095 Barona Road Diegueno
Lakeside, CA, 92040
Phone: (619) 443 - 6612
Fax: (619) 443-0681
cloyd@barona-nsn.gov

Inaja-Cosmit Band of Indians

Rebecca Osuna, Chairperson
2005 S. Escondido Blvd. Diegueno
Escondido, CA, 92025
Phone: (760) 737 - 7628
Fax: (760) 747-8568

**Campo Band of Diegueno
Mission Indians**

Ralph Goff, Chairperson
36190 Church Road, Suite 1 Diegueno
Campo, CA, 91906
Phone: (619) 478 - 9046
Fax: (619) 478-5818
rgoff@campo-nsn.gov

Jamul Indian Village

Erica Pinto, Chairperson
P.O. Box 612 Diegueno
Jamul, CA, 91935
Phone: (619) 669 - 4785
Fax: (619) 669-4817
epinto@jiv-nsn.gov

**Kwaaymii Laguna Band of
Mission Indians**

Carmen Lucas,
P.O. Box 775 Kwaaymii
Pine Valley, CA, 91962 Diegueno
Phone: (619) 709 - 4207

Ewiiapaayp Tribe

Robert Pinto, Chairperson
4054 Willows Road Diegueno
Alpine, CA, 91901
Phone: (619) 445 - 6315
Fax: (619) 445-9126
wmicklin@leaningrock.net

**La Jolla Band of Luiseno
Indians**

Fred Nelson, Chairperson
22000 Highway 76 Luiseno
Pauma Valley, CA, 92061
Phone: (760) 742 - 3771

Ewiiapaayp Tribe

Michael Garcia, Vice Chairperson
4054 Willows Road Diegueno
Alpine, CA, 91901
Phone: (619) 445 - 6315
Fax: (619) 445-9126
michaelg@leaningrock.net

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed City of Escondido RGP 94 Channel Maintenance Program Project, San Diego County.

**Native American Heritage Commission
Native American Contact List
San Diego County
6/5/2019**

**La Posta Band of Diegueno
Mission Indians**

Javaughn Miller, Tribal
Administrator
8 Crestwood Road Diegueno
Boulevard, CA, 91905
Phone: (619) 478 - 2113
Fax: (619) 478-2125
jmiller@LPtribe.net

**La Posta Band of Diegueno
Mission Indians**

Gwendolyn Parada, Chairperson
8 Crestwood Road Diegueno
Boulevard, CA, 91905
Phone: (619) 478 - 2113
Fax: (619) 478-2125
LP13boots@aol.com

**Manzanita Band of Kumeyaay
Nation**

Angela Elliott Santos, Chairperson
P.O. Box 1302 Diegueno
Boulevard, CA, 91905
Phone: (619) 766 - 4930
Fax: (619) 766-4957

**Mesa Grande Band of Diegueno
Mission Indians**

Michael Linton, Chairperson
P.O Box 270 Diegueno
Santa Ysabel, CA, 92070
Phone: (760) 782 - 3818
Fax: (760) 782-9092
mesagrandeband@msn.com

Pala Band of Mission Indians

Shasta Gaughen, Tribal Historic
Preservation Officer
PMB 50, 35008 Pala Temecula Cupeno
Rd. Luiseno
Pala, CA, 92059
Phone: (760) 891 - 3515
Fax: (760) 742-3189
sgaughen@palatribe.com

Pauma Band of Luiseno Indians

Temet Aguilar, Chairperson
P.O. Box 369 Luiseno
Pauma Valley, CA, 92061
Phone: (760) 742 - 1289
Fax: (760) 742-3422
bennaecalac@aol.com

**Pechanga Band of Luiseno
Indians**

Paul Macarro, Cultural Resources
Coordinator
P.O. Box 1477 Luiseno
Temecula, CA, 92593
Phone: (951) 770 - 6306
Fax: (951) 506-9491
pmacarro@pechanga-nsn.gov

**Pechanga Band of Luiseno
Indians**

Mark Macarro, Chairperson
P.O. Box 1477 Luiseno
Temecula, CA, 92593
Phone: (951) 770 - 6000
Fax: (951) 695-1778
epreston@pechanga-nsn.gov

Rincon Band of Luiseno Indians

Bo Mazzetti, Chairperson
One Government Center Lane Luiseno
Valley Center, CA, 92082
Phone: (760) 749 - 1051
Fax: (760) 749-5144
bomazzetti@aol.com

Rincon Band of Luiseno Indians

Jim McPherson, Tribal Historic
Preservation Officer
One Government Center Lane Luiseno
Valley Center, CA, 92082
Phone: (760) 749 - 1051
Fax: (760) 749-5144
vwhipple@rincontribe.org

**San Luis Rey Band of Mission
Indians**

1889 Sunset Drive Luiseno
Vista, CA, 92081
Phone: (760) 724 - 8505
Fax: (760) 724-2172
cjmojado@slrmissionindians.org

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This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed City of Escondido RGP 94 Channel Maintenance Program Project, San Diego County.

**Native American Heritage Commission
Native American Contact List
San Diego County
6/5/2019**

San Luis Rey Band of Mission Indians

San Luis Rey, Tribal Council
1889 Sunset Drive
Vista, CA, 92081
Phone: (760) 724 - 8505
Fax: (760) 724-2172
cjmojado@slrmissionindians.org

Luiseno

Sycuan Band of the Kumeyaay Nation

Cody J. Martinez, Chairperson
1 Kwaaypaay Court
El Cajon, CA, 92019
Phone: (619) 445 - 2613
Fax: (619) 445-1927
ssilva@sycuan-nsn.gov

Kumeyaay

San Pasqual Band of Diegueno Mission Indians

John Flores, Environmental Coordinator
P. O. Box 365
Valley Center, CA, 92082
Phone: (760) 749 - 3200
Fax: (760) 749-3876
johnf@sanpasqualtribe.org

Diegueno

Sycuan Band of the Kumeyaay Nation

Lisa Haws, Cultural Resources Manager
1 Kwaaypaay Court
El Cajon, CA, 92019
Phone: (619) 312 - 1935
lhaws@sycuan-nsn.gov

Kumeyaay

San Pasqual Band of Diegueno Mission Indians

Allen Lawson, Chairperson
P.O. Box 365
Valley Center, CA, 92082
Phone: (760) 749 - 3200
Fax: (760) 749-3876
allenl@sanpasqualtribe.org

Diegueno

Viejas Band of Kumeyaay Indians

Robert Welch, Chairperson
1 Viejas Grade Road
Alpine, CA, 91901
Phone: (619) 445 - 3810
Fax: (619) 445-5337

Diegueno

Soboba Band of Luiseno Indians

Scott Cozart, Chairperson
P. O. Box 487
San Jacinto, CA, 92583
Phone: (951) 654 - 2765
Fax: (951) 654-4198
jontiveros@soboba-nsn.gov

Cahuilla
Luiseno

Viejas Band of Kumeyaay Indians

Ernest Pingleton, Tribal Historic Officer, Resource Management
1 Viejas Grade Road
Alpine, CA, 91901
Phone: (619) 659 - 2314
epingleton@viejas-nsn.gov

Diegueno

Soboba Band of Luiseno Indians

Joseph Ontiveros, Cultural Resource Department
P.O. BOX 487
San Jacinto, CA, 92581
Phone: (951) 663 - 5279
Fax: (951) 654-4198
jontiveros@soboba-nsn.gov

Cahuilla
Luiseno

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This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed City of Escondido RGP 94 Channel Maintenance Program Project, San Diego County.



October 25, 2019

Pauma Band of Luiseno Indians
Temet Aguilar, Chairperson
P.O. Box 369
Pauma Valley, CA, 92061

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Aguilar:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

ICF has conducted a Phase I cultural resources inventory, and prepare a memorandum documenting the environmental surveys and CEQA reporting in support of the project. To accomplish this objective, ICF cultural resources personnel performed a records search, archival research, and a Sacred Lands File search. Archival research refers to both written and oral history including record searches at the South Central Information Center (SCIC), the Native American Heritage Commission (NAHC), as well as Native American consultation. Prehistoric sites have been identified directly within the project area as a result the record search and pedestrian survey.

The NAHC completed a search of the Sacred Lands File which failed to indicate the presence of Native American sacred lands within the project area. The NAHC identify you as a person who may have concerns or knowledge of cultural resources in the project area. Any information you might be able to share about the project area would greatly enhance the study and would be appreciated.

If you would like to participate in the consultation process, or if you have any recommendations regarding the Project, please address them to me so that I can incorporate them into our draft report. As required by State law, all site data and other culturally sensitive information will not be released to the general public and will be kept strictly confidential. This outreach is for due diligence and not under AB52 or Section 106. I can be reached at 858-444-3947, or by email at Patrick.McGinnis@icf.com.

Sincerely,

A handwritten signature in black ink that reads "Patrick McGinnis". The signature is written in a cursive style and is contained within a rectangular box.

Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

San Pasqual Band of Diegueno Mission Indians
Steven Cope, Chairperson
P.O. Box 365
Valley Center, CA, 92082

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Cope:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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The NAHC completed a search of the Sacred Lands File which failed to indicate the presence of Native American sacred lands within the project area. The NAHC identify you as a person who may have concerns or knowledge of cultural resources in the project area. Any information you might be able to share about the project area would greatly enhance the study and would be appreciated.

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Sincerely,

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Soboba Band of Luiseno Indians
Scott Cozart, Chairperson
P.O. Box 487
San Jacinto, CA, 92583

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Cozart:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Sincerely,

A handwritten signature in black ink that reads "Patrick McGinnis". The signature is written in a cursive style and is enclosed within a thin black rectangular border.

Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Campo Band of Diegueno Mission Indians
Harry Cuero, Chairperson
36190 Church Road, Suite 1
Campo, CA 91906

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Cuero:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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The NAHC completed a search of the Sacred Lands File which failed to indicate the presence of Native American sacred lands within the project area. The NAHC identify you as a person who may have concerns or knowledge of cultural resources in the project area. Any information you might be able to share about the project area would greatly enhance the study and would be appreciated.

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Sincerely,

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Jamul Indian Village
Lisa Cumper, Chairperson
P.O. Box 612
Jamul, CA 91935

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Ms. Cumper:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Sincerely,

A handwritten signature in black ink that reads "Patrick McGinnis". The signature is written in a cursive, flowing style.

Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Manzanita Band of Kumeyaay Nation
Angela Elliott Santos, Chairperson
P.O. Box 1302
Boulevard, CA, 91905

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Ms. Elliott Santos:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

San Pasqual Band of Diegueno Mission Indians
John Flores, Environmental Coordinator
P.O. Box 365
Valley Center, CA, 92082

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Flores:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Ewiiapaayp Tribal Office
Michael Garcia, Vice Chairperson
4054 Willows Road
Alpine, CA 91901

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Garcia:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Agua Caliente Band of Cahuilla Indians
Patricia Garcia-Plotkin, Director
5401 Dinah Shore Drive
Palm Springs, CA, 92264

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Ms. Garcia-Plotkin:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Pala Band of Mission Indians
Shasta Gaughen, THPO
PMB 50, 35008 Pala Temecula Rd.
Pala, CA, 92059

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Ms. Gaughen:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Agua Caliente Band of Cahuilla Indians
Jeff Grubbe, Chairperson
5401 Dinah Shore Drive
Palm Springs, CA, 92264

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Grubbe:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Iipay Nation of Santa Ysabel
Clint Linton, Director of Cultural Resources
P.O. Box 507
Santa Ysabel, CA 92070

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Linton:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Kwaaymii Laguna Band of Mission Indians
Carmen Lucas
P.O. Box 775
Pine Valley, CA 91962

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Ms. Lucas:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Mesa Grande Band of Diegueno Mission Indians
Michael Linton, Chairperson
P.O. Box 270
Santa Ysabel, CA, 92070

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Linton:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Pechanga Band of Luiseno Indians
Mark Macarro, Chairperson
P.O. Box 1477
Temecula, CA, 92593

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Macarro:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Archaeologist

Encl. Figure 1



October 25, 2019

Sycuan Band of the Kumeyaay Nation
Cody J. Martinez, Chairperson
1 Kwaaypaay Court
El Cajon, CA 92019

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Martinez:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Rincon Band of Luiseno Indians
Bo Mazzetti, Chairperson
1 Government Center Lane
Valley Center, CA, 92082

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Mazzetti:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Archaeologist

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October 25, 2019

Rincon Band of Luiseno Indians
Jim McPherson, THPO
1 Government Center Lane
Valley Center, CA, 92082

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. McPherson:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Sincerely,

A handwritten signature in black ink that reads "Patrick McGinnis". The signature is written in a cursive style and is contained within a rectangular box.

Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

La Posta Band of Diegueno Mission Indians
Javaughn Miller, Tribal Administrator
8 Crestwood Road
Boulevard, CA, 91905

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Miller:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

La Jolla Band of Luiseno Indians
Fred Nelson, Chairperson
22000 Highway 76
Pauma Valley, CA, 92061

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Nelson:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Soboba Band of Luiseno Indians
Joseph Ontiveros, Cultural Resource Department
P.O. Box 487
San Jacinto, CA, 92581

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Ontiveros:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Sycuan Band of the Kumeyaay Nation
Kristie Orosco, Cultural Resources Manager
1 Kwaaypaay Court
El Cajon, CA 92019

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Ms. Orosco:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Inaja-Cosmit Band of Indians
Rebecca Osuna, Chairperson
2005 S. Escondido Blvd.
Escondido, CA 92025

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Ms. Osuna:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Pechanga Band of Luiseno Indians
Paul Macarro, Cultural Resources Coordinator
P.O. Box 1477
Temecula, CA, 92593

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Macarro:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

La Posta Band of Diegueno Mission Indians
Gwendolyn Parada, Chairperson
8 Crestwood Road
Boulevard, CA, 91905

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Ms. Parada:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Viejas Band of Kumeyaay Indians
Ernest Pingleton, Tribal Historic Officer, Resource Management
1 Viejas Grade Road
Alpine, CA 91901

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Pingleton:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Ewiiapaayp Tribal Office
Robert Pinto, Chairperson
4054 Willows Road
Alpine, CA 91901

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Pinto:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

Barona Group of the Capitan Grande
Edwin Romero, Chairperson
1095 Barona Road
Lakeside, CA, 92040

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Romero:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



October 25, 2019

San Luis Rey Band of Mission Indians
San Luis Rey, Tribal Council
1889 Sunset Drive
Vista, CA, 92081

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Tribal Council:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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Archaeologist

Encl. Figure 1



October 25, 2019

Iipay Nation of Santa Ysabel
Brandie Taylor, Vice Chairperson
P.O. Box 130
Santa Ysabel, CA 92070

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Ms. Taylor:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

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October 25, 2019

Viejas Band of Kumeyaay Indians
Robert Welch, Chairperson
1 Viejas Grade Road
Alpine, CA 91901

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Mr. Welch:

The City of Escondido (City) has an ongoing need to effectively maintain the municipal separate storm sewer system in accordance with the City's Regional General Permit (RGP) 94 Channel Maintenance Program (RGP 94 Program). The RGP 94 Program authorizes the City to perform operations and maintenance (O&M) activities at 63 concrete and earthen storm water facilities. In order to implement and renew the RGP 94 Program, of Escondido Utility Department has contracted ICF to provide ongoing Permit Compliance Support of RGP 94 Permit Renewal for Channel Maintenance Activities. The Project is within Sections 9, 4, and 33 and unsectioned portions of Township 12 and 13 South, Range 2 West, and appears on the *Valley Center* and *Escondido*, California USGS 7.5-minute series topographic maps (Figure 1).

ICF has conducted a Phase I cultural resources inventory, and prepare a memorandum documenting the environmental surveys and CEQA reporting in support of the project. To accomplish this objective, ICF cultural resources personnel performed a records search, archival research, and a Sacred Lands File search. Archival research refers to both written and oral history including record searches at the South Central Information Center (SCIC), the Native American Heritage Commission (NAHC), as well as Native American consultation. Prehistoric sites have been identified directly within the project area as a result the record search and pedestrian survey.

The NAHC completed a search of the Sacred Lands File which failed to indicate the presence of Native American sacred lands within the project area. The NAHC identify you as a person who may have concerns or knowledge of cultural resources in the project area. Any information you might be able to share about the project area would greatly enhance the study and would be appreciated.

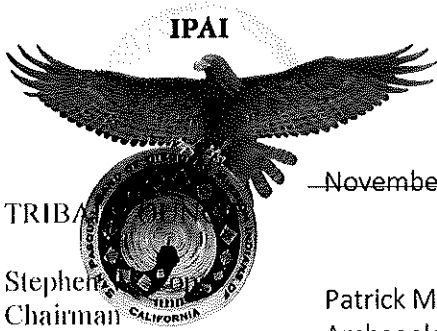
If you would like to participate in the consultation process, or if you have any recommendations regarding the Project, please address them to me so that I can incorporate them into our draft report. As required by State law, all site data and other culturally sensitive information will not be released to the general public and will be kept strictly confidential. This outreach is for due diligence and not under AB52 or Section 106. I can be reached at 858-444-3947, or by email at Patrick.McGinnis@icf.com.

Sincerely,

A handwritten signature in black ink that reads "Patrick McGinnis". The signature is written in a cursive style and is enclosed in a thin black rectangular border.

Patrick McGinnis, MA
Archaeologist

Encl. Figure 1



SAN PASQUAL BAND OF MISSION INDIANS

November 7, 2019

TRIBAL

SAN PASQUAL RESERVATION

Stephen
Chairman

Patrick McGinnis, MA
Archaeologist
525 B Street, Suite 1700
San Diego, Ca. 92101

Justin Quis Quis
Vice Chairman

Tilda M. Green
Secretary-Treasurer

Re: City of Escondido RGP 94 Channel Maintenance Program

David L. Toler
Councilman

Dear Mr. McGinnis,

Joe Chavez
Councilman

The San Pasqual Band of Mission Indians Tribal Historic Preservation Office has received your notification of the project referenced above. This letter constitutes our response on behalf of David L. Toler THPO Officer.

We have consulted our maps and determined that the project as described is not within the boundaries of the recognized San Pasqual Indian Reservation. It is, however, within the boundaries of the territory that the tribe considers its Traditional Use Area (TUA). Therefore, we request to be kept in the information loop as the project progresses and would appreciate being maintained on the receiving list for project updates, reports of investigations, and/or any documentation that might be generated regarding previously reported or newly discovered sites. Furthermore, we recommend archaeological monitoring given the proximity of known prehistoric sites. If the project boundaries are modified to extend beyond the currently proposed limits, we request updated information and the opportunity to respond to your changes.

In regard to the channels that are of "earthen storms water facilities", we would like to request a new map showing their locations, as we may recommend San Pasqual Cultural Monitors at those sites.

We appreciate involvement with your initiative and look forward to working with you on future efforts. If you have questions or need additional information, please do not hesitate to contact me by telephone 760-651-5142 or by e-mail at THPO@sanpasqualtribe.org.

Sincerely,

Angelina Gutierrez
Tribal Historic Preservation Office, Monitor Supervisor
San Pasqual Band of Mission Indians



January 8, 2020

San Pasqual Band of Diegueno Mission Indians
Angelina Gutierrez, Monitor Supervisor
Tribal Historic Preservation Office
P.O. Box 365
Valley Center, CA, 92082

Subject: City of Escondido RGP 94 Channel Maintenance Program– Due Diligence Outreach

Dear Ms. Gutierrez

Thank you for response to the outreach letter sent regarding the City of Escondido's RGP 94 Channel maintenance Program in October 2019. We have received your response dated November 7, 2019 which requests a map of earthen storm water facilities associated with the project. We created a map for this purpose and it is enclosed. I have also included an updated copy with all of the project facility locations for reference. The record search for the project indicated that there are six prehistoric archaeological resources that intersect with project facilities. During pedestrian surveys none of these resources were relocated in the field. In some cases areas had been developed since the resource was recorded, vegetation and soil obscured the ground surface in the area of the resource, or the resource appear to have been mismapped when originally recorded.

Currently, we are recommending archaeological and Native American monitoring at the locations listed below due to proximity to previously recorded archaeological sites or the inability too observe the ground surface due to dense vegetation or access issues.

Facilities Recommended for Archaeological Cultural Resources Monitoring

<u>Facility ID</u>	<u>Rationale for Monitoring</u>
E-54	Previously recorded resource nearby.
E-55	Previously recorded resource nearby.
E-58	Dense vegetation. Previously recorded resource nearby.
E-60	Dense vegetation. Previously recorded resources nearby.
H-19	Lack of access.
H-16	Dense vegetation precluded relocating previously recorded site in APE.

- H-18** **Dense vegetation. No monitoring recommended for the bike trail or within Concrete Channel.**
- SM-05** **Monitor due to limited visibility and recorded resources nearby.**
- Kit Carson Park** **Monitor within Kit Carson Downstream Mitigation site due to the vicinity of CA-SDI-572 and only within 100' of that site.**

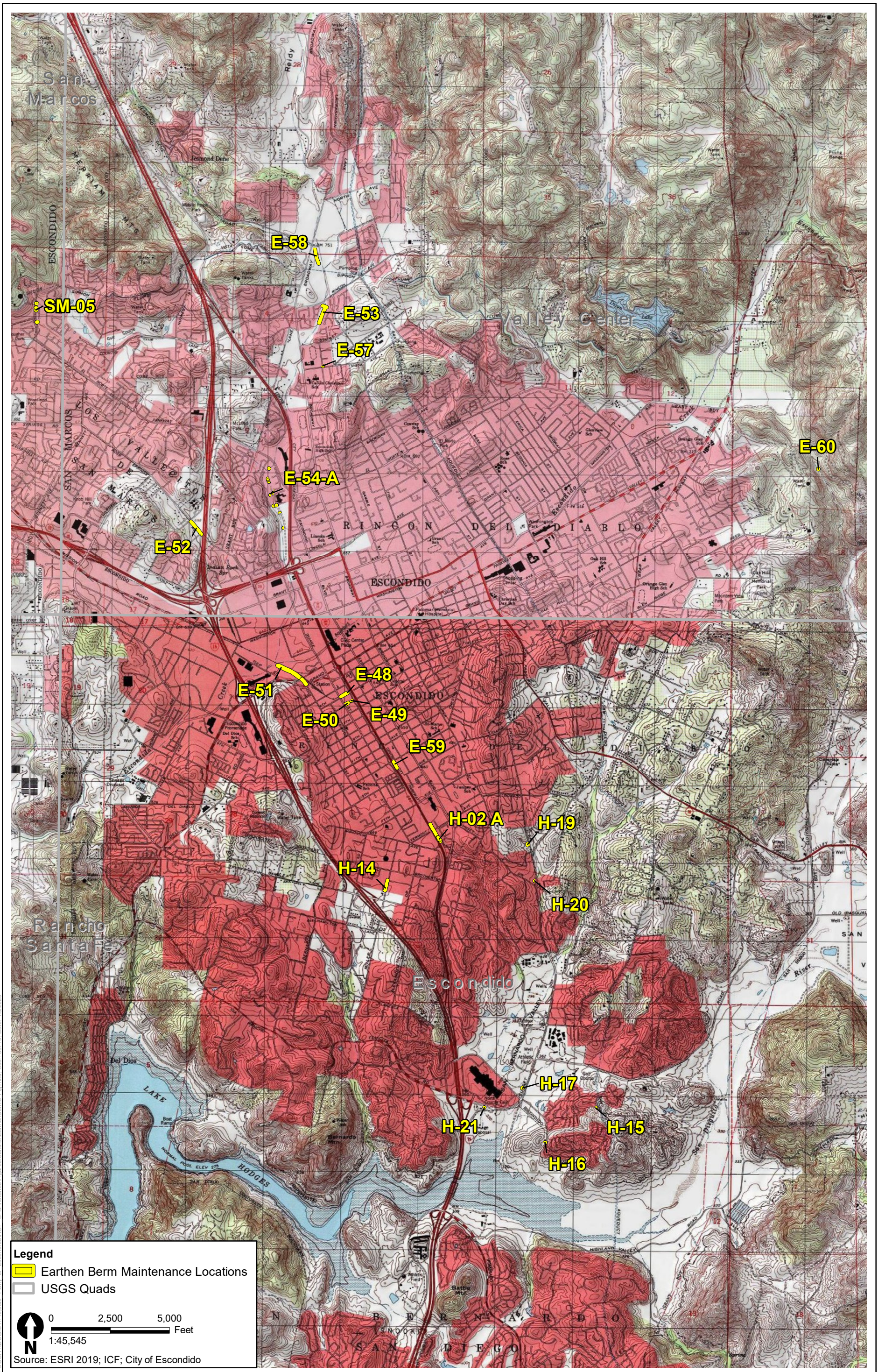
If you have any recommendations regarding the Project, please address them to me so that I can incorporate them into our project measures. As required by State law, all site data and other culturally sensitive information will not be released to the general public and will be kept strictly confidential. We look forward to continuing to work with you and the Tribe on this project. I can be reached at 858-444-3947, or by email at Patrick.McGinnis@icf.com.

Sincerely,





Patrick McGinnis, MA
Archaeologist

Encl. Earthen Berm Locations Figure, Project Location Figure



Legend

-  Earthen Berm Maintenance Locations
-  USGS Quads

0 2,500 5,000
 Feet
 1:45,545

Source: ESRI 2019; ICF; City of Escondido

**Earthen Berm Locations
 Escondido RGP**

I:\DC\GIS\Projects\1City of Escondido\RGP - Channel\Stages\Figures\EarthenBerm - User: 38710 - Date: 1/3/2020

VIEJAS

TRIBAL GOVERNMENT

P.O. Box 908
Alpine, CA 91903
#1 Viejas Grade Road
Alpine, CA 91901

Phone: 6194453810
Fax: 6194455337
viejas.com

November 7, 2019

Patrick McGinnis
ICF
525 B Street, Suite 1700
San Diego, CA 92101 USA

RE: RGP 94 Channel Maintenance Program

Dear Mr. McGinnis,

The Viejas Band of Kumeyaay Indians ("Viejas") has reviewed the proposed project and at this time we have determined that the project site has cultural significance or ties to the Kumeyaay Nation. We recommend that you notify the:

San Pasqual Band of Mission Indians
P.O. Box 365
Valley Center, Ca 92082

Additionally, we request, as appropriate, the following:

- All NEPA/CEQA/NAGPRA laws be followed
- Immediately contact San Pasqual on any changes or inadvertent discoveries.

Thank you for your collaboration and support in preserving our Tribal cultural resources. I look forward to hearing from you. Please call me at 619-659-2312 or Ernest Pingleton at 619-659-2314, or email, rteran@viejas-nsn.gov or epingleton@viejas-nsn.gov, for scheduling. Thank you.

Sincerely,


Ray Teran, Resource Management
VIEJAS BAND OF KUMEYAAY INDIANS

Cc: San-Pasqual

December 4, 2019

Patrick McGinnis
ICF
525 B Street, Suite 1700
San Diego, CA 92101

Re: City of Escondido RGP 94 Channel Maintenance Program

Dear Mr. McGinnis:

The Pala Band of Mission Indians Tribal Historic Preservation Office has received your notification of the project referenced above. This letter constitutes our response on behalf of Robert Smith, Tribal Chairman.

We have consulted our maps and determined that the project as described is not within the boundaries of the recognized Pala Indian Reservation. The project is also beyond the boundaries of the territory that the tribe considers its Traditional Use Area (TUA). It is, however, situated in close proximity to the Reservation and information generated would likely be useful in better understanding regional culture and history. Therefore, we request as a courtesy to be kept in the information loop as the project progresses and would appreciate being maintained on the receiving list for project updates, reports of investigations, and/or any documentation that might be generated regarding previously reported or newly discovered sites. Further, if the project boundaries are modified to extend beyond the currently proposed limits, we do request updated information and the opportunity to respond to your changes.

Finally, we recommend that Approved Cultural Monitors be present on-site during all survey and all ground-disturbing activities. If you do not have access to an Approved Cultural Resource Monitor, contact us and we will work with you to identify appropriately trained individuals.

We appreciate involvement with your initiative and look forward to working with you on future efforts. If you have questions or need additional information, please do not hesitate to contact Alexis Wallick by telephone at 760-891-3537 or by e-mail at awallick@palatribe.com.

Sincerely,



Shasta C. Gaughen, Ph.D.
Tribal Historic Preservation Officer
Pala Band of Mission Indians

Appendix D
DPR Forms

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code

Reviewer

Date

Page 1 of 4

*Resource Name or #: ICF-ESC94-P-001

P1. Other Identifier:

*P2. Location: Not for Publication Unrestricted
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*a. County: San Diego

*b. USGS 7.5' Quad: Escondido Date: 1968 PR 1975

T 12 S;R 2W ; Unsectioned; S.B.B.M.

c. Address:

City: Escondido

Zip: 92025

d. UTM: Zone: 11 S; 493747mE/ 3661868mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

From the intersection of 9th Avenue and Center City Parkway, travel 1.3 miles south along Center City Parkway to Brotherton Road. Turn left (east) onto Brotherton Road and continue 0.2 miles, turn left (north) onto Cranston Drive and continue 279 feet, then turn right (east) onto Vista Grande Glen and park in front of 240 Vista Grande Glen. Walk north along a small paved side road to gain access to the creek. The feature is located 142 meters northeast of the entrance to the small paved side road leading from 240 Vista Grande Glen.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The site consists of a large, sloping granitic outcrop that contains one heavily eroded milling slick. The outcrop measures 2.4m N-S by 1.7m E-W by 0.7m high and is located on a 15-20 degree SE facing slope along the west side of Escondido Creek surrounded by oak forest and poison oak.

Elevation: 570 feet AMSL

*P3b. Resource Attributes: (List attributes and codes) AP4. Bedrock milling feature

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing



P5b. Description of Photo: (View, date, accession #)
Overview of ICF-ESC94-P-001, view North

*P6. Date Constructed/Age and Sources: Historic Prehistoric Both

*P7. Owner and Address:
City of Escondido

*P8. Recorded by: (Name, affiliation, and address)
N. Cox, K. Smolik
ICF
525 B Street #1700
San Diego 92101

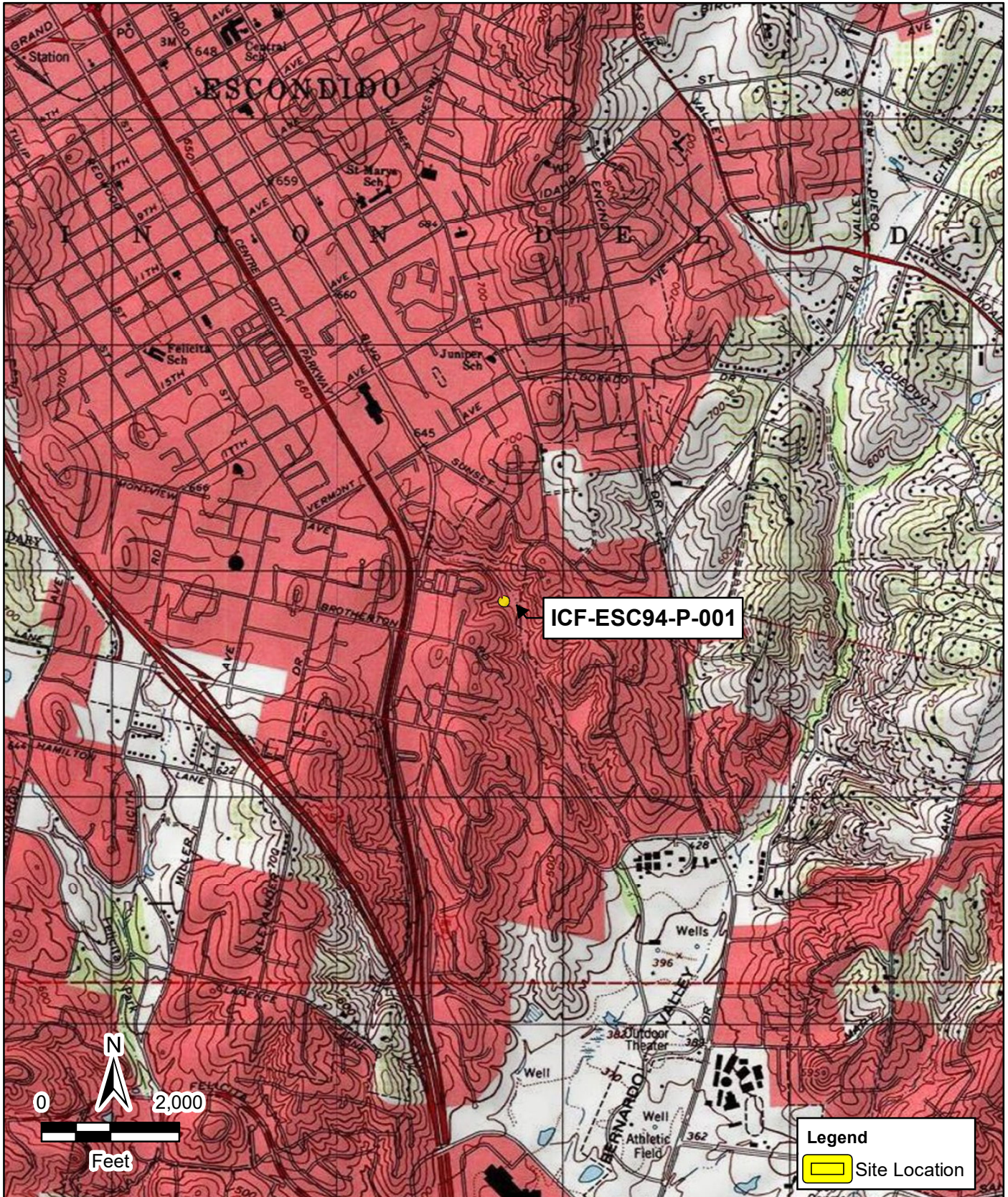
*P9. Date Recorded:
10/22/2019

*P10. Survey Type:
Pedestrian

*P11. Report Citation: (Cite survey report and other sources, or enter "none.")

ICF. 2020. Escondido RGP 94 Channel Maintenance Program Cultural Resources Inventory, City of Escondido, San Diego County, California. (ICF 59.19) Escondido, CA. Prepared for City of Escondido, San Diego County, CA.

*Attachments: NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List):



***A1. Dimensions: a. Length:** 2.4m. (N/S) × **b. Width:** 1.7m. (E/W)

Method of Measurement: Paced Taped Visual estimate Other:

Method of Determination (Check any that apply.): Artifacts Features Soil Vegetation Topography
 Cut bank Animal burrow Excavation Property boundary Other (Explain):

Reliability of Determination: High Medium Low Explain: The site is defined by the feature, additional milling features may be present but were obscured due to vegetation, leaf litter, or litter from transients

Limitations (Check any that apply): Restricted access Paved/built over Site limits incompletely defined
 Disturbances Vegetation Other (Explain):

A2. Depth: None Unknown Method of Determination:

***A3. Human Remains:** Present Absent Possible Unknown (Explain): None observed

***A4. Features:**

BRM1 is a bedrock milling feature on a large, sloping granitic outcrop that contains one heavily eroded slick. The outcrop measures 2.4m N-S by 1.7m E-W by 0.7m high. The slick measures roughly 10cm by 10cm and is in poor condition.

***A5. Cultural Constituents:** None observed

***A6. Were Specimens Collected?** No Yes

***A7. Site Condition:** Good Fair Poor: Milling feature is heavily weathered and eroded and extensively lichen covered and has likely been impacted by foot traffic and transient activity.

***A8. Nearest Water** (Type, distance, and direction.): Escondido Creek 15-20m to NE

***A9. Elevation:** 570 feet AMSL

***A10. Environmental Setting** (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.):

A mild-moderately sloping oak woodland bordering the west side of Escondido Creek. Fairly dense oak canopy with scattered areas of daylight. Patchy stands of poison oak throughout, sometimes quite thick and extensive. Ground surface is variously covered with dense vegetation and leaf litter and naturally eroded and largely denuded of vegetation.

A11. Historical Information:

***A12. Age:** Prehistoric Protohistoric 1542-1769 1769-1848 1848-1880 1880-1914 1914-1945
 Post 1945 Undetermined Describe position in regional prehistoric chronology or factual historic dates if known:

A13. Interpretations (Discuss data potential, function[s], ethnic affiliation, and other interpretations): This site appears to be a seasonal prehistoric food processing site.

A14. Remarks: This site consists of a single bedrock milling feature with no observed associated artifacts.

A15. References (Documents, informants, maps, and other references): ICF. 2020. Escondido RGP 94 Channel Maintenance Program Cultural Resources Inventory, City of Escondido, San Diego County, California. (ICF 59.19) Escondido, CA. Prepared for City of Escondido, San Diego County, CA.

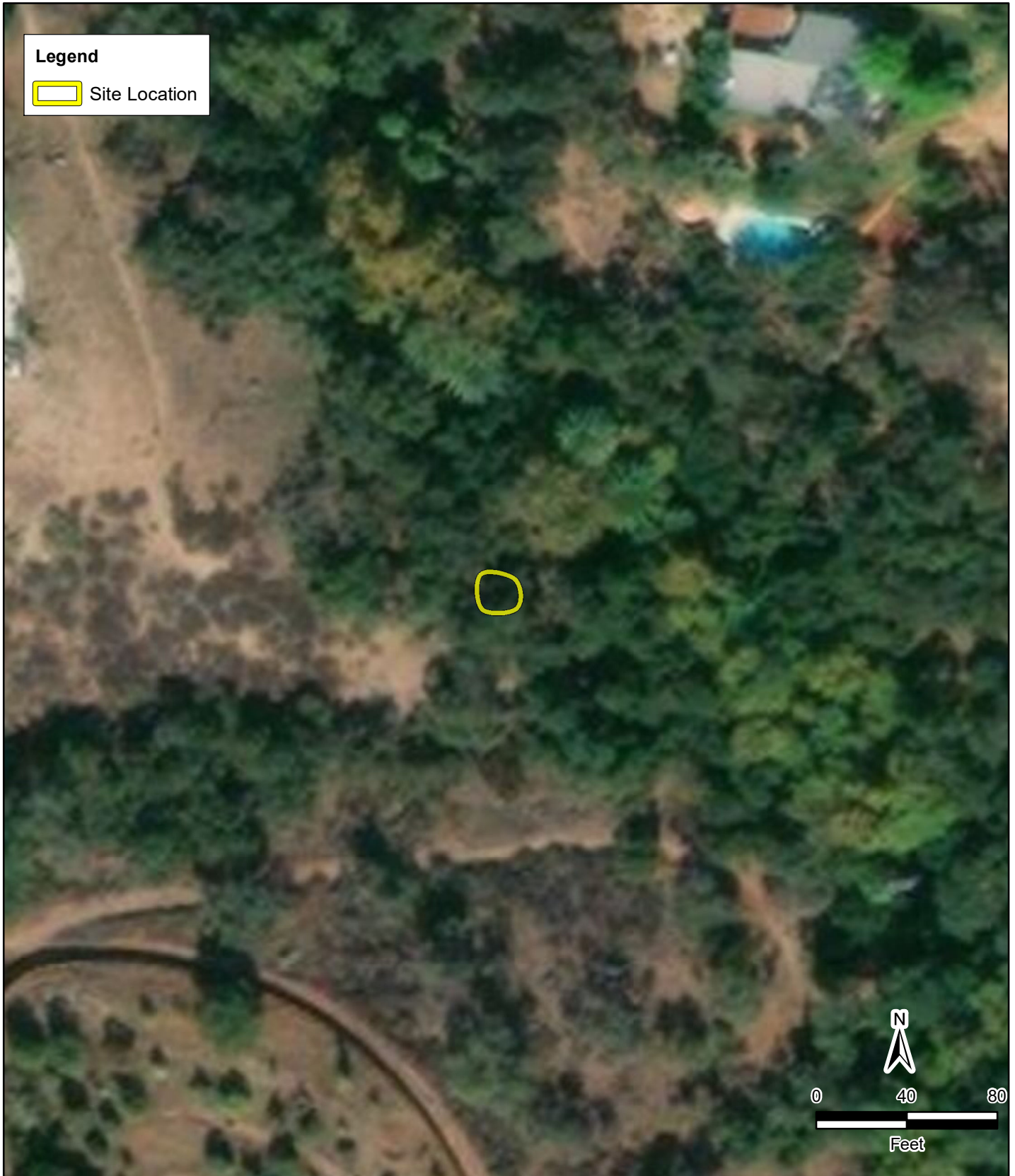
A16. Photographs (List subjects, direction of view, and accession numbers or attach a Photograph Record.):

Original Media/Negatives Kept at: ICF 525 B Street #1700 San Diego 92101

***A17. Form Prepared by:** N. Cox and K. Smolik

Date: 11/06/2019

Affiliation and Address: ICF 525 B Street #1700 San Diego 92101



*Date: 11/05/2019 Continuation Update

This serves as an update to P-37-000572/CA-SDI-00572. The resource was first recorded by D. L. True as a “campsite” on an “extensive flat bench along watershed” and was given the designation Escondido 37. He noted the absence of midden and a surface scatter of artifacts and debitage. He described the site as being “scattered” over several acres and stated that nearest water was directly adjacent to the site.

The site, as mapped at the SCIC covers an approximately 2.25 acre area and sits on the south side of the San Bernardo Valley, north of the San Dieguito River. This area has been subject to extensive development as a result of the construction and maintenance of Kit Carson Park. In October 2019, ICF archaeologists visited the plotted location of P-37-000572/CA-SDI-00572 as part of a cultural resource assessment for the Escondido Regional General Permit 94 Channel Maintenance Program (RGP 94 Program) but were unable to identify any cultural materials or features related to the resource due to impenetrable vegetation and the extensive development that has occurred since the initial recording. Portions of the resource may be intact, however no cultural resources were identified within the survey area during the 2019 survey effort.



Overview of exposed soil within plotted location of P-37-000572/CA-SDI-00572, view south

Form Prepared by: Kent Smolik and Nara Cox

Citation: ICF. 2019. Escondido RGP 94 Channel Maintenance Program Cultural Resources Inventory, City of Escondido, San Diego County, California. (ICF 59.19) Escondido, CA. Prepared for City of Escondido, San Diego County, CA.

ARCHAEOLOGICAL SITE SURVEY RECORD

1. Site SD-572 2. Map Escondido (1948) 3. County San Diego
4. Twp. 13S Range 2W; 1/4 of 1/4 of Sec. 1/4
5. Location 1/10 mile west of SUNSET road, across from junction of SAN PASQUALE road. area east of watershed and series of earth fill dams. See map with 564
6. On contour elevation 300 plus
7. Previous designations for site Escondido 37
8. Owner Green Ranch 9. Address
10. Previous owners, dates
11. Present use
12. Attitude toward excavation
13. Description of site extensive flat bench along watershed. no midden scattered artifacts and chipping waste. campsite area.
14. Area several acres scattered 15. Depth 16. Height
17. Vegetation grass 18. Nearest water adjacent to site.
19. Soil of site clay 20. Surrounding soil type clay
21. Previous excavation unknown
22. Cultivation yes 23. Erosion slight
24. Buildings, roads, etc. dirt road and bulldozing in area.
25. Possibility of destruction very likely area will be subdivided soon.
26. House plan none noted
27. Other features none noted
28. Burials none
29. Artifacts manos, hammer, (no collection made)
30. Remarks area should be checked farther.
31. Published references
32. Accession No. 33. Sketch map
34. Date 35. Recorded by True 36. Photos

*Date: 11/05/2019 Continuation Update

This serves as an update to P-37-004963/CA-SDI-04963. The resource was first recorded in 1981 by Smith and Pierson. The site was described as a lithic scatter located on a swale at the eastern foot of Mule Hill, and covering a 30 x 5 meter area. It was noted that the artifacts had probably been redeposited through gravitational forces from a site higher upslope. Further it was noted that the artifacts had been collected, presumably by passers-by. At that time one 1x1 meter unit was excavated. No results of the TEU accompanied the record. The site was designated ineligible for listing on the CRHR during its original recording.

In October 2019, ICF archaeologists revisited the area as part of a cultural resource assessment for the Escondido Regional General Permit 94 Channel Maintenance Program (RGP 94 Program) but were unable to relocate the described resource in its described location. This may be due to its having been 90% collected in 1981, dense grasses, or the extensive development that has occurred in the area since the initial recording.



Overview of recorded site P-37-004963/CA-SDI-04963, view north

Form Prepared by: Kent Smolik and Nara Cox

Citation: ICF. 2019. Escondido RGP 94 Channel Maintenance Program Cultural Resources Inventory, City of Escondido, San Diego County, California. (ICF 59.19) Escondido, CA. Prepared for City of Escondido, San Diego County, CA.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
ARCHEOLOGICAL SITE SURVEY RECORD

SDI-4963

SITE No. SDI-4963

1. Previous Site Designation _____ 2. Temporary Field No. BD-1
3. USGS Quad ESCONDIDO 7½' X 15' Year 1968 (revised 1975)
4. UTM Coordinates 4-470-1240 / 465-012
5. Twp. 13 S Range 2 W ¼ of _____ ¼ of Sec. 11 (projected)
6. Location On a swale at the eastern foot of Mule Hill.
7. Contour 455-480' 8. Owner & Address Watt Industries, San Diego, CA
9. Prehistoric X Ethnographic _____ Historic _____ 10. Site Description
Lithic scatter, probably slope wash from site at the top of
this hill. When we returned to this location, lithics had been collected.
11. Area 30 x 5 meters, _____ square meters. 12. Depth of Midden _____
13. Site Vegetation grazing media Surrounding Vegetation same
14. Location & Proximity of Water Lake Hodges, ½ mile to the south.
15. Site Soil decomposed granodiorite Surrounding Soil same
16. Previous Excavation none noted
17. Site Disturbance grading and unauthorized collecting.
18. Destruction Possibility likely
19. Features _____
20. Burials _____
21. Artifacts _____
22. Faunal Remains _____
23. Comments EIR in progress: Lake Hodges Estates project
24. Accession No. _____ 25. Sketch Map _____ by _____ where _____
26. Date Recorded 4/30/81 27. Recorded By Brian F. Smith and Larry J. Pierson
28. Photo Roll No. _____ Frame No. _____ Film Type(s) _____ Taken By _____

4963

SITE STATUS:

% Destroyed 90 How collected Test Excavated one 1MX1M unit %, if known.

National Register Status; Listed _____ Potential _____ No Determination _____ Nominated _____ Ineligible X

State Historical Landmark (No.) _____ Point of Historical Interest _____

SPECIAL ATTRIBUTES (Place an X in only those spaces which pertain to the site)

Midden/Habitation Debris _____, Lithic ~~and/or Ceramic~~ Scatter X

Bedrock Mortars/Milling Surfaces _____, Petroglyphs/Pictographs _____, Stone Features _____

Burials _____, Caches _____, Hearths/Roasting Pits _____, Housepits _____, Structure Remains _____,

Underwater _____, Open Air X, Rockshelter _____, Cave _____, Quarry _____, Trails _____

REMARKS _____

SKETCH LOCATION MAP (Include permanent reference markers, North Arrow, and Scale)

SKETCH SITE MAP (Same criteria as above)

*Date: 10/28/2019 Continuation Update

This serves as an update to P-37-006726/CA-SDI-06726. The resource was first recorded in 1978 by B. Bickford of Archaeological Associates and has never been updated. The resource is described as consisting of one bedrock milling feature with one slick and two mortars, no associated artifacts were mentioned. At least one other "locus" of the site was recorded at that time and referenced within the P-37-006726 site form. Each of these loci were submitted separately and given separate site numbers at the SCIC. The site record states that the site covers an unknown area, and has an unknown depth.

In October 2019, ICF archaeologists revisited a 25 meter E/W x 40 meter N/S portion of the plotted site location. Although an expansive granitic outcrop has been exposed in the plotted location, extensive creek channelization and maintenance, as well as construction of housing has obscured nearly all portions of the outcrop from view. Additionally, locally procured granitic boulders appear to have been purposely placed in and around the creek for aesthetic purposes. None of these placed boulders exhibited milling aspects either. The resource was not relocated. It's possible the milling feature was destroyed, or concealed by dense vegetation or earthmoving activities.



Overview of placed boulders in vicinity of recorded location of P-37-006726/CA-SDI-06726, view West

Form Prepared by: Kent Smolik and Nara Cox

Citation: ICF. 2019. Escondido RGP 94 Channel Maintenance Program Cultural Resources Inventory, City of Escondido, San Diego County, California. (ICF 59.19) Escondido, CA. Prepared for City of Escondido, San Diego County, CA.

1. Site 6726 2. Map USGS Valley Center Quad. 3. County San Diego
 4. Twp. 12-s Range R2-w none 1/4 of none 1/4 Sec no sec
 5. Location S.W. corner of Valley Center Quad. (Escondido) N.W. side of
intersection of RT.s 78 and 395, approx. 1/2 mi. N. of 78 and 800' W. of
395. 11/49/22/366624 6. Contour elevation 675'
 7. Previous designation for site None
 8. Owner Becker & Pasquinucci 9. Address 350 N. Broadway, Escondido
 10. Previous owners, dates Not known
 11. Present tenant Mr. and Mrs. Smiley
 12. Attitude toward excavation Poor
 13. Description of site Bedrock milling group I (see map) Features: 1=slice
13x27cm. 2=mortar 13x13x4cm. 3=mortar 31x29x11.5cm.
 14. Area unknown 15. Depth unknown 16. Height N/A
 17. Vegetation Grassland 18. Nearest water stream 400' E.
 19. Soil of site decayed granite 20. Surrounding soil type same
 21. Previous excavation Possibly pothunted
 22. Cultivation Borders old grove terraces Erosion minimal
 24. Buildings, roads, etc. Dwelling and buildings 150' S.
 25. Possibility of destruction Good
 26. House pits Unknown
 27. Other features None apparent
 28. Burials Unknown
 29. Artifacts None on surface
-
30. Remarks Possibility of destruction by developement around proposed
Escondido shopping Cntr. Open space easement preservation recommended.
 31. Published references None
 32. Accession No. _____ 33. Sketch map Attatched
 34. Date June 27, 1978 35. Recorded by B. Bickford 36. Photos Attatched

Archaeological Associates
 1022-B Victoria St.
 Costa Mesa, Ca. 92627
 (714) 631-3638



FIG. 6-a: Milling Group I, Locus A



FIG. 6-b: Milling Group I, Locus B,
Feature 1; Slick 69x27cm.



FIG. 7-a: Milling Group I, Locus A,
Feature 1; Slick 13x27cm.



FIG. 7-b: Milling Group I, Locus A,
Feature 2 Insipient Mortar 13x13x4cm.

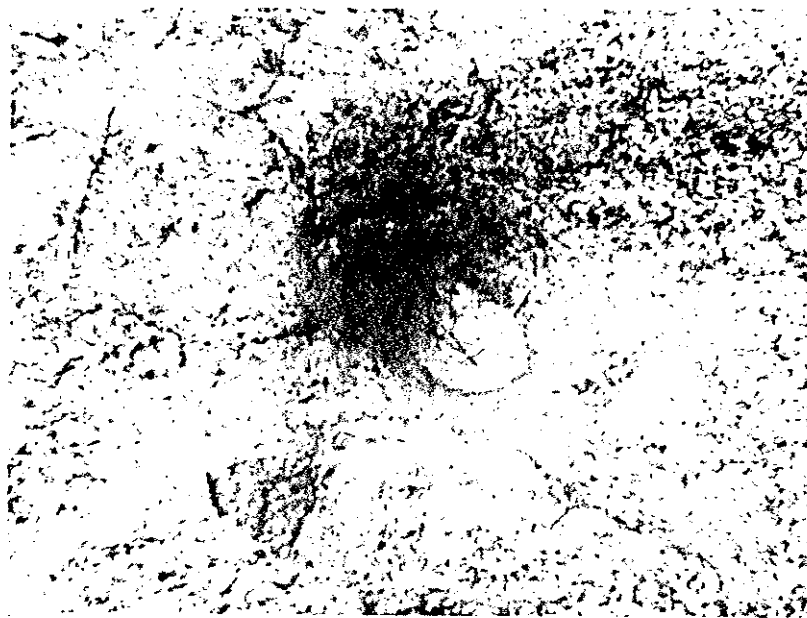
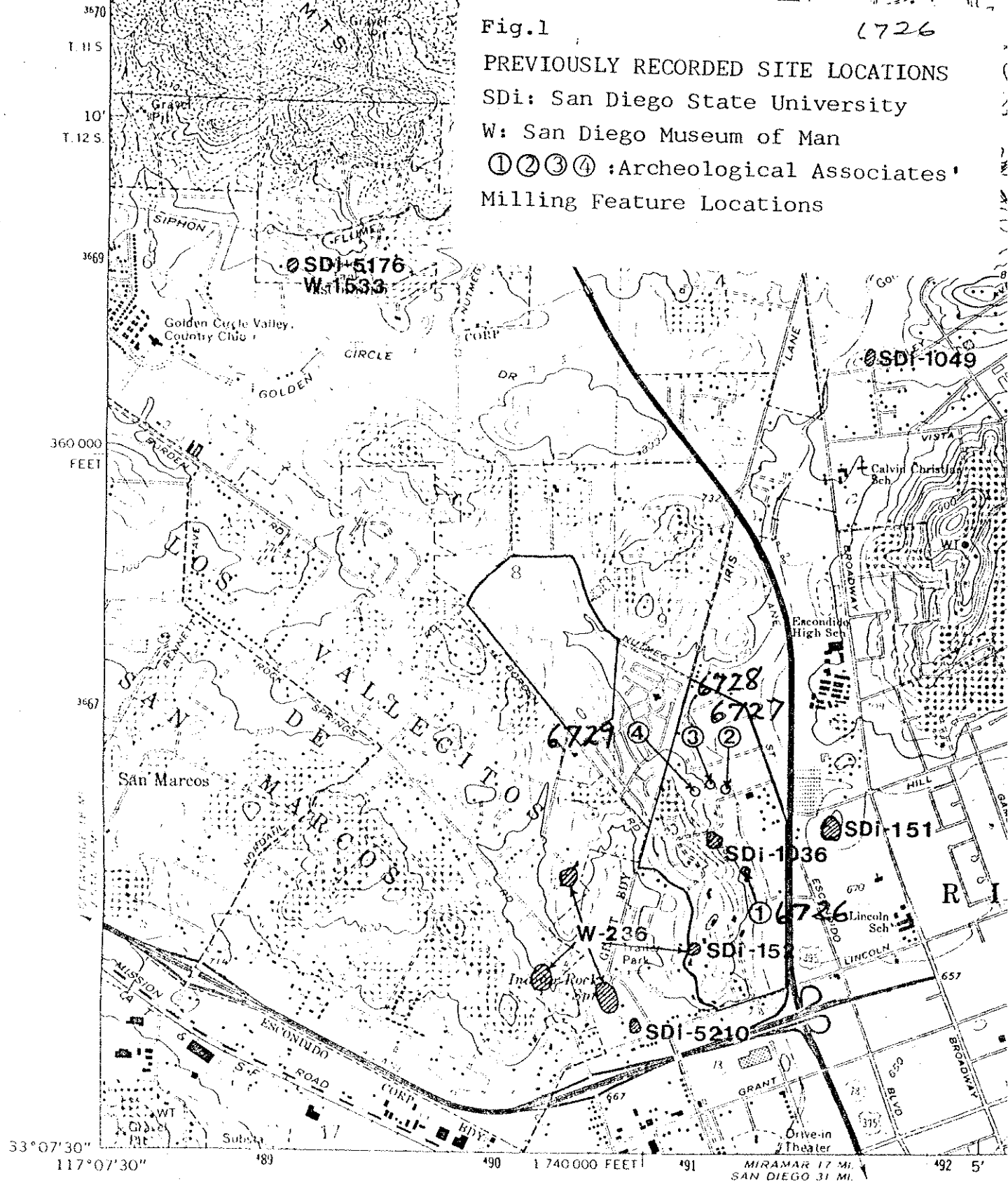


FIG. 8-a: Milling Group I, Locus A,
Feature 3; Mortar 13x29x11.5cm.



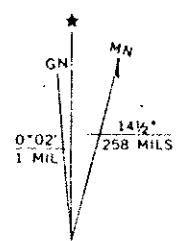
FIG. 8-b: Milling Group II

Fig.1 6726
 PREVIOUSLY RECORDED SITE LOCATIONS
 SDi: San Diego State University
 W: San Diego Museum of Man
 ①②③④ :Archeological Associates'
 Milling Feature Locations



RANCHO SANTA FE
 2550 II SW

Mapped, edited, and published by the Geological Survey
 Control by USGS, USC&GS, and USCE
 Topography by photogrammetric methods from aerial photographs
 taken 1947. Field checked 1948. Revised from aerial
 photographs taken 1967. Field checked 1968
 Polyconic projection: 1927 North American datum
 10,000-foot grid based on California coordinate system, zone 6
 1000-meter Universal Transverse Mercator grid ticks,
 zone 11, shown in blue
 Red tint indicates areas in which landmark buildings are shown

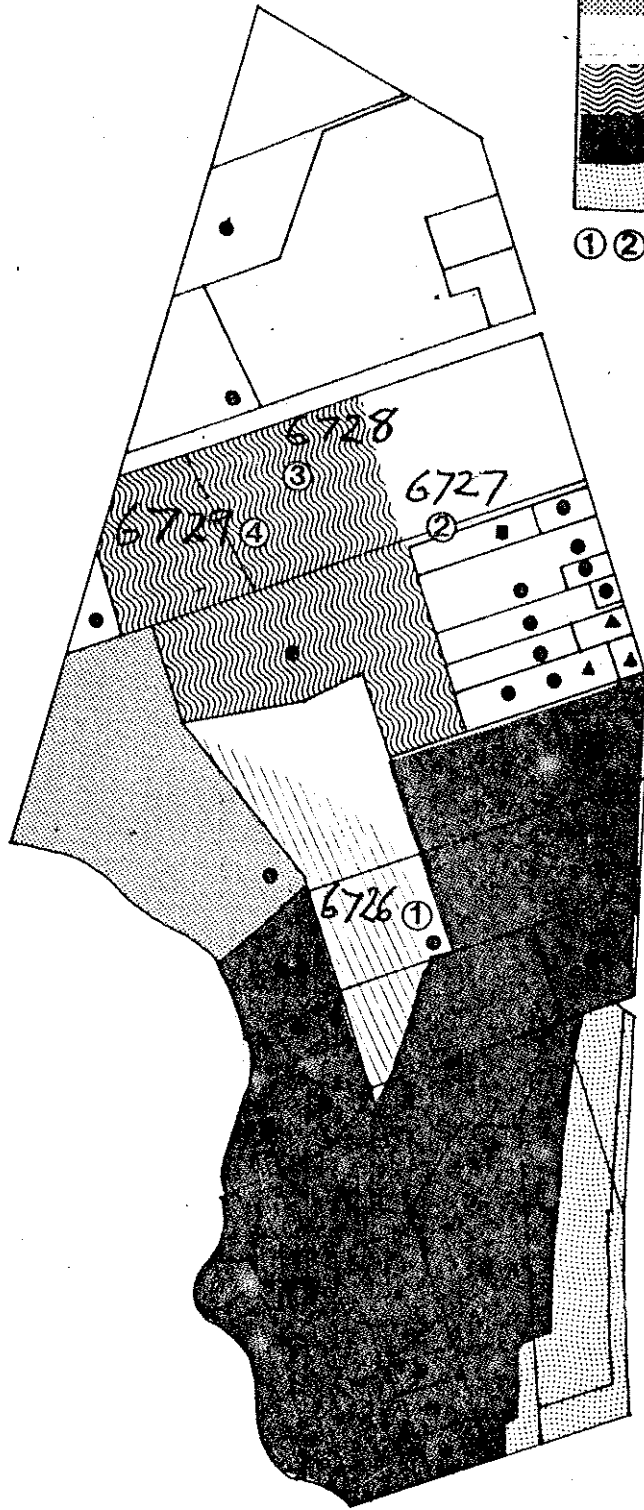
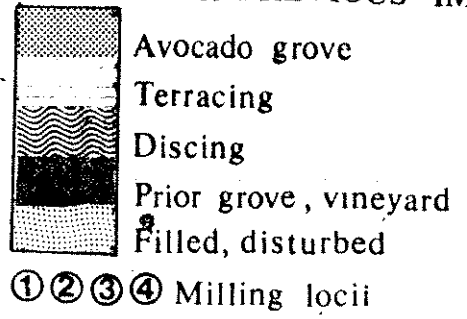


UTM GRID AND 1968 MAGNETIC NORTH
 DECLINATION AT CENTER OF SHEET

Fig. 2

Parcel-A

CURRENT & PREVIOUS IMPACTS



*Date: 10/28/2019 Continuation Update

This serves as an update to P-37-006727/CA-SDI-06727. The resource was first recorded in 1978 by B. Bickford of Archaeological Associates and has never been updated. The resource is described as consisting of three bedrock milling features (termed loci within the site record) with 10 slicks, a basin, and a mortar among them. Associated artifacts include a lithic scatter and a pestle were mentioned. The site record states that the site covers at least a 100 square foot area, and has an unknown depth.

In October 2019, ICF archaeologists revisited the plotted site location. Although an expansive granitic outcrop has been exposed in the plotted location, extensive creek channelization and maintenance, as well as construction of housing has obscured nearly all portions of the outcrop from view. The resource was not relocated. It's possible the milling feature was destroyed, or concealed by dense vegetation or earthmoving activities.



Overview of exposed portions of the outcrop, no milling present on the exposed surfaces, view West

Form Prepared by: Kent Smolik and Nara Cox

Citation: ICF. 2019. Escondido RGP 94 Channel Maintenance Program Cultural Resources Inventory, City of Escondido, San Diego County, California. (ICF 59.19) Escondido, CA. Prepared for City of Escondido, San Diego County, CA.

- 1. Site 6727 2. Map USGS Valley Center Quad. 3. County San Diego
- 4. Twp. 12-s Range R2-w none 1/4 of none 1/4 Sec no sec
- 5. Location S.W. corner of Valley Center Quad. (Escondido) N.W. side of
intersection of Rt.s 78 and 395, approx. 3/4 mi. N. of 78 and 700' W.
of El Norte Pkwy. 11/49/12/366659 6. Contour elevation 650'
- 7. Previous designation for site None
- 8. Owner George Krogh Welding 9. Address 1357 Nutmeg, Escondido
- 10. Previous owners, dates unknown
- 11. Present tenant same
- 12. Attitude toward excavation fair
- 13. Description of site attached see maps w/ 6726
- 14. Area minimum 100' square 15. Depth unknown 16. Height N/A
- 17. Vegetation grassland 18. Nearest water stream 25' E.
- 19. Soil of site decayed granite 20. Surrounding soil type same
- 21. Previous excavation none
- 22. Cultivation Discing to N. and W. 23. Erosion minimal
- 24. Buildings, roads, etc. Dirt road 25' S. welding shop 125' E.S.E.
- 25. Possibility of destruction Fair
- 26. House pits unknown
- 27. Other features unknown-possible association with groups III and IV
- 28. Burials unknown
- 29. Artifacts Lithic scatter, ground stone-pestle
- 30. Remarks Currently under modern trash dump, possibility of destruction
by development of proposed Escondido Shopping Center, open space
easement preservation recommended.
- 31. Published references none
- 32. Accession No. _____ 33. Sketch map attached
- 34. Date June 27, 1978 35. Recorded by B. Bickford 36. Photos attached

Archaeological Associates
 1022-B Victoria St.
 Costa Mesa, Ca. 92627
 (714) 631-3638

ARCHAEOLOGICAL ASSOCIATES

1022-B VICTORIA ST.
COSTA MESA, CA. 92627
714-631-3638

Site discription, Milling group II

MILLING GROUP II

LOCUS -A

Feature 1. oval 21x14x1.5cm.

LOCUS -B

- Feature 1. slick 22x31cm.
2. slick 25x20cm.
3. slick/insipient mortar 16x38cm.
4. slick 41x34cm.
5. slick 21x34cm.

LOCUS -C

- Feature 1. mortar 14x16x2.5cm.
2. slick 29x20cm.
3. slick 31x25cm.
4. slick 17x16cm.
5. slick 36x28cm.
6. slick 19x23cm.

NOTE; Locii B and C nearly entire useable dorsal surface of bedrock outcroppings exhibit milling wear.

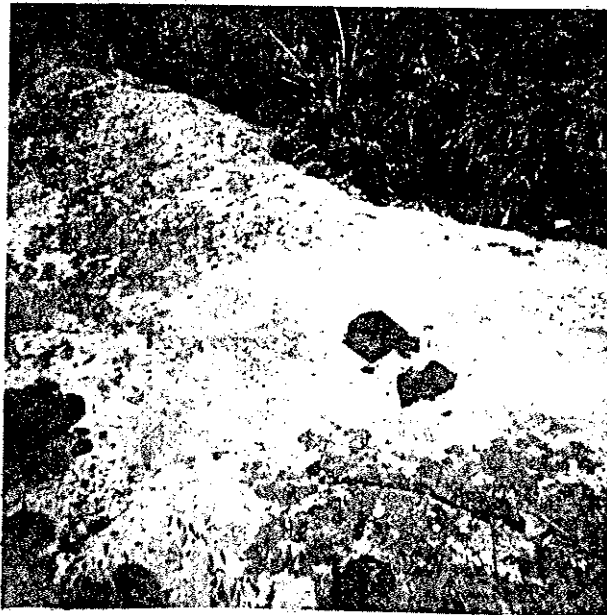


FIG. 10-a: Milling Group II,
Locus C



FIG. 10-b: Ground Stone Pestle,
Milling Group II, Locus B

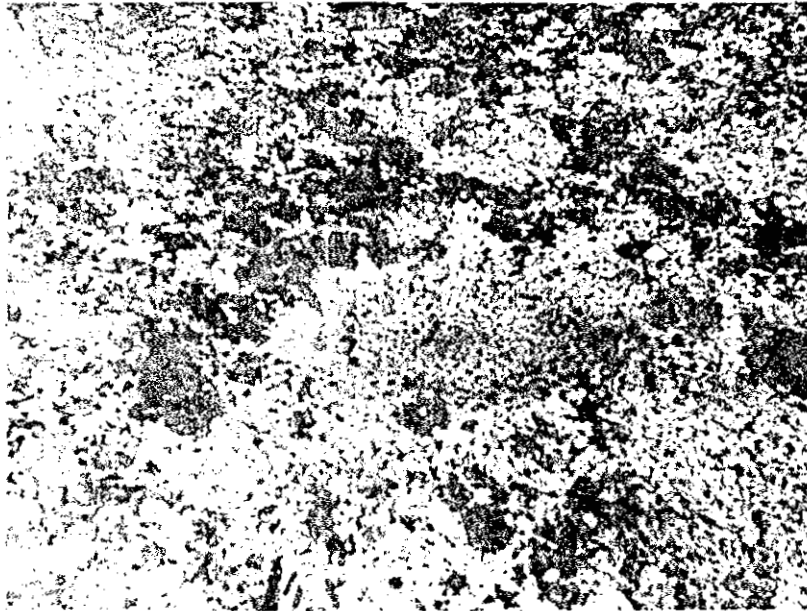


FIG. 9-a: Milling Group II, Locus A



FIG. 9-b: Milling Group II,
Locus B

*Date: 11/06/2019 Continuation Update

This serves as an update to CA-SDI-8280. The resource was first recorded by Knutson in 1976 and later updated by Gallegos and Associates (1991), ERCE (1992), KEA Environmental (1996), HDR Inc. (2010) and Brian F. Smith & Associates (2016). The resource consists of numerous bedrock milling features, a scatter of artifacts including lithic debitage, projectile points and other flaked tools, ground stone and FAR, two roughly rectangular rock alignments, several small midden deposits and two pictograph panels. The historic component of the site consists of the remains of at least two concrete structures, scattered concrete rubble, lumber and other debris.

In October 2019, ICF archaeologists conducted a resurvey of the area as part of a cultural resource assessment for the Escondido Regional General Permit 94 Channel Maintenance Program (RGP 94 Program). The survey area overlaps a small portion of the north end of CA-SDI-8280 that includes a cement lined drainage canal and part of a raised graveled unpaved access road. Portions of the site outside these areas were not revisited. No cultural materials were observed within the 2019 survey area.

Form Prepared by: Kent Smolik and Nara Cox

Citation: ICF. 2019. Escondido RGP 94 Channel Maintenance Program Cultural Resources Inventory, City of Escondido, San Diego County, California. (ICF 59.19) Escondido, CA. Prepared for City of Escondido, San Diego County, CA.

*Recorded by: Tracy A. Stropes M.A., RPA *Date: 02/02/2016 Continuation Update

The archaeological testing and evaluation of sites SDI-8280 and SDI-12,209 was conducted from January 26 through February 18, 2010 under the direction of Consulting Archaeologist Brian F. Smith and Project Archaeologist Tracy A. Stropes. Portions of both sites were previously studied by EDAW for earlier phases of the Citracado Parkway EIR Project, and portions of SDI-8280 have been previously studied by BFSAs for the Harmony Grove development project in 2006. The testing of these archaeological sites conducted by BFSAs was intended to supplement previous work by adding shovel test pits (STPs) and test units, mapping and recording all cultural features within the alignment, and updating all records information. The excavations conducted by BFSAs effectively sampled the areas of the archaeological sites within the project's Area of Potential Effect (APE). Data from previous studies by EDAW and BFSAs was also incorporated into this study for the purposes of subsurface site boundary identification and significance evaluation.

The archaeological resources study of sites SDI-8280 and SDI-12,209 was focused upon the task of determining site significance and evaluating potentially adverse impacts associated with the Citracado Parkway Extension Project. The results of the testing programs at both sites indicate that these archaeological sites are significant historic resources according to CEQA, Section 15064.5 criteria. The identification of a significant subsurface deposit at each site, combined with the presence of associated pictographs and the density of surface artifacts and bedrock milling features, indicates that these sites are likely to yield additional information important to furthering the current understanding of the prehistory of San Diego County. Because these historic resources are evaluated as significant, any impacts to significant components of these sites as a result of the proposed project would be considered as having a significant adverse effect on important prehistoric resources. Consequently, measures shall be required to mitigate adverse impacts, both direct and indirect, to the historic resources. Mitigation of impacts can be achieved through a program of preservation and data recovery, as some impacts are unavoidable because of constraints due to road design and engineering/safety requirements.

Based upon the information collected from the archaeological resources study, the project will not directly impact any significant areas of SDI-8280; however, significant deposits at SDI-12,209 will be directly impacted. Alternatives such as redesigning the project to avoid direct impacts to historic resources are not feasible. Therefore, mitigation measures include a data recovery program at SDI-12,209, a preservation program at SDI-8280, and mitigation monitoring for all project-related, earth-disturbing activities. Because human remains were recovered from SDI-12,209, mitigation measures will include protocols to treat any additional human remains that may be encountered. Native American monitoring will be included in all archaeological fieldwork and grading activities.

Surface investigations within the project APE demonstrated that Site SDI-8280 consists of two pictographs, bedrock milling features, a surface scatter of artifacts, and a subsurface deposit. The present study for the Citricado Parkway Extension Project indicates that 231.4 square meters of SDI-8280 Locus 1, 670.9 square meters of Locus 2, 1,715.1 square meters of Locus 3, and 930 square meters of Locus 4 will be impacted by the proposed development. The shovel tests and test units excavated at Site SDI-8280 within the APE identified the presence of an intact associated subsurface deposit within these loci. Twenty-two of

the 43 shovel tests were positive for cultural material with recovery from an average depth of 40 centimeters. In addition, the test units produced debitage attributable to arrow point manufacture. Because the site contains surface artifacts, pictographs, milling features, and an intact subsurface deposit, the site is determined to have additional research potential. The use of data from BFSAs' 2006 study for the Harmony Grove Village Project (Gilbert et al. 2006) of areas within SDI-8280 indicates that midden deposits that are situated just outside of the APE contain a substantially higher quantity and diversity of cultural materials than the collections from test excavations placed within the project APE. A summary of collections recovered from SDI-8280 by BFSAs in 2006 for the Harmony Grove Village Project is provided in Table 1.

Table 1

Summary of Artifact Recovery by BFSAs in 2006*

Site SDI-8280

Object Name	Locus 1	Locus 2	Locus 3 (Not Tested)	Locus 4	Total	Percent
Lithic Production Waste						
Debitage	47	41	-	-	88	6.28
Flake	826	444	-	-	1,270	90.58
Ground Stone Tools						
Metate	-	1	-	-	1	0.07
Mano	3	-	-	-	3	0.21
Unidentifiable	1	-	-	-	1	0.07
Percussion Tools						
Hammerstone	2	-	-	-	2	0.14
Precision Tools						
Core Tool	-	2	-	-	2	0.14
Flake Scraper	3	-	-	-	3	0.21
Retouched Flake	9	1	-	-	10	0.71
Scraper Plane	1	-	-	-	1	0.07
Spoke Shave	1	-	-	-	1	0.07
Utilized Flake	9	3	-	-	12	0.86
Perforator	-	1	-	-	1	0.07
Pottery						
Sherd	2	4	-	-	6	0.43
Miscellaneous						
Petrified Wood	1	-	-	-	1	0.07
Bedrock Milling Feature	27	16	-	15	58	-
Pictograph Panel	2	-	-	-	2	-
Ecofacts (in grams)						
Bone	32.9	15.0	-	-	47.9	-
Marine Shell	9.2	<0.1	-	-	9.3	-
Total***	905	497	-	-	1,402	100.00**
Percent	64.55	35.45	-	-	100.00**	

* Based upon data from the Harmony Grove Village Project (Gilbert et al. 2006)

**Rounded totals may not equal 100.00 percent

*** Totals do not include grams, bedrock milling features, or pictograph panels

Site SDI-8280 is interpreted as a component of a larger village complex that includes Site SDI-12,209 to the north. Campsite activities included floral food resource extraction and processing as well as small bifacial tool manufacture and maintenance. Although no absolute temporally diagnostic artifacts were recovered, the pictograph elements, bedrock milling features, pottery, and production of arrow points suggest a Late Prehistoric occupation of the site. Based upon the information derived from the previous and current investigations, portions of Site SDI-8280 are considered to be significant according to criteria listed in CEQA, Section 15064.5 and the City of Escondido's guidelines (archaeological resources). However, no significant elements of SDI-8280 are located within the project APE for the Citricado Parkway Extension Project. The cultural deposits within the APE are characterized by limited collections of lithic production waste and minimal numbers of ceramics. Given that these deposits within the APE do not retain further research potential, these areas in and of themselves do not contribute to the significance evaluation of the overall site. Therefore, for purposes of this CEQA review, the APE will not include any significant cultural components of SDI-8280. Significant components of SDI-8280, including significant deposits and pictographs, are situated outside of the APE in Locus 1 and Locus 2.

The investigation of portions of Site SDI-8280 revealed two pictograph panels, surface artifacts, bedrock milling features, and the presence of subsurface deposits. The bedrock milling features, lithic tools, and pottery present at the site indicate that activities at this location were focused upon floral resource processing and arrow point manufacture and maintenance. Subsistence at the site appears to have been based upon a reliance on botanical and faunal resources for a larger populous. In addition, the lithic artifacts recovered from the test units and several of the STPs suggest the potential for buried features. A Late Prehistoric utilization is suggested by the presence of bedrock milling, pictographs, arrow point manufacture, and pottery.

While the entirety of SDI-8280 may be considered as a significant site, the portions of SDI-8280 within the Citricado Parkway alignment or within the HARRF entrance road alignment do not contain significant deposits that substantially contribute to the overall site significance evaluation.

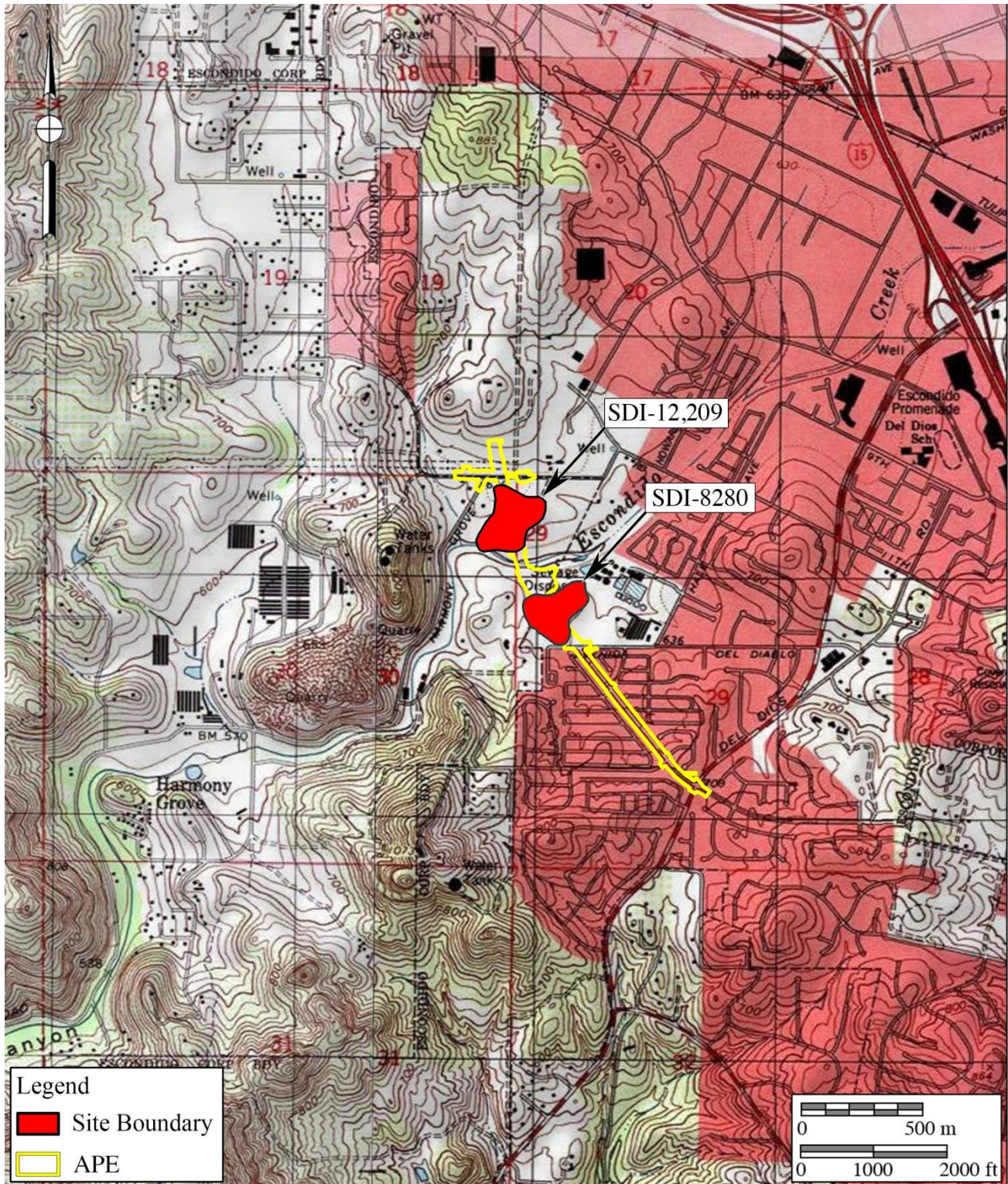
For additional information see:

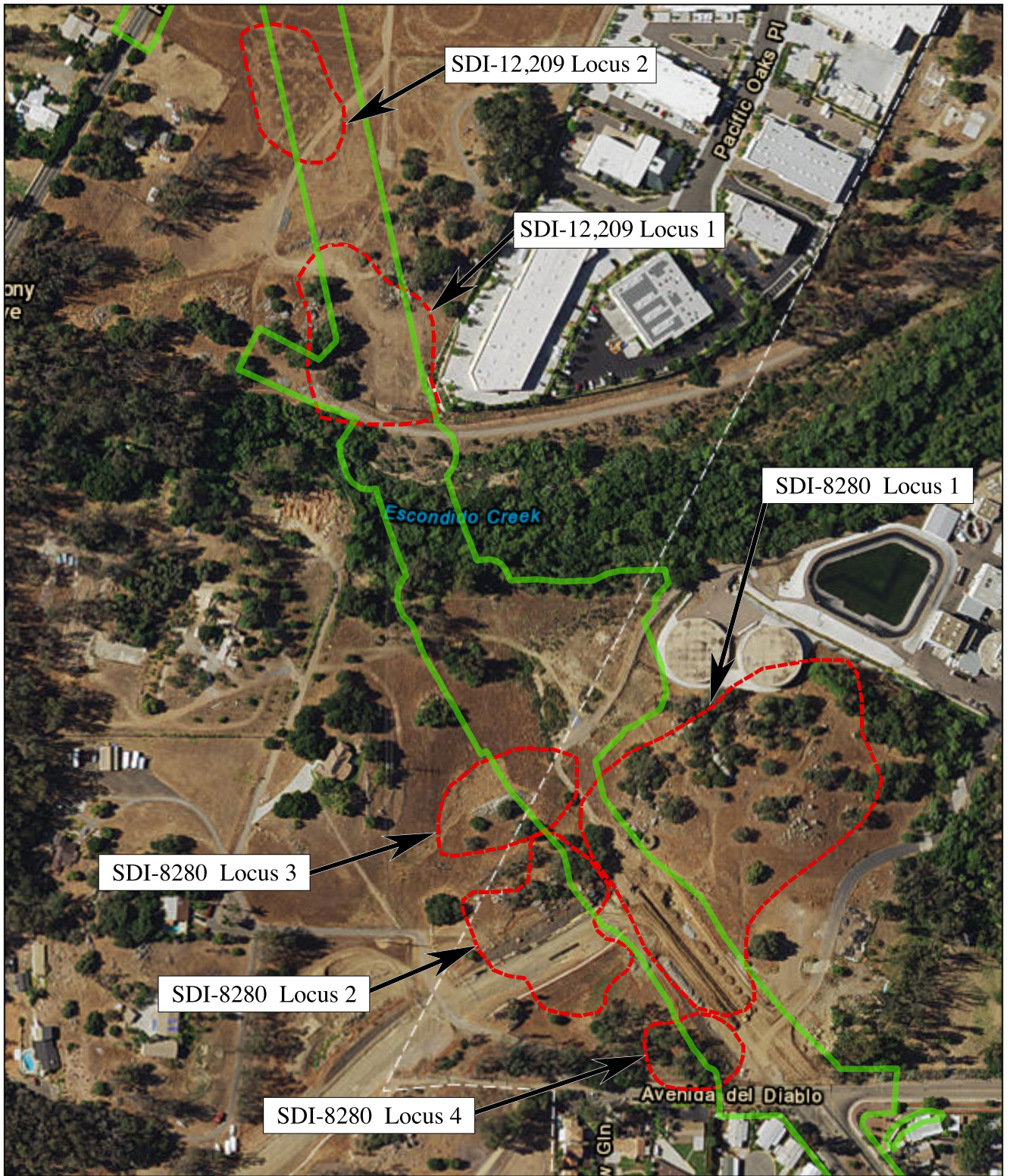
Stropes, Tracy A. and Brian F. Smith 2012

Cultural Resource Survey and Evaluation Program for the Citricado Parkway Extension Project, City of Escondido, California

Stropes, Tracy A. and Brian F. Smith 2015

A Section 106 (NHPA) Report Prepared in Support of a Clean Water Act Section 404 Permit Application for the Citricado Parkway Extension Project, City of Escondido, California, SPL-2015-00121-WSZ





Aerial Photo Illustrating Site Loci
The Citracado Parkway Extension Project

***Recorded by:** N.B. Morgan, S. Clowery

***Date:** Nov. 2010

Continuation

Update

CA-SDI-8280 was originally recorded by Knutson in 1976 and updated by Gallegos and Associates (1991), ERCE (1992), and Andrew York (1996). According to Knutson, site components consisted of rock art, bedrock milling, flakes, scrapers, manos, metates, planes, arrowheads, and a "trail shrine" in an area that covered 17.24 acres. Gallegos and Associates noted historic water cisterns and a prehistoric rock alignment. York's update described the site as "an extensive distribution of prehistoric and historic materials" in an area measuring approximately 200 x 300 meters. York recorded 94 bedrock milling features, 3 midden deposits, and a light lithic scatter of flakes, a mano, and FAR, but was not able to relocate the previously recorded pictograph. Historic components consisted of two concrete structures, concrete rubble, fence posts, lumber, nails, and possible animal cages. The site was heavily disturbed by graffiti, vandalism, trash dumping, foot and vehicle traffic, agriculture, and construction activities. Vegetation consisted of introduced grasses, live oaks, and poison oak.

In October 2010, HDR, Inc. conducted a resurvey of the area as part of a cultural resource assessment for SDG&E's TCM Access Road Grading Project. This survey only consisted of portions of SDG&E access roads that overlap prerecorded cultural resources, therefore this update only pertains to the portion of CA-SDI-8280 which is within the access road. Areas of the site outside the access road were not revisited.

CA-SDI-8280 was not relocated within the existing access roads. Topsoil was present throughout the dirt access roads; however, some of the access roads had been paved with asphalt. Ground vegetation was sparse along dirt roads and visibility was excellent.

Updated by: N.B. Morgan & K. Tennesen, HDR, Inc., 9449 Balboa Ave, Suite 210, San Diego, CA 92123

Report Citation: TCM Access Road Grading Project, Cultural Resources Inventory Report (N.B. Morgan)(*in progress*)

UPDATE

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial CA-SDI-8280/H
NRHP Status Code _____
Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 11

*Resource Name or #: (Assigned by recorder) _____

P1. Other Identifier: _____

*P2. Location: Not for Publication Unrestricted *a. County San Diego
and P2c, P2e, and P2b or P2d. (Attach Location Map as necessary.)

*b. USGS 7.5' Quad Escondido Date 1967 T 12S; R 2W: SW of NW of Sec 29; SBM B.M.
c. Address _____ City Escondido Zip _____
d. UTM: (Give more than one for large and/or linear resources) Zone: 11; 489180 mE/ 3668700 mN

*e. Other Locational Data: (E.g., parcel #, directions to resource, elevation, etc., as appropriate.)
From the intersection of Camino del Diablo and Citricado Parkway in Escondido, an oak-covered knoll is visible about 200 meters to the north. The site surrounds this knoll and extends about 150 meters to the southwest.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)
CA-SDI-8280/H is composed of an extensive distribution of prehistoric and historic materials on and adjacent to two low knolls to the south of Escondido Creek. CA-SDI-8280/H contains an extensive prehistoric component consisting of at least 94 bedrock milling features distributed over 20 separate outcrops, at least three midden deposits, and a light scatter of prehistoric artifacts.

*P3b. Resource Attributes: (See attributes and codes) AP2 Lithic Scatter; AP4 Milling; AH2 Historic

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo:
(View, date, accession #) N/A

*P6. Date Constructed / Age and Sources: Historic Prehistoric Both
circa 1930

*P7. Owner and Address:
Dorothy McGuire
525 W. Acacia Street
Salinas, CA 93901

*P8. Recorded by: (Name, affiliation, and address) A. York
KEA Environmental, Inc.
1420 Kettner Blvd, Ste
620, San Diego, CA 92101

*P9. Date Recorded: 8/96

*P10. Survey Type: (Describe)
Intensive Survey

*P11. Report Citation: (Cite Survey report and other sources, or enter "none.") York, Andrew L. 1996.
Archaeological Survey for Proposed Expansion to the Hale Avenue Resource Recovery Facility, Escondido, California. Prepared by KEA Environmental. Submitted to the City of Escondido

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Linear Resource Record Archaeological Record District Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List) _____

*Required Information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____
HRI # _____
Trinomial CA-SDI-8280/H

Page 2 of 11 *Resource Name or # (Assigned by recorder) _____

*Recorded by: A. York *Date: 8/96 X Continuation X Update

*P2.d. UTM: Locus 1 - 489220mE 3662700mN
Locus 2 - 489100mE 3662620mN
Locus 3 - 489040mE 3662070mN

***P3a. Description:**

Historic materials included the remains of at least two concrete structures, a scatter of concrete rubble, a series of fenceposts, and scattered lumber and other debris. The three loci identified during previous recordings were essentially confirmed, although Locus 2 was expanded slightly to the south.

Locus 1: Locus 1 comprises the major portion of the site, occupying the large, oak-covered knoll in the center of the survey area. The top and sides of the knoll contain numerous granitic boulders and outcrops that provided suitable surfaces for prehistoric seed grinding. Evidence of milling was found on 14 outcrops, containing a total of 35 milling features. Of these, 34 are classified as milling slicks (e.g. flat or slightly concave milling surfaces, while one is basin-shaped. A small midden deposit is found on top of the knoll; measuring about 30 meters in diameter, this deposit is heavily disturbed. Prehistoric artifacts observed on the surface of Locus 1 are limited to about 10 flakes of basalt and other igneous material.

Historic remains at Locus 1 include the remains of two rectangular cement structures, a scatter of cement rubble, two cement cylindrical structures, several standing and fallen fenceposts, and a scatter of lumber and other debris. Structure 1 measures 13 feet 4 inches by 9 feet 2 inches and is constructed of mortared cinder blocks. A well-poured concrete slab lies in the floor of the northern half of the structure, measuring 7 feet 10 inches from east to west by 6 feet 6 inches from north to south. The east wall contains an 8 foot entryway. There is no roof to the structure. The cinder blocks measure 1 foot 4 inches by 8½ inches by 8 inches and have four rectangular holes, and probably post-date 1940. Structure 2 lies about 90 feet to the southwest, and consists of a rectangular concrete structure with a concrete slab floor. It measures 21 feet 6 inches east to west and 14 feet north to south., 2 feet 6 inches high, and with 9 inches wide walls that were poured into wooden forms. A metal ¾ inch pipe enter the west wall, suggesting this structure was used to hold water. The coarse concrete construction of Structure 2 suggest that it predates 1940. Two round cement structures are also present at Locus 1, both 2 feet high and about 3½ feet in diameter. One is not capped, while the other is capped with cement and has a 2½ inch pipe protruding from it. Two roughly rectangular enclosures constructed of stacked boulders are also found within Locus 1, each measuring 10 to 15 feet across and consisting of three to five courses stacked about two to three feet high. One of these is adjacent to the north side of Structure 2, next to a concentration of milled lumber and other debris. The presence of a large chunk of cement in the latter enclosure indicates a historic origin for these features.

*Required Information

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____
HRI # _____
Trinomial CA-SDI-8280/H

Page 3 of 11 *Resource Name or # (Assigned by recorder) _____

*Recorded by: A. York *Date: 8/96 X Continuation X Update

***P3a. Description (Cont.)**

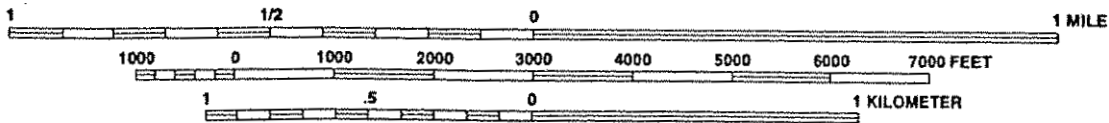
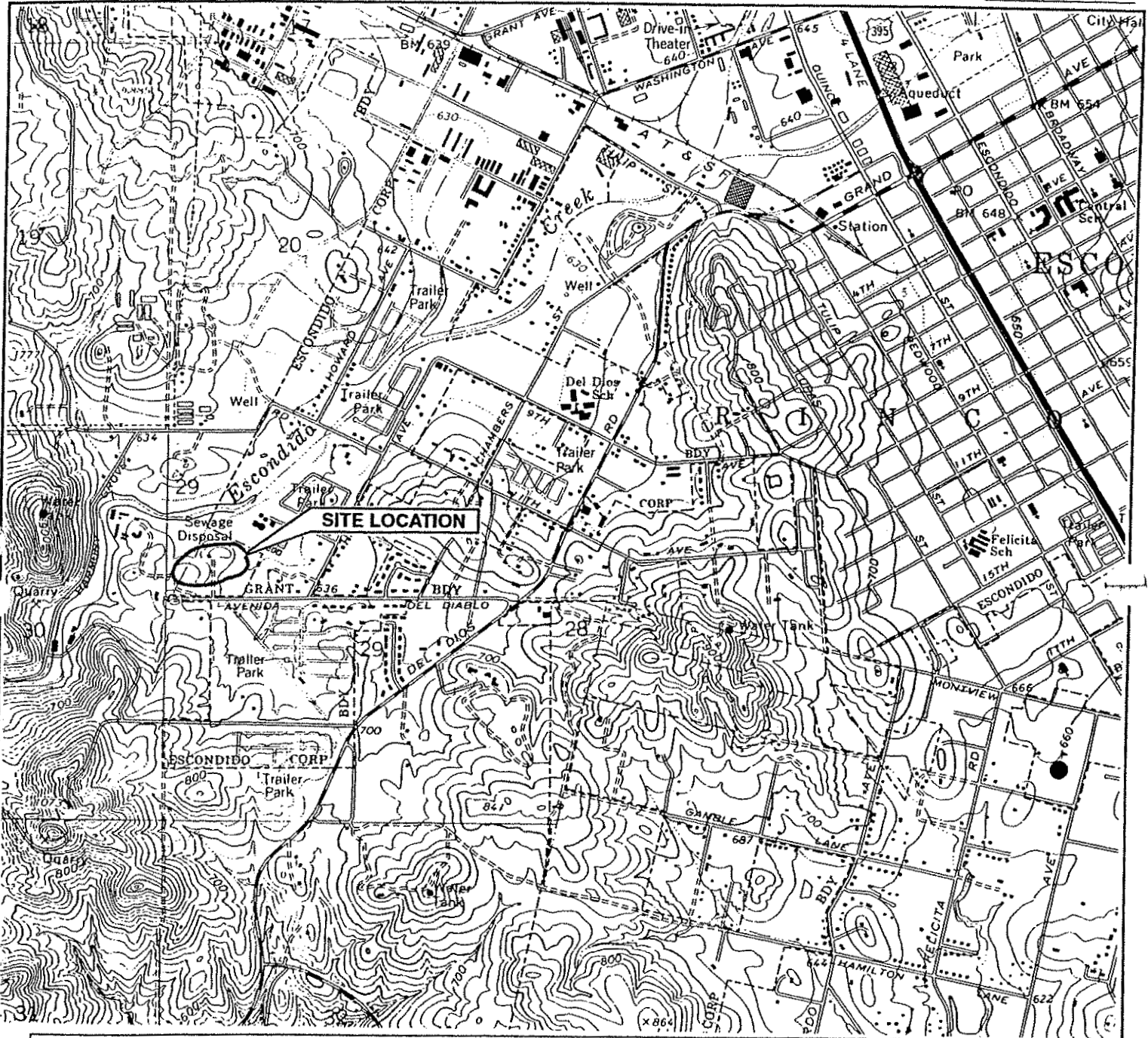
Other historic artifacts at Locus 1 include 15 to 20 standing fenceposts in no discernible pattern, cement rubble, scattered lumber with wire nails, and what appears to be the remains of animal cages. In addition, a cluster of 17 grape vines are located in the eastern portion of this locus, and probably relate to historic agricultural use of the parcel.

Locus 2: Locus 2 is situated on a low, oak-covered knoll across a small swale and to the southwest of Locus 1. This locus contains two large outcrops of granitic boulders along with numerous smaller boulders and outcrops scattered over the sides of the knoll. A total of 10 milling slicks were found on five boulders at this locus, along with a small midden deposit on top of the knoll. This midden deposit has been heavily disturbed by recent camping. A light scatter of igneous flakes was observed in the southern portion of this locus, and a unifacial handstone was found near a small cluster of milling slicks.

Locus 3: Locus 3 consists of a large (ca. 40 x 15 meter) granitic outcrop located several meters to the west of the project area. It contains at least 49 milling features, as well as a small midden deposit found primarily within the outcrop.

*Required Information

LOCATION MAP



SOURCE: U.S.G.S. 7.5 QUADRANGLE - ESCONDIDO, CALIF. 1968 (PHOTOREVISED 1975)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
ARCHAEOLOGICAL SITE RECORD

Primary # _____
Trinomial CA-SDI-8280/H

Page 5 of 11

*Resource Name or # Assigned by recorder) _____

- *A1. Dimensions: a. Length 200m (NS) × b. Width 300m (EW)
Method of Measurement: Paced Taped Visual estimate Other: _____
Method of Determination (Check any that apply.): Artifacts Features Soil Vegetation Topography
 Cut bank Animal burrow Excavation Property boundary Other (Explain):
Reliability of Determination: High Medium Low Explain:
Limitations (Check any that apply): Restricted access Paved/built over Site limits incompletely defined
 Disturbances Vegetation Other (Explain):
- A2. Depth: _____ None Unknown Method of Determination:
- *A3. Human Remains: Present Absent Possible Unknown (Explain):
- *A4. Features (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map.):
Locus 1 consists of 33 slicks, one basin, two roughly rectangular rock alignments and two historic circular water storage features. Locus 2 consists of 10 slicks. Locus 3 consists of 43 slicks, three conical mortars, two basins, and one oval mortar.
- *A5. Cultural Constituents (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.):
Observed prehistoric materials included a light scatter of lithic debitage (primarily metavolcanics) and fire-affected rock. No ceramics were observed, although surface visibility is limited due to dense grass cover.
- *A6. Were Specimens Collected? No Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)
- *A7. Site Condition: Good Fair Poor (Describe disturbances.): The top of the knoll in Locus 1 is heavily disturbed by foot and vehicle traffic, as well as historic construction
- *A8. Nearest Water (Type, distance, and direction.): Escondido Creek approx. 200m north.
- *A9. Elevation: 640 feet
- A10. Environmental Setting (Describe vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc., as appropriate.):
The site is situated among low, rolling hills west of the Escondido Valley and immediately south of Escondido Creek. The geology is dominated by outcrops and boulders of Mesozoic granitics, and soils are composed mainly of decomposing
- A11. Historical Information: Early USGS quadrangles show a structure on the site in 1942, but not in 1946 or 1948. Another structure is shown on the most recent (1968) USGS Escondido quadrangle.
- *A12. Age: Prehistoric Protohistoric 1542-1769 1769-1848 1848-1880 1880-1914 1914-1945
 Post 1945 Undetermined Describe position in regional prehistoric chronology or factual historic dates if known:
- A13. Interpretations (Discuss data potential, function[s], ethnic affiliation, and other interpretations):
The prehistoric component suggests the site was primarily a resource processing area with some limited habitation. Historically, the site appears to have been used for light agriculture.
- A14. Remarks:
- A15. References (Documents, informants, maps, and other references): Gallegos, Dennis and Ivan Strudwick, 1992. Historical/Archaeological Survey Report for the Proposed Citricado Parkway Extension, Escondido, California. Prepared by Gallegos & Associates. Submitted to Lettieri-McIntyre and Associates.
- A16. Photographs (List subjects, direction of view, and accession numbers or attach a Photograph Record.):
Original Media/Negatives Kept at: _____
- A17. Form Prepared by: C. Bowden-Renna/ A. York Date: 8/96
Affiliation and Address: KEA Environmental, Inc.
1420 Kettner Boulevard, Suite 620, San Diego, California 92101

Page 6 of 11 *Resource Name or # (Assigned by recorder) _____

*Recorded by: A. York *Date: 8/96 X Continuation X Update

***A5. Cultural Constituents**

A single mano was observed in Locus 2. Historic materials include scattered pieces of milled lumber, a concentration of unmortared cinder blocks, a metal bed frame, and the remains of a wire cage.

A7. Site Condition

activity. many of rocks, and Structure 1, are covered with graffiti, and many of the boulders have been completely repainted in natural tones to cover the vandalism. This has obscured some milling features, and may have destroyed the pictograph, which could not be relocated. Recent trash is distributed throughout the top of the knoll, and transient camps were found among the boulders. Artifact collection and excavation by local residents have been reported at the site, perhaps accounting for the scarcity of artifacts. The small midden deposit in Locus 2 is disturbed by recent camping and construction of a stone fire ring; locus 3 appears relatively undisturbed.

A10. Environmental Setting

granite. Vegetation is dominated by oak woodland composed of coast live oaks and Engleman oaks with a understory of introduced grasses and poison oak. Slope ranges from 0-10%.

Feature	Outcrop	Dimensions(m) and Orientation	Bedrock Type and Condition
Locus 1		X _____ X Height _____	

Feature #	Milling Surface #	Type	Length (cm)	Width (cm)	Depth (cm)	Contents	Remarks
1a	1	MS	28	26	<1	-	Very light; ground level.
1b	1	MS	15	12	<1	-	Very light use.
1c	1	MS	30	20	-	-	Extremely light use.
1d	1	MS	35	27	-	-	Light use.
1e	1	MS	20	20	1	-	Light/moderate use.
1f	1	MS	15	15	<1	-	Extremely light use.
1f	2	MS	22	24	<1	-	Very light use.
1f	3	MS	15	17	<1	-	Very light use; tar.
1g	1	MS	20	16			Questionable
1h	1	MS	19	12			Very light use.
1h	2	MS	22	17			Very light use.
1h	3	MS	20	15			Very light use.
1h	4	MS	19	19			Very light use.
1i	1	MS	22	15			Very light use.
1i	2	MS	27	16			Very light use.
1j	1	MS	3	17	-	Painted	Light use.
1j	2	BM	27	20	3	Painted	Heavy use.
1j	3	MS	23	24	-	Painted	Light use.
1j	4	MS	22	22	-	Painted	Moderate use.
1j	5	MS	24	22	-	Painted	Light use.
1j	6	MS	25	29	<1	Painted	Moderate use.
1j	7	MS	15	16	-	Painted	Light use.
1k	1	MS	14	12	<1	-	Moderate use.
1k	2	MS	12	12	-	-	Light use.
1k	3	MS	43	27	-	-	Moderate use.
1k	4	MS	15	20	-	-	Light use.
1k	5	MS	15	15	<1	-	Light use.
1k	6	MS	15	17	-	-	Light use.
1k	7	MS	19	18	<1	-	Moderate use.
1k	8	MS	18	10	-	-	Light use; poss exfoliated.
1l	1	MS	24	20	<1	-	Heavy use.
1m	1	MS	27	19	<1	-	Moderate use.
1m	2	MS	22	15	-	-	Light use.
1n	1	MS	22	22	-	-	Extremely light use.

Type Key:

CO Conical mortar	PM Possible mortar
OM Oval mortar	MS Milling slick
SM Saucer mortar	BM Basin milling feature
Other:	

Contents Key:

S Filled with soil	R Contains rock
L Filled with leaves	P Contains pestle
U Unexcavated	M Contains mano
Other:	

State of California — The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
MILLING STATION RECORD

Primary # _____
 Trinomial CA-SDI-8280/H

Page 9 of 11

Resource Name or # (Assigned by Recorder) _____

Form Prepared by: A. York

Date: 8/96

Feature	Outcrop	Dimensions(m) and Orientation	Bedrock Type and Condition
Locus 3.		X _____ X Height _____	

Feature #	Milling Surface #	Type	Length (cm)	Width (cm)	Depth (cm)	Contents	Remarks
3a	1	BM	13	10	1.5	-	In natural basin; moderate use.
3a	2	MS	20	17	<1	-	Moderate use.
3a	3	MS	13	10	-	-	Very light use.
3a	4	MS	23	20	-	-	Moderate use.
3a	5	MS	30	26	<1	-	Moderate use; partial
3a	6	MS	20	30	<1	-	Moderate use.
3a	7	MS	37	28	<1	-	Mod. use; overlaps w/#6;
3a	8	MS	40	38	-	-	Mod. use; covered w/ lichen;
3a	9	MS	50	30	<1	S	Moderate-heavy use.
3a	10	MS	42	20	<1	-	Moderate-heavy use.
3a	11	MS	20	19	<1	-	Moderate-heavy use.
3a	12	MS	33	26	-	-	Moderate use.
3a	13	MS	24	20	-	-	Moderate use.
3a	14	MS	28	23	-	-	Moderate use.
3a	15	MS	32	30	<1	-	Moderate-heavy use.
3a	16	MS	29	25	<1	-	Moderate use.
3a	17	MS	35	23	-	-	Very light use.
3a	18	MS	28	20	-	-	Moderate use.
3a	19	MS	32	21	<1	-	Light use; in natural
3a	20	MS	28	20	<1	-	Moderate use; in natural basin.
3a	21	MS	28	28	-	-	Light use; amorphous.
3a	22	MS	26	18	-	-	Light use; amorphous.
3a	23	MS	40	34	<1	-	Moderate-heavy use.
3a	24	MS	25	21	-	-	Moderate use.
3a	25	BM	29	19	1.5	S	Heavy use.
3a	26	MS	40	23	<1	L	Light use.
3a	27	OM	16	14	7	L	Moderate use.
3a	28	MS	26	23	<1	-	Moderate use.
3a	29	CO	22	22	10	L	Moderate-heavy use.
3a	30	MS	30	22	-	-	Light use.
3a	31	MS	22	18	-	-	Light use.
3a	32	MS	30	21	<1	L	Light use.
3a	33	MS	20	16	<1	-	Heavy use.
3a	34	MS	24	19	<1	-	Moderate use.

Type Key:		Contents Key:	
CO Conical mortar	PM Possible mortar	F Filled with soil	R Contains rock
OM Oval mortar	MS Milling slick	L Filled with leaves	P Contains pestle
SM Saucer mortar	BM Basin milling feature	U Unexcavated	M Contains mano
Other:		Other:	

DPR 523F (1/95)

NOTE: Attach plan(s) of milling stations.

* Required Information

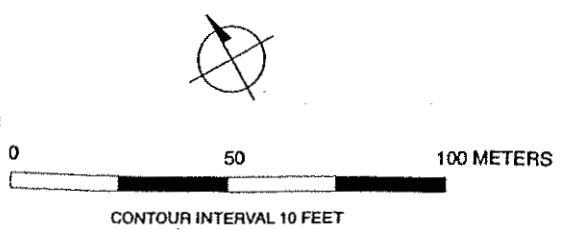
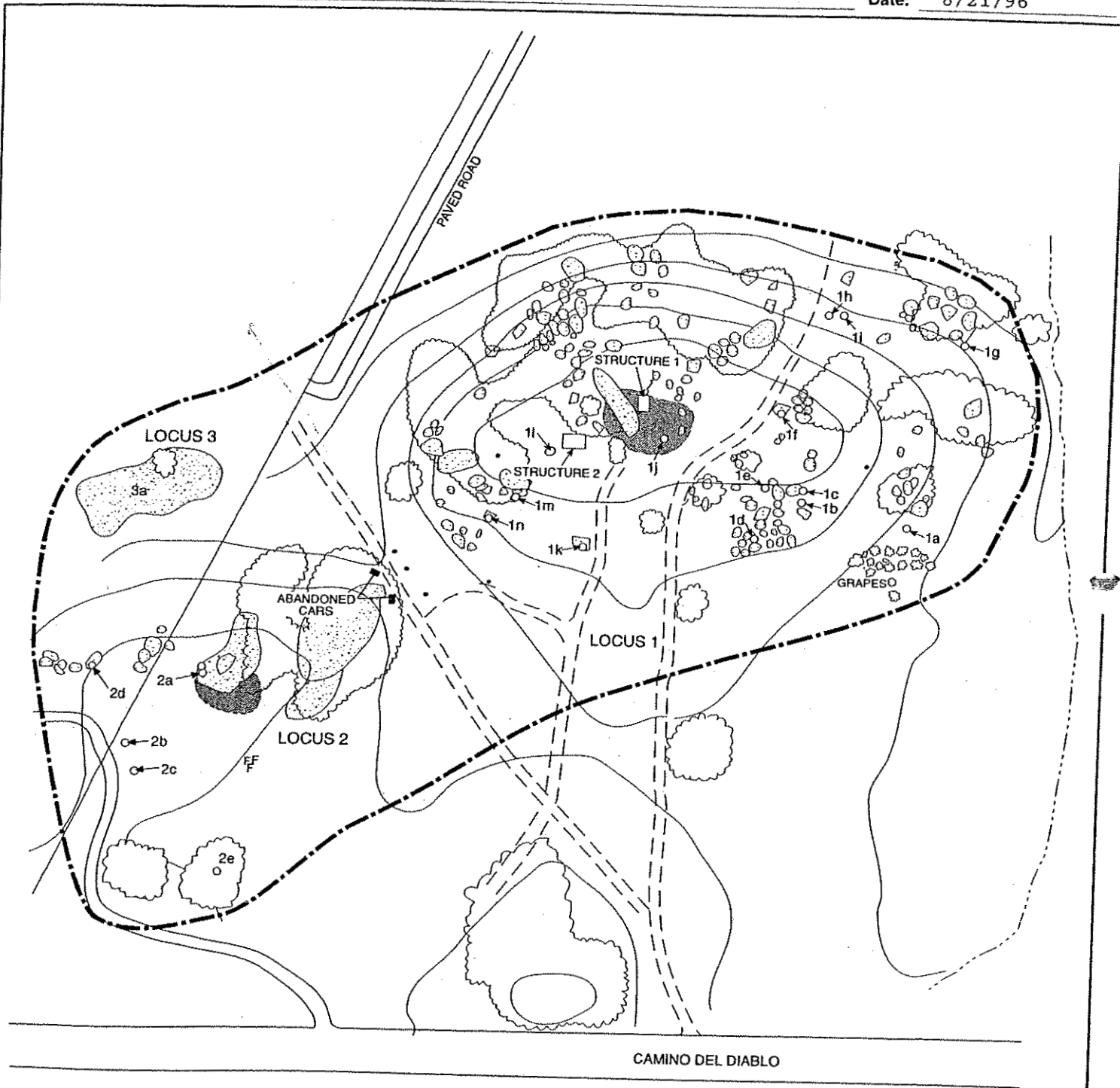
SKETCH MAP

Primary # _____
 HRI# _____
 Trinomial CA-SDI-8280

*Resource Name or # (Assigned by recorder) _____

*Drawn By: ANDY YORK

*Date: 8/21/96



LEGEND

- | | | | |
|--|-----------------|--|------------|
| | SITE BOUNDARY | | FENCEPOST |
| | GRANITE OUTCROP | | TREES |
| | MILLING FEATURE | | DRAINAGE |
| | MIDDEN DEPOSIT | | PAVED ROAD |
| | FLAKE | | FOOT TRAIL |
| | STRUCTURE | | |

NOTE: Include bar scale and north arrow.

6586 /H
1005-3

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
ARCHAEOLOGICAL SITE RECORD

UPDATE

Permanent Trinomial: SDi-8280/Supplement(X)

Locus 1, 2 and 3

Temporary Number: _____

Additional Designation: W-1046

Agency Designation: _____

Page 1 of 2

1. County: San Diego

2. USGS Quad: Escondido (7.5') 1967 (15') Photorevised 1975

3. UTM Coordinates: Zone 11 / 489180 Easting / 3662700 Northing () see below *

4. Township 12 Range 2W in the SW 1/4 of NW 1/4 of Section 29

Base (Mer) San Bernardino ()

5. Map Coordinates: 950 mmS, 350 mmE (from NW corner of map)

6. Elevation 640 ft ()

7. Location: The site is located along the western edge of Escondido approximately 50 meters north of Avenida Del Diablo and 25 meters southwest of the sewage disposal plant on three knolls with granite outcrops and oaks. Encinitas Creek is 50 meters to the north ()

8. Prehistoric XX Historic X (circa 1930) Protohistoric _____

9. Site Description: Locus 1 is on a knoll with many large granitic outcrops. There are 50 plus milling elements on 20 or more bedrock outcrops (features) and a previously recorded monochrome red pictograph on a large boulder on the southwest portion of the site. There are also at least two circular rock alignments that are potentially the remains of house features. The site is disturbed by historic water storage features. Flakes were noted on the southeastern slope. On top of the southern knoll within the very center of Locus 2 is a living area with black midden and 5 milling slicks. Outlying this living area are more than 15 slicks. The central portion of the site has been looted and piles of discarded rocks lie scattered about. Locus 3 is on a large granitic outcrop covered with more than 35 milling slicks and at least 2 basins. Surface artifacts are present. The north end of locus 3 lies on the edge of a granite outcrop and contains black midden. This area has only two oaks and overlooks Escondido Creek.

10. Area: 200 m (N/S length) x 200 m (E/W width) = 40,000 m²

Method of Determination: Survey 11. Depth: Unknown

12. Features: Locus 1: Pictograph, milling, rock alignments

Locus 2: Milling, rock alignment

Locus 3: Milling

13. Artifacts: Locus 1: 500 plus flakes, 4 mano fragments, 1 biface fragment

Locus 2: 10 + flakes

Locus 3: 4 mano fragments, 2 cores, hammerstone, 10 plus metavolcanic and quartz flakes, 2 manos and 1 large piece of non-local mica.

14. Non-Artifactual Constituents: Locus 1 has modern trash and transient occupation ()

*
Locus 1 11/ 489220 5662700
Locus 2 11/ 489100 3662620
Locus 3 11/ 489040 3662070

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
ARCHAEOLOGICAL SITE RECORD

UPDATE

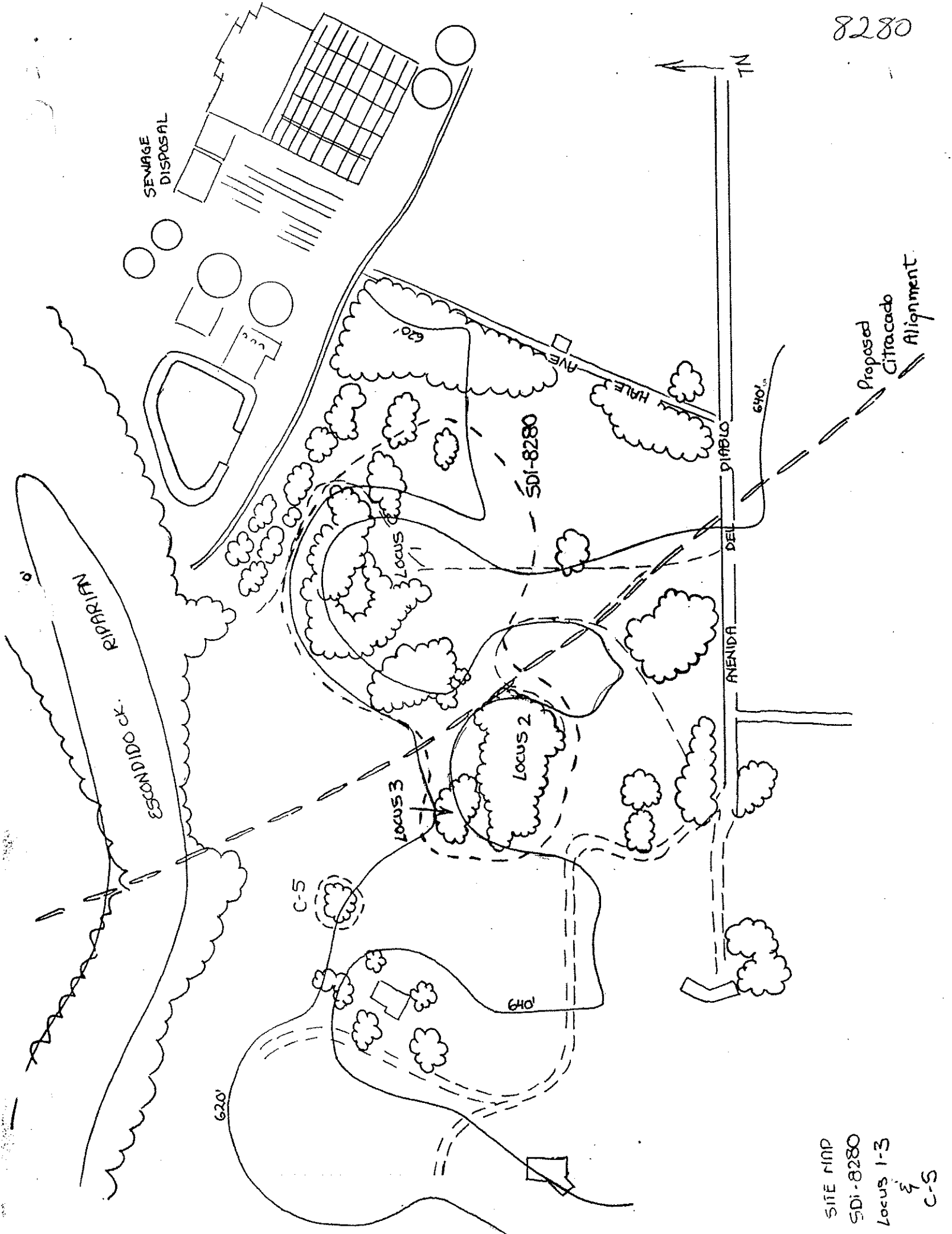
Permanent Trinomial: SD1-8280 Supplement[X]

Temporary Number: _____

Page 2 of 2

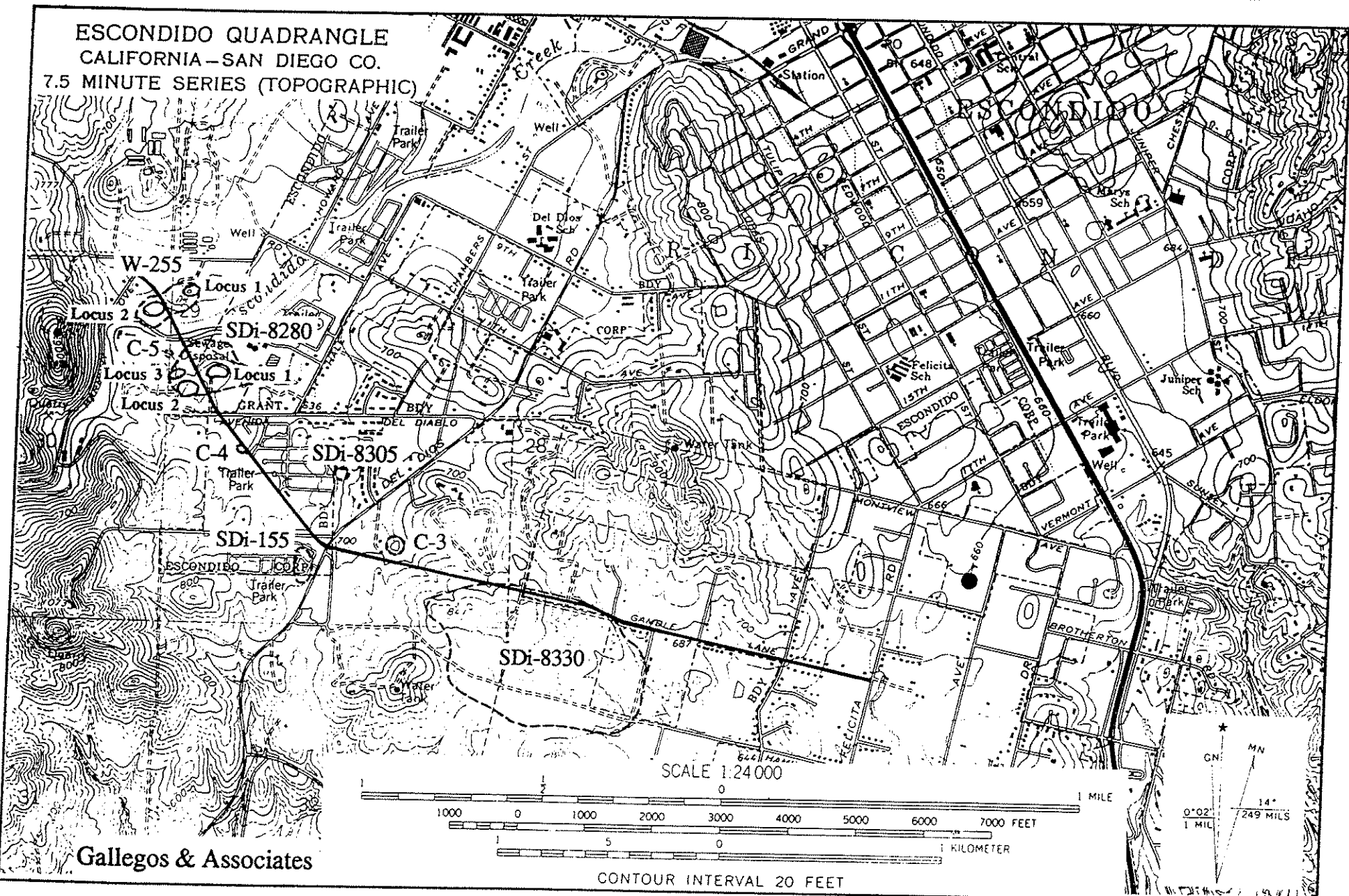
Agency Designation: _____

15. Date Recorded: June 6, 1991 16. Recorded By: Karen Linehan, Ivan Strudwick ()
17. Affiliation and Address: Gallegos and Associates, 2227 Faraday, Suite C, Carlsbad, CA, 92008 ()
18. Human Remains: None () ✓
19. Site Integrity: Locus 1: Good, although area has been disturbed by placement of circa 1930 historic water cisterns (4) and foundations (2). There is modern trash and use by transients, but this is mostly surface disturbance. Prehistoric rock alignments are obscured by vegetation.
Locus 2: Poor. Living area with dark midden has heavily pot-hunted! Outer area may be fairly intact as it does not appear to have been potted.
Locus 3: Good. Does not appear to have been looted. Exfoliation of granitic faces on northern side of locus may cover living area as midden is apparent under exfoliated granite ()
20. Nearest Water (type, distance and direction): Escondido Creek (ephemeral) is approximately 200 meters north of the center of the site. Northern portion of site may extend to the creek's edge ()
21. Largest Body of Water within 1 km (type, distance and direction): Escondido Creek ()
22. Vegetation Community (site vicinity): Oak woodland with riparian along creek ()
23. Vegetation Community (on site): Oak woodland [Plant List ()] ()
- References for above: _____ ()
24. Site Soil: Black midden at center of Locus 2. Remainder of site is brown ()
25. Surrounding Soil: Light to medium brown ()
26. Geology: Granitic outcrops with alluvial/colluvial material at the base of outcrops ()
27. Landform: Rolling hills ()
28. Slope: 0-4% () 29. Exposure: 360° ()
30. Landowner(s) (and/or tenants) and Address: Mrs. Dorothy McGuire 525 W. Acacia St. Salinas, CA 93901 ()
31. Remarks: _____ ()
32. References: _____ ()
33. Name of Project: Historical/Archaeological Survey Report for the Proposed Citracado Parkway Extension, Gallegos and Strudwick 1991 ()
34. Type of Investigation: Field survey ()
35. Site Accession Number: _____ Curated At: No Collection ()
36. Photos: Yes Taken By: Karen Linehan ()
37. Photo Accession Number: Good Question On File At: Gallegos & Associates ()



SITE MAP
 SDI-8280
 Locus 1-3
 C-5

ESCONDIDO QUADRANGLE
 CALIFORNIA - SAN DIEGO CO.
 7.5 MINUTE SERIES (TOPOGRAPHIC)



Gallegos & Associates

Map Showing Archaeological and Historical Sites Within or Immediately Adjacent to the Project Area

FIGURE 3

8280

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
ARCHAEOLOGICAL SITE RECORD

Permanent Trinomial: CA-SDI-8280/Sup (X)

Temporary Number: _____

Page 1 of 4

Agency Designation: _____

1. County: San Diego

See update

2. USGS Quad: Escondido (7.5') 1968 (15') Photorevised 1975

3. UTM Coordinates: Zone 11 / 489140 Easting / 3662600 Northing ()

4. Township 12S Range 2W; Unsectioned portion of a Land Grant Base(Mer.) SB ()

5. Map Coordinates: 96 mmS 37 mmE (from NW corner of map) 6. Elevation: 620-640 ft.

7. Location: This site was originally recorded in 1976 by Knutson, as being on a small but sharp knoll about 500ft. north of Avenida del Diablo, to the southwest of the current sewage treatment facility. further survey to the south, southwest, and southeast shows that the site is actually about three times as big as originally recorded and extends all the way to Avenida del Diablo and southwest about 200m.

_____ ()

8. Prehistoric XX Historic XX Protohistoric _____ 9. Site Description: The original site area consists of the same constituents. As you head to the east, south and southwest there are several milling features with associated lithic concentrations. There is also a historic component consisting of one concrete water trough and a few pieces of purple glass within the original site area.

10. Area: 250 NS m(length)x 150 EW m(width) 28, 125m². Method of Determination: Maps ()

11. Depth: Unknown cm Method of Determination: NA ()

12. Features: One historic structure in the original site area and 15-20 milling features in the new areas to the east, south and southwest.

_____ ()

13. Artifacts: A few pieces of purple glass, about 25 metavolcanic and a half dozen quartz flakes.

14. Non-Artifactual Constituents: None observed.

_____ ()

15. Date Recorded: 2/2/92 16. Recorded By: D. James, B. Glenn, S. Campbell, M. Mealey ()

17. Affiliation and Address: ERC Environmental and Energy Services Company (ERCE), 5510 Morehouse Dr., San Diego, CA 92121 ()

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
ARCHAEOLOGICAL SITE RECORD

Permanent Trinomial: CA-SDI-8280 Sup. (X)

Temporary Number: _____

Agency Designation: _____

Page 2 of 4

18. Human Remains: None observed.

_____ ()

19. Site Integrity: Good. There are a few areas that have been damaged by modern vandalism and covered with paint. There are also a few shallow dirt paths, but they do very minor damage.

_____ ()

20. Nearest Water (type, distance and direction): Escondido Creek 20 meters north. ()

21. Largest Body of Water within 1 km (type, distance and direction) Escondido CK, 20 m N ()

22. Vegetation Community (site vicinity): Oak woodland and grasses [Plant List ()] ()

23. Vegetation Community (on site): Oak woodland and grasses [Plant List ()] ()

References for above: Munz 1974 ()

24. Site Soil: Dark brown sandy loam () 25. Surrounding Soil: Brown sandy loam ()

26. Geology: Sedimentary () 27. Landform: Valley. ()

28. Slope: 0-25 percent. () 29. Exposure: 360 degrees. ()

30. Landowner(s) (and/or tenants) and Address: City of Escondido.

_____ ()

31. Remarks: Our survey area went basically as far in all directions as the site goes. With that in mind it is almost certain that the site continues in one or more directions. Bedrock outcrops which are likely to contain milling can be seen in every direction. W-477 is located not very far to the southeast and may tie in as well.

_____ ()

32. References: None.

_____ ()

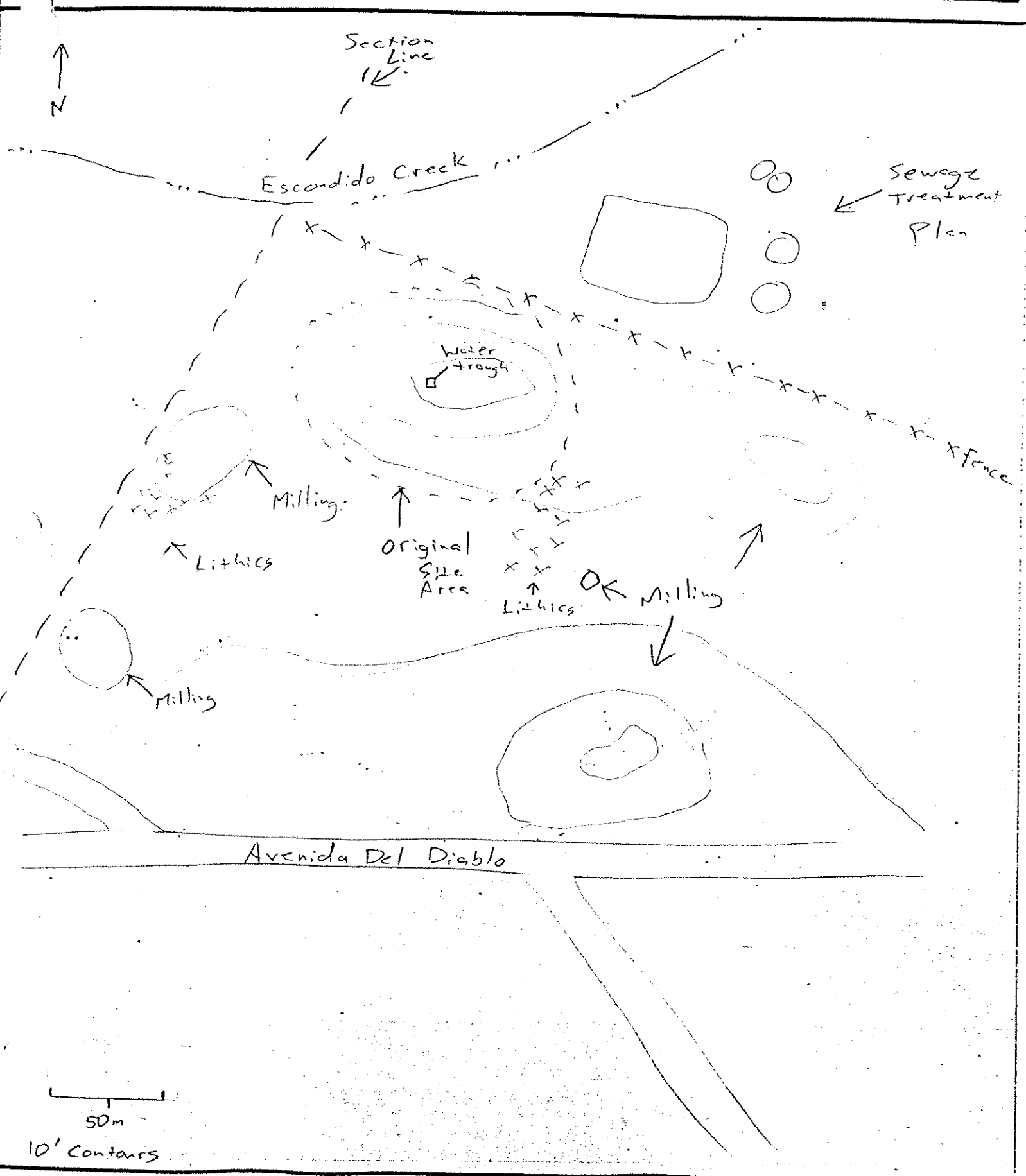
33. Name of Project: City of Escondido, Master Plan of Parks. ()

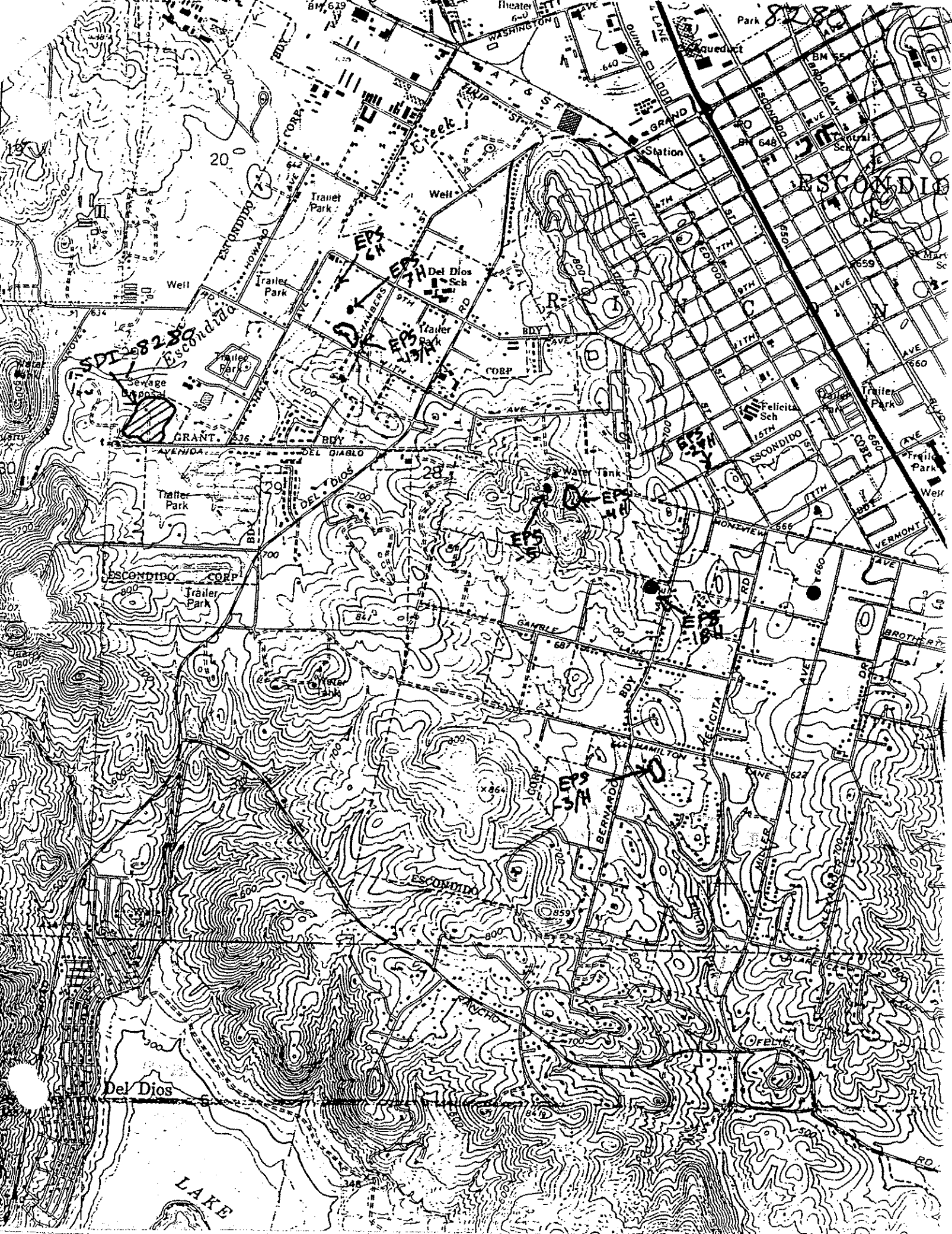
34. Type of Investigation: Survey. ()

35. Site Accession Number: - Curated At: - ()

36. Photos: Yes. Taken By: Delman James ()

37. Photo Accession Number: - On File At: ERCE ()





PALOMAR COLLEGE

W-1046

ARCHAEOLOGICAL SITE SURVEY RECORD
ESCONDIDO QUADRANGLE

SDI-8280

1. Site ~~#1004~~
2. Map 7.5 MINUTE SERIES
3. County SAN DIEGO
4. Twp. 12 S Range 2 W ; NW 1/4 of SW 1/4 of Sec. 29
5. Location Near end of Avenida Del Diablo Ave., close to intersection with Hall Ave. Abuts Western side of Sewage Disposal plant off Hall Ave., near Del Dios Road in Western Escondido.
6. On contour elevation 640
7. Previous designations for site None
8. Owner Mrs Dorothy L. McGuire
9. Address 525 W. Acacia St., Salinas, California 93901
10. Previous owners, dates original owner.
11. Present tenant Vacant land, for sale.
12. Attitude toward excavation Mrs. McGuire, Yes, Daughter, No.
13. Description of site 8 meter, 53 cm diameter rock, 1 1/2 meters high with 108 pits on top surface on bluff overlooking Escondido Creek. Slicks, bedrock mortars, trail shrine?, rock painting.
14. Area 17.24 acres
15. Depth _____
16. Height _____
17. Vegetation Oak grove
18. Nearest water Escondido Creek
19. Soil of site Dark loam
20. Surrounding soil type Sandy Loam
21. Previous excavation None
22. Cultivation Old plowed field, orchard.
23. Erosion None
24. Buildings, roads, etc. Access road to property from Avenida Del Diablo.
25. Possibility of destruction Land parcel #235-051-05. Zoning E1A. For sale.
26. House pits Not determined.
27. Other features Rock painting, Slicks, Bedrock mortars. Trail Shrine?
28. Burials Not determined.
29. Artifacts Felsite flakes, Scrapers, Mano's, Metates, Planes. Father collected arrowheads from plowed field and had large collection of metates stolen.
30. Remarks Mrs McGuire gave verbal permission to survey (telephone conversation of 6 July 1976) but daughter revoked permission.
31. Published references None
32. Accession No. _____
33. Sketch map _____
34. Date 1 August 1976
35. Recorded by O. J. LAUTSON
36. Photos 2

Note: "Trail Shrine" is a pitted boulder w/ small rocks lodged in a crevice. Kldggs 11 Apr

H/O: T.

O.P.O.

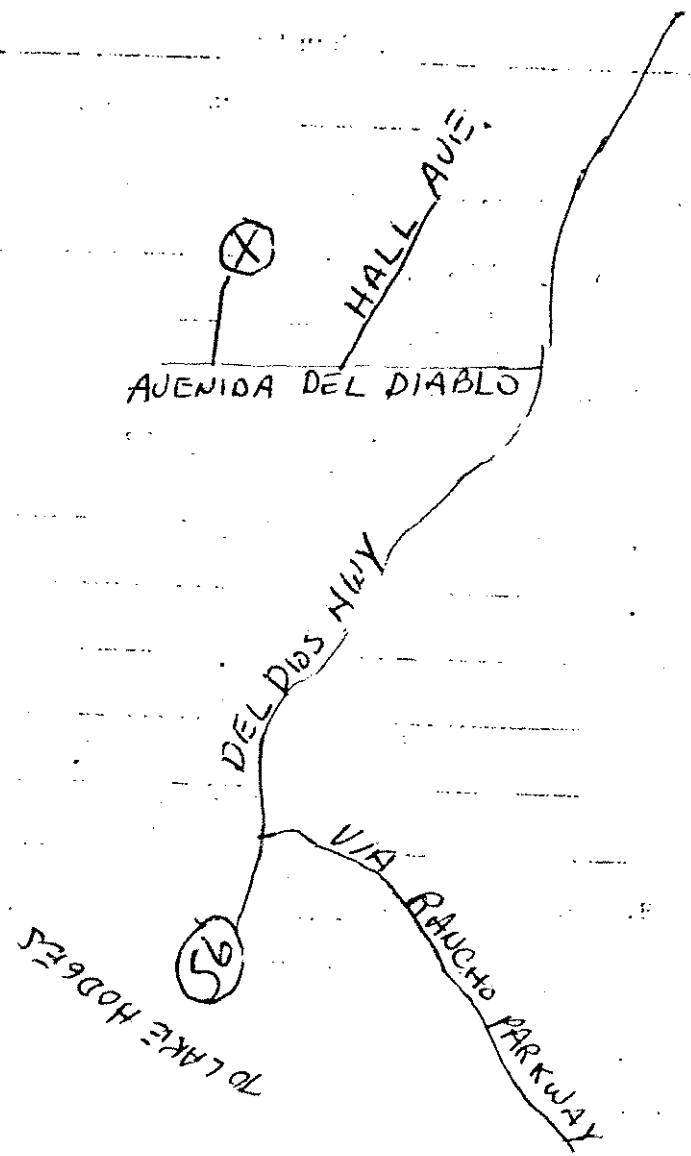
TO ESCONDIDO.

~~01-W~~

SDI-8280

W-1046

TT: 1614



*Date: 11/12/2019 Continuation Update

This serves as an update to P-37-012601/CA-SDI-12601. The resource was first recorded in 1992 by Brian F. Smith and Associates (BFSA) archaeologists and has never been updated. The resource, as recorded, consists of three milling features with 7 slicks among them. The site measures 65 meters in length and 19 meters wide, in an unknown orientation. No sketch map of the site or features accompanies the site description. The record states that the site was tested by BFSA in 1992, and that a total of 10 flakes were recovered from the 8 shovel tests and 1 test unit. The record also states that the site may be associated with the much larger site CA-SDI-08280 documented "400 feet" to the west. The mapped boundaries of CA-SDI-08280 have fluctuated over the decades of recordation. In 2019 the site boundary lies only 10 meters to the west of the plotted location of CA-SDI-12601.

In November 2019, ICF archaeologists revisited P-37-012601/CA-SDI-12601 as a part of the cultural resource surveys supporting the Escondido Creek Regional General Permit (RGP) 94 Channel Maintenance Program. During survey of the recorded site location, many large rounded granitic boulders were observed; however none displayed definitive milling aspects. Leaf litter and detritus left by transients obscured 90% of the ground surface thereby limiting visibility. Despite through inspection of exposed dirt within walking paths and the cut banks of the creek no artifacts were observed.

The previously recorded cultural resources were not directly observed, however the cultural sensitivity of the area remains high. Impacts to the area include construction of the sewage treatment facility to the north and use of the area by transients.



Overview from within the plotted location of P-37-012601/CA-SDI-12601, view northwest

Form Prepared by: Kent Smolik and Nara Cox

Citation: ICF. 2019. Escondido RGP 94 Channel Maintenance Program Cultural Resources Inventory, City of Escondido, San Diego County, California. (ICF 59.19) Escondido, CA. Prepared for City of Escondido, San Diego County, CA.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Permanent Trinomial: _____ Supplement

ARCHAEOLOGICAL SITE RECORD

Temporary Number: Hale-1

Page 1 of 3

Agency Designation: _____

NRS: 6Y7

1. County: San Diego County

2. USGS Quad: Escondido (7.5') _____ (15') _____ Photorevised 1975

3. UTM Coordinates: Zone 11 / 489300 Easting / 3662720 Northing ()

4. Township 12S Range 2W, SW 1/4 of NW 1/4 of _____ 1/4 of Section 29 Base (Mer.) SB ()

5. Map Coordinates: _____ mmS _____ mmE (from NW corner of map) 6. Elevation 615' AMSL

7. Location: The site is situated on a north-facing slope adjacent to the Hale Avenue Waste Water Treatment Facility, on the south side of Escondido Creek. ()

8. Prehistoric Historic _____ Protohistoric _____ 9. Site Description: The site consists of a small group of milling features (three) that contain seven slicks. A very light artifact scatter was associated with bedrock milling. This site is likely associated with the large site SDI-8280 located 400 feet to the south on the knoll elevation which overlooks Hale-1. ()

10. Area: 65 m (length) x 19 m (width), 890 m². Method of Determination: Surface measurement ()

11. Depth: 10 cm. Method of Determination: 8 Shovel tests and a 1m square test unit. ()

12. Features: 3 bedrock milling features with 7 milling surfaces (slicks) were recorded. ()

13. Artifacts: A total of ten flakes were recovered from the site. ()

14. Non-Artifactual Constituents: None ()

15. Date Recorded: March 17, 1992 16. Recorded By: Brian F. Smith ()

17. Affiliation and Address: Brian F. Smith and Associates

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Permanent Trinomial: _____ / _____
mo. yr.

ARCHAEOLOGICAL SITE RECORD

Temporary Number: Hale -1

Agency Designation: _____

Page 2 of 3

18. Human Remains: None. _____ ()

19. Site Integrity: Fair to good _____ ()

20. Nearest Water (type, distance and direction): Escondido Creek passes 600 m west of the site. ()

21. Largest Body of Water Within One Km. (type, distance, and direction): None, but Escondido Creek flows
wes of the site, which was likely a permanent source of water prehistorically. _____ ()

22. Vegetation Community (site vicinity): Ornamentals, native oaks and remnant sage/scrub. [Plant List ()] ()

23. Vegetation Community (on site): Same [Plant List ()] ()

References for above: _____ ()

24. Site Soil: Dark brown, sandy loam () 25. Surrounding Soil: Brown, decomposed granite ()

26. Geology: Massive granodiorite with decomposed granite soil enriched with leaf mold ()

27. Landform: Inland valley _____ ()

28. Slope: 10 % () 29. Exposure: North. ()

30. Landowner(s) (and/or tenants) and Address: City of Escondido _____ ()

31. Remarks: _____ ()

32. References: _____ ()

33. Name of Project: The Hale Avenue Waste Water Expansion Project _____ ()

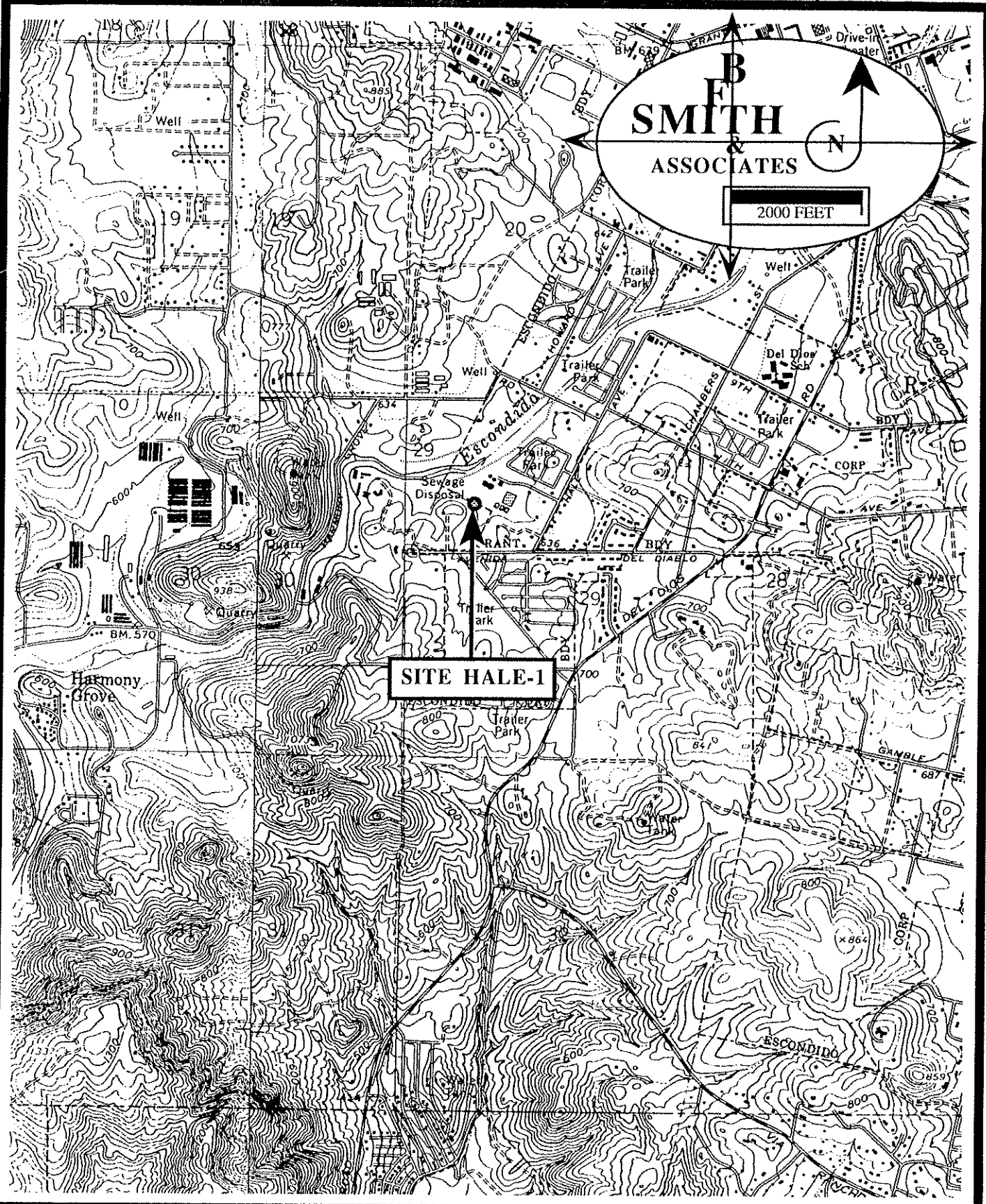
34. Type of Investigation: Survey and test. _____ ()

35. Site Accession Number: _____ Curated At: Brian F. Smith and Associates ()

36. Photos: Yes Taken By: Brian F. Smith and Associates ()

37. Photo Accession Number: _____ On File At: Brian F. Smith and Associates ()

12,601



CULTURAL RESOURCE LOCATION MAP

THE HALE AVENUE WASTEWATER TREATMENT PLANT EXPANSION PROJECT

U.S.G.S. ESCONDIDO QUADRANGLE

*Date: 11/05/2019 Continuation Update

This serves as an update to isolate record P-37-015577. The resource was first recorded in 1996 by Ogden Environmental as a whole secondary flake of porphyritic metavolcanic material and a granitic mano fragment located on a thin strip of land immediately west of the AT&SF railroad tracks and east of a channelized creek that feeds into Escondido Creek. The site record has never been updated.

In October 2019, ICF archaeologists revisited the area as part of a cultural resource assessment for the Escondido Regional General Permit 94 Channel Maintenance Program (RGP 94 Program). A survey was conducted of the portion of the drainage canal that bisects the plotted location of P-37-015577. During the survey, active channel maintenance was ongoing; this activity has disturbed the sediments extensively. The resource could not be relocated and was most likely destroyed or obscured by recent channel maintenance activities.



Overview of survey area and active channel maintenance, view NW

Form Prepared by: Kent Smolik and Nara Cox

Citation: ICF. 2019. Escondido RGP 94 Channel Maintenance Program Cultural Resources Inventory, City of Escondido, San Diego County, California. (ICF 59.19) Escondido, CA. Prepared for City of Escondido, San Diego County, CA.

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 7

Page 1 of 2

Other Listings _____
Review Code _____ Reviewer _____ Date _____

- P1. Resource Identifier: OER-I-1
- P2. Location: a. County San Diego and (Address and/or UTM Coordinates. Attach Location Map as required.)
b. Address _____
City _____ Zip _____
c. UTM: USGS Quad: Escondido 7.5' (7.5'/15') Date 1968; Zone 11 491360 m E/ 3664280 m N
d. Other Locational Data (e.g. parcel #, legal description, directions to resource, additional UTM's, etc.):

This isolate is located in Township 12S/ Range 2W. It is in an unsectioned area. Its map coordinates are 29 mm South and 126 mm East.

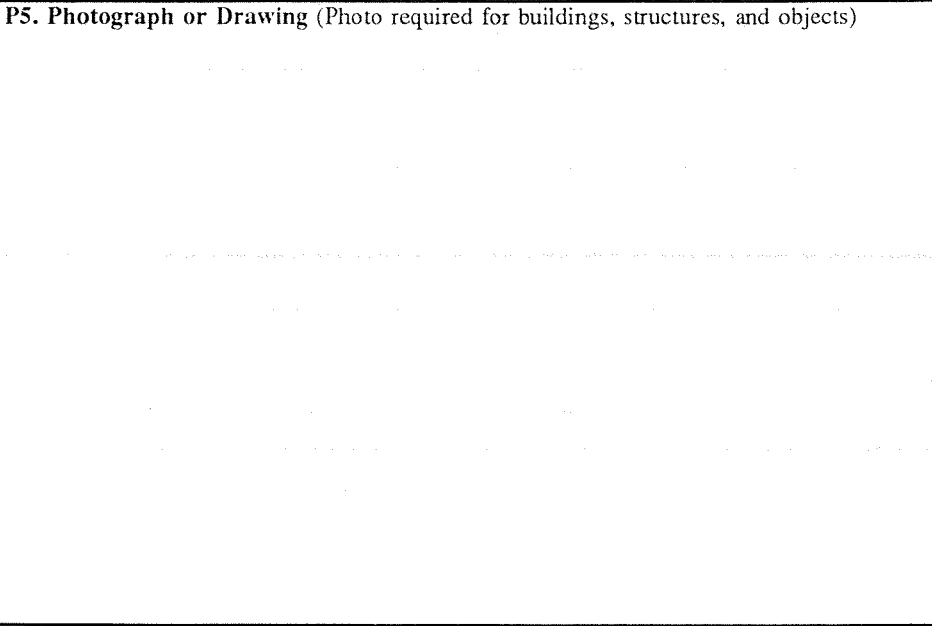
This isolate is located on a thin strip of land immediately west of the AT&SF railroad tracks and east of a channelized creek that feeds into Escondido Creek. The Escondido bus station is 100 meters east and Valley Parkway is 185 meters east-southeast. A "W" sign is 6 meters East-southeast of the mano fragment and a sewer manhole is 3 meters west-northwest of the flake.

- P3. Description (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, boundaries.):

This is a whole secondary flake of porphyritic metavolcanic material and a granitic mano fragment.

P4. Resources present: _____ Building _____ Structure X Object _____ Site _____ District _____ Element of District _____

P5. Photograph or Drawing (Photo required for buildings, structures, and objects)



P6. Date Constructed/Age:
X Prehistoric _____ Historic _____ Both _____

P7. Owner and Address:
Atchinson/Topeka and Santa Fe Railroad Co.

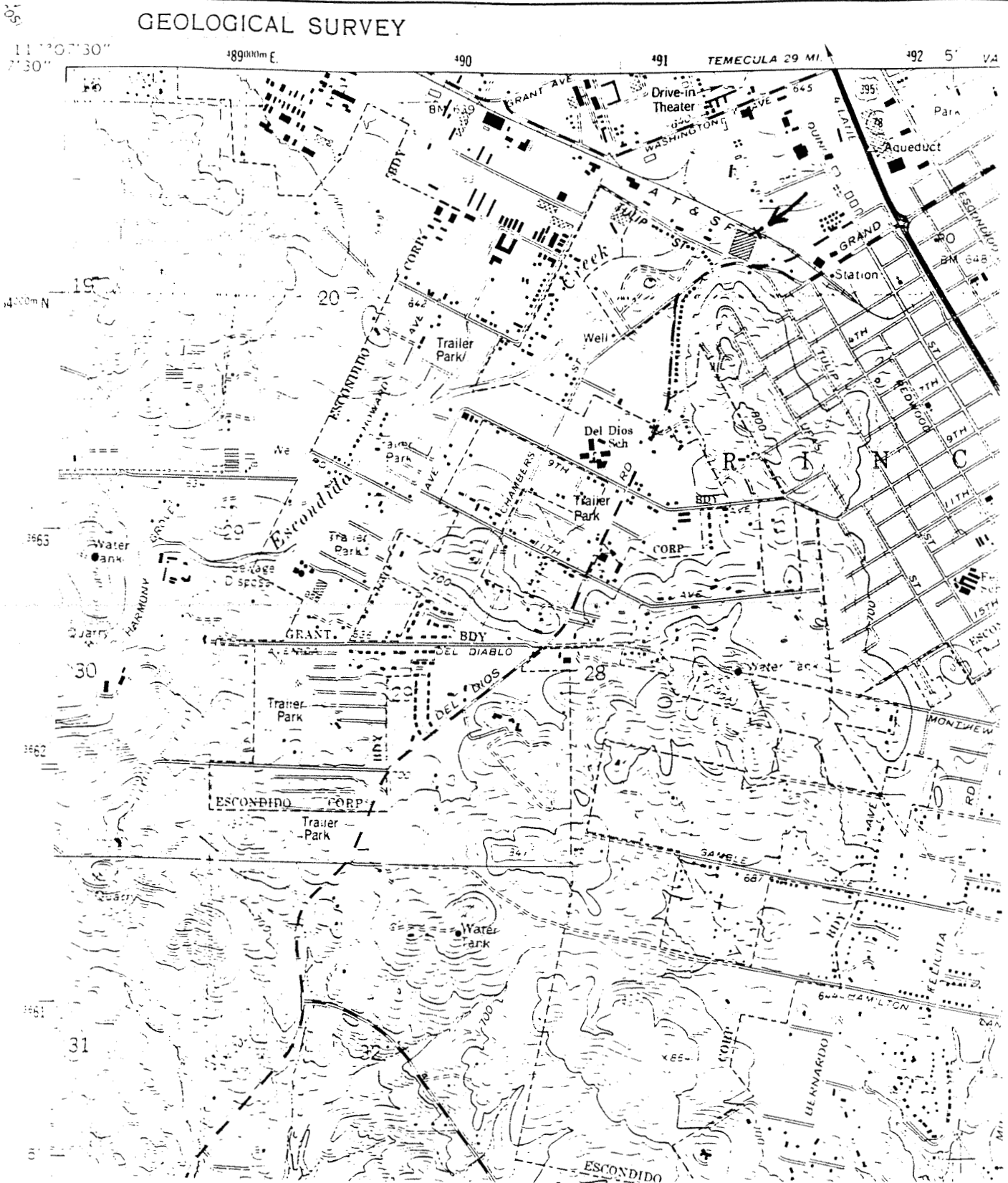
P8. Recorded by (Name, affil., and addr)
Delman James, Rich Bark; Ted Cooley
Ogden Environmental and Energy Services Co.
5510 Morehouse Drive, San Diego, CA, 92121

P9. Date Recorded: 4/17/96

P10. Type of Survey: X Intensive
_____ Reconnaissance _____ Other
Describe: _____

P11. Report Citation (Provide full citation or enter "none"): "Oceanside-Escondido Rail Project" 1996.

Attachments: _____ None X Map Sheet _____ Continuation Sheet _____ Building, Structure, and Object Record _____ Linear Res.Rec.
_____ Archaeological Rec. _____ District Rec. _____ Milling Station Rec. _____ Rock Art Rec. _____ Artifact Rec. _____ Photo Rec.
Other (List): Sketch Map.



*Date: 10/28/2019 Continuation Update

This serves as an update to P-37-030889. The resource was first recorded in 2009 by Stephen Van Wormer of Affinis and later updated in 2015 by ASM Affiliates. The resource consists a series of gunite bench flumes that run along various ridges and are connected by steel and concrete pipe syphons that convey the water across canyons and valleys between the ridges where the flumes are located. The bench flumes are all constructed as above ground gunite canals with a domed gunite cover. For the most part, the syphons are underground. In October 2019, ICF archaeologists revisited a 300 foot E/W x 80 foot N/S portion of this linear resource located within the Reidy Creek Golf Course. None of the flumes or syphons within the survey area were relocated. It's possible they have been destroyed or are obscured from view by dense vegetation.

The photo below shows the plotted location of the flume on the western side of the creek. The area the white arrow points to was extremely wet and the flume may be subsurface here and possibly crushed.



Overview of the western extent of the plotted location of the flume within the 2019 survey area, view north

Form Prepared by: Kent Smolik and Nara Cox

Citation: ICF. 2019. Escondido RGP 94 Channel Maintenance Program Cultural Resources Inventory, City of Escondido, San Diego County, California. (ICF 59.19) Escondido, CA. Prepared for City of Escondido, San Diego County, CA.

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-37-030889 Update
HRI # _____
Trinomial _____
NRHP Status Code _____

Page 1 of 1

Recorded by: ASM Affiliates

Continuation Update

*Resource Name or #: P-37-030889

Date: April 21, 2015

***P3a. Description:** P-37-030889 was recorded in 2009 by Van Wormer of Affinis as the Vista Irrigation District Bench Flumes. The flumes are constructed as above ground gunite canals with a domed gunite cover that run along various ridges and are connected by steel and concrete pipe siphons that convey the water across canyons and valleys. The majority of the flumes are underground. The flumes were recommended eligible for listing on the NRHP under Criteria A and C, for their association with the area's development and their unique design and method of construction, respectively. The current survey relocated the flumes within the APE and survey corridor in the same condition as their previous recordation. Project impacts will be avoidable for this resource.

***P8. Recorded by:**
Lucas Piek & Matthew DeCarlo
ASM Affiliates, Inc.
2034 Corte del Nogal,
Carlsbad, CA 92011

***P9. Date Recorded:** 4/3/2015

***P10. Survey Type:** Intensive pedestrian

***P11. Report Citation:**
Castells, Shelby Gunderman, Matthew M. DeCarlo and Brian Williams
2015 *Cultural Resource Survey Report for the SoCal Gas Line 3602 Project, San Diego County, California.*

***Attachments:** NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List):

P1. Other Identifier:

*P2. Location: Not for Publication Unrestricted *a. County: San Diego
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: San Marcos (1968, photorevised 1983) and Valley Center (1968, photorevised 1975). Township and Ranges: , Township 11 South, Range 3 West, Sections 34 and 35; Township 12 South, Range 3 West, Section 1; Township 11 South, Range 2 West, Sections 32 and 33; Township 12 South, Range 2 West, Sections 1 through 6 San Bernardo Meriden **B.M.**

c. Address: NA. City: NA Zip: NA

d. UTM: Zone: N/A

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) along hillside ridges ranging in elevation between * and * feet above amsl.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The gunite bench flumes run along various ridges and are connected by steel and concrete pipe siphons that convey the water across canyons and valleys between the ridges where the flumes are located (Figures 1-4). The various bench flumes include Twin Oaks Bench, Borden Bench, Beehive Bench, MD Bench, Finkbinder Bench, Kornhauser Bench, Baumgartner Bench, Tunnel Bench, and Jack Creek Bench. Siphons include Twin Oaks, Jones, Pearson, Caldwell, Baumgartner, Little Tunnel, Pleasant Valley, and Big Tunnel. Overall, the general layout, construction, design, materials, and workmanship are the same throughout the length of the flumes and do not vary from bench to bench.

The bench flumes are all constructed as above ground gunite canals with a domed gunite cover. They are constructed of welded wire mesh sprayed with gunite and rest on a wide graded roadbed (Figures 5-12). Both the roadbed and the flumes were constructed at the same time. In cross section the bench flumes measure 3 feet 4 inches in depth by 4 feet 7 inches wide. At its center the top of the arched gunite cover is around 12 inches higher than the top edges of the sidewalls (See Figure 6). The walls and cover are around 2 inches thick.

For the most part, the siphons are underground. The only major above ground portion is at the east end of Twin Oaks Siphon (See Figure 4).

*P3b. Resource Attributes: (List attributes and codes) HP 20 Canal/aqueduct; HP11. Engineering structure

*P4. Resources Present: Buildings Structure Object Site District Element of District Other (Isolates, etc.)

PRIMARY RECORD

Primary # _____

HRI # _____ P-37-030889

Trinomial _____

Page 2 of 27

Resource Name or #: (Assigned by recorder)_ #: Vista Irrigation District Bench Flumes

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

See continuation sheet

P5b. Description of Photo:
(View, date, accession #)

See continuation sheet

***P6. Date Constructed/Age and Sources:** 1926

Historic

Prehistoric Both

***P7. Owner and Address:**

Vista Irrigation District
1391 Engineer St., Vista, CA
92081-8836

***P8. Recorded by:** (Name, affiliation, and address)

Stephen Van Wormer
Affinis
847 Jamacha Road
El Cajon, CA 92019

***P9. Date Recorded:**

August 2009

***P10. Survey Type:** (Describe)

Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")

Historic and Archaeological Resources Survey, Vista Flume Study, Vista, San Marcos, and Escondido, San Diego County, California by Andrew Giletti, Mary Robbins-Wade, and Stephen R. Van Wormer. Affinis, El Cajon, 2009.

***Attachments:** NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record

Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record

Artifact Record Photograph Record Other (List):

DPR 523A (1/95)

***Required information**

Page 3 of 27 *NRHP Status Code* Resource Name or # (Assigned by recorder) #: Vista Irrigation District
Bench Flumes

B1. Historic Name: Vista Irrigation District Bench Flumes

B2. Common Name: Vista Irrigation District Bench Flumes

B3. Original Use: Water Canal

B4. Present Use: Same

***B5. Architectural Style:** Gunite Bench Flume

***B6. Construction History:** (Construction date, alterations, and date of alterations)

Built 1926, cover added 1947-1955, high density polyethylene (HDPE) liners 1989

***B7. Moved?** No Yes Unknown **Date:**

Original Location:

***B8. Related Features:** N/A

B9a. Architect: Vista Irrigation District Consulting Engineers J.B. Lippincott and Chief Engineer K.Q. Volk.

b. Builder: Vista Irrigation District

***B10. Significance: Theme:** 20th century development of the Vista and San Marcos regions of San Diego County California. **Area:** Vista and San Marcos regions of San Diego County. **Period of Significance:** 1926 – present

Property Type: Gunite bench flumes and above ground siphon segments. **Applicable Criteria:** A and C

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Historic Background

The Board of Supervisors of San Diego County declared the Vista Irrigation District legally established on September 11, 1923. The District embraced practically 17,000 acres of land in northern San Diego County. The town of Vista, where the offices of the Board of Directors were located, was at the geographical center of the district and on the Escondido branch of the Santa Fe Railroad, which traversed the region.

The area consisted of gently rolling hills sloping from the base of the San Marcos Mountains westerly toward the coast. Rainfall and temperature records maintained at Vista between 1916 and 1923 showed an average rainfall for that period of 16.4 inches per annum, while the mean for Oceanside and Escondido averages for a longer period gave figures of 14.5 inches yearly.

The bond that established the District was for \$1,700,000.00, issued November 15, 1924. The money was to be used for the construction of the irrigation system, funding two years' interest on the bonds, and to provide a contingent and reserve fund (in bonds) for such future needs.

The purpose of the project was to promote agricultural development and increase property values. During this period

(This space reserved for official comments.)

the Vista area produced citrus - especially lemons - avocados, loquats, grapes, peaches, plums, subtropical fruits, vegetables, and nursery stock and winter plants. These crops were irrigated with well water. Development of a water distribution system would greatly expand the area of productive lands, and it was estimated that land worth \$100

per acre at the time the bond was issued would rise in value to \$500, and in some cases \$1000 per acre immediately upon the arrival of water for irrigation.

Of the 17,000 acres comprising the district, nearly 4,000 acres were deemed infeasible for irrigation, and those property owners waived their right to demand water to which they were otherwise entitled. However, because they remained within the district they had access to any unused or excess water that might become available. As a result of these waivers the area within the District entitled to demand water was 13,000 acres.

The water supply of the district was the run-off of the San Luis Rey River watershed which comprised an area of 210 square miles, all lying between 2,000 and 6,500 feet above sea level. The water was impounded in Lake Henshaw near Warner's Ranch.

The dam which formed Lake Henshaw was owned by the San Diego County Water Company and built under the supervision of J.B. Lippincott and Rex Starr in 1923. The capacity of the reservoir was 164,000 acres. The dam has been heightened over the years to increase capacity. Under a contract with the San Diego County Water Company the Vista District was entitled to 13,000 acre feet of water per year from of Lake Henshaw, which constituted an acre foot per year for every acre entitled to water within the district.

In order to deliver water to the Vista Irrigation District, it was to be conveyed by the San Diego Water Company from Lake Henshaw to Lake Wohlford, northeast of Escondido. This reservoir was owned by the Escondido Mutual Water Company, which contracted with the Vista District for the use of its reservoir. The Vista District would take delivery of its water at the outlet of Lake Wohlford. In addition to Lake Henshaw, Vista District also intended to develop additional underground water sources by pumping the San Luis Rey River bed.

The distribution system for Vista Irrigation District was designed by J. B. Lippincott and associates and consisted of a cement lined main canal from the water delivery point at Lake Wohlford to a reservoir at the eastern boundary of the district. The design was developed to facilitate the use of steam shovels and other labor saving devices available in the 1920s.

After entering the boundaries of the District, the same type of cement lined ditch was to be extended along the northern edge of the District to its terminus. At proper intervals cement pipelines, supplemented by steel where necessary, would take off from the main canal and extend southerly and westerly across the District. These main laterals were to be tapped in turn by sub-lateral pipelines to permit distribution of water to the high point of each 40-acre tract.

Following sale of the bonds, Vista Irrigation District hired Mr. J.P. Lippincott as Consulting Engineer and K.Q. Volk as Chief Engineer in charge of construction work. Surveys, designs, and estimates were made for the main conduit DPR 523A-Test (8/94)

consisting of concrete pipe, concrete flume, steel pipe, and tunnels having a length of 12.5 miles, to carry the water from the intake to the east end of the district boundary, at Pechstein Reservoir – the main holding facility at the end of the main conduit, as well as 130 miles of delivery conduits and pipelines; and 5 small reservoirs. The estimated cost was \$1,302,000.00. The first ground was broken on May 16th 1925.

In the meantime, bids for building the main conduit had been solicited. In April 1925 contracts were awarded to K.S. Littlejohn Co. for \$27,142.00 to build three tunnels, Western Pipe and Steel Co. for \$97,035.89 for steel siphons, Elliott & McKenna for \$50,000.10 for concrete pipe, and David H. Ryan for \$168, 819.00 to construct the bench flumes.

The same month contracts were awarded for construction for the main distribution system and included Stroud Bros. & Seabrook for \$91,846.00, for excavation and backfill, Escondido Cement Products Co. for \$13,372.30 to produce and lay concrete pipe, and Baker Iron Works for \$216,496.81, for making and laying riveted steel pipe.

In September contracts for reservoir construction were awarded to L.J. Turner for \$52,565.49 to construct Pechstein Reservoir, Stroud Bros. & Seabrook for \$18,786.74 for construction of two circular reservoirs, and Elliott & McKenna for \$27,032.19 for construction of three other circular reservoirs.

By December 31, 1927 the following work had been completed on the main conduit between the outlet at Lake Wohlford and Pechstein Reservoir:

Concrete Pipe 42" Gravity	6,065 feet	1.15 miles
Concrete Pipe 42" siphon	3,938 feet	.74 miles
Steel Pipe Siphons	18,786 feet	3.56 miles
Concrete Flume on Side Hills	35,400 feet	6.70 miles
Tunnels through Mountain	2,074 feet	.39 miles
Total		12.54 miles

By late 1926, work on the main conduit and Pechstein Reservoir had been completed. Water from the Henshaw Reservoir ran down the San Luis Rey River to the intake of the Escondido Mutual Water Company's flume, through which it flowed to Lake Wohlford. From there the water ran to a powerhouse constructed by San Diego Water Company below Lake Wohlford. The delivery point of the Vista District's water was at the tail race of the power house. From this point the water was transported by the main conduit constructed by Vista Irrigation District.

Constructed through rugged hillside country, this conduit ran for 12.8 miles and had a capacity of 44 second feet. It included 2,000 feet of tunnels, 7,300 feet of 42" gravity concrete pipe, and 4,600 feet of 42" reinforced concrete pipe, 16,000 feet of 36" and 40" riveted steel siphon, and 35,000 feet of gunite bench flume. The main conduit terminated at the Pechstein distribution reservoir with approximately 250 score feet capacity. Several laterals were taken off the main conduit before it reached this point. However, the greater portion of the District's water passed through this reservoir.

Construction of the gunite bench flume was completed in 1926. The dimensions of the flume were 3 feet 4 inches in depth by 4 feet 7 inches in width. The sidewalls are only 2 inches thick and the bottom 2 1/2 inches. Reinforcing of the sidewalls consists of electrically welded #6 galvanized wire mesh. The sidewalls were reinforced by bending the mesh through 1/2 inch square bar. The bottom of the conduit was reinforced by #12 electrically welded galvanized wire mesh. The top rails of the flume were held together by pre-cast concrete bar 2 inches square containing a 3/4" steel rod. These bars were placed at 8 foot intervals along the flume.

The method of construction consisted of excavation of a roadway to proper grade, width, and location on which the gunite bench flume was constructed. After the roadway was roughly graded the materials for construction were hauled by truck and deposited on the outside of the roadway. When all materials were in place, the subgrade was thoroughly wet down and tamped to avoid settlement (Figure 13).

Next the wooden forms for constructing the flume were set to proper alignment and grade by crews of form setters. These light forms allowed the carpenters to set them continuously, and curves could easily be made by bending the forms, rather than needing to build new ones for each curve.

First, the mesh for reinforcing the bottom was laid on the finished subgrade and the forms set there on, after which the reinforcing crews placed the wire mesh for the sidewalls and rail, rigidly securing them in position. The placing of the reinforcement required considerable care as the walls were only 2 inches thick. Finally, the wire mesh was sprayed with gunite to form the structure of the flume.

The sidewalls and fillets at the junction of the floor and sidewalls, together with part of the rail, were shot first. After approximately a fifteen-minute interval, the balance of the rail was completed by spraying on an additional layer. The forms were generally stripped within 48 hours after construction of the flume. Frequently, however, forms were stripped within 24 hours and the flume filled with water so as to receive its maximum stress within this period of time. In order to do this, small wooden dams were placed in the flume at the end of each days run and water pumped in until the dams were filled. The flume was constructed as a monolithic structure and had no expansion joints. Two gunite crews were employed on this work, each crew consisting of approximately 28 men. Daily progress varied from 150 to 200 linear feet. The flume's design would be considered aggressive under today's standards because of its limited use of reinforcing steel and relatively thin wall and floor sections.

Owing to the rolling nature of the land in the district, five concrete and steel pipe siphons were required for transporting the water from one ridge to another (Figure 14). These siphons cross stream valleys and comprise approximately 4.30 of the 12.75 miles of the transmission system. The flume and siphon system operates as gravity flow and pressurized system, respectively. Gravity flow is maintained in each of the flumes. Pressurized flow occurs in each of the siphons. The elevation of water in each siphon seeks a level required to transport (drive) the flow of water incoming from the gravity flume at its inlet.

The main distribution line of the district followed along foothills at a high elevation, the main laterals taking off at proper intervals and carrying the water to various points of the district. Six circular concrete regulating reservoirs are provided for controlling the flow to various laterals. The system was designed to provide both irrigation and domestic water.

Establishment of the distribution system brought remarkable growth within the district. Crop production increased over 100 percent. Nineteen subdivision maps had been filed for the area, covering 3,633 acres divided into 1,705 lots and acreage tracts, and 43.61 miles of graded roads. Population increased from 337 in January 1926 to 1,067 by January 1928. A report noted that:

The town of Vista, while not large enough to be incorporated, has been growing rapidly and now has two lumber yards, a concrete pipe manufacturing plant, newspaper and publishing plant, hardware store, feed store, two grocery stores, an electric bakery, four restaurants, two hotels, two pool halls, one barber shop, two garages with service stations, one super service station, two black smith shops, two plumbing shops, four vegetable packing sheds, and a drug store (Annual Report 1927-1928).

Over the years sources of water for the District increased. The original source of water dating from 1926 was Lake Henshaw, which was purchased by the district, including the 43,000-acre Warner Ranch, in 1946. Because of a need for additional water the District joined the San Diego County Water Authority and connected to the 1st and 2nd San Diego Aqueducts, thereby assuring a reliable source of supply during years of low rainfall. Since 1945 approximately 50 percent of the water supply has been obtained from the aqueduct system. Regardless of its source, water is still delivered via Lake Wohlford and the gunite flumes.

In 1947, after 20 years of service, a repair and maintenance program was begun on the conduit system between Lake Wohlford and the Pechstein Reservoir. Seven miles of open flume were covered with a reinforced concrete arched cover and 5 steel siphons totaling 4.3 miles were coated with concrete mortar. Work was completed during the spring of 1955. At the same time the steel siphons were evaluated and lined with cement mortar lining.

The thin-shelled flume covers had two methods of construction. Some portions were constructed of gunite. Backing for the gunite sections (the first constructed) was building paper, which was placed on top of small diameter reinforcing bars shaped to form the arch. A mesh was then placed on top of the paper as reinforcing for the gunite. A similar method was used for the remaining work except that hand placed mortar was used in place of gunite. The backing in this case was paper backed mesh of the type frequently used for stucco reinforcing.

When the work was completed the operational and functional features of the District's main conduit were in better condition than they had been for many years. The system was tested and "for the first time since the system was completed in 1925 it was up to its design carrying capacity of 44 cubic feet per second". In addition, yearly maintenance work was undertaken to patch cracks and conduct other minor repairs on the flumes.

In 1976 a major change in the distribution system occurred with completion of the Escondido-Vista filtration plant below Dixon Dam. The plant provided filtered water for the City of Escondido and the Vista Irrigation District. Filtered water became available from the plant on October 1, 1976. Dixon Dam had been constructed in 1971. In 1978 a cathodic protection system to inhibit corrosion of the exterior surfaces of the steel siphons was implemented. By 1979 Pechstein Reservoir at the end of the main conduit system had been rebuilt.

A 1979 report of inspection of the Vista Irrigation District's water transmission system between Dixon Dam and to Pechstein Reservoir noted the following:

The paper and wire backing for the cover of the bench flumes had rusted out, and the arched flume covers were seldom bonded to the top of the flume wall.

The original $\frac{3}{4}$ inch bars used as ties across the top of the flume had rusted so badly that their effectiveness needed to be totally discounted.

The walls of the flume had innumerable vertical cracks attributed to a combination of shrinkage and temperature stresses induced in the long flume sections. Very few of these cracks indicated leakage, and most of those which had leaked had self sealed.

Some relatively large horizontal cracks were observed in the flume walls; usually a short distance above the concrete fillet between the flume wall and bottom slab of the flume. Generally, these cracks were about 12 feet long, and indicated leakage.

Field tests on the concrete flume, using a Schmidt Hammer, indicated the quality of the concrete was good.

Finally, the inspection revealed that many of the patches, which have been made to cover small holes or large transverse cracks in the arched cover had failed.

The report recommended the existing flume cover be used as a form to support a properly designed new gunite cover. Major cracks in the walls which showed leakage or which had the potential to leak should be repaired with gunite patches on the exterior face. Additional cracks in the flume walls which showed a potential for leakage and major cracks in the bottom slab could be repaired from the inside the flume by using modern materials and procedures during periods when the system was shut down.

The cover repairs were undertaken during the 1980s, and in 1989 a program was initiated to rehabilitate the flume with high density polyethylene (HDPE) liners in an attempt to prevent seepage. This consisted of installing a continuously welded HDPE sheet lining that extends from near the top of one wall down across the bottom and up the other wall, effectively constructing a U-shaped sheet lining system. Where seams were formed at the ends of the material a thermal weld was used to develop a continuous HDPE sheet running inside the flumes. At access manholes located at the entrance and exit connections of the flume to the siphons, the HDPE lining material was glued to the gunite flume surface with epoxy. After about 1990, the liners were extended to a height of 30 inches.

A 1996 inspection report determined that in general, the flume was well maintained and in overall good condition. Problems were noted in three categories: loss of water through seepage or spills caused by deterioration of the facilities – in particular, the reinforced concrete bench sections - due to age; susceptibility to service interruption from mud or rock slides or failure under severe seismic loading; and potential for water quality degradation during conveyance.

General concerns of the bench flumes included leakage from cracks in the reinforced concrete sections of the flume (Powell and Associates 1996).

A recent report completed in 2005 has recommended a major upgrade to the gunite bench flumes. After 85 years of "outstanding service" the process of aging has taken a toll on the integrity of their construction. Changes noted visually include the rusting and almost complete loss of the horizontal inch square reinforcing bars installed perpendicular to the flume, at the top of the walls, and rusting of the interior mesh of the domed cover as a result of the attack from chlorine contained in the potable water carried by the flume. Changes in chemistry of the original gunite material as a result of chlorine exposure over the years were also suspected. It was recommended that HDPE pipe be installed within the flumes. The report noted that the longevity of the flume as the primary conveyance system for the District's water had expired. The primary conveyance system had been replaced in 1999 from the gunite flume to the flume lined with HDPE sheet lining. This reduced or eliminated leakage from the flume, but provided no added structural value. A pipe installed within the flume would change the function of the gunite channels from hydraulic to

structural and extended their useful life. Under this scenario the existing flume would protect the new pipe and provide insulation that limited thermal changes, reducing contraction and expansion issues.

This project would require new applications of this technology. For years HDPE pipe has been used to slip a new pipe into an old one. However, installation of HDPE pipe within the flumes is an unusual application. While a difference in cross section does not present a particular problem, the weakness of the flume is an issue. For this reason installation of HDPE pipeline within the flume cannot use the generally accepted "brute force" method. The flume would require a combination of pushing, pulling, and perhaps floating the pipeline to complete the installation (Kennedy/Jenks 2005).

At the entrance and exit of each flume a connection to an adjacent siphon will be needed. Both horizontal and vertical alignment issues must be incorporated into a pressurized connection to accomplish this transition.

Historical Assessment

The Gunitite Bench Flumes and above ground siphon segments were assessed for eligibility for listing on the National Register of Historic Places, and California Register of Historical Resources. The criteria for listing on the California Register are based on and essentially the same as those for the national register. For this reason the following discussion will focus on the resources' qualifications for the National Register of Historic Places.

To qualify for the National Register of Historic Places, a property must be assigned a specific period of significance and meet at least one of the National Register criteria and retain sufficient integrity of its historic qualities to convey its significance (National Park Service 1991). The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association and:

- A) That are associated with events that make a significant contribution to the broad patterns of our history; or
- B) That are associated with the lives of persons significant in our past; or
- C) That embody the distinctive characteristics of a type, period, or method of construction or represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D) That have yielded, or may be likely to yield, information important in prehistory or history.

The period of significance for the gunite bench flumes and above ground siphon sections is from their original construction in 1926 to the present. Since their construction to the present day they have constituted the main conveyance system for the District. The resources qualify for nominating to the National Register of Historic Places at a local level of significance and for the California Register of Historic Resources under Criteria A and C.

The bench flumes and siphons qualify under Criterion A in that they have been the main conduit for the Vista Irrigation District since its inception in the mid 1920s and, therefore, have been vital to the area's development for over 85 years

Because of the unique design and construction techniques of the bench flumes they also qualify under Criterion C.

Integrity

Integrity is the ability of a property to convey its historic significance. The bench flumes and siphon were evaluated for the seven aspects of integrity identified for the National and California Registers: location, design, setting, materials, workmanship, feeling, and association (National Park Service 1991:44).

Location

Location is defined as "the place where the historic property was constructed or place where the event occurred" (National Park Service 1994:44). The bench flumes and siphon retain a high degree of integrity of location. They still occupy the exact locations where they were constructed in 1926.

Design

Design is defined as the "combination of elements that create the form, plan, space, structure, and style of a property." It results from conscious decisions made during the original conception and planning of the property (National Park Service 1991:44-45). The above ground gunite bench flumes, and steel pipe siphons retain the same design as when originally constructed. The only major alteration has been the addition of a gunite cover between 1947 and 1955. This did not alter the original design of the flumes and has been part of their character defining elements for over 50 years. The only additions have been small access ports and steel access doors located periodically along each flume segment see (Figures 6-7). These small alterations do not detract from the overall original design of the structures, which can still easily be identified.

Setting

Setting is defined as the "physical environment of a historic property" (National Park Service 1991:44-45). Despite post World War 2 suburban development the setting of the flumes and siphon remain only marginally changed. The ridges where most of the bench flumes are located have seen remarkably little change and the flumes largely still traverse either undeveloped areas or agricultural groves. Many of the lowlands and valleys surrounding the flumes have been developed, which is degrading to the setting away from the flumes' immediate area (See Figures 9-12).

Materials

Materials are defined as the "physical elements that were combined during a particular period of time in a particular pattern of construction to form a historic property" (National Park Service 1991:44-45). The bench flumes and siphons retain materials of their original construction, steel wire mesh, gunite, and concrete and steel pipe.

Workmanship

Workmanship is defined as "physical evidence of crafts of a particular culture and people" (National Park Service 1991:44-45). The Vista Irrigation District bench flumes and siphon retain integrity of workmanship through the existence of original materials and design discussed above.

Feeling and Association.

Feeling is defined as "a property's expression of the aesthetic or historic sense of a particular period or time." It results from the presence of historic features that together convey the property's historic character. Association is the direct link "between an important historic event and a historic property" (National Park Service 1991:44-45). Integrity of location, design, materials, and workmanship discussed above combine to give a strong sense of feeling and association for the period of significance of the Vista Irrigation District bench flumes and siphon. The structures exist on historic locations and convey a strong sense of time and place for the period of significance and their role in the area's development.

Significance Summary Statement

In summary, the Vista Irrigation District Bench Flumes and Siphon are significant under Criterion A for their association with the area's development. As the District's main water conduit for over 85 years, the structures have been indispensable in the region's development. The flumes and siphon are also considered to be eligible under Criterion C for their unique design and method of construction.

These resources retain integrity of location, design, setting, materials, workmanship, feeling and association. The integrity of location is unaltered, and the setting in the immediate area of the bench flumes has been only moderately compromised. The structures retain original materials, workmanship, and design. These combine to form a high degree of feeling and association for the role of the structures in the area's development during the period of significance.

B11. Additional Resource Attributes: (List attributes and codes)

N/A

***B12. References:**

See continuation Sheet

B13. Remarks:

***B14. Evaluator:** Stephen Van Wormer

***Date of Evaluation:** August 2009

(Sketch Map with north arrow required.)

See continuation sheets

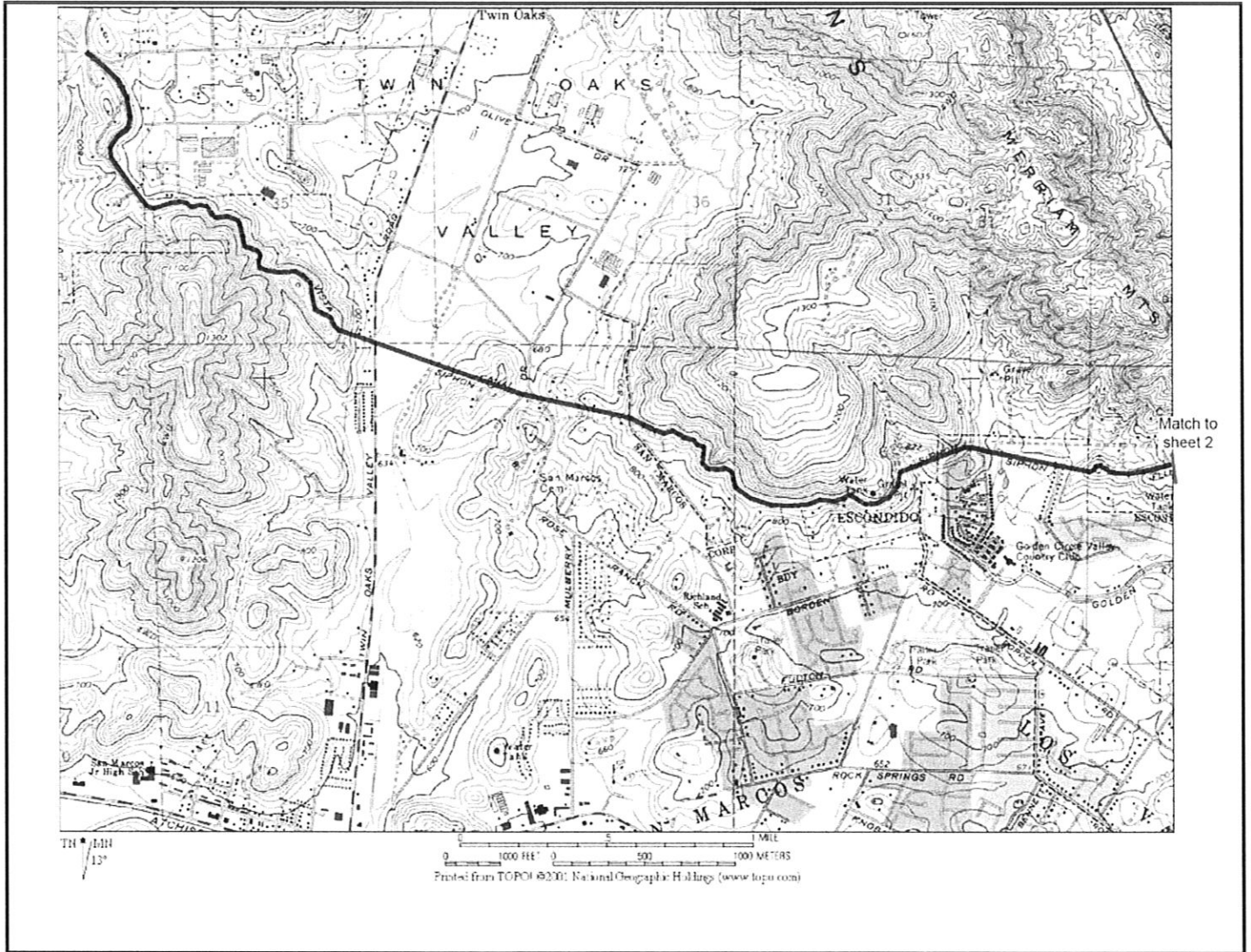


Figure 1: Project Location

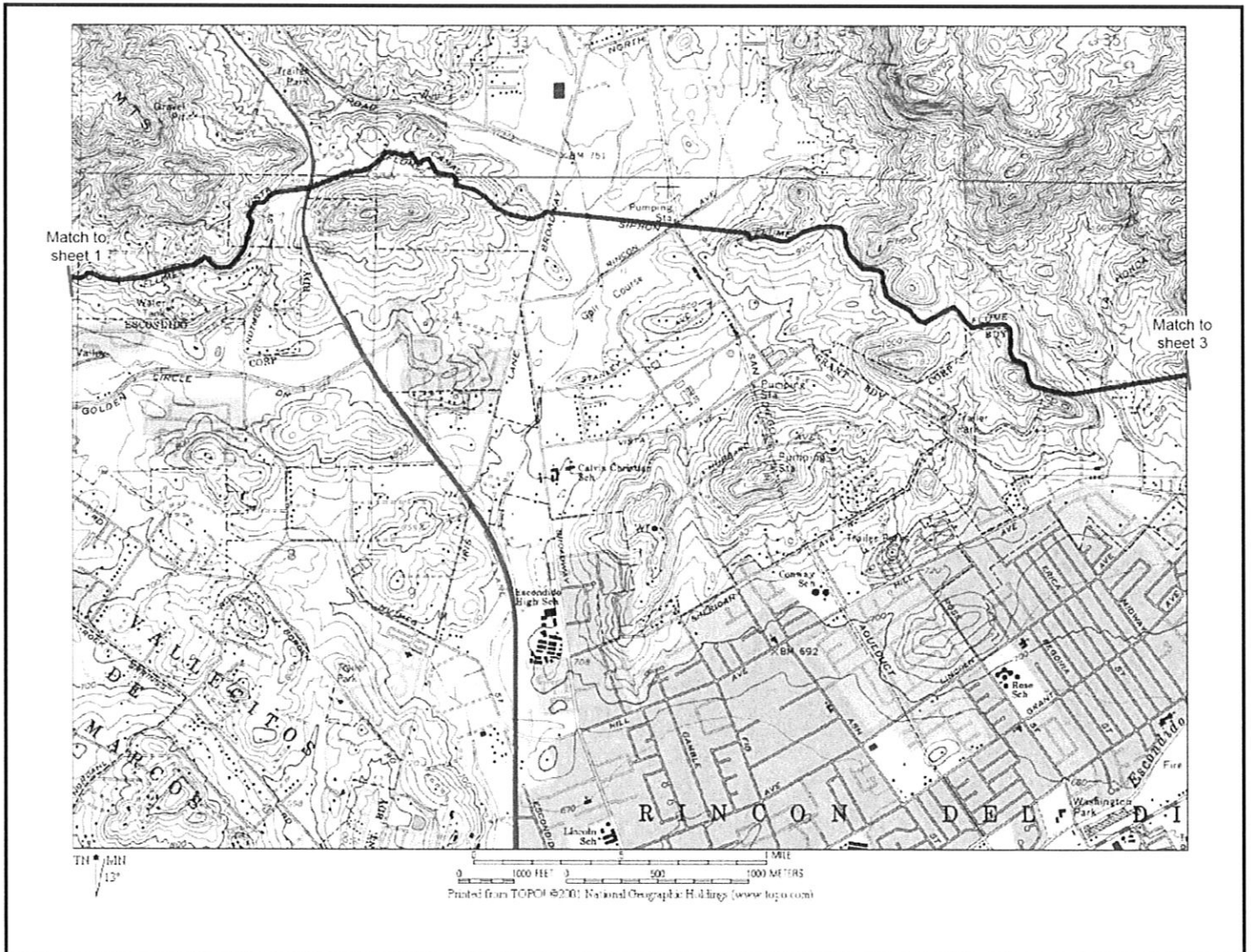


Figure 2: Project Location

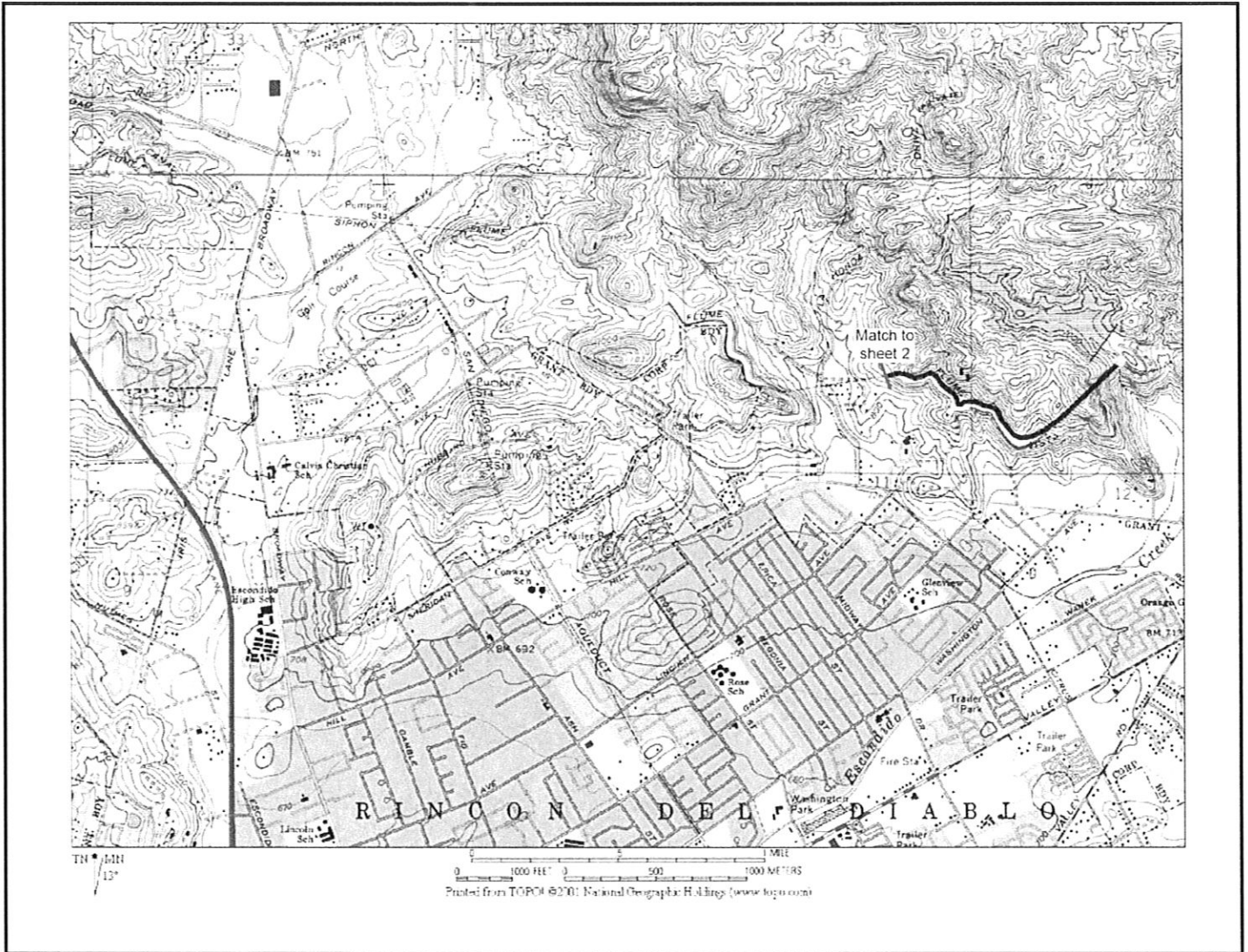


Figure 3: Project Location

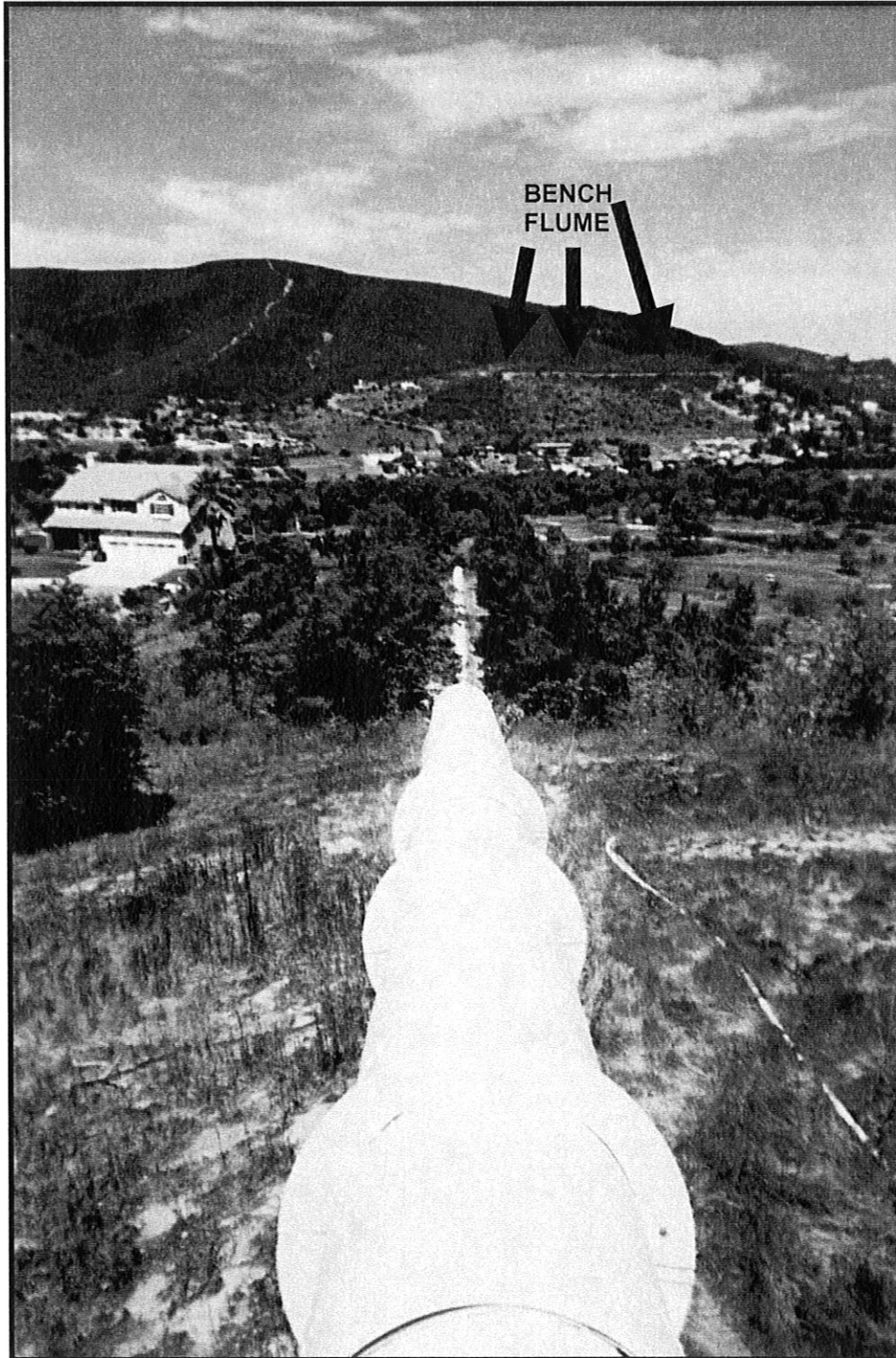


Figure 4: Above ground steel pipe portion of the Twin Oaks Siphon in foreground. Twin Oaks Bench Flume along the ridge in the background.

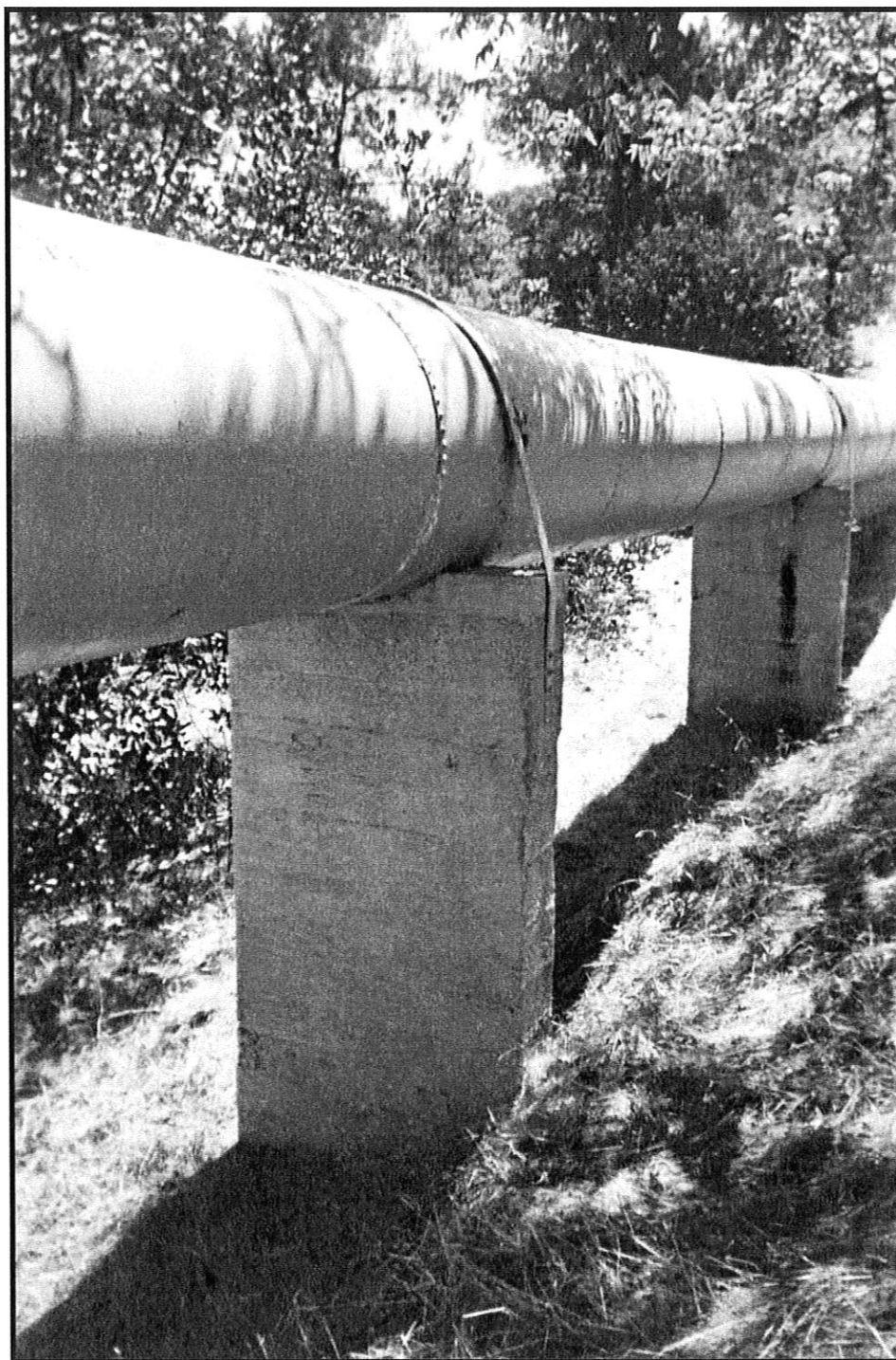


Figure 5: Typical above ground steel pipe siphon supports across shallow ravines.

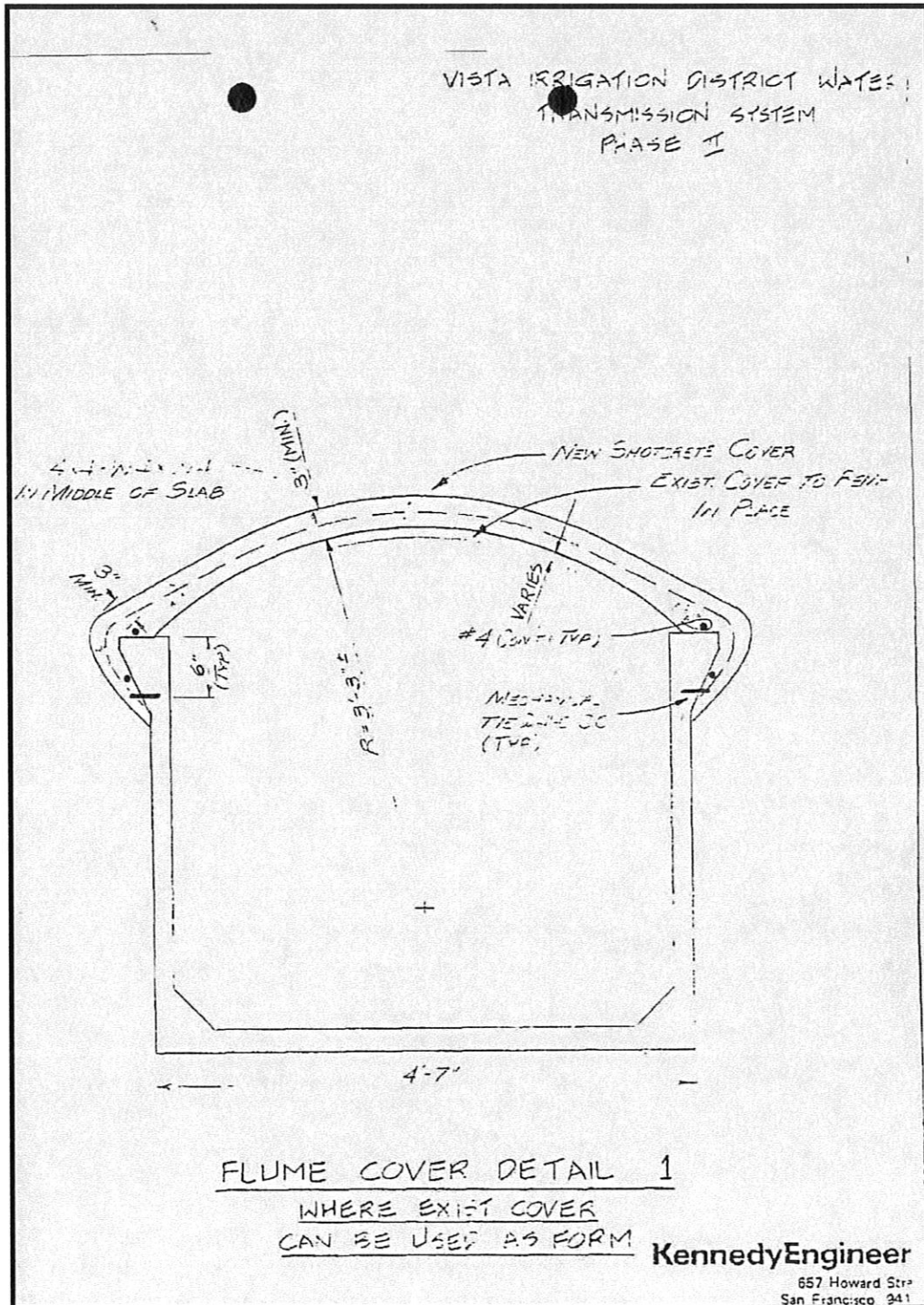
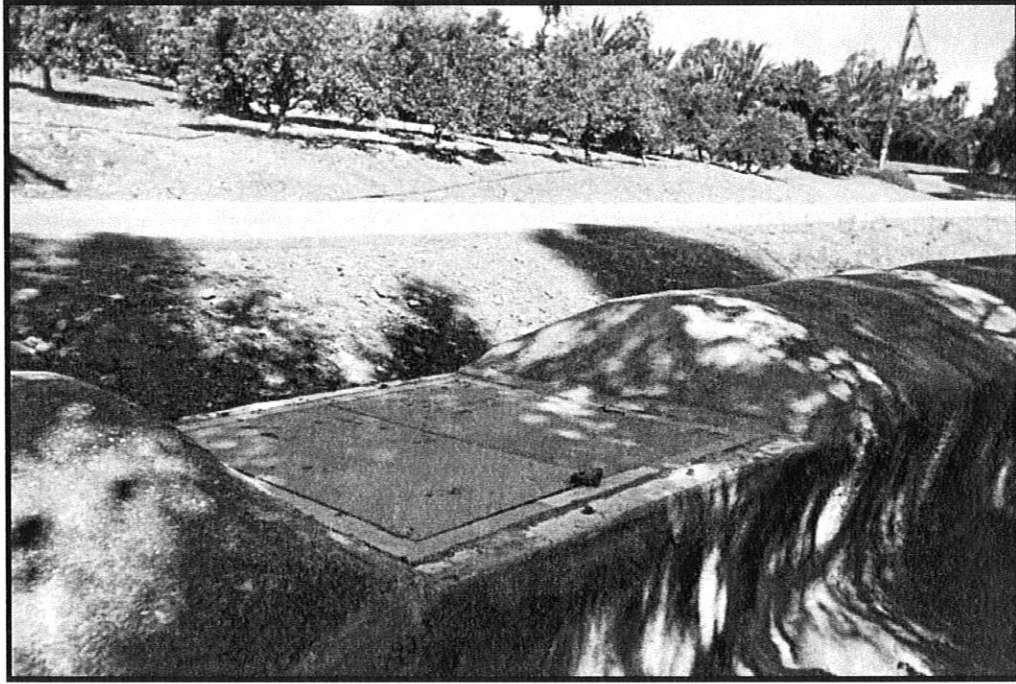


Figure 6: Typical bench flume cross section diagram.



A



B

Figure 7: Flume modifications. A: steel access doors. B: small access port.

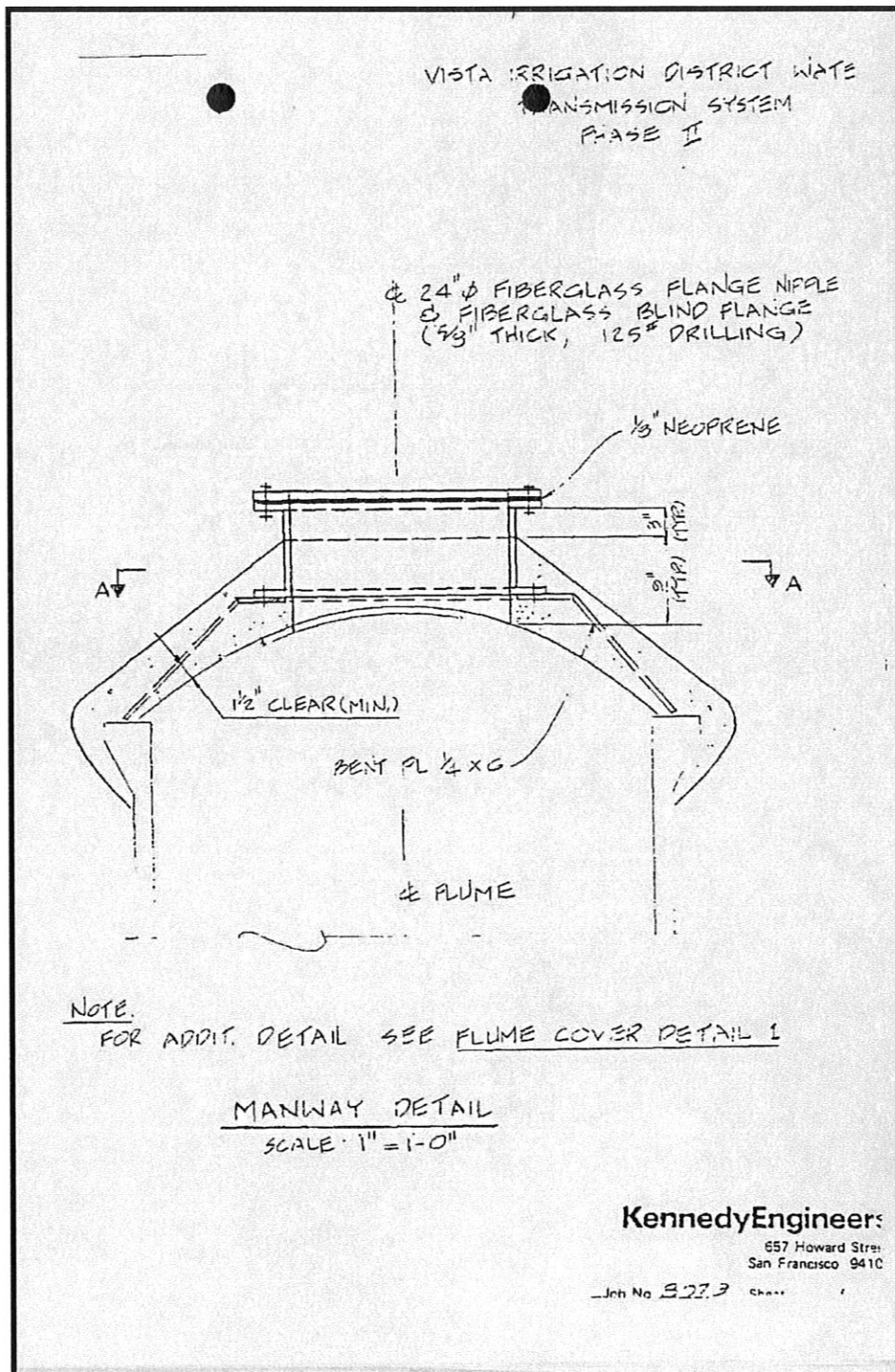


Figure 8: Access port diagram.



A



B

Figure 9 A & B: Typical flume sections on Baumgartner Bench through avocado groves. The setting immediately adjacent to the flume has remained largely unchanged for many decades.



Figure 10: Typical flume section east of Pechstein Reservoir

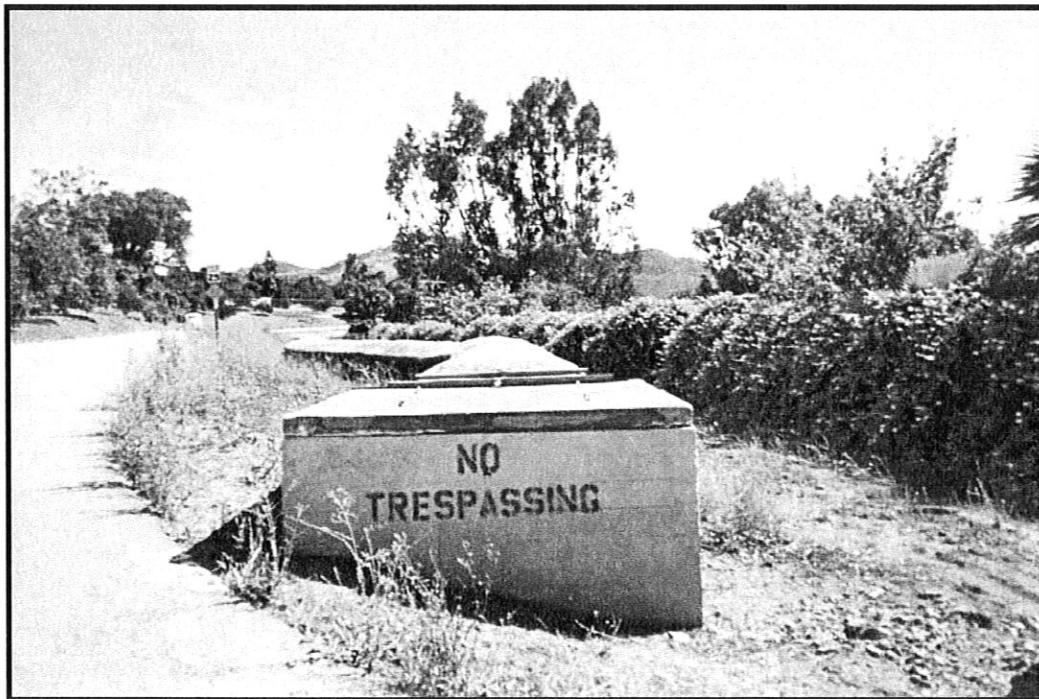
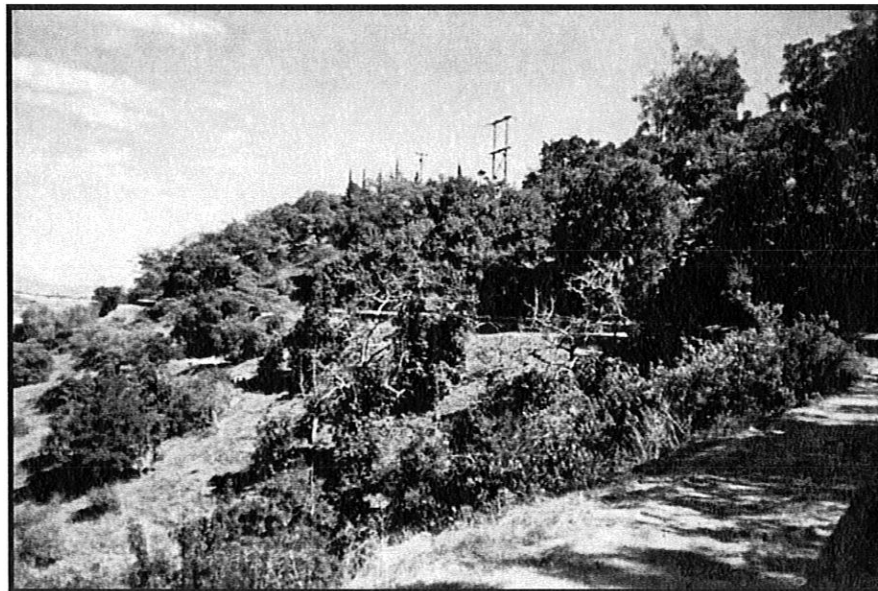


Figure 11: Typical concrete box at end of flume where it is connected to an underground siphon.



A



B

Figure 12 A & B: Flume sections in unaltered setting along Daley Bench hillside.

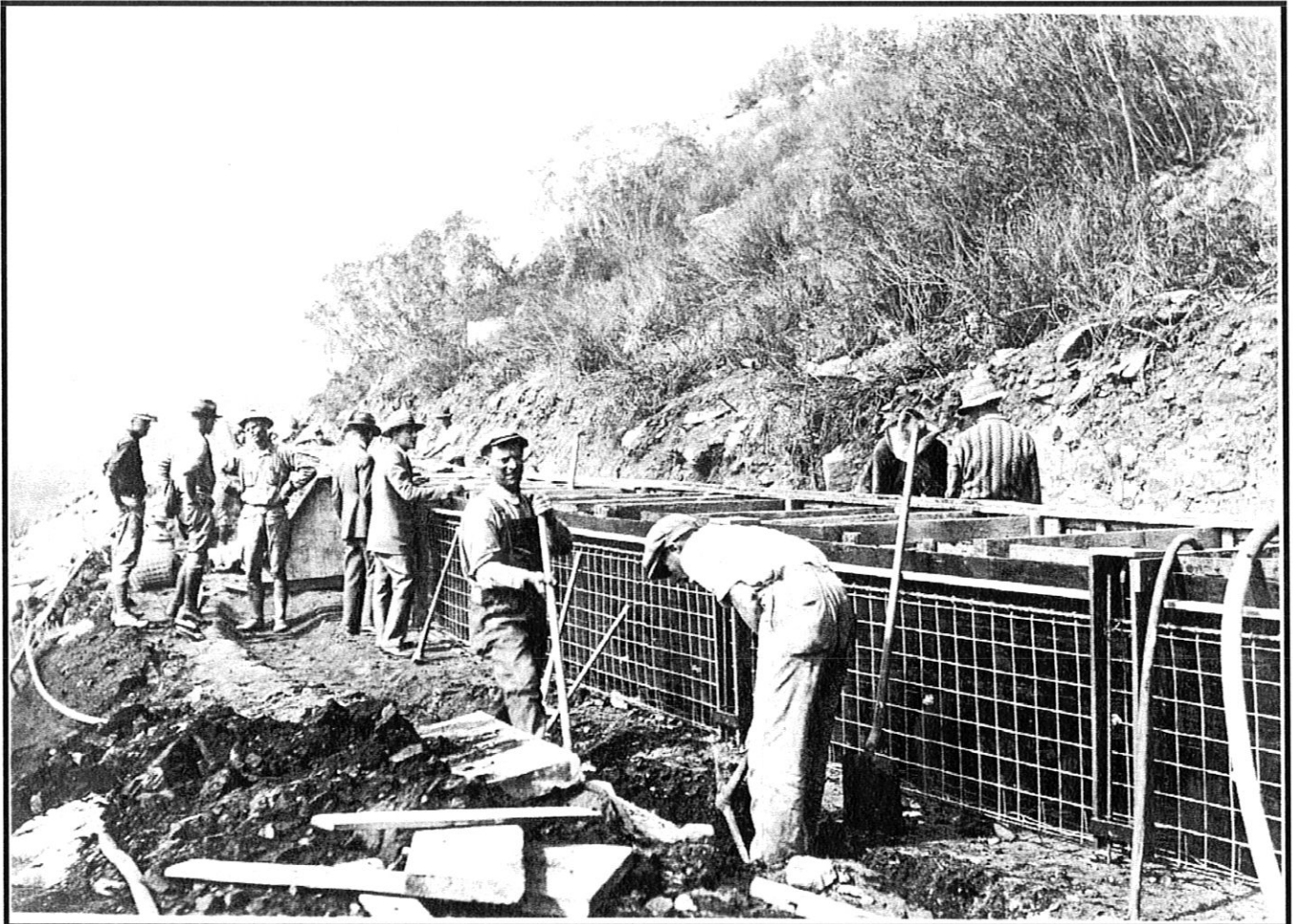


Figure 13: Gunite bench flume construction 1926. Note the welded wire mesh held in place by wooden forms (Courtesy Vista Irrigation District).



Figure 14: Underground siphon construction 1926 (Courtesy Vista Irrigation District).

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