Draft Biological Resources Technical Report

Los Angeles – San Diego – San Luis Obispo Central Coast Layover Facility Project

City of San Luis Obispo, California

November 2021

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Acronyms

Agency	Rail Corridor Agency
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CWA	Clean Water Act
District	Railroad Historic District
ESA	Endangered Species Act
JD	jurisdictional delineation
LOSSAN	Los Angeles–San Diego–San Luis Obispo
MBTA	Migratory Bird Treaty Act
Project	Los Angeles–San Diego–San Luis Obispo Central Coast Layover Facility Project
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
S&I	service and inspection
SWRCB	State Water Resources Control Board
U.S.	United States
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service

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1 Introduction

At the request of the Los Angeles–San Diego–San Luis Obispo (LOSSAN) Rail Corridor Agency (Agency), HDR conducted a general biological survey and mapped vegetation/land cover types for the proposed LOSSAN Central Coast Layover Facility Project (project) in the City of San Luis Obispo, California (Figure 1). The purpose of this report is to document the existing biological conditions within the biological study area (BSA), which includes the project footprint and adjacent areas, pursuant to federal, state, and local regulatory requirements, including the *City of San Luis Obispo General Plan* (City of San Luis Obispo 2020).

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2 Project Description

2.1 Project Overview

The LOSSAN Agency is proposing the relocation and expansion of the existing Pacific Surfliner layover facility located at the northern end of the LOSSAN rail corridor in San Luis Obispo, California. The proposed Central Coast Layover Facility would increase overnight layover and storage capacity to support the service goals and objectives outlined for the Pacific Surfliner in both the 2018 California State Rail Plan and the LOSSAN Agency's Fiscal Year 2019-20 and 2020-21 Business Plan.

Currently, one Pacific Surfliner train overnights each day in San Luis Obispo for an early morning departure the following day. Both the 2018 California State Rail Plan and the LOSSAN Agency's Fiscal Year 2019-20 and 2020-21 Business Plan identify growth in the service levels of the Pacific Surfliner to San Luis Obispo. As currently configured, the existing single-track facility does not have the capacity to accommodate any growth in service levels beyond the current service. The proposed project will facilitate the maintenance of equipment at the northern terminus of the LOSSAN rail corridor. It will allow additional passenger trains to be maintained, serviced and stored in San Luis Obispo overnight with no impact to the operations of Union Pacific, allowing a second, more convenient, morning departure from San Luis Obispo, subject to Union Pacific approval of the proposed schedule. It will also provide for the opportunity to store and service additional train sets used for further expansion of the Service.

2.2 Project Location

The project site is located on approximately 13 acres of relatively undeveloped land in the City of San Luis Obispo, California. The City of San Luis Obispo is located along the Central Coast region of California, approximately 190 miles north of Los Angeles (Figure 1). The existing Pacific Surfliner layover facility is located directly across from the San Luis Obispo Amtrak Station, located at 1011 Railroad Avenue. The project site is located approximately 0.3-mile south of the San Luis Obispo Amtrak Station. The project site extends from south of the San Luis Obispo Railroad Museum's parking lot to east of Lawrence Drive. The project site is between the UP Main Tracks and existing commercial and residential development to the west.

As shown on Figure 2, the project site is located entirely within the City of San Luis Obispo's Railroad Historic District (District). The District boundary covers approximately one-half square mile and extends along the railroad right-of-way (ROW) for about 1.7 miles in roughly a north-south axis. The District includes the original railroad yard, plus residential and commercial-zoned property on the west side of the railroad ROW (City of San Luis Obispo Community Development Department 1998).

The project site includes the Roundhouse Site, which previously contained a railroad house used for maintenance and storage of steam locomotives. The last locomotives left the roundhouse in 1956 and within three years the structure was demolished with only the foundation and turntable remaining. In 1971, the depot surrounding the roundhouse was demolished, and in 1994, the turn table was removed. All that remains of the original roundhouse are the degraded concrete and stone foundations and a portion of the housing for the turntable.

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Figure 1. Regional Location

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Figure 2. Project Site

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2.3 Proposed Project

The proposed project includes the construction of a new rail yard, storage and servicing tracks, operations and maintenance buildings, landscape improvements, and safety and security features (Figure 2-3). Perimeter fencing would be installed around the facility for site security and public safety.

2.3.1 Rail Yard and Tracks

The proposed project would construct a new rail yard with up to five new tracks, with Track 1 positioned as the westernmost track and Track 5 positioned as the easternmost track.

- Track 1 – Bypass and wash track with train wash building
- Track 2 – Storage track with service and inspection (S&I) position
- Track 3 – Storage track
- Track 4 – Storage track
- Track 5 – Storage track

Trains would enter the site from the mainline switch at the north end of the site, passing through the Train Wash on Track 1. Trains would travel south, passing the train wash building onto the tail track and then reverse direction into either S&I position or to one of the other storage tracks. Upon reaching the S&I position or a storage track, the trains would park for the night, connecting to ground power to allow for the electric functions of the train to continue and connecting to a yard air compressor to keep the brake system charged. These connections allow for continuity of these functions without the locomotive engine running, minimizing engine idling within the facility.

From the S&I or storage positions, daily servicing and light maintenance can occur. Trains stored on the S&I track would also undergo additional safety, operational and reliability inspections.

Trains would exit the facility north toward the San Luis Obispo station at intervals based on the approved and published service schedules.

2.3.2 Buildings

The proposed Central Coast Layover Facility would consist of a series of single-story structures housing a variety of functions including office space, storage space, workshops, train wash, train S&I and wheel truing.

Operations/Fleet Maintenance Building. The Operations Building would be an approximately 3,000 square foot one-story building, which would house administrative offices and restrooms for operations and maintenance staff.

Fleet Maintenance Shops Building. The Fleet Maintenance Shops Building would be a one-story building and approximately 2,900 square feet and would house a welding/fabrication shop, brake and coupler shop, and toolbox storage.

Parts Storeroom Building. The Parts Storeroom Building would be a one-story building, approximately 1,500 square feet, located adjacent to the Fleet Maintenance Shops Building and Maintenance of Way Building. This building would store components and parts that are required on a frequent basis to support maintenance activities, and would include a dedicated secure area for shipping, receiving and storage.

Maintenance of Way Building. The Maintenance of Way Building would be a one-story building, approximately 2,200 square feet, located adjacent to the Parts Storeroom Building. Maintenance of Way is responsible for inspection and maintenance of track, roadbed, and buildings. Maintenance of Way is also responsible for inspection and maintenance of nonrevenue vehicles assigned to the Central Coast Layover Facility.

Wash Building. The Wash Building would be a 9-10,000 square foot one-story building, located at the center of the project site on Track 1. An automatic, drive-through train wash would be enclosed in the Wash Building. As described above, trains entering the maintenance facility would pass through the Train Wash Building for cleaning prior to being placed on one of the storage tracks.

The train wash would operate 7 days per week. Each train arriving at the facility at the end of its service day will enter through the wash, requiring it to run for about 5-10 minutes for each train. The timing of the train wash operation will depend on the approved and published service schedule and would likely be during the evening hours.

Wheel Truing Building. The Wheel Truing Building would be a one-story building, approximately 1,900 square feet in size and located at the north end of the project site adjacent to the San Luis Obispo Railroad Museum parking lot. The Wheel Truing Building would house an underfloor pit-mounted wheel truing machine. Use of this facility is anticipated to be infrequent and not part of the daily operation.

S&I Shelter. Track 2 would function as a storage track with an S&I position. The S&I track would be covered by a 24' high shelter. To provide access to the underside of a train for inspection and maintenance, a lower level work area or gauge pit would be installed.

Cleaning Shelters. Two cleaning shelters would be provided south of the Wash Building and storage tracks.

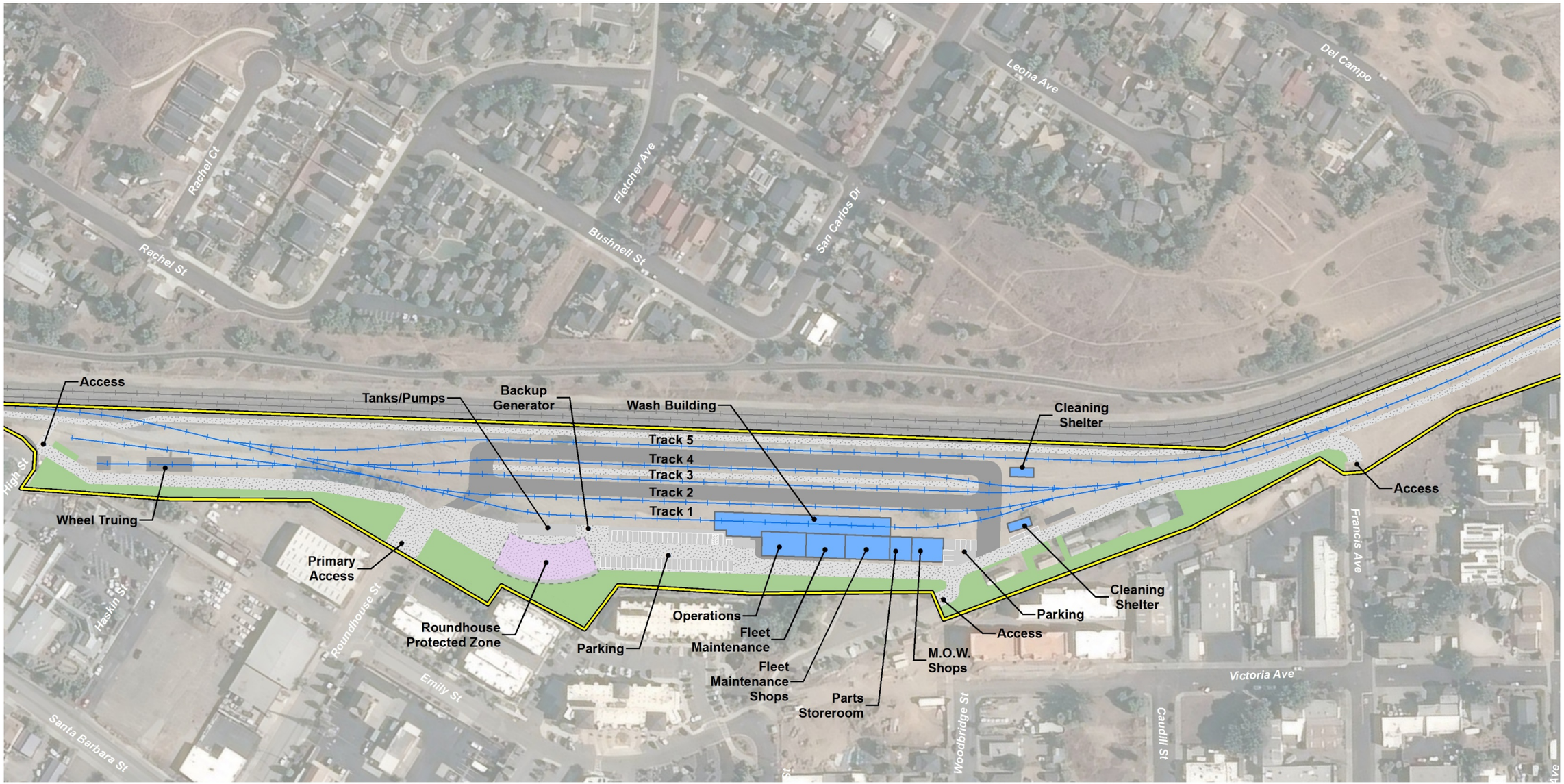
2.3.3 Parking

The proposed project would provide a total of 54 on-site parking spaces for employees and visitors. Most of the parking spaces would be located on the west end of the central yard in between the Roundhouse Site and Operations building. The other parking spaces would be located adjacent to the Maintenance of Way Shops building.

2.3.4 Access

Primary employee and visitor access to the site would be from Roundhouse Avenue. Additional emergency access to the site would be available from the train museum parking lot (north end of site), from the parking lot off Alphonso Street (center of site), and from Francis Avenue (south end of site).

Figure 3. Site Plan



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2.3.5 Landscape Plan

The proposed project would install landscaping to buffer maintenance and servicing operations from adjacent neighboring residential and recreational uses. The project's plant palette will be comprised of species native or fully adapted to San Luis Obispo's climate. The list of species will draw from the San Luis Obispo County-Approved Plant List and the Calscape, or California Native Plant Society, database of plants native to the area. Species will be selected to be relatively low maintenance, have minimal leaf litter, and be nonfruiting so as not to attract vectors or birds.

East Landscape Buffer

Single-family residences overlook the east edge of the project site, with views toward the hills of the surrounding regional open space west of the city. A Class I bike trail traverses the Historic Railroad District, connecting to regional trails and other San Luis Obispo recreation sites.

Landscape material for the east buffer will be congruent with the existing plant palette – a diverse mix of native/adaptive species consistent with the California chaparral and foothill meadow plant communities. The main objective in enhancing the landscape buffer at the east edge is to frame views over the existing rail yard toward the distant hills, screening the project site and its enhanced maintenance operations.

West Landscape Buffer and Class I Bike Trail

Multi-family condominiums and apartments are located adjacent to the project site's western edge. Most of the on-site landscape buffer area is to be established between the proposed rail improvements and maintenance program elements and these adjacent residences.

Additionally, a new segment of Class I bike trail, from approximately McMillan Avenue to the Amtrak Station, is identified in the City of San Luis Obispo's Active Transportation Plan's Tier 3 Project List as a future Class I trail connecting existing Class I, II, and III segments to comprise the Railroad Safety Trail. This portion is approximately 0.84 miles of new Class I trail. Should project conditions, land use, and ROW alignments allow, the proposed project would construct a portion of the new segment of Class I bike trail, from approximately High Street to Francis Street. The bike path would meander slightly through the landscape buffer, providing users distance from the rail yard operations and limiting the impact of trail activity noise on the adjacent residential communities. This new connection would provide largely protected bike and pedestrian trail access from the Old Town Historic District through the District, from the San Luis Obispo Railroad Museum, past the rail yard at project site, and back into the urban fabric of housing and light commercial use.

Roundhouse Protected Zone

The new segment of Class I bike trail presents the opportunity to facilitate public view of the historic site of the Southern Pacific Railroad roundhouse, where the structure's remnant foundation remains visible. Hosting the last steam locomotive in 1956, the roundhouse was demolished in 1959, with the train depot following in 1971, and finally, the turntable in 1994. The unique historic relevance of the roundhouse continues the rail history narrative set by the Railroad Museum to the north and reinforces the area's designation as the Railroad Historic District.

The project's program elements would be arranged to avoid significant impact to the roundhouse footing, preserving as much exposed surface for view as possible. The proposed project would install

a transparent perimeter fence along the southwest edge of the roundhouse, where bench seating and interpretive signage will be sited to create an informational node along the active transportation corridor.

2.3.6 Site Security

The site perimeter would be secured with an 8-foot transparent anti-climb fence. Motorized vehicular gates would be provided at all egress/ingress points. Video surveillance cameras would also be installed along the perimeter of the site.

2.3.7 Phasing

Funding is currently not available to construct the entire facility at once. Instead a phased construction approach is intended, constructing an initial portion of the facility which includes the most immediately needed elements, and adding the remaining components as the need arises and additional funding becomes available. Phase 1 intends to meet or exceed the functionality of the existing layover facility and add layover capacity for at least one additional train. Later phases would include the remaining Master Plan components as dictated by operational needs and as allowed by available funding. Initially this would focus on all items identified as essential components of the ultimate facility, followed later by those features that would expand overall capacity of the facility, as well as enhance operations and efficiency, but which are not immediately mandatory.

3 Regulatory Framework

3.1 Federal

3.1.1 Federal Endangered Species Act

The Federal Endangered Species Act (ESA) protects threatened and endangered plants and animals and their critical habitat. Candidate species are those proposed for listing; these species are usually treated by resource agencies as if they were listed during the environmental review process. Procedures for addressing impacts on federally listed species follow two principal pathways, both of which require consultation with the United States Fish and Wildlife Service (USFWS), which administers the Federal ESA for all terrestrial species. The first pathway, a Section 10(a) incidental take permit, applies to situations where a nonfederal governmental entity must resolve potential adverse impacts on species protected under the Federal ESA. The second pathway, a Section 7 consultation, applies to projects directly undertaken by a federal agency or private projects requiring a federal permit or approval.

3.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 Code of Federal Regulations (CFR) Part 10, including feathers, or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21).

All raptors and their nests are protected from take or disturbance under the MBTA (16 United States [U.S.] Code, Section 703 et seq.). The golden eagle and bald eagle are also afforded additional protection under the Eagle Protection Act, amended in 1973 (16 U.S. Code, Section 669 et seq.).

3.1.3 Clean Water Act – Section 404

Section 404 of the Clean Water Act (CWA) establishes a program for the United States Army Corps of Engineers (USACE) to regulate the discharge of dredge and fill material into waters of the U.S., including wetlands. Activities regulated under this program include fills for development, water resource projects (e.g., dams and levees), infrastructure development (e.g., highways and airports), and conversion of wetlands to uplands for farming and forestry. Either an individual Section 404 permit or authorization to use an existing USACE nationwide permit must be obtained if any portion of an activity will result in dredge or fill effects on a river or stream that has been determined to be jurisdictional under Section 404 of the CWA. When applying for a permit, a company or organization must show that they would avoid wetlands where practicable, minimize wetland effects, or provide compensation for any unavoidable destruction of wetlands.

As of June 22, 2020, the term “waters of the U.S.” is defined in the USACE regulations at 33 CFR Part 328.3(a) as:

a. Jurisdictional waters. For purposes of the CWA, 33 U.S. Code 1251 et seq. and its implementing regulations, subject to the exclusions in paragraph (b) of this section, the term “waters of the U.S.” means:

    1. The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;

2. Tributaries;
3. Lakes and ponds, and impoundments of jurisdictional waters; and
4. Adjacent wetlands.

b. Nonjurisdictional waters. The following are not "waters of the U.S.":

1. Waters or water features that are not identified in paragraph (a)(1), (2), (3), or (4) of this section;
2. Groundwater, including groundwater drained through subsurface drainage systems;
3. Ephemeral features, including ephemeral streams, swales, gullies, rills, and pools;
4. Diffuse stormwater runoff and directional sheet flow over upland;
5. Ditches that are not waters identified in paragraph (a)(1) or (2) of this section, and those portions of ditches constructed in waters identified in paragraph (a)(4) of this section that do not satisfy the conditions of paragraph (c)(1) of this section;
6. Prior converted cropland;
7. Artificially irrigated areas, including fields flooded for agricultural production, that would revert to upland should application of irrigation water to that area cease;
8. Artificial lakes and ponds, including water storage reservoirs and farm, irrigation, stock watering, and log cleaning ponds, constructed or excavated in upland or in nonjurisdictional waters, so long as those artificial lakes and ponds are not impoundments of jurisdictional waters that meet the conditions of paragraph (c)(6) of this section;
9. Water-filled depressions constructed or excavated in upland or in nonjurisdictional waters incidental to mining or construction activity, and pits excavated in upland or in nonjurisdictional waters for the purpose of obtaining fill, sand, or gravel;
10. Stormwater control features constructed or excavated in upland or in nonjurisdictional waters to convey, treat, infiltrate, or store stormwater runoff;
11. Groundwater recharge, water reuse, and wastewater recycling structures, including detention, retention, and infiltration basins and ponds, constructed or excavated in upland or in nonjurisdictional waters; and
12. Waste treatment systems.

The term ephemeral means surface water flowing or pooling only in direct response to precipitation (e.g., rain or snow fall). The term intermittent means surface water flowing continuously during certain times of the year and more than in direct response to precipitation (e.g., seasonally when the groundwater table is elevated or when snowpack melts). The term perennial means surface water flowing continuously year-round. Per USACE Regulatory Guidance Letter 08-02, applicants can elect to request and obtain an approved jurisdictional delineation (JD), he or she can also decline to request an approved JD, and instead obtain an USACE individual or general permit authorization based on either a preliminary JD, or, in appropriate circumstances (such as authorizations by nonreporting nationwide general permits), no JD whatsoever. By definition, a preliminary JD can only be used to determine that wetlands or other water bodies that exist on a particular site "may be" jurisdictional waters of the U.S. A preliminary JD, by definition, cannot be used to determine either that there are no wetlands or other water bodies on a site at all (i.e., that there are no aquatic resources on the site

and the entire site is comprised of uplands), or that there are no jurisdictional wetlands or other water bodies on a site, or that only a portion of the wetlands or waterbodies on a site are jurisdictional. The use of a preliminary JD may expedite the permitting process when compared to the approved JD process, which requires the JD to be coordinated with the U.S. Environmental Protection Agency (EPA).

3.1.4 Clean Water Act – Section 401

In California, the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCB) regulate activities within state and federal waters under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. SWRCB is responsible for setting statewide policy, coordinating and supporting RWQCB efforts, and reviewing petitions that contest RWQCB actions. Each RWQCB is semiautonomous and has the authority to set water quality standards, issue Section 401 certifications and waste discharge requirements, and take enforcement action for projects occurring within its boundary. However, when a project crosses multiple RWQCB jurisdictional boundaries, SWRCB becomes the regulating agency and issues project permits.

SWRCB adopted a statewide definition of rules to protect wetlands and other environmentally sensitive waterways throughout the state on April 2, 2019. These rules define what SWRCB considers a wetland and include a framework for determining if a feature that meets the SWRCB wetland definition is a "water of the state," subject to regulation. Second, the rules clarify requirements for permit applications to discharge dredged or fill material to any water of the state.

SWRCB defines an area as wetland as follows:

> *An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation (SWRCB 2019).*

The SWRCB considers the following wetlands (as determined using methodology in the USACE Wetland Delineation Manual; Environmental Laboratory 1987) as waters of the state:

1. Natural wetlands
2. Wetlands created by modification of a surface water of the state
3. Artificial wetlands that meet any of the following criteria:
    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration
    b. Specifically identified in a water quality control plan as a wetland or other water of the state
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape
    d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes

(i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):

i. Industrial or municipal wastewater treatment or disposal
ii. Settling of sediment
iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program
iv. Treatment of surface waters
v. Agricultural crop irrigation or stock watering
vi. Fire suppression
vii. Industrial processing or cooling
viii. Active surface mining – even if the site is managed for interim wetlands functions and values
ix. Log storage
x. Treatment, storage, or distribution of recycled water
xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits)
xii. Fields flooded for rice growing

All artificial wetlands that are less than 1 acre in size and do not satisfy the criteria set forth in numbers 2, 3.a, 3.b, or 3.c are not waters of the state. If an aquatic feature meets the wetland definition, the burden is on the applicant to demonstrate that the wetland is not a water of the state.

3.2 State

3.2.1 California Endangered Species Act

Sections 2050 through 2098 of the California Fish and Game Code outline the protection provided to California's rare, endangered, and threatened species. Section 2080 of the California Fish and Game Code prohibits the taking of plants and animals listed under the California ESA. Section 2081 established an incidental take permit program for state-listed species. In addition, the Native Plant Protection Act of 1977 (California Fish and Game Code Section 1900 et seq.) gives the California Department of Fish and Wildlife (CDFW) authority to designate state endangered, threatened, and rare plants and provides specific protection measures for designated populations.

3.2.2 Fully Protected Species

CDFW has jurisdiction over fully protected species of birds, mammals, amphibians, reptiles, and fish, pursuant to Fish and Game Code Sections 3511, 4700, 5050, and 5515. Take of any fully protected species is prohibited, and CDFW cannot authorize their take in association with a general project except under the provisions of a Natural Communities Conservation Plan, 2081.7 or a Memorandum of Understanding for scientific purposes.

3.2.3 Species of Special Concern

The CDFW has also identified many "species of special concern." Species with this status have limited distribution or the extent of their habitats has been reduced substantially such that their populations may be threatened. Thus, their populations are monitored, and they may receive special attention during the environmental review process. While they do not have statutory protection, they may be considered rare under the California Environmental Quality Act (CEQA) and are, thereby, warranted specific protection measures.

3.2.4 Nesting Birds

The CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, eggs, and nests include Sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

3.2.5 Lake and Streambed Alteration Program

The CDFW regulates water resources under Sections 1600 et seq. of the California Fish and Game Code. The CDFW has the authority to grant Streambed Alteration Agreements under Section 1602, which states:

> *An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.*

CDFW jurisdiction includes ephemeral, intermittent and perennial watercourses and extends to the top of the bank of a stream or lake if unvegetated or to the limit of the adjacent riparian habitat located contiguous to the watercourse if the stream or lake is vegetated.

Proposed actions that require a Streambed Alteration Agreements may also require a permit from USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the Streambed Alteration Agreements may overlap.

3.2.6 Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act requires that each of the nine RWQCBs prepare and periodically update basin plans for water quality control. Each basin plan sets forth water quality standards for surface water and groundwater and actions to control nonpoint and point sources of pollution to achieve and maintain these standards. Basin plans offer an opportunity to protect wetlands through the establishment of water quality objectives. The RWQCB's jurisdiction includes federally protected waters, as well as areas that meet the definition of "waters of the state." Waters of the state are defined as any surface water or groundwater, including saline waters, within the boundaries of the state. RWQCB has the discretion to take jurisdiction over areas not federally regulated under Section 401, provided they meet the definition of waters of the state. Mitigation requiring no net loss of wetlands functions and values of waters of the state is typically required by RWQCB.

3.2.7 California Environmental Quality Act

CEQA requires state and local agencies to identify impacts on the environment that might be caused by their actions. Sensitive species that would qualify for listing but are not currently listed are afforded protection under CEQA. The CEQA Guidelines Section 15065 (Mandatory Findings of Significance) identifies a substantial reduction in numbers of a rare or endangered species as a significant impact. CEQA Guidelines Section 15380 (Rare or Endangered Species) provides for the assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. For example, plant species that are not federally or state listed but that occur on the California Native Plant Society's (CNPS) California Rare Plant Rank Lists 1 and 2 would typically be considered under CEQA. Plant populations of species meeting the California Rare Plant Rank List 3 and 4 designations that are locally significant may also warrant consideration under CEQA.

3.3 Local

Pursuant to Government Code Section 14070.7, the LOSSAN Rail Corridor Agency is deemed to be an agency of the state for all purposes related to interagency passenger rail services, including Section 5311 of Title 49 of the United States Code. Thus, the LOSSAN Rail Corridor Agency is a state agency and is therefore not subject to local government planning and land use plans, policies, or regulations. The LOSSAN Rail Corridor Agency may consider, for informational purposes, aspects of local plans and policies for the communities surrounding the project site, when it is appropriate. The proposed project would be subject to state and federal agency planning documents described herein but would not be bound by local planning regulations or documents such as the City's General Plan or municipal code.

3.3.1 City of San Luis Obispo General Plan

The Conservation and Open Space Element of the *City of San Luis Obispo General Plan* includes a number of goals with various policies relevant to biological resources. These goals include the following:

- Goal 7.2 Sustainable natural populations – The City will maintain and enhance conditions necessary to enable a species to become self-sustaining. Within the San Luis Obispo planning area, the City will seek to achieve self-sustaining populations of the plants, fish and wildlife that made up the natural communities in the area when urbanization began.
- Goal 7.4 Trees and other plants – Protect, preserve, and create the conditions that will promote the preservation of significant trees and other vegetation, particularly native California species.
- Goal 8.2.2 Open space within the urban area – Within the urban area, the City will secure and maintain a diverse network of open land encompassing particularly valuable natural and agricultural resources, connected with the landscape around the urban area. Particularly valuable resources are:
    - Creek corridors, including open channels with natural banks and vegetation.
    - Laguna Lake and its undeveloped margins.
    - Wetlands and vernal pools.
    - Undeveloped land within the Urban Reserve not intended for urban uses.
    - Grassland communities and woodlands.

- Wildlife habitat and corridors for the health and mobility of individuals and of the species.
- The habitat of species listed as threatened or endangered by the state or federal governments.
- Prime agricultural soils and economically viable farmland (Figure 10 of the *City of San Luis Obispo General Plan*).
- Groundwater recharge areas.
- Historically open-space settings for cultural resources, native and traditional landscapes.
- Hills, ridgelines and the Morros.
- Scenic rock outcroppings and other significant geological features.
- Unique plant and animal communities, including "species of local concern."

- Goal 10.1.3 Water Quality - Protect and maintain water quality in aquifers, Laguna Lake, streams, and wetlands that supports all beneficial uses, agriculture, and wildlife habitat.

3.3.2 City of San Luis Obispo Tree Ordinance

San Luis Obispo, California Municipal Code Section 12.24.090 requires a tree removal permit unless otherwise specified for all designated native species with a trunk over 10 inches in diameter measured by diameter standard height (diameter at standard height, 4 feet, 6 inches) or when a tree is nonnative and the trunk is more than 20 inches diameter at standard height. In order to obtain a tree removal permit, an application for a tree removal must be submitted, including a site plan showing location, species, and size of any tree proposed for removal; a diagram or site photograph showing each tree identified to be removed with each tree uniquely identified by number; information to support the reason for removal; a replanting plan showing the size, location, and species of trees identified to be planted; and any other information deemed necessary.

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4 Survey Methods

4.1 Literature Review

Initial literature reviews were conducted in September and October 2020. A list of special-status plant and animal species that have the potential to occur within the BSA was prepared using information provided by the USFWS' Information for Planning and Consultation Online System (USFWS 2020), the CDFW's California Natural Diversity Database (CNDDB) RareFind program (CDFW 2020a), and the CNPS Inventory of Rare and Endangered Plants of California (CNPS Rare Plant Program 2020). The Information for Planning and Consultation search was conducted using a shapefile of the BSA boundaries. The CNDDB and CNPS databases were searched for the nine topographic quadrangles that comprise the BSA and surrounding area (Morro Bay North, Atascadero, Santa Margarita, Morro Bay South, San Luis Obispo, Lopez Mountain, Port San Luis, Pismo Beach, and Arroyo Grande Northeast California 7.5 minute topographic quadrangles). Appendix A provides the September and October 2020 database search results. In addition to a review of special-status species databases, aerial photographs and topographic maps of the BSA at a scale of 1:2,400 were reviewed prior to field surveys.

The following additional literature and materials were reviewed both prior to and after conducting a site visit to assist with determining jurisdictional status of aquatic features identified in the field:

- Current and historical aerial photographs (Google Earth 2020)
- Historical aerial photographs (Historical Aerials 2020)
- U.S. Department of Agriculture Natural Resources Conservation Service soil mapping data (U.S. Department of Agriculture Natural Resources Conservation Service 2020) (Figure 4)
- National Hydrography Dataset (U.S. Geological Survey 2020)
- USFWS National Wetlands Inventory data to identify areas mapped as wetland features (USFWS 2020) (Figure 5)

4.2 General Biological Field Surveys and Vegetation Mapping

A general biological field survey, including vegetation mapping, of the BSA was conducted on October 6 and 7, 2020. The BSA includes the railway plus a 300-foot buffer from the project boundary for vegetation mapping and a 50-foot buffer for jurisdictional mapping. A list of species observed was generated, and vegetation communities/land cover types were mapped. General site and weather conditions were recorded, potential habitat for special-status species was noted, and representative site photographs were taken. Particular attention was paid to the presence of special habitat types or communities that would warrant protocol surveys for rare species. The survey also consisted of directly inspecting the entire jurisdictional assessment area (JAA) for potential jurisdictional drainage features and wetland areas.

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Figure 4. United States Department of Agriculture Soils

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Figure 5. National Wetland Inventory Mapping

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5 Results

5.1 Environmental Setting

The project study area is heavily disturbed with little native vegetation and no native vegetation communities. Elevations within the project study area ranges from approximately 220 to 250 feet above mean sea level (all elevations referenced herein are relative to above mean sea level). The majority of the land cover within the project study area consists of commercial, industrial, and residential development, as well as existing transportation infrastructure. Where undeveloped land occurs on vacant lots or hillsides, those areas are dominated by ornamental trees, nonnative grasses, and irrigated vegetation. Representative photographs of the project study area are provided in Appendix B.

5.1.1 Soils

Five different soil series are mapped within the project study area (Table 5-1). According to the U.S. Department of Agriculture's Natural Resources Conservation Service soil mapping website, the following soils are mapped within the project study area (U.S. Department of Agriculture Natural Resources Conservation Service 2020; Figure 4).

Table 5-1. Soil Series and Descriptions Occurring within the Project Study Area

Series Name	Series Description
Concepcion series	The Concepcion series consists of deep, well-drained soils. They are formed in weakly consolidated stratified alluvium or wind-deposited sandy material on soil terraces within 1 to 2 miles of the Pacific Ocean. Concepcion soils have slopes of 0 to 50 percent. The mean annual precipitation is about 17 inches, and the annual temperature is about 60 degrees Fahrenheit. The soil occurs in elevations between 40 and 200 feet.
Cropley series	The Cropley series consists of very deep, moderately and well-drained soils. They are formed in alluvium from mixed rock sources. Cropley soils have slopes of 0 to 15 percent. The mean annual precipitation is about 16 inches, and the mean annual temperature is 60 degrees Fahrenheit. The soil occurs in elevations between 10 and 2,100 feet.
Diablo series	The Diablo series is a member of the fine, smectitic, thermic family of Aridic Haploxererts and is a well-drained soil. They are formed in residuum, weather from shale, sandstone, and consolidated sediments with minor areas of tuffaceous material. Diablo soils have slopes of 5 to 50 percent. The mean annual precipitation is about 10 to 35 inches, and the mean annual temperature is 57 to 62 degrees Fahrenheit. The soil occurs in elevations between 25 and 3,000 feet.
Lodo series	The Lodo series consists shallow, somewhat excessively drained soils. They are formed in weathered material from hard shale and fine-grained sandstone. Lodo soils are on uplands and have slopes of 5 to 75 percent. The mean annual precipitation is about 20 inches, and the mean annual temperature is 62 degrees Fahrenheit. The soil occurs in elevations between 300 and 3,400 feet.
Los Osos series	The Los Osos series consists of moderately deep, well-drained soils. They are formed in weathered material from sandstone and shale. Los Osos soils are on uplands and have slopes of 5 to 75 percent. The mean annual precipitation is about 25 inches, and the mean annual temperature is 60 degrees Fahrenheit. The soil occurs in elevations between 100 and 3,500 feet.

5.1.2 Hydrology

The BSA is located within the 53,271-acre San Luis Obispo Creek watershed (83.2 square mile), which is located within the Estero Bay Hydrologic Unit (Hydrologic Unit 310). The Estero Bay Hydrologic Unit is divided into 19 subareas including the San Luis Obispo Creek (Hydrologic Unit 310.24). Within the BSA, surface runoff generally sheet flows to drain into San Luis Obispo Creek.. The San Luis Obispo Creek is a natural-bottom channel that is largely confined by urban development and agriculture before outletting to the Pacific Ocean in Avila Beach, approximately 11 miles downstream of the BSA.

5.1.3 Vegetation Communities and Land Cover Types

A general biological field survey, including vegetation mapping, of the BSA was conducted on October 6 and 7, 2020. Vegetation communities and other land cover types in the BSA are depicted on Figure 6. Descriptions of vegetation communities, land cover types, and existing acreages of each are provided below.

Disturbed Habitat

Disturbed habitat refers to areas where natural communities have been impacted to the extent that they no longer function naturally. These areas have been previously physically disturbed but continue to retain a soil substrate. Disturbed areas consist of predominantly nonnative weedy and ruderal species, which are not natural communities and generally provide limited habitat function. Examples of disturbed habitat include areas that have been graded for development, cleared for fuel management, staging areas, off-road vehicle trails, and abandoned home or business lots.

Within the BSA, 28.61 acres of disturbed habitat occurs along the abandoned wheelhouse yard located west of the rail ROW and along the hillslope east of the rail ROW along the base of the residential development. Two small depressions (measuring approximately 10 feet by 2 feet and 5 feet by 2 feet, respectively) that collect sheet flow from the adjacent upland areas occur within the disturbed habitat. The depressions occur west of the rail ROW and are dominated by cattail (*Typha* spp.). Vegetation within the disturbed habitat consists of Bermuda grass (*Cynodon dactylon*), telegraph weed (*Heterotheca grandiflora*), Russian thistle (*Salsola australis*), and castor bean (*Ricinus comminis*). Based on historic aerial images, the site contained a railroad roundhouse and associated maintenance facilities prior to 1963 (Historic Aerials 2020).

Urban/Developed

The BSA contains 47.35 acres of urban/developed land. Urban/developed land refers to areas where soil has been manipulated by grading and compacting in order to build infrastructure, such as roads, buildings, parks, fields, etc. These areas also have limited biological function or value. However, ornamental landscaping that is often planted within urban/developed areas can provide habitat for nesting birds, and, in some cases, roosting bats.

A total of four oak trees, both coast live oak (*Quercus agrifolia*) and valley oak (*Quercus lobata*) occur within the westernmost portion of the project footprint. Both oak species occur sporadically along the fence line of utility buildings along the western portion of the project footprint. Individual oaks with a diameter at breast height (DBH) of less than 4 inches were mapped, as shown on Figure 6. The majority of the BSA is heavily developed with commercial, industrial, transportation, and residential land uses. Vegetation within the urban/developed habitat consists of ornamental species such as Peruvian pepper tree (*Schinus molle*), oleander (*Nerium oleander*), and bottlebrush (*Callistemon* sp.).

Eucalyptus Woodland

Eucalyptus woodlands typically include areas that have been planted as groves or windbreaks and have become naturalized on uplands and along stream courses. Trees are typically under 164 feet in height with an intermittent to continuous canopy and sparse to intermittent shrub and herbaceous layers (Sawyer et al. 2009). Eucalyptus woodlands provide potential nesting habitat for bird and raptor species. Within the BSA, eucalyptus woodland occur north of the abandon roundhouse foundation within the project footprint and west of the rail ROW at the south end of the BSA (outside the project footprint). A total of 1.13 acres of eucalyptus woodland habitat is mapped within the BSA (Figure 6).

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Figure 6. Vegetation Communities and Land Cover Types within the Biological Study Area

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Special-Status Vegetation Communities

Sensitive natural communities include land that supports unique vegetation communities or the habitats of rare or endangered species or subspecies of animals or plants as defined by Section 15380 of the CEQA Guidelines. No special-status vegetation communities are present within the BSA.

5.1.4 Plant Species

Special-status plant species include plants that meet one or more of the following criteria:

- Listed or proposed for listing as threatened or endangered under the Federal ESA or candidates for possible future listing as threatened or endangered under the ESA (50 CFR Section 17.12)
- Listed or candidates for listing by the State of California as threatened or endangered under the California ESA (Fish Game Code Section 2050 et seq.)
- Listed as rare under the California Native Plant Protection Act (Fish and Game Code Section 1900 et seq.); a plant is rare when, although not presently threatened with extinction, the species, subspecies, or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens (Fish and Game Code Section 1901)
- Meet the definition of rare or endangered under CEQA Guidelines Section 15380, subdivisions (b) and (d), including:
    - Plants considered by CDFW to be "rare, threatened or endangered in California." This includes plants tracked by the CNDDB and the CNPS as California Rare Plant Rank 1 or 2
    - Plants that may warrant consideration on the basis of declining trends, recent taxonomic information, or other factors; this may include plants tracked by the CNDDB and CNPS as California Rare Plant Rank 3 or 4
- Considered locally significant plants (i.e., plants that are not rare from a statewide perspective but are rare or uncommon in a local context such as within a county or region [CEQA Guidelines, Section 15125, subd. (c)], or as designated in local or regional plans, policies, or ordinances [3.2.6 CEQA]); examples include plants that are at the outer limits of their known geographic range or plants occurring on an atypical soil type

A full list of rare plants occurrences within the surrounding nine quadrangles can be found in Appendix A. A list of all plants observed on site can be found in Appendix C.

Federally and/or State-Listed Plant Species

No federally and/or state-listed plant species were observed within the BSA during field surveys. Additionally, there is no potential for federally or state-listed plant species to occur within the BSA. The full list of special-status species evaluated for potential to occur in the BSA is provided in Appendix D.

Other Special-Status Plant Species

No other special-status plant species were observed within the BSA during field surveys. Additionally, there is no suitable habitat for other special-status plant species within the BSA. The full list of special-status species evaluated for potential to occur in the BSA is provided in Appendix D.

5.1.5 Wildlife Species

Special-status wildlife species include wildlife that meets one or more of the following criteria:

- Listed or proposed for listing as threatened or endangered under the ESA or candidates for possible future listing as threatened or endangered under the ESA (50 CFR Section 17.12)
- Listed or candidates for listing by the State of California as threatened or endangered under the California ESA (Fish and Game Code, Section 2050 et seq.)
- Meet the definition of rare or endangered under CEQA Guidelines Section 15380, subdivisions (b) and (d), including:
    - Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens
    - The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range
- Considered locally significant species (i.e., species that are not rare from a statewide perspective but are rare or uncommon in a local context such as within a county or region [CEQA Guidelines, Section 15125, subd. (c)], or as designated in local or regional plans, policies, or ordinances [CEQA Guidelines, Appendix A])

Federally and/or State-Listed Wildlife Species

No special-status wildlife species were observed during the biological field surveys, though specific protocol surveys were not conducted.

Wildlife observed within the BSA during field surveys was typical of a heavily urbanized environment. These urban-adapted species included mourning dove (*Zenaida macroura*), house finch (*Haemorhous mexicanus*), and northern mockingbird (*Mimus polyglottos*). A full list of wildlife species observed during the survey is included in Appendix C. Given the urban characteristics of the BSA, federally- or state-listed wildlife species are not expected to occur within the BSA. The full list of special-status species evaluated for potential to occur in the project vicinity is provided in Appendix D.

Other Special-Status Wildlife

Three special-status wildlife species have the potential to occur within the BSA , as follows:

- **Loggerhead shrike.** Loggerhead shrike (*Lanius ludovicianus*, species of special concern) occur in open woodlands with areas of grass cover and bare ground and require tall shrubs, trees, fences, or power lines for hunting perches. Loggerhead shrike use areas of short grasses, forbs, or bare ground for hunting and thorny vegetation or barbed wire fences for impaling a wide variety of prey including insects, arachnids, reptiles, amphibians, small birds, and small mammals (Shuford and Gardali 2008).

Potentially suitable habitat for loggerhead shrike occurs within the disturbed habitat of the BSA. Loggerhead shrike has potential to nest in dense trees and shrubs where they occur within the BSA, although the compacted soils west of the existing tracks exhibit little, if any, diagnostic sign of burrowing animal use and lack cover to support a significant population of prey species. Given that the species will occupy territories of over 40 acres, a pair could nest within the BSA and forage east of the tracks (Yosef 1994).

- **White-tailed kites.** White-tailed kites (*Elanus leucurus,* fully protected) nest in open areas with oak savanna, willow riparian, and scattered trees near foraging habitat, which typically consists of open grasslands, meadows, wetlands, and farmlands (CDFW 2020b). Small mammals make up most of their diet.

  Potentially suitable habitat for white-tailed kites occurs within the disturbed habitat of the BSA. Although compacted soils west of the existing tracks exhibit little, if any, diagnostic sign of burrowing animal use and lack cover to support a significant population of prey species, white-tailed kite could nest in trees west of the tracks and forage east of the tracks.

- **Pallid Bat.** Potentially suitable roosting habitat for pallid bat (*Antrozous pallidus,* species of special concern) is associated with buildings located within the BSA. Pallid bat occupies a wide-range of habitats and is known to roost in both occupied and unoccupied buildings such as those occurring in the vicinity of—but not within—the project footprint.

5.1.6 Potentially Jurisdictional Aquatic Resources

For the purposes of identifying aquatic resources with potential to be impacted by the project, the JAA includes the project footprint plus a 50-foot buffer. Although a formal jurisdictional delineation was not conducted, the JAA was examined during the general biological survey for aquatic features that have the potential to be regulated as waters of the U.S. pursuant to the CWA, waters of the state pursuant to the Porter-Cologne Water Quality Control Act, or as a streambed pursuant to California Fish and Game Code Section 1600 et seq. As shown in Figure 7, two small patches of cattail that may qualify as wetland occur within the project footprint, west of the existing rail embankment along with three road ruts that become inundated seasonally. Photographs from the site visit are provided in Appendix B.

Artificial Cattail Patches

As previously noted, two small patches of cattail (measuring approximately 10 feet by 2 feet and 5 feet by 2 feet, respectively) occur west of the rail and at the toe of the rail embankment within the project footprint. These small and isolated patches of cattail appear to occur as a result of sheet flow from the surrounding compacted upland areas collecting at the base of the constructed rail embankment. Soils were observed to be saturated and exhibited a salt crust. Based on the predominance of hydrophytic vegetation and indicators of wetland hydrology, these features may qualify as wetland. A formal jurisdictional delineation is recommended to confirm if these features qualify as wetlands and, if so, to delineate their limits.

These features appear to have resulted from rail embankment construction and exhibit no signs of surface connectivity to any other aquatic features. As such, they are not expected to be regulated by USACE. At less than 1 acre in size and subject to regular operation and maintenance activities, these potential wetlands also are not likely to be regulated by RWQCB. These features do not exhibit bed or banks and therefore are also not expected to be regulated by CDFW pursuant to Section 1600 of the

California Fish and Game Code. However, it is the regulatory agencies that make the final determination regarding whether an aquatic feature is subject to regulation.

Seasonally Inundated Road Ruts

Three unvegetated road ruts located west of the existing tracks (mapped as "ephemeral road rut" on Figure 7) exhibited cracked soils during the October 6 and 7, 2020 biological field survey. These features occur in upland within disturbed habitat, were unvegetated, and were artificially created by regular vehicle use along the rail ROW. At the time of the surveys, the ruts were dry, and the deepest point measured 6 inches.

These artificial ephemeral features may exhibit inundation for long durations but do not qualify as USACE or RWQCB wetland based on the absence of hydrophytic vegetation. Additionally, they are not tributary to waters of the U.S. or waters of the state, are less than 1 acre in size, are subject to regular operations and maintenance, and may be best described as puddles; therefore, they are not regulated by USACE or RWQCB pursuant to the CWA and Porter-Cologne Water Quality Control Act. These features do not exhibit bed or banks and, therefore, are also not regulated by CDFW pursuant to Section 1600 of the California Fish and Game Code.

Figure 7 . Jurisdictional Resources in the Jurisdictional Assessment Area

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5.2 Nesting Birds

Although the BSA is highly urbanized with little to no natural habitat, suitable habitat to support nesting birds protected under the MBTA and California Fish and Game Code occurs within the BSA. Avian species accustomed to human activity will often nest in landscape vegetation planted within urban/developed areas. Migratory and resident bird species, such as mourning doves and house finches, were observed in the BSA during field surveys.

5.3 Wildlife Corridors and Habitat Linkages

Wildlife movement corridors, also called dispersal corridors or landscape linkages, are linear features whose primary wildlife function is to connect at least two significant habitat areas. Other definitions of corridors and linkages are as follows:

- A corridor is a specific route used for movement and migration of species. A corridor may be different from a linkage because it represents a smaller or narrower avenue for movement.
- Linkage means an area of land that supports or contributes to the long-term movement of wildlife and genetic material. A linkage is a habitat area that provides connectivity between habitat patches, as well as year-round foraging, reproduction, and dispersal habitat for resident plants and animals.

Wildlife corridors and linkages are important features in the landscape, and the viability and quality of a corridor or linkage are dependent on site-specific factors. Topography and vegetative cover are important factors for corridors and linkages. These factors should provide cover for both predator and prey species. They should direct animals to areas of contiguous open space or resources and away from humans and development. The corridor or linkage should be buffered from human encroachment and other disturbances (e.g., light, loud noises, domestic animals) associated with developed areas that have caused habitat fragmentation (Schweiger et al. 2000). Wildlife corridors and linkages may function at various levels depending upon these factors and, as such, the most successful of wildlife corridors and linkages will accommodate all or most of the necessary life requirements of predator and prey species.

Areas not considered functional wildlife dispersal corridors or linkages are typically obstructed or isolated by concentrated development and heavily traveled roads, known as chokepoints. One of the worst scenarios for dispersing wildlife occurs when a large block of habitat leads animals into cul-de-sacs of habitat surrounded by development. These habitat cul-de-sacs frequently result in adverse human/animal interfacing.

The BSA is highly urbanized, generally surrounded by development, and the existing railroad corridor exhibits very little vegetative cover, limiting its potential for use by wildlife. It likely supports some local, nocturnal, urban-adapted animal movement. The CDFW's CNDDB California Essential Habitat Connectivity lists the habitat surrounding the BSA as having limited connectivity opportunity (CNDDB 2020).

Habitat Conservation Plan

The BSA is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

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6 Impacts Analysis

For the purpose of this impact analysis, the proposed rail ROW and ROW acquisition areas are assumed to be the physical project footprint. Permanent and direct impacts are assumed within the project footprint.

Project construction- and operational-related impacts are analyzed in the context of direct or indirect effects. Direct impacts are those on the physical environment that are immediately related to the proposed project; they occur in the same time and place as the proposed project (e.g., vegetation removal and grading associated with construction). Indirect impacts are those that occur later in time or farther removed in distance than direct effects (e.g., long-term changes in water quality and off-site impacts from noise, dust, lighting, etc.). Increased frequency of noise-generating train trips or increased dust and pollutants from trains settling on adjacent habitat would be considered indirect impacts from project operation. In this analysis, indirect impacts from construction are treated as short term (temporary), while indirect impacts from operation are treated as long term (permanent).

6.1 Vegetation Communities/Land Cover Types

The proposed project would affect primarily urban/developed and disturbed land cover, as indicated on Figure 6. There are no special-status vegetation communities within the BSA. The project footprint exists in a highly developed area with no natural habitat; only developed and disturbed land cover would be directly impacted by the proposed project.

6.1.1 Riparian Habitat and Other Special-Status Vegetation Communities

No riparian habitat or other special-status vegetation communities are present within the BSA. Therefore, construction and operation of the project would have no direct or indirect impacts on riparian habitat or other special-status vegetation communities.

6.2 Plant Species

6.2.1 Federally and/or State-Listed Plant Species

No federally or state-listed plant species occur or have potential to occur within the BSA. Therefore, construction and operation of the proposed project would have no direct or indirect impacts on federally or state-listed plant species.

6.2.2 Other Special-Status Plant Species

No special-status plant species occur or have potential to occur within the BSA. Therefore, construction and operation of the proposed project would have no direct impacts on other special-status plant species.

6.3 Wildlife Species

6.3.1 Federally and/or State-Listed Wildlife Species

No federally or state-listed wildlife species occur or have potential to occur within the BSA. Therefore, construction and operation of the proposed project would have no direct or indirect impacts on federally or state-listed wildlife species.

6.3.2 Other Special-Status Wildlife Species

Loggerhead shrike and white-tailed kite have the potential to nest in shrubs and trees within the project footprint; however, the disturbed habitat within the project footprint provides very limited foraging potential. Therefore, the loss of disturbed habitat would not be considered a significant impact. Native trees within the project footprint would be avoided. Therefore, no net loss of nesting habitat is anticipated. Nonetheless, direct impacts on active loggerhead shrike and white-tailed kite nests are prohibited by the MBTA and California Fish and Game Code and would be considered significant. Implementation of Mitigation Measure BR-1 reduces this potential impact to less than significant.

The BSA is in a highly developed and disturbed environment. There is no suitable habitat for pallid bat within the project footprint. Therefore, the project construction and operation would not directly impact the species.

6.3.3 Migratory Bird Treaty Act/Migratory Birds and Raptors

Suitable nesting and foraging habitat for birds protected by the MBTA and California Fish and Game Code Sections 3300 through 5500 occurs within and adjacent to the project footprint. Direct impacts on an active nest would be considered significant and adverse in the absence of mitigation measures. Mitigation Measure BR-1, described in Section 7, would reduce these impacts to less than significant.

6.4 Jurisdictional Aquatic Resources

Although unlikely, the project could have an adverse impact on wetlands if any of the aquatic resources identified herein are determined to be regulated by USACE or RWQCB, and those features will be subject to a discharge of fill. Such impacts would be considered significant. Implementation of Mitigation Measure BR-2 would reduce this potential impact to a level less than significant. .

6.5 Wildlife Corridors and Habitat Linkages

The BSA is in a highly developed and disturbed environment, surrounded by suburban homes, businesses and roads, and any wildlife moving through the BSA would have already been exposed to substantial disturbance. An increase in disturbance resulting from project construction and operation would be negligible in an already highly developed and disturbed environment. Therefore, the proposed project would have a less than significant impact associated with wildlife corridors.

7 Mitigation Measures

The following mitigation measure would avoid or minimize impacts on and nesting birds.

BR-1 **Migratory and Nesting Birds.** If construction activities occur between January 15 and September 15, a preconstruction nesting bird survey (within 7 days prior to construction activities) shall be conducted by a qualified biologist to determine if active nests are present within the area proposed for disturbance to avoid the nesting activities of breeding birds. The results of the surveys will be submitted to the LOSSAN Rail Corridor Agency (and made available to the wildlife agencies [USFWS/CDFW], upon request) prior to initiation of any construction activities. Should nesting bird species aside from European starlings (*Sturnus vulgaris*) and house sparrows (*Passer domesticus*) be found, a 300-foot (500 feet for raptors) exclusionary buffer will be established by the biologist. This buffer shall be clearly marked in the field by construction personnel under guidance of the biologist, and construction or clearing will not be conducted within this buffer zone until the biologist determines that the young have fledged or the nest is no longer active. At the discretion of the biologist, the buffer may be reduced if the nest is buffered by existing visual and noise barriers such as hills, walls, buildings, etc. visual and noise barriers are added, or the nesting species is known to tolerate higher levels of disturbance.

BR-2 **State or Federally Regulated Wetlands**. A formal Jurisdictional Delineation will be conducted prior to the initiation of project construction. If any of the aquatic resources identified herein are determined to be regulated by USACE or RWQCB and those features will be subject to a discharge of fill, then the appropriate regulatory permits would be sought and compensatory mitigation for the permanent loss of wetland would be provided at a minimum 1:1 ratio. Compensatory mitigation would include a minimum of 1:1 wetland establishment to ensure that the project results in no net loss of wetland.

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Appendix A. Literature Review Results

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CNPS California Native Plant Society

Inventory of Rare and Endangered Plants

*The database used to provide updates to the Online Inventory is under construction. View updates and changes made since May 2019 here.

Plant List

103 matches found. *Click on scientific name for details*

Search Criteria

California Rare Plant Rank is one of [1B, 2B, 3, 4], FESA is one of [Endangered, Threatened, Candidate, Not Listed], CESA is one of [Endangered, Threatened, Rare, Not Listed], Found in Quads 3512047, 3512046, 3512045, 3512037, 3512036, 3512035, 3512027 3512026 and 3512025;

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Family	Scientific Name	Common Name	Federal Listing Status	State Listing Status	CA Rare Plant Rank	Lifeform	Blooming Period	Habitats	Lowest Elevation	Highest Elevation
Nyctaginaceae	Abronia maritima	red sand-verbena			4.2	perennial herb	Feb-Nov	• Coastal dunes	0 m	100 m
Poaceae	Agrostis hooveri	Hoover's bent grass			1B.2	perennial herb	Apr-Jul	• Closed-cone coniferous forest • Chaparral • Cismontane woodland • Valley and foothill grassland	6 m	610 m
Ericaceae	Arctostaphylos cruzensis	Arroyo de la Cruz manzanita			1B.2	perennial evergreen shrub	Dec-Mar	• Broadleafed upland forest • Coastal bluff scrub • Closed-cone coniferous forest • Chaparral • Coastal scrub • Valley and foothill grassland	60 m	310 m
Ericaceae	Arctostaphylos luciana	Santa Lucia manzanita			1B.2	perennial evergreen shrub	Dec-Mar	• Chaparral • Cismontane woodland	350 m	850 m
Ericaceae	Arctostaphylos morroensis	Morro manzanita	FT		1B.1	perennial evergreen shrub	Dec-Mar	• Chaparral (maritime) • Cismontane	5 m	205 m

								woodland • Coastal dunes (pre-Flandrian) • Coastal scrub		
Ericaceae	Arctostaphylos obispoensis	Bishop manzanita			4.3	perennial evergreen shrub	Feb-Jun	• Closed-cone coniferous forest • Chaparral • Cismontane woodland	150 m	1005 m
Ericaceae	Arctostaphylos osoensis	Oso manzanita			1B.2	perennial evergreen shrub	Feb-Mar	• Chaparral • Cismontane woodland	95 m	500 m
Ericaceae	Arctostaphylos pechoensis	Pecho manzanita			1B.2	perennial evergreen shrub	Nov-Mar	• Closed-cone coniferous forest • Chaparral • Coastal scrub	125 m	850 m
Ericaceae	Arctostaphylos pilosula	Santa Margarita manzanita			1B.2	perennial evergreen shrub	Dec-May	• Broadleafed upland forest • Closed-cone coniferous forest • Chaparral • Cismontane woodland	75 m	1100 m
Ericaceae	Arctostaphylos rudis	sand mesa manzanita			1B.2	perennial evergreen shrub	Nov-Feb	• Chaparral (maritime) • Coastal scrub	25 m	322 m
Ericaceae	Arctostaphylos tomentosa ssp. daciticola	dacite manzanita			1B.1	perennial evergreen shrub	Mar-May	• Chaparral • Cismontane woodland	100 m	300 m
Caryophyllaceae	Arenaria paludicola	marsh sandwort	FE	CE	1B.1	perennial stoloniferous herb	May-Aug	• Marshes and swamps (freshwateror brackish)	3 m	170 m
Pteridaceae	Aspidotis carlotta-halliae	Carlotta Hall's lace fern			4.2	perennial rhizomatous herb	Jan-Dec	• Chaparral • Cismontane woodland	100 m	1400 m
Fabaceae	Astragalus didymocarpus var. milesianus	Miles' milk-vetch			1B.2	annual herb	Mar-Jun	• Coastal scrub (clay)	20 m	90 m
Fabaceae	Astragalus nuttallii var. nuttallii	ocean bluff milk-vetch			4.2	perennial herb	Jan-Nov	• Coastal bluff scrub • Coastal dunes	3 m	120 m
Chenopodiaceae	Atriplex coulteri	Coulter's saltbush			1B.2	perennial herb	Mar-Oct	• Coastal bluff scrub • Coastal dunes • Coastal scrub	3 m	460 m

							• Valley and foothill grassland		
Parmeliaceae	Bryoria pseudocapillaris	false gray horsehair lichen	3.2	fruticose lichen (epiphytic)		• Coastal dunes (SLO Co.) • North Coast coniferous forest (immediate coast)	0 m	90 m
Parmeliaceae	Bryoria spiralifera	twisted horsehair lichen	1B.1	fruticose lichen (epiphytic)		• North Coast coniferous forest (immediate coast)	0 m	30 m
Montiaceae	Calandrinia breweri	Brewer's calandrinia	4.2	annual herb	(Jan)Mar-Jun	• Chaparral • Coastal scrub	10 m	1220 m
Liliaceae	Calochortus clavatus var. clavatus	club-haired mariposa lily	4.3	perennial bulbiferous herb	(Mar)May-Jun	• Chaparral • Cismontane woodland • Coastal scrub • Valley and foothill grassland	75 m	1300 m
Liliaceae	Calochortus obispoensis	San Luis mariposa lily	1B.2	perennial bulbiferous herb	May-Jul	• Chaparral • Cismontane woodland • Coastal scrub • Valley and foothill grassland	50 m	730 m
Liliaceae	Calochortus simulans	La Panza mariposa lily	1B.3	perennial bulbiferous herb	Apr-Jun	• Chaparral • Cismontane woodland • Lower montane coniferous forest • Valley and foothill grassland	325 m	1150 m
Asteraceae	Calycadenia villosa	dwarf calycadenia	1B.1	annual herb	May-Oct	• Chaparral • Cismontane woodland • Meadows and seeps • Valley and foothill grassland	240 m	1350 m
Convolvulaceae	Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	4.2	perennial rhizomatous herb	(Mar)Apr-Jun(Jul)	• Chaparral • Cismontane woodland • Coastal prairie • Valley and	30 m	500 m

								foothill grassland		
Onagraceae	Camissoniopsis hardhamiae	Hardham's evening-primrose			1B.2	annual herb	Mar-May	• Chaparral • Cismontane woodland	140 m	945 m
Cyperaceae	Carex obispoensis	San Luis Obispo sedge			1B.2	perennial herb	Apr-Jun	• Closed-cone coniferous forest • Chaparral • Coastal prairie • Coastal scrub • Valley and foothill grassland	10 m	820 m
Orobanchaceae	Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover			1B.2	annual herb (hemiparasitic)	Mar-May	• Meadows and seeps • Valley and foothill grassland	10 m	430 m
Rhamnaceae	Ceanothus cuneatus var. fascicularis	Lompoc ceanothus			4.2	perennial evergreen shrub	Feb-Apr	• Chaparral (sandy)	5 m	400 m
Rhamnaceae	Ceanothus impressus var. nipomensis	Nipomo Mesa ceanothus			1B.2	perennial shrub	Feb-Apr	• Chaparral	30 m	245 m
Rhamnaceae	Ceanothus thyrsiflorus var. obispoensis	San Luis Obispo ceanothus			1B.1	perennial shrub	Jun	• Chaparral • Cismontane woodland	140 m	225 m
Asteraceae	Centromadia parryi ssp. congdonii	Congdon's tarplant			1B.1	annual herb	May-Oct(Nov)	• Valley and foothill grassland (alkaline)	0 m	230 m
Rosaceae	Cercocarpus betuloides var. blancheae	island mountain-mahogany			4.3	perennial evergreen shrub	Feb-May	• Closed-cone coniferous forest • Chaparral	30 m	600 m
Chenopodiaceae	Chenopodium littoreum	coastal goosefoot			1B.2	annual herb	Apr-Aug	• Coastal dunes	10 m	30 m
Agavaceae	Chlorogalum pomeridianum var. minus	dwarf soaproot			1B.2	perennial bulbiferous herb	May-Aug	• Chaparral (serpentinite)	305 m	1000 m
Orobanchaceae	Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	FE	CE	1B.2	annual herb (hemiparasitic)	May-Oct(Nov)	• Coastal dunes • Marshes and swamps (coastal salt)	0 m	30 m
Polygonaceae	Chorizanthe breweri	Brewer's spineflower			1B.3	annual herb	Apr-Aug	• Closed-cone coniferous forest • Chaparral • Cismontane woodland • Coastal scrub	45 m	800 m
Polygonaceae		Douglas'			4.3	annual herb	Apr-Jul	• Chaparral	55 m	1600 m

	Chorizanthe douglasii	spineflower						• Cismontane woodland • Coastal scrub • Lower montane coniferous forest • Valley and foothill grassland		
Polygonaceae	Chorizanthe leptotheca	Peninsular spineflower			4.2	annual herb	May-Aug	• Chaparral • Coastal scrub • Lower montane coniferous forest	300 m	1900 m
Polygonaceae	Chorizanthe palmeri	Palmer's spineflower			4.2	annual herb	Apr-Aug	• Chaparral • Cismontane woodland • Valley and foothill grassland	55 m	945 m
Polygonaceae	Chorizanthe rectispina	straight-awned spineflower			1B.3	annual herb	Apr-Jul	• Chaparral • Cismontane woodland • Coastal scrub	85 m	1035 m
Polygonaceae	Chorizanthe ventricosa	potbellied spineflower			4.3	annual herb	May-Sep	• Cismontane woodland • Valley and foothill grassland	65 m	1235 m
Asteraceae	Cirsium fontinale var. obispoense	San Luis Obispo fountain thistle	FE	CE	1B.2	perennial herb	Feb-Jul(Aug-Sep)	• Chaparral • Cismontane woodland • Coastal scrub • Valley and foothill grassland	35 m	385 m
Asteraceae	Cirsium occidentale var. lucianum	Cuesta Ridge thistle			1B.2	perennial herb	Apr-Jun	• Chaparral (openings)	500 m	750 m
Asteraceae	Cirsium rhothophilum	Surf thistle		CT	1B.2	perennial herb	Apr-Jun	• Coastal bluff scrub • Coastal dunes	3 m	60 m
Asteraceae	Cirsium scariosum var. loncholepis	La Graciosa thistle	FE	CT	1B.1	perennial herb	May-Aug	• Cismontane woodland • Coastal dunes • Coastal scrub • Marshes and swamps (brackish) • Valley and foothill grassland	4 m	220 m

Cladoniaceae	Cladonia firma	popcorn lichen			2B.1	squamulose lichen (terricolous)		• Coastal dunes (stabilized) • Coastal scrub	30 m	75 m
Onagraceae	Clarkia exilis	slender clarkia			4.3	annual herb	Apr-May	• Cismontane woodland	120 m	1000 m
Onagraceae	Clarkia speciosa ssp. immaculata	Pismo clarkia	FE	CR	1B.1	annual herb	May-Jul	• Chaparral (margins, openings) • Cismontane woodland • Valley and foothill grassland	25 m	185 m
Lamiaceae	Clinopodium mimuloides	monkey-flower savory			4.2	perennial herb	Jun-Oct	• Chaparral • North Coast coniferous forest	305 m	1800 m
Asteraceae	Deinandra paniculata	paniculate tarplant			4.2	annual herb	(Mar)Apr-Nov(Dec)	• Coastal scrub • Valley and foothill grassland • Vernal pools	25 m	940 m
Ranunculaceae	Delphinium parryi ssp. blochmaniae	dune larkspur			1B.2	perennial herb	Apr-Jun	• Chaparral (maritime) • Coastal dunes	0 m	200 m
Ranunculaceae	Delphinium parryi ssp. eastwoodiae	Eastwood's larkspur			1B.2	perennial herb	(Feb)Mar-Mar	• Chaparral (openings) • Valley and foothill grassland	75 m	500 m
Ranunculaceae	Delphinium umbraculorum	umbrella larkspur			1B.3	perennial herb	Apr-Jun	• Chaparral • Cismontane woodland	400 m	1600 m
Brassicaceae	Dithyrea maritima	beach spectaclepod		CT	1B.1	perennial rhizomatous herb	Mar-May	• Coastal dunes • Coastal scrub (sandy)	3 m	50 m
Crassulaceae	Dudleya abramsii ssp. bettinae	Betty's dudleya			1B.2	perennial herb	May-Jul	• Chaparral • Coastal scrub • Valley and foothill grassland	20 m	180 m
Crassulaceae	Dudleya abramsii ssp. murina	mouse-gray dudleya			1B.3	perennial leaf succulent	May-Jun	• Chaparral • Cismontane woodland • Valley and foothill grassland	90 m	525 m
Crassulaceae	Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya			1B.1	perennial herb	Apr-Jun	• Coastal bluff scrub • Chaparral • Coastal scrub • Valley and	5 m	450 m

									foothill grassland		
Cyperaceae	Eleocharis parvula	small spikerush			4.3	perennial herb	(Apr)Jun-Aug(Sep)	• Marshes and swamps	1 m	3020 m
Polemoniaceae	Eriastrum luteum	yellow-flowered eriastrum			1B.2	annual herb	May-Jun	• Broadleafed upland forest • Chaparral • Cismontane woodland	290 m	1000 m
Asteraceae	Erigeron blochmaniae	Blochman's leafy daisy			1B.2	perennial rhizomatous herb	Jun-Aug	• Coastal dunes • Coastal scrub	3 m	45 m
Namaceae	Eriodictyon altissimum	Indian Knob mountainbalm	FE	CE	1B.1	perennial evergreen shrub	Mar-Jun	• Chaparral (maritime) • Cismontane woodland • Coastal scrub	80 m	270 m
Apiaceae	Eryngium aristulatum var. hooveri	Hoover's button-celery			1B.1	annual / perennial herb	(Jun)Jul(Aug)	• Vernal pools	3 m	45 m
Brassicaceae	Erysimum suffrutescens	suffrutescent wallflower			4.2	perennial herb	Jan-Jul(Aug)	• Coastal bluff scrub • Chaparral (maritime) • Coastal dunes • Coastal scrub	0 m	150 m
Chenopodiaceae	Extriplex joaquinana	San Joaquin spearscale			1B.2	annual herb	Apr-Oct	• Chenopod scrub • Meadows and seeps • Playas • Valley and foothill grassland	1 m	835 m
Liliaceae	Fritillaria agrestis	stinkbells			4.2	perennial bulbiferous herb	Mar-Jun	• Chaparral • Cismontane woodland • Pinyon and juniper woodland • Valley and foothill grassland	10 m	1555 m
Liliaceae	Fritillaria ojaiensis	Ojai fritillary			1B.2	perennial bulbiferous herb	Feb-May	• Broadleafed upland forest (mesic) • Chaparral • Cismontane woodland • Lower montane coniferous forest	225 m	998 m
Liliaceae	Fritillaria viridea	San Benito fritillary			1B.2	perennial bulbiferous herb	Mar-May	• Chaparral •	200 m	1525 m

						Cismontane woodland		
Asteraceae	Grindelia hirsutula var. maritima	San Francisco gumplant	3.2	perennial herb	Jun-Sep	• Coastal bluff scrub • Coastal scrub • Valley and foothill grassland	15 m	400 m
Rosaceae	Horkelia cuneata var. puberula	mesa horkelia	1B.1	perennial herb	Feb-Jul(Sep)	• Chaparral (maritime) • Cismontane woodland • Coastal scrub	70 m	810 m
Rosaceae	Horkelia cuneata var. sericea	Kellogg's horkelia	1B.1	perennial herb	Apr-Sep	• Closed-cone coniferous forest • Chaparral (maritime) • Coastal dunes • Coastal scrub	10 m	200 m
Asteraceae	Lasthenia californica ssp. macrantha	perennial goldfields	1B.2	perennial herb	Jan-Nov	• Coastal bluff scrub • Coastal dunes • Coastal scrub	5 m	520 m
Asteraceae	Lasthenia glabrata ssp. coulteri	Coulter's goldfields	1B.1	annual herb	Feb-Jun	• Marshes and swamps (coastal salt) • Playas • Vernal pools	1 m	1220 m
Asteraceae	Layia jonesii	Jones' layia	1B.2	annual herb	Mar-May	• Chaparral • Valley and foothill grassland	5 m	400 m
Apiaceae	Lomatium parvifolium	small-leaved lomatium	4.2	perennial herb	Jan-Jun	• Closed-cone coniferous forest • Chaparral • Coastal scrub • Riparian woodland	20 m	700 m
Fabaceae	Lupinus ludovicianus	San Luis Obispo County lupine	1B.2	perennial herb	Apr-Jul	• Chaparral • Cismontane woodland	50 m	525 m
Malvaceae	Malacothamnus gracilis	slender bush-mallow	1B.1	perennial deciduous shrub	May-Oct	• Chaparral	190 m	575 m
Malvaceae	Malacothamnus jonesii	Jones' bush-mallow	4.3	perennial deciduous shrub	(Mar)Apr-Oct	• Chaparral • Cismontane woodland	160 m	1075 m
Malvaceae	Malacothamnus palmeri var. involucratus	Carmel Valley bush-mallow	1B.2	perennial deciduous shrub	Apr-Oct	• Chaparral • Cismontane woodland	30 m	1100 m

						• Coastal scrub		
Malvaceae	Malacothamnus palmeri var. palmeri	Santa Lucia bush-mallow	1B.2	perennial deciduous shrub	May-Jul	• Chaparral (rocky)	60 m	360 m
Lamiaceae	Monardella palmeri	Palmer's monardella	1B.2	perennial rhizomatous herb	Jun-Aug	• Chaparral • Cismontane woodland	200 m	800 m
Lamiaceae	Monardella sinuata ssp. sinuata	southern curly-leaved monardella	1B.2	annual herb	Apr-Sep	• Chaparral • Cismontane woodland • Coastal dunes • Coastal scrub (openings)	0 m	300 m
Lamiaceae	Monardella undulata ssp. undulata	San Luis Obispo monardella	1B.2	perennial rhizomatous herb	May-Sep	• Coastal dunes • Coastal scrub (sandy)	10 m	200 m
Asteraceae	Monolopia gracilens	woodland woolythreads	1B.2	annual herb	(Feb)Mar-Jul	• Broadleafed upland forest (openings) • Chaparral (openings) • Cismontane woodland • North Coast coniferous forest (openings) • Valley and foothill grassland	100 m	1200 m
Polygonaceae	Mucronea californica	California spineflower	4.2	annual herb	Mar-Jul(Aug)	• Chaparral • Cismontane woodland • Coastal dunes • Coastal scrub • Valley and foothill grassland	0 m	1400 m
Polemoniaceae	Navarretia nigelliformis ssp. radians	shining navarretia	1B.2	annual herb	(Mar)Apr-Jul	• Cismontane woodland • Valley and foothill grassland • Vernal pools	65 m	1000 m
Polygonaceae	Nemacaulis denudata var. denudata	coast woolly-heads	1B.2	annual herb	Apr-Sep	• Coastal dunes	0 m	100 m
Campanulaceae	Nemacladus secundiflorus	large-flowered nemacladus	4.3	annual herb	Apr-Jun	• Chaparral • Valley and foothill grassland	200 m	2000 m

	var. secundiflorus								
Apiaceae	Perideridia pringlei	adobe yampah		4.3	perennial herb	Apr-Jun(Jul)	• Chaparral • Cismontane woodland • Coastal scrub • Pinyon and juniper woodland	300 m	1800 m
Orchidaceae	Piperia michaelii	Michael's rein orchid		4.2	perennial herb	Apr-Aug	• Coastal bluff scrub • Closed-cone coniferous forest • Chaparral • Cismontane woodland • Coastal scrub • Lower montane coniferous forest	3 m	915 m
Boraginaceae	Plagiobothrys uncinatus	hooked popcornflower		1B.2	annual herb	Apr-May	• Chaparral (sandy) • Cismontane woodland • Valley and foothill grassland	300 m	760 m
Poaceae	Poa diaboli	Diablo Canyon blue grass		1B.2	perennial rhizomatous herb	Mar-Apr	• Closed-cone coniferous forest • Chaparral (mesic) • Cismontane woodland • Coastal scrub	120 m	400 m
Apiaceae	Sanicula hoffmannii	Hoffmann's sanicle		4.3	perennial herb	Mar-May	• Broadleafed upland forest • Coastal bluff scrub • Chaparral • Cismontane woodland • Coastal scrub • Lower montane coniferous forest	30 m	300 m
Apiaceae	Sanicula maritima	adobe sanicle	CR	1B.1	perennial herb	Feb-May	• Chaparral • Coastal prairie • Meadows and seeps • Valley and	30 m	240 m

								foothill grassland		
Scrophulariaceae	Scrophularia atrata	black-flowered figwort			1B.2	perennial herb	Mar-Jul	• Closed-cone coniferous forest • Chaparral • Coastal dunes • Coastal scrub • Riparian scrub	10 m	500 m
Asteraceae	Senecio aphanactis	chaparral ragwort			2B.2	annual herb	Jan-Apr(May)	• Chaparral • Cismontane woodland • Coastal scrub	15 m	800 m
Asteraceae	Senecio astephanus	San Gabriel ragwort			4.3	perennial herb	May-Jul	• Coastal bluff scrub • Chaparral	400 m	1500 m
Malvaceae	Sidalcea hickmanii ssp. anomala	Cuesta Pass checkerbloom		CR	1B.2	perennial herb	May-Jun	• Closed-cone coniferous forest • Chaparral	600 m	800 m
Asteraceae	Solidago guiradonis	Guirado's goldenrod			4.3	perennial rhizomatous herb	Sep-Oct	• Cismontane woodland • Valley and foothill grassland	600 m	1370 m
Brassicaceae	Streptanthus albidus ssp. peramoenus	most beautiful jewelflower			1B.2	annual herb	(Mar)Apr-Sep(Oct)	• Chaparral • Cismontane woodland • Valley and foothill grassland	95 m	1000 m
Chenopodiaceae	Suaeda californica	California seablite	FE		1B.1	perennial evergreen shrub	Jul-Oct	• Marshes and swamps (coastal salt)	0 m	15 m
Alectoriaceae	Sulcaria isidiifera	splitting yarn lichen			1B.1	fruticose lichen (epiphytic)		• Coastal scrub (old growth)	20 m	30 m
Fabaceae	Trifolium hydrophilum	saline clover			1B.2	annual herb	Apr-Jun	• Marshes and swamps • Valley and foothill grassland (mesic, alkaline) • Vernal pools	0 m	300 m
Brassicaceae	Tropidocarpum capparideum	caper-fruited tropidocarpum			1B.1	annual herb	Mar-Apr	• Valley and foothill grassland (alkaline hills)	1 m	455 m

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Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Morro Bay North (3512047) OR Morro Bay South (3512037) OR Port San Luis (3512027) OR Atascadero (3512046) OR San Luis Obispo (3512036) OR Pismo Beach (3512026) OR Santa Margarita (3512045) OR Lopez Mtn. (3512035) OR Arroyo Grande NE (3512025))
 AND Elevation IS greater than OR equal to "0"
 AND Elevation IS less than OR equal to "800"

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
Agrostis hooveri Hoover's bent grass	PMPOA040M0	None	None	G2	S2	1B.2
Anniella pulchra Northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Arctostaphylos luciana Santa Lucia manzanita	PDERI040N0	None	None	G2	S2	1B.2
Arctostaphylos morroensis Morro manzanita	PDERI040S0	Threatened	None	G1	S1	1B.1
Arctostaphylos osoensis Oso manzanita	PDERI042S0	None	None	G1	S1	1B.2
Arctostaphylos pechoensis Pecho manzanita	PDERI04140	None	None	G2	S2	1B.2
Arctostaphylos pilosula Santa Margarita manzanita	PDERI042Z0	None	None	G2?	S2?	1B.2
Arctostaphylos rudis sand mesa manzanita	PDERI041E0	None	None	G2	S2	1B.2
Arctostaphylos tomentosa ssp. daciticola dacite manzanita	PDERI041HD	None	None	G4T1	S1	1B.1
Arenaria paludicola marsh sandwort	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1
Astragalus didymocarpus var. milesianus Miles' milk-vetch	PDFAB0F2X3	None	None	G5T2	S2	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Atractelmis wawona Wawona riffle beetle	IICOL58010	None	None	G3	S1S2	
Atriplex coulteri Coulter's saltbush	PDCHE040E0	None	None	G3	S1S2	1B.2
Bombus caliginosus obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Bombus crotchii Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
Bombus occidentalis western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Bryoria spiralifera twisted horsehair lichen	NLTEST5460	None	None	G1G2	S1S2	1B.1
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Calochortus obispoensis San Luis mariposa-lily	PMLIL0D110	None	None	G2	S2	1B.2
Calochortus simulans La Panza mariposa-lily	PMLIL0D170	None	None	G2	S2	1B.3
Calystegia subacaulis ssp. episcopalis Cambria morning-glory	PDCON040J1	None	None	G3T2?	S2?	4.2
Camissoniopsis hardhamiae Hardham's evening-primrose	PDONA030N0	None	None	G2	S2	1B.2
Carex obispoensis San Luis Obispo sedge	PMCYP039J0	None	None	G3?	S3?	1B.2
Castilleja densiflora var. obispoensis San Luis Obispo owl's-clover	PDSCR0D453	None	None	G5T2	S2	1B.2
Ceanothus impressus var. nipomensis Nipomo Mesa ceanothus	PDRHA040L2	None	None	G3T2	S2	1B.2
Ceanothus thyrsiflorus var. obispoensis San Luis Obispo ceanothus	PDRHA04461	None	None	G5T1	S1	1B.1
Central Dune Scrub Central Dune Scrub	CTT21320CA	None	None	G2	S2.2	
Central Foredunes Central Foredunes	CTT21220CA	None	None	G1	S1.2	
Central Maritime Chaparral Central Maritime Chaparral	CTT37C20CA	None	None	G2	S2.2	
Centromadia parryi ssp. congdonii Congdon's tarplant	PDAST4R0P1	None	None	G3T1T2	S1S2	1B.1
Charadrius alexandrinus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
Chenopodium littoreum coastal goosefoot	PDCHE091Z0	None	None	G1	S1	1B.2
Chlorogalum pomeridianum var. minus dwarf soaproot	PMLIL0G042	None	None	G5T3	S3	1B.2
Chloropyron maritimum ssp. maritimum salt marsh bird's-beak	PDSCR0J0C2	Endangered	Endangered	G4?T1	S1	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Chorizanthe aphanantha Irish Hills spineflower	PDPGN04110	None	None	G1	S1	1B.1
Chorizanthe breweri Brewer's spineflower	PDPGN04050	None	None	G3	S3	1B.3
Chorizanthe rectispina straight-awned spineflower	PDPGN040N0	None	None	G2	S2	1B.3
Cicindela hirticollis gravida sandy beach tiger beetle	IICOL02101	None	None	G5T2	S2	
Cirsium fontinale var. obispoense Chorro Creek bog thistle	PDAST2E162	Endangered	Endangered	G2T2	S2	1B.2
Cirsium rhothophilum surf thistle	PDAST2E2J0	None	Threatened	G1	S1	1B.2
Cladonia firma popcorn lichen	NLT0008460	None	None	G4	S1	2B.1
Clarkia speciosa ssp. immaculata Pismo clarkia	PDONA05111	Endangered	Rare	G4T1	S1	1B.1
Coastal and Valley Freshwater Marsh Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Coelus globosus globose dune beetle	IICOL4A010	None	None	G1G2	S1S2	
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
Danaus plexippus pop. 1 monarch - California overwintering population	IILEPP2012	None	None	G4T2T3	S2S3	
Delphinium parryi ssp. blochmaniae dune larkspur	PDRAN0B1B1	None	None	G4T2	S2	1B.2
Delphinium parryi ssp. eastwoodiae Eastwood's larkspur	PDRAN0B1B2	None	None	G4T2	S2	1B.2
Dipodomys heermanni morroensis Morro Bay kangaroo rat	AMAFD03063	Endangered	Endangered	G3G4TH	SH	FP
Dithyrea maritima beach spectaclepod	PDBRA10020	None	Threatened	G1	S1	1B.1
Dudleya abramsii ssp. bettinae Betty's dudleya	PDCRA04011	None	None	G4T2	S2	1B.2
Dudleya abramsii ssp. murina mouse-gray dudleya	PDCRA04012	None	None	G4T2	S2	1B.3
Dudleya blochmaniae ssp. blochmaniae Blochman's dudleya	PDCRA04051	None	None	G3T2	S2	1B.1
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
Erigeron blochmaniae Blochman's leafy daisy	PDAST3M5J0	None	None	G2	S2	1B.2
Eriodictyon altissimum Indian Knob mountainbalm	PDHYD04010	Endangered	Endangered	G1	S1	1B.1
Eryngium aristulatum var. hooveri Hoover's button-celery	PDAPI0Z043	None	None	G5T1	S1	1B.1
Eucyclogobius newberryi tidewater goby	AFCQN04010	Endangered	None	G3	S3	SSC
Eumetopias jubatus Steller (=northern) sea-lion	AMAJC03010	Delisted	None	G3	S2	
Fritillaria ojaiensis Ojai fritillary	PMLIL0V0N0	None	None	G3	S3	1B.2
Helminthoglypta walkeriana Morro shoulderband (=banded dune) snail	IMGASC2510	Endangered	None	G1	S1S2	
Horkelia cuneata var. puberula mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
Horkelia cuneata var. sericea Kellogg's horkelia	PDROS0W043	None	None	G4T1?	S1?	1B.1
Lanius ludovicianus loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
Layia jonesii Jones' layia	PDAST5N090	None	None	G2	S2	1B.2
Lupinus ludovicianus San Luis Obispo County lupine	PDFAB2B2G0	None	None	G1	S1	1B.2
Malacothamnus gracilis slender bush-mallow	PDMAL0Q0J0	None	None	G1Q	S1	1B.1
Monardella palmeri Palmer's monardella	PDLAM180H0	None	None	G2	S2	1B.2
Monardella sinuata ssp. sinuata southern curly-leaved monardella	PDLAM18161	None	None	G3T2	S2	1B.2
Neotoma lepida intermedia San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
Nyctinomops macrotis big free-tailed bat	AMACD04020	None	None	G5	S3	SSC
Oncorhynchus mykiss irideus pop. 9 steelhead - south-central California coast DPS	AFCHA0209H	Threatened	None	G5T2Q	S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Plebejus icarioides moroensis Morro Bay blue butterfly	IILEPG801B	None	None	G5T2	S2	
Poa diaboli Diablo Canyon blue grass	PMPOA4Z390	None	None	G2	S2	1B.2
Polyphylla nubila Atascadero June beetle	IICOL68040	None	None	G1	S1	
Pyrgulopsis taylori San Luis Obispo pyrg	IMGASJ0A50	None	None	G1	S1	
Rana boylii foothill yellow-legged frog	AAABH01050	None	Endangered	G3	S3	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Sanicula maritima adobe sanicle	PDAPI1Z0D0	None	Rare	G2	S2	1B.1
Scrophularia atrata black-flowered figwort	PDSCR1S010	None	None	G2?	S2?	1B.2
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Serpentine Bunchgrass Serpentine Bunchgrass	CTT42130CA	None	None	G2	S2.2	
Streptanthus albidus ssp. peramoenus most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2
Suaeda californica California seablite	PDCHE0P020	Endangered	None	G1	S1	1B.1
Sulcaria isidiifera splitting yarn lichen	NLTEST0020	None	None	G1	S1	1B.1
Taricha torosa Coast Range newt	AAAAF02032	None	None	G4	S4	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Tryonia imitator mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	

Record Count: 99

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish And Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003-7726
Phone: (805) 644-1766 Fax: (805) 644-3958

In Reply Refer To:
Consultation Code: 08EVEN00-2020-SLI-0647
Event Code: 08EVEN00-2020-E-01399
Project Name: LOSSAN CCMF

September 25, 2020

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed list identifies species listed as threatened and endangered, species proposed for listing as threatened or endangered, designated and proposed critical habitat, and species that are candidates for listing that may occur within the boundary of the area you have indicated using the U.S. Fish and Wildlife Service's (Service) Information Planning and Conservation System (IPaC). The species list fulfills the requirements under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the species list should be verified after 90 days. We recommend that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists following the same process you used to receive the enclosed list. Please include the Consultation Tracking Number in the header of this letter with any correspondence about the species list.

Due to staff shortages and excessive workload, we are unable to provide an official list more specific to your area. Numerous other sources of information are available for you to narrow the list to the habitats and conditions of the site in which you are interested. For example, we recommend conducting a biological site assessment or surveys for plants and animals that could help refine the list.

If a Federal agency is involved in the project, that agency has the responsibility to review its proposed activities and determine whether any listed species may be affected. If the project is a major construction project*, the Federal agency has the responsibility to prepare a biological assessment to make a determination of the effects of the action on the listed species or critical habitat. If the Federal agency determines that a listed species or critical habitat is likely to be adversely affected, it should request, in writing through our office, formal consultation pursuant to section 7 of the Act. Informal consultation may be used to exchange information and resolve conflicts with respect to threatened or endangered species or their critical habitat prior to a

written request for formal consultation. During this review process, the Federal agency may engage in planning efforts but may not make any irreversible commitment of resources. Such a commitment could constitute a violation of section 7(d) of the Act.

Federal agencies are required to confer with the Service, pursuant to section 7(a)(4) of the Act, when an agency action is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10(a)). A request for formal conference must be in writing and should include the same information that would be provided for a request for formal consultation. Conferences can also include discussions between the Service and the Federal agency to identify and resolve potential conflicts between an action and proposed species or proposed critical habitat early in the decision-making process. The Service recommends ways to minimize or avoid adverse effects of the action. These recommendations are advisory because the jeopardy prohibition of section 7(a)(2) of the Act does not apply until the species is listed or the proposed critical habitat is designated. The conference process fulfills the need to inform Federal agencies of possible steps that an agency might take at an early stage to adjust its actions to avoid jeopardizing a proposed species.

When a proposed species or proposed critical habitat may be affected by an action, the lead Federal agency may elect to enter into formal conference with the Service even if the action is not likely to jeopardize or result in the destruction or adverse modification of proposed critical habitat. If the proposed species is listed or the proposed critical habitat is designated after completion of the conference, the Federal agency may ask the Service, in writing, to confirm the conference as a formal consultation. If the Service reviews the proposed action and finds that no significant changes in the action as planned or in the information used during the conference have occurred, the Service will confirm the conference as a formal consultation on the project and no further section 7 consultation will be necessary. Use of the formal conference process in this manner can prevent delays in the event the proposed species is listed or the proposed critical habitat is designated during project development or implementation.

Candidate species are those species presently under review by the Service for consideration for Federal listing. Candidate species should be considered in the planning process because they may become listed or proposed for listing prior to project completion. Preparation of a biological assessment, as described in section 7(c) of the Act, is not required for candidate species. If early evaluation of your project indicates that it is likely to affect a candidate species, you may wish to request technical assistance from this office.

Only listed species receive protection under the Act. However, sensitive species should be considered in the planning process in the event they become listed or proposed for listing prior to project completion. We recommend that you review information in the California Department of Fish and Wildlife's Natural Diversity Data Base. You can contact the California Department of Fish and Wildlife at (916) 324-3812 for information on other sensitive species that may occur in this area.

[*A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.]

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Ventura Fish And Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003-7726
(805) 644-1766

Project Summary

Consultation Code: 08EVEN00-2020-SLI-0647

Event Code: 08EVEN00-2020-E-01399

Project Name: LOSSAN CCMF

Project Type: TRANSPORTATION

Project Description: LOSSAN CCMF

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/35.26844537221537N120.65268054255316W

Counties: San Luis Obispo, CA

Endangered Species Act Species

There is a total of 17 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Giant Kangaroo Rat *Dipodomys ingens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6051	Endangered
San Joaquin Kit Fox *Vulpes macrotis mutica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

Birds

NAME	STATUS
California Clapper Rail *Rallus longirostris obsoletus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4240	Endangered
California Condor *Gymnogyps californianus* Population: U.S.A. only, except where listed as an experimental population There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8193	Endangered
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard *Gambelia silus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/625	Endangered

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Insects

NAME	STATUS
Kern Primrose Sphinx Moth *Euproserpinus euterpe* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7881	Threatened

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
California Jewelflower *Caulanthus californicus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4599	Endangered
Chorro Creek Bog Thistle *Cirsium fontinale var. obispoense* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5991	Endangered
Marsh Sandwort *Arenaria paludicola* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2229	Endangered
Morro Manzanita *Arctostaphylos morroensis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2934	Threatened
Pismo Clarkia *Clarkia speciosa ssp. immaculata* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5936	Endangered
Spreading Navarretia *Navarretia fossalis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1334	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

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Appendix B. Site Photographs

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Photograph 1. North end of BSA, view looking north toward existing Pacific Surfliner Layover Facility

Photograph 2. North end of BSA, view looking south

Photograph 3. View of Eucalyptus stand north of abandoned roundhouse, looking south

Photograph 4. View of abandoned roundhouse foundation with residential apartment complex in background, looking south

Photograph 5. View of residential housing development east of rail ROW, looking east

Photograph 6. View of constructed cattail and Bermuda grass patch west of rail ROW, view looking south

Photograph 7. Typical view of disturbed habitat and bike path east of the rail ROW, looking south

Photograph 8. Typical view of rail ROW east of abandon roundhouse, looking south

Photograph 9. Typical view of Ephemeral ponding (road ruts) along western rail ROW

Photograph 10. Typical view of rail ROW south of abandon roundhouse, looking north

Photograph 11. Typical view of existing developed area along the western rail ROW

Photograph 12. View of disturbed hillside with residential housing development, looking east

Photograph 13. View of rail ROW toward the southern end of the BSA

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Appendix C. Species Observed on Site

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Plants Observed		
Family	**Species**	**Common Name**
Apiaceae – Parsley Family	*Foeniculum vulgare*	Sweet fennel
Arecaceae – Palm Family	*Phoenix canariensis**	Canary island date palm
	*Washingtonia robusta**	Mexican fan palm
Anacardiaceae – Sumac Family	*Schinus molle**	Peruvian pepper tree
Asteraceae – Sunflower Family	*Baccharis pilularis*	Coyote brush
	*Erigeron canadensis**	Canada horseweed
	Dittrichia graveolens	stinkwort
	Heterotheca grandiflora	telegraph weed
Apocynaceae – Dogbane Family	*Nerium oleander**	oleander
Boraginaceae – Forget-Me-Not Family	*Echium canadicans**	Pride of madeira
Cactaceae – Cactus Family	*Opuntia ficus-indica**	Tuna cactus
Chenopodiaceae – Goosefoot Family	*Salsola australis**	Russian thistle
Cupressaceae – Cypress Family	*Calocedrus decurrens*	Incense cedar
Euphorbiaceae – Spurge Family	*Ricinus communis**	castor bean
Fabaceae – Legume Family	*Albizia lophantha**	Stink bean
	*Melilotus albus**	white sweetclover
Fagaceae – Oak or Beech Family	*Quercus agrifolia*	Coast live oak
	Quercus lobata	Valley oak
Onagraceae – Evening Primrose Family	*Epilobium ciliatum*	Fringed willowherb
Salicaceae – Willow Family	*Salix lasiolepis*	Arroyo willow
Rhamnaceae – Buckthorn Family	*Ceanothus sp.**	Ceanothus sp.
Malvaceae – Mallow Family	*Malvella leprosa*	Alkali mallow
	*Malva parviflora**	Cheeseweed mallow
Myrtaceae – Myrtle Family	*Callistemon sp.**	Bottlebrush sp.
	*Eucalyptus globulus**	Blue gum

Plants Observed		
Family	**Species**	**Common Name**
Poaceae – Grass Family	*Bromus diandrus*	Ripgut brome
	*Cynodon dactylon**	Bermuda grass
	Distichlis spicata	Salt grass
	*Pennisetum villosum**	Feathertop
	*Sorhum halepense**	Johnson grass
	*Stipa miliacea var. miliacea**	Smilo grass
Valerianaceae – Honeysuckle Family	*Centranthus ruber**	Jupiter's beard
Vitaceae – Grape Family	*Parthenocissus quinquefolia**	Virginia creeper
Zygophyllaceae – Caltrop Family	*Tribulus terrestris**	Puncture vine

*Denotes nonnative species

Wildlife Observed			
Family	**Species**	**Common Name**	**Status**
Aves (Birds)			
Accipitridae	*Buteo jamaicensis*	Red-tailed Hawk	—
Cathartidae	*Cathartes aura*	Turkey Vulture	—
Charadriidae	*Charadrius vociferus*	Killdeer	—
Tyrannidae	*Sayornis saya*	Say's Phoebe	—
Columbidae	*Zenaida macroura*	Mourning Dove	—
Trochilidae	*Calypte anna*	Anna's Hummingbird	—
Estrildidae	*Lonchura punctulata*	Scaly-breasted Munia	—
Laridae	*Larus californicus*	California Gull	—
Corvidae	*Aphelocoma californica*	California Scrub-Jay	—
	Corvus brachyrhynchos	American crow	—
	Corvus corax	Common raven	—
Mimidae	*Mimus polyglottos*	Northern Mockingbird	—
Passeridae	*Passer domesticus*	House Sparrow	—
Passerellidae	*Zonotrichia leucophrys*	White-crowned Sparrow	—
Fringillidae	*Carpodacus mexicanus*	House Finch	—
Ardeidae	*Ardea herodias*	Great Blue Heron	—
Mammalia (Mammals)			
Sciuridae	*Spermophilus beecheyi*	California Ground Squirrel	—
Leporidae	*Lepus californicus*	Black-tailed Jackrabbit	—
Reptilia (Reptiles)			
Squamata	*Uta stansburiana elegans*	Western Side-blotched Lizard	—

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Appendix D. Special-Status Species with Potential to Occur in the Vicinity

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Scientific Name	Common Name	Status	Habitat Characteristics	Potential for Occurrence	Rationale
Abronia maritima	red sand-verbena	Federal: None State: None CRPR: 4.2	Coastal dunes. Elevation: 0–328 feet. Blooming period: February–November	No	*Not expected*. No suitable habitat present.
Arenaria paludicola	marsh sandwort	Federal: FE State: SE CRPR: 1B.1	Sandy soils in marshes and swamps with brackish freshwater. Elevation: 10–558 feet. Blooming period: May–August	No	*Not expected*. No suitable habitat present.
Aspidotis carlotta-halliae	Carlotta Hall's lace fern	Federal: None State: None CNPS: 4.2	Serpentine soils in chaparral and cismontane woodland. Elevation: 325–4,595 feet. Blooming period: January–December	No	*Not expected*. No suitable habitat present.
Astragalus didymocarpus var. milesianus	Miles' milk-vetch	Federal: None State: None CNPS: 1B.2	Clay soils in coastal scrub. Elevation: 65–295 feet. Blooming period: March–June	No	*Not expected*. No suitable habitat present.
Astragalus nuttallii var. nuttallii	ocean bluff milk-vetch	Federal: None State: None CNPS: 4.2	Coastal bluff scrub and dunes. Elevation: 5–395 feet. Blooming period: January–November	No	*Not expected*. No suitable habitat present.
Atriplex coulteri	Coulter's saltbush	Federal: None State: None CNPS: 1B.2	Alkaline or clay soils in coastal bluff scrub, coastal dunes, coastal scrub, and grassland. Elevation: 9–1,509 feet. Blooming period: March–October	No	*Not expected*. No suitable habitat present.
Bryoria spiralifera	twisted horsehair lichen	Federal: None State: None CNPS: 1B.1	Immediate coast of north coast coniferous forest, typically on conifers. Elevation 0–100 feet.	No	*Not expected*. No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Potential for Occurrence	Rationale
Calandrinia breweri	Brewer's calandrinia	Federal: None State: None CNPS: 4.2	Sandy or loamy soils, disturbed and/or burned sites in chaparral and coastal scrub. Elevation: 32–4,001 feet. Blooming period: March–June	No	*Not expected*. No suitable habitat present.
Calochortus clavatus var. clavatus	club-haired mariposa lily	Federal: None State: None CNPS: 4.3	Clay, rocky, or serpentine soils in chaparral, coastal scrub, cismontane woodland, grassland. Elevation: 246–4,264 feet. Blooming period: May–June	No	*Not expected*. No suitable habitat present.
Calycadenia villosa	dwarf calycadenia	Federal: None State: None CNPS: 1B.1	Rocky or fine soils in chaparral, cismontane woodland, meadows, seeps, and grassland. Elevation: 785–4,430 feet. Blooming period: May–October	No	*Not expected*. No suitable habitat present.
Carex obispoensis	San Luis Obispo sedge	Federal: None State: None CNPS: 1B.2	Often found on serpentine or gabbro seeps, or on clay soils in closed-coned coniferous forest, chaparral, coastal prairie, coastal scrub, and grassland. Elevation: 32–2,689 feet. Blooming period: April–June	No	*Not expected*. No suitable habitat present.
Caulanthus californicus	California jewel-flower	Federal: FE State: SE CNPS: 1B.1	Sandy soils in chenopod scrub, pinyon and juniper woodland, grassland. Elevation: 200–3,280 feet. Blooming period: February–May	No	*Not expected*. No suitable habitat present.
Ceanothus cuneatus var. fascicularis	Lompoc ceanothus	Federal: None State: None CNPS: 4.2	Sandy soils in chaparral. Elevation 15–1,300 feet. Blooming period: February–April	No	*Not expected*. No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Potential for Occurrence	Rationale
Ceanothus thyrsiflorus var. obispoensis	San Luis Obispo ceanothus	Federal: None State: None CNPS: 1B.1	Dacite soils in chaparral and cismontane woodland. Elevation: 460–740 feet. Blooming period: June	No	*Not expected*. No suitable habitat present.
Centromadia parryi ssp. congdonii	Congdon's tarplant	Federal: None State: None CNPS: 1B.1	Alakline soils in grassland. Elevation: 0–755 feet. Blooming period: May–November	No	*Not expected*. No suitable habitat present.
Cercocarpus betuloides var. blancheae	island mountain-mahogany	Federal: None State: None CNPS: 4.3	Closed-cone coniferous forests and chaparral. Elevation: 98–1,968 feet. Blooming period: February–May	No	*Not expected*. No suitable habitat present.
Chenopodium littoreum	coastal goosefoot	Federal: None State: None CNPS: 1B.2	Coastal dunes. Elevation: 33–98 feet. Blooming period: April–August	No	*Not expected*. No suitable habitat present.
Chlorogalum pomeridianum var. minus	dwarf soaproot	Federal: None State: None CNPS: 1B.2	Serpentine soils in chaparral. Elevation: 1,000–3,280 feet. Blooming period: May–August	No	*Not expected*. No suitable habitat present.
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	Federal: FE State: SE CNPS:1B.2	Coastal dunes and coastal salt marshes and swamps. Elevation: 0–98 feet. Blooming period: May–October (synonym of Cordylanthus maritimus ssp. maritimus)	No	*Not expected*. No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Potential for Occurrence	Rationale
Chorizanthe aphanantha	Irish Hills spineflower	Federal: None State: None CNPS: 1B.1	Rocky to gravelly serpentinite soils in coastal scrub and the openings and edges of chaparral. Elevation: 328–1,210 feet. Blooming period: April–June	No	*Not expected*. No suitable habitat present.
Chorizanthe douglasii	Douglas' spineflower	Federal: None State: None CNPS: 4.3	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and grassland. Elevation: 180–5,250 feet. Blooming period: April–July	No	*Not expected*. No suitable habitat present.
Chorizanthe leptotheca	Peninsular spineflower	Federal: None State: None CNPS: 4.2	Alluvial fans or granitic areas in chaparral, coastal scrub, and lower montane coniferous forest. Elevation: 984–6,232 feet. Blooming period: May–August	No	*Not expected*. No suitable habitat present.
Chorizanthe palmeri	Palmer's spineflower	Federal: None State: None CNPS: 4.2	Rocky and serpentine soils in chaparral, grassland, and cismontane woodland. Elevation 180–3,100 feet. Blooming period: April–August	No	Nearest occurrence within ¾ mile of project study area. No suitable habitat present.
Chorizanthe rectispina	straight-awned spineflower	Federal: None State: None CNPS: 1B.3	Chaparral, cismontane woodland, and coastal scrub. Elevation 275–3,395 feet. Blooming period: April–July	No	*Not expected*. No suitable habitat present.
Chorizanthe ventricosa	potbellied spineflower	Federal: None State: None CNPS: 4.3	Serpentine soils in grassland and cismontane woodland. Elevation: 210–4,050 feet. Blooming period: May–September	No	*Not expected*. No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Potential for Occurrence	Rationale
Clarkia exilis	slender clarkia	Federal: None State: None CNPS: 4.3	Cismontane woodland. Elevation: 393–3,280 feet. Blooming period: April–May	No	*Not expected*. No suitable habitat present.
Clinopodium mimuloides	monkey-flower savory	Federal: None State: None CNPS: 4.2	Streambanks and mesic soils in chaparral and central coast coniferous forests. Elevation: 1,000–5,904 feet. Blooming period: June–October	No	*Not expected*. No suitable habitat present.
Deinandra paniculata	paniculate tarplant	Federal: None State: None CNPS: 4.2	Usually found in vernally mesic soils in coastal scrub, grassland, and vernal pools. Elevation: 82–3,084 feet. Blooming period: April–November	No	*Not expected*. No suitable habitat present.
Delphinium parryi ssp. blochmaniae	dune larkspur	Federal: None State: None CNPS: 1B.2	Coastal dunes and Maritime chaparral. Elevation: 0–656 feet. Blooming period: April–June	No	*Not expected*. No suitable habitat present.
Delphinium umbraculorum	umbrella larkspur	Federal: None State: None CNPS: 1B.3	Chaparral and cismontane woodland. Elevation: 1,312–5,249 feet. Blooming period: April–June	No	*Not expected*. No suitable habitat present.
Dithyrea maritima	beach spectaclepod	Federal: None State: ST CNPS: 1B.1	Coastal dunes and sandy coastal scrub. Elevation: 10–164 feet. Blooming period: March–May	No	*Not expected*. No suitable habitat present.
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	Federal: None State: None CNPS: 1B.1	Rocky, often clay or serpentine soils in coastal bluff scrub, chaparral, coastal scrub, and grassland. Elevation: 16–1,476 feet. Blooming period: April–June	No	Nearest occurrence within ¾ mile of biological study area. No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Potential for Occurrence	Rationale
Eleocharis parvula	small spikerush	Federal: None State: None CNPS: 4.3	Marshes and swamps. Elevation: 3–9,908 feet. Blooming period: April–September	No	*Not expected*. No suitable habitat present.
Eryngium aristulatum var. hooveri	Hoover's button-celery	Federal: None State: None CNPS: 1B.1	Vernal pools. Elevation: 9–147 feet. Blooming period: July–August	No	*Not expected*. No suitable habitat present.
Erysimum suffrutescens	suffrutescent wallflower	Federal: None State: None CNPS: 4.2	Maritime chaparral, coastal bluff scrub, coastal scrub, and coastal dunes. Elevation: 0–492 feet. Blooming period: January–July	No	*Not expected*. No suitable habitat present.
Extriplex joaquinana	San Joaquin spearscale	Federal: None State: None CNPS: 1B.2	Alkaline soils in chenopod scrub, meadows, seeps, playas, and grassland. Elevation: 0–2,740 feet. Blooming period: April–October (synonym of Atriplex joaquiniana)	No	*Not expected*. No suitable habitat present.
Fritillaria agrestis	stinkbells	Federal: None State: None CNPS: 4.2	Clay, sometimes serpentine soils in chaparral, cismontane, pinyon and juniper woodland, and grassland. Elevation: 32–5,101 feet. Blooming period: March–June	No	*Not expected*. No suitable habitat present.
Fritillaria ojaiensis	Ojai fritillary	Federal: None State: None CNPS: 1B.2	Rocky soils in mesic broadleafed upland forest, chaparral, cismontane woodland, and lower montane coniferous forest. Elevation: 738–3,274 feet. Blooming period: February–May	No	*Not expected*. No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Potential for Occurrence	Rationale
Fritillaria viridea	San Benito fritillary	Federal: None State: None CNPS: 1B.2	Serpentine slopes, streambanks, roadsides, and rocky soils in chaparral and cismontane woodland. Elevation: 655–5,005 feet. Blooming period: March–May	No	*Not expected*. No suitable habitat present.
Grindelia hirsutula var. maritima	San Francisco gumplant	Federal: None State: None CNPS: 3.2	Sandy or serpentine soils in coastal bluff scrub, grassland, and coastal scrub. Elevation: 45–1,310 feet. Blooming period: June–September	No	*Not expected*. No suitable habitat present.
Horkelia cuneata var. puberula	mesa horkelia	Federal: None State: None CNPS: 1B.1	Sandy and gravelly soils within Maritime chaparral, cismontane woodland, and coastal scrub. Elevation: 229–2,657 feet. Blooming period: February–July(September)	No	*Not expected*. No suitable habitat present.
Horkelia cuneata var. sericea	Kellogg's horkelia	Federal: None State: None CNPS: 1B.1	Sandy or gravelly soils in openings of Maritime chaparral, coastal dunes and scrub, and closed-cone coniferous forest. Elevation: 30–655 feet. Blooming period: April–September	No	*Not expected*. No suitable habitat present.
Lasthenia californica ssp. macrantha	perennial goldfields	Federal: None State: None CNPS: 1B.2	Coastal scrub, dunes, and bluff scrub. Elevation: 15–1,705 feet. Blooming period: January–November	No	*Not expected*. No suitable habitat present.
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Federal: None State: None CNPS: 1B.1	Coastal salt marsh, coastal salt swamps, playas, vernal pools. Elevation: 3–4,001 feet. Blooming period: February–June	No	*Not expected*. No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Potential for Occurrence	Rationale
Monardella sinuata ssp. sinuata	southern curly-leaved monardella	Federal: None State: None CNPS: 1B.2	Sandy soils in chaparral, cismontane woodland, coastal dunes, and openings in coastal scrub. Elevation: 0–984 feet. Blooming period: April–September	No	*Not expected*. No suitable habitat present.
Monolopia gracilens	woodland woolythreads	Federal: None State: None CNPS: 1B.2	Serpentine soils in the openings of chaparral and broadleafed upland and north coast coniferous forests, grassland, and cismontane woodland. Elevation: 325–3,935 feet. Blooming period: February–July	No	*Not expected*. No suitable habitat present.
Mucronea californica	California spineflower	Federal: None State: None CNPS: 4.2	Sandy soils in chaparral, cismontane woodland, coastal dunes, coastal scrub, and grassland. Elevation: 0–4,592 feet. Blooming period: March–August	No	*Not expected*. No suitable habitat present.
Navarretia fossalis	spreading navarretia	Federal: FT State: None CNPS: 1B.1	Chenopod scrub, assorted freshwater marshes and swamps, playas, and vernal pools. Elevation: 98–2,149 feet. Blooming period: April–June	No	*Not expected*. No suitable habitat present.
Navarretia nigelliformis ssp. radians	shining navarretia	Federal: None State: None CNPS: 1B.2	Sometimes in clay soils in vernal pools, grassland, and cismontane woodland. Elevation: 210–3,280 feet. Blooming period: March–July	No	*Not expected*. No suitable habitat present.
Nemacaulis denudata var. denudata	coast woolly-heads	Federal: None State: None CNPS: 1B.2	Coastal dunes. Elevation: 0–328 feet. Blooming period: April–September	No	*Not expected*. No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Potential for Occurrence	Rationale
Nemacladus secundiflorus var. secundiflorus	large-flowered nemacladus	Federal: None State: None CNPS: 4.3	Gravelly soils in openings of chaparral and grassland. Elevation: 656–6,561 feet. Blooming period: April–June	No	*Not expected*. No suitable habitat present.
Perideridia pringlei	adobe yampah	Federal: None State: None CNPS: 4.3	Serpentine or often clay soils in chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland. Elevation: 984–5,904 feet. Blooming period: April–July	No	*Not expected*. No suitable habitat present.
Piperia michaelii	Michael's rein orchid	Federal: None State: None CNPS: 4.2	Coastal bluff scrub, coastal scrub, chaparral, cismontane woodland, closed-cone and lower montane coniferous forest. Elevation: 9–3,001 feet. Blooming period: April–August	No	*Not expected*. No suitable habitat present.
Plagiobothrys uncinatus	hooked popcornflower	Federal: None State: None CNPS: 1B.2	Sandy soils in grassland, cismontane woodland, and chaparral. Elevation: 980–2,495 feet. Blooming period: April–May	No	*Not expected*. No suitable habitat present.
Sanicula hoffmannii	Hoffmann's sanicle	Federal: None State: None CNPS: 4.3	Often in serpentine or clay soils in broadleafed upland, coastal bluff scrub, chaparral, cismontane woodland, coastal scrub, and lower montane coniferous forest. Elevation: 95–985 feet. Blooming period: March–May	No	*Not expected*. No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Potential for Occurrence	Rationale
Sanicula maritima	adobe sanicle	Federal: None State: SR CNPS: 1B.1	Clay and serpentine soils in chaparral, coastal prairie, meadows, seeps, and grassland. Elevation: 95–785 feet. Blooming period: February–May	No	*Not expected*. No suitable habitat present.
Senecio aphanactis	chaparral ragwort	Federal: None State: None CNPS: 2B.2	Chaparral, cismontane woodland, coastal scrub, and alkaline flats. Elevation: 49–2,624 feet. Blooming period: January–April	No	*Not expected*. No suitable habitat present.
Senecio astephanus	San Gabriel ragwort	Federal: None State: None CNPS: 4.3	Rocky slopes in coastal bluff scrub and chaparral. Elevation: 1,312–4,920 feet. Blooming period: May–July	No	*Not expected*. No suitable habitat present.
Solidago guiradonis	Guirado's goldenrod	Federal: None State: None CNPS: 4.3	Serpentine seeps in cismontane woodland and grassland. Elevation: 1,965–4,495 feet. Blooming period: September–October	No	*Not expected*. No suitable habitat present.
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	Federal: None State: None CNPS: 1B.2	Serpentinite in chaparral, cismontane woodland, grassland. Elevation: 311–3,281 feet. Blooming period: March–October	No	*Not expected*. No suitable habitat present.
Suaeda californica	California seablite	Federal: FE State: None CNPS: 1B.1	Coastal salt marshes and swamps. Elevation: 0–50 feet. Blooming period: July–October	No	*Not expected*. No suitable habitat present.
Trifolium hydrophilum	saline clover	Federal: None State: None CNPS: 1B.2	Marshes, swamps, vernal pools, and grassland with mesic or alkaline soils. Elevation: 0–985 feet. Blooming period: April–June	No	*Not expected*. No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Potential for Occurrence	Rationale
Tropidocarpum capparideum	caper-fruited tropidocarpum	Federal: None State: None CNPS: 1B.1	Alkaline hills in grassland. Elevation: 3–1,493 feet. Blooming period: March–April	No	*Not expected*. No suitable habitat present.

Sensitivity Status:

United States Fish and Wildlife Service (USFWS): FC=Federal Candidate for Listing; FE=Federally Listed Endangered; FT=Federally Listed Threatened

California Department of Fish and Wildlife (CDFW): SE=State Listed Endangered

County of Orange Central/Coastal Subregion Natural Communities Conservation Plan /HCP: C=Covered, None=Not Covered

California Rare Plant Ranking (CRPR):

1B: Plants Rare, Threatened, or Endangered in California and Elsewhere

The plants of Rank 1B are rare throughout their range with the majority of them endemic to California. Most of the plants that are ranked 1B have declined significantly over the last century. California Rare Plant Rank 1B plants constitute the majority of plant taxa tracked by the CNDDB, with more than 1,000 plants assigned to this category of rarity.

2B: Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere

The plants of Rank 2B are rare, threatened or endangered in California, but more common elsewhere. Plants common in other states or countries are not eligible for consideration under the provisions of the Federal Endangered Species Act; however, they are eligible for consideration under the California Endangered Species Act. This rank is meant to highlight the importance of protecting the geographic range and genetic diversity of more widespread species by protecting those species whose ranges just extend into California. Note: Plants of both Rank 1B and 2B are rare, threatened or endangered in California; the only difference is the status of the plants outside of the state.

3: Need more information

Threat Ranks:

The CRPR use a decimal-style threat rank. The threat rank is an extension added onto the CRPR and designates the level of threats by a 1 to 3 ranking with 1 being the most threatened and 3 being the least threatened. Most CRPRs read as 1B.1, 1B.2, 1B.3, etc. Note that some Rank 3 plants do not have a threat code extension due to difficulty in ascertaining threats. Rank 1A and 2A plants also do not have threat code extensions since there are no known extant populations in California.

Sources:

Source for all plant species habitat characteristics with a CRPR value is: California Native Plant Society (CNPS). 2020. Inventory of Rare and Endangered Plants (online edition, v8-03). Sacramento, CA: CNPS. http://www.rareplants.cnps.org/.

Jepson Flora Project. 2019 (December 20, Revision 7). Jepson eFlora. Berkeley, CA: The Jepson Herbarium. http://ucjeps.berkeley.edu/eflora/.

Plant Nomenclature and Listing Status: California Department of Fish and Wildlife (CDFW). 2020 (January). Special Vascular Plants, Bryophytes, and Lichens List. Sacramento, CA: CDFW, Natural Heritage Division.

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Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Invertebrates						
Bombus crotchii	Crotch bumble bee	Federal: None State: SCE	Inhabits open grassland and scrub habitats. Nesting occurs underground. This species is classified as a short-tongued species, whose food plants include those in the following genera: *Asclepias, Chaenactis, Lupinus, Medicago, Phacelia,* and *Salvia* (Williams et al. 2014).	Williams et al. 2014. Williams, P.H., R.W. Thorp, L.L. Richardson, and S.R. Colla. 2014b. Bumble bees of North America: an Identification Guide. Princeton University Press.	No	No suitable habitat present.
Bombus occidentalis	western bumble bee	Federal: None State: SCE	Open grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows. Typically nests underground in abandoned rodent burrows, such as old squirrel or other animal nests, and in open west-southwest slopes bordered by trees, although a few nests have been reported from above-ground locations such as in logs among railroad ties. Availability of nest sites may depend on rodent abundance (Xerces 2014).	Xerces. 2014. Jepsen, S. & Foltz Jordan, S. Species Fact Sheet. *Bombus occidentalis*. Xerces Society for Invertebrate Conservation.	No	No suitable habitat present. Project area exhibits highly disturbed, heavily compacted soils, lack railroad ties or logs and supports few if any rodent burrows.

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Branchinecta lynchi	vernal pool fairy shrimp	Federal: FT State: None	Endemic to the grasslands of the Central Valley and the Central and South Coast Range mountains of California, and the Agate Desert of southern Oregon. Found only in cool water vernal pools and vernal pool-like habitats; does not occur in riverine, marine, or other permanent bodies of water (USFWS 2007).	USFWS. 2007. Vernal Pool Fairy Shrimp (*Branchinecta lynchi*) 5-Year Review: Summary and Evaluation. USFWS; Sacramento, CA.	Not Likely	Not likely to occur: The Project site has a long history of disturbance, and although the three unvegetated depressions on site may provide suitable hydrology to support vernal pool fairy shrimp, they are not hydrologically linked to other vernal pools that provide refugia or population sources, do not exhibit the necessary physical structure to provide shelter and lack detritus within the pool or surrounding the pool to provide a food source.

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Danaus plexippus	Monarch Butterfly California pop. 1	Federal: FC State: none	Milkweed is required for breeding. Overwintering habitat is comprised of a grove of trees that produce a specific microclimate including temperatures that are above freezing but not too warm, low light intensity and solar radiation with high water vapor pressure, wind speeds lower than 2 m/s and access to fresh water, sometimes via streams or puddles but often in the form of fog drip or morning dew.	Griffiths, J and F. Villablanca. 2015. Managing monarch butterfly overwintering groves: making room among the eucalyptus. California Fish and Game 101(1):40-50.	No	Although several known overwinter roosts occur within 2 miles of the project site, the site supports no groves of trees that would provide the necessary microclimate. Although the site supports two eucalyptus trees, they are isolated from any other vegetation exposing them to high light intensity and solar radiation making the interior of the canopy warmer and drier than those sites where monarchs are known to overwinter nearby.

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Euproserpinus euterpe	Kern primrose sphinx moth	Federal: FT State: None	Sandy washes. Formerly only known from Walker Basin in Kern County. Has subsequently been discovered at Carrizo Plain in San Luis Obispo County. Adults nectar on a variety of flowering species that occur in the region, including, filaree (*Erodium spp.),* goldfields (*Lasthenia spp.*), baby blue-eyes (*Nemophila menziesii*) and miniature lupine (*Lupinus bicolor*) (USFWS 2017).	USFWS. 2017. Endangered Species Accounts. USFWS; Sacramento. Available online: https://www.fws.gov/sacramento/es_species/Accounts/Invertebrates/kern_primrose_sphinx/	No	No suitable habitat present.
Helminthoglypta walkeriana	Morro shoulderband	Federal: FE State: None	Restricted to the coastal strand in the immediate vicinity of Morro Bay. Inhabits the duff beneath goldenbush (*Ericameria spp.*), sage (*Salvia spp.*), dudleya *(Dudleya spp.*), and iceplant (*Mesembryanthemum spp.*) (USFWS 2019).	USFWS. 2019. Recovery Plan for the Morro Shoulderband Snail and Four Plants from Western San Luis Obispo County, California. USFWS; Ventura, CA.	No	No suitable habitat present.
Fish						
Eucyclogobius newberryi	tidewater goby	Federal: FE State: SSC	Shallow coastal lagoons and the uppermost brackish zone of larger estuaries. Rarely found in marine or freshwater environments. Typically associated with still water, less than 3 feet deep, with salinities of less than 12 parts per thousand (USFWS 2007).	USFWS. 2007. Tidewater Goby (*Eucyclogobius newberryi*) 5-Year Review: Summary and Evaluation. USFWS; Ventura, CA.	No	No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Oncorhynchus mykiss irideus (pop. 9)	steelhead (south-central California coast DPS)	Federal: FT State: None	Includes naturally spawned anadromous steelhead originating below natural and manmade impassable barriers from the Pajaro River to (but not including) the Santa Maria River. Spawning habitat includes gravel-bottomed, fast-flowing, well-oxygenated rivers and streams. Non-spawning habitat includes estuarine and marine waters (NOAA 2019).	NOAA. 2019. NOAA Fisheries, West Coast Region, Protected Species Accounts. Available online: https://archive.fisheries.noaa.gov/wcr/protected_species/salmon_steelhead/salmon_and_steelhead_listings/steelhead/south_central_california_coast/south_central_california_coast_steelhead.html	No	No suitable habitat present.
Amphibians						
Ambystoma californiense	California tiger salamander	Federal: FT State: ST	Breeds in fish-free ephemeral ponds which form in winter and dry in summer. Some also breed in slow streams and semipermanent waters, including cattle ponds. Spends most of the year underground in small mammal burrows, especially those of California ground squirrel (*Otospermophilus beecheyi*). Typical habitat associations include grassland, oak savanna, edges of mixed woodland, and lower elevation coniferous forest (Nafis 2020).	Nafis, Gary. 2020. California Herps: A Guide to Reptiles and Amphibians of California. Available online: http://www.californiaherps.com/	No	No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Rana boylii	foothill yellow-legged frog	Federal: None State: SE (Central Coast, S)	Ranges in the northern half of California except for the Central Valley, Modoc Plateau, and eastern side of the Sierra Nevada Mountains. Generally found in shallow flowing streams and rivers with at least cobble sized substrate. Breeding generally occurs at the margins of wide shallow channels with reduced flow variation near tributary confluences. Specifically, egg masses are placed in low flow locations on or under rocks with preferred substrates being boulders, cobbles, or gravel. Eggs have been found at depths to 34 inches in water velocities of 0 - 0.69 feet per second and at most 40 feet from shore. Maximum water temperature for breeding is 79oF and 48 to 70oF is the preferred range. Tadpoles avoid areas below 55oF and prefer temperatures between 62oF and 72.oF (Thomson et al. 2016).	Thomson, Robert C., Wright, Amber N., and Shaffer H. Bradley. 2016. California Amphibian and Reptile Species of Special Concern. University of California Press Berkeley, CA.	No	No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Rana draytonii	California red-legged frog	Federal: FT State: SSC	Ponds and streams in humid forests, woodlands, grasslands, coastal scrub, and streamsides with plant cover in lowlands or foothills. Breeding habitat includes permanent or ephemeral water sources; lakes, ponds, reservoirs, slow streams, marshes, bogs, and swamps. Ephemeral wetland habitats require animal burrows or other moist refuges for estivation when the wetlands are dry. Occurs from sea level to 5,000 feet in elevation. Occurs along the Coast Ranges from Mendocino County south to northern Baja California, and inland across the northernmost reaches of the Sacramento Valley and locally south through portions of the Sierra Nevada foothills as far south as northern Tulare County (Nafis 2020).	Nafis, Gary. 2020. California Herps: A Guide to Reptiles and Amphibians of California. Available online: http://www.californiaherps.com/	No	No suitable habitat present.
Taricha torosa	Coast Range newt	Federal: None State: SSC	Ranges along the coast from Monterey to Ventura County and Los Angeles to San Diego County with some occurrences in southwestern Riverside County. The population north of Ventura generally occurs in mesic forests on hilly or mountainous terrain. Populations around and south of Ventura generally occur in drier oak, chaparral, and grassland habitats. Specifically, the southern population uses permanent streams for breeding, and occasionally seasonal streams free of nonnative fish (Thomson et al. 2016).	Thomson, Robert C., Wright, Amber N., and Shaffer H. Bradley. 2016. California Amphibian and Reptile Species of Special Concern. University of California Press Berkeley, CA.	No	No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Reptiles						
Anniella pulchra	Northern California legless lizard	Federal: None State: SSC	Generally found in habitats with a relatively sparse amount of vegetation including coastal sand dunes, chaparral, pine-oak woodland, desert scrub, grassland, and riparian zones. Specifically, requires sandy to loose loamy substrates suitable for burrowing, and avoids areas with gravel or larger sized substrates and those with greater than 10% clay content. Also tends to avoid nonnative grasslands, iceplant fields, and other nonnative dominated herbaceous communities (Thomson et al. 2016). Occurs from the southern edge of the San Joaquin River in northern Contra Costa County south to Ventura County, south of which there is a wide area where the species of Anniella is or are unknown. Occurs in scattered locations in the San Joaquin Valley, along the southern Sierra Nevada Mountains, on the desert side of the Tehachapi Mountains, and part of the San Gabriel Mountains. Two melanistic or dusky populations occur. One is in coastal dunes from Morro Bay south to the mouth of the Santa Maria River in San Luis Obispo County. The other, recognized as *Anniella pulchra nigra*, occurs in beach dunes on the Monterey Peninsula and on the southern coast of Monterey Bay south of the Salinas River in Monterey County (Nafis 2020).	Thomson, Robert C., Wright, Amber N., and Shaffer H. Bradley. 2016. California Amphibian and Reptile Species of Special Concern. University of California Press Berkeley, CA. | Nafis, Gary. 2020. California Herps: A Guide to Reptiles and Amphibians of California. Available online: http://www.californiaherps.com/	No	No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Emys marmorata	western pond turtle	Federal: None State: SSC	Ranges throughout California except for Inyo and Mono Counties. Generally occurs in various water bodies including permanent and ephemeral systems either natural or artificial. Upland habitat that is at least moderately undisturbed is required for nesting and overwintering, in soils that are loose enough for excavation (Thomson et al. 2016).	Thomson, Robert C., Wright, Amber N., and Shaffer H. Bradley. 2016. California Amphibian and Reptile Species of Special Concern. University of California Press Berkeley, CA.	No	No suitable habitat present.
Gambelia sila	blunt-nosed leopard lizard	Federal: FE State: SE,FP	Inhabits open, sparsely vegetated areas of low relief on the San Joaquin Valley floor and in the surrounding foothills. Non-native grassland, valley sink scrub, valley needlegrass grassland, alkali playa, and *Atriplex* grassland (USFWS 2010). Uses mammal dens and burrows for cover and shelter. The number of available burrows will determine the size of this lizard's population in an area (Nafis 2020).	USFWS. 2010. Blunt-nosed leopard lizard (*Gambelia sila*) 5-Year Review: Summary and Evaluation. USFWS; Sacramento, California. | Nafis, Gary. 2020. California Herps: A Guide to Reptiles and Amphibians of California. Available online: http://www.californiaherps.com	No	No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Phrynosoma blainvillii	Blainville's horned lizard	Federal: None State: SSC	Ranges in the southern half of California outside of the desert, along the foothills of the Sierra Nevada Mountains to Butte County, and along the Central Coast ranges up to Contra Costa County. Generally occurs in sage scrub, dunes, alluvial scrub, annual grassland, chaparral, oak, riparian, and Joshua tree woodland, coniferous forest, and saltbush scrub. Needs loose, fine soils for burrowing, open areas for basking, and dense foliage for cover. Negatively associated with Argentine ants (*Linepithema humi*) (Thomson et al. 2016).	Thomson, Robert C., Wright, Amber N., and Shaffer H. Bradley. 2016. California Amphibian and Reptile Species of Special Concern. University of California Press Berkeley, CA.	No	No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Birds						
Agelaius tricolor	tricolored blackbird (nesting)	Federal: None State: ST	Mostly a year-round resident in California. Common locally throughout Central Valley and in coastal districts from Sonoma County south. Breeds locally in northeastern California. In winter, becomes more widespread along the central coast and San Francisco Bay area, and can be found in portions of the Colorado Desert (Hamilton 2004). Preferred nesting habitat includes cattails (*Typha* spp.), bulrushes (*Schoenoplectus* spp.), Himalayan blackberry (*Rubus armeniacus*), and agricultural silage. Dense vegetation is preferred but heavily lodged cattails not burned in recent years may preclude settlement. Need access to open water. Strips of emergent vegetation along canals are avoided as nest sites unless they are about 30 feet or more wide but in some ponds, especially where associated with Himalayan blackberries and deep water, settlement may be in narrower fetches of cattails. (CDFW 2020a).	Hamilton, W. J. 2004. Tricolored Blackbird (*Agelaius tricolor*). In The Riparian Bird Conservation Plan: a strategy for reversing the decline of riparian-associated birds in California. California Partners in Flight. | CDFW. 2020. California Wildlife Habitat Relationships System Life History Accounts and Range Maps. Available online: https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range. CDFW Biogeographic Data Branch; Sacramento, CA	No	No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Athene cunicularia	burrowing owl	Federal: None State: SSC	Resident in much of the state in open, dry grasslands and various desert habitats. Requires open areas with mammal burrows; especially those of California ground squirrel (*Otospermophilus beecheyi*) Inhabits rolling hills, grasslands, fallow fields, sparsely vegetated desert scrub, vacant lots and other open human disturbed lands such as airports and golf courses. Absent from northwest coast and elevations above 5,500 feet (CDFW 2020a).	CDFW. 2020. California Wildlife Habitat Relationships System Life History Accounts and Range Maps. Available online: https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range. CDFW Biogeographic Data Branch; Sacramento, CA	No	No suitable burrows present.
Charadrius nivosus nivosus	western snowy plover	Federal: FT State: SSC	Coastal populations nest on sandy or gravelly dune-backed beaches, sand spits, and on estuarine salt pans and lagoons (USFWS 2005). Inland populations nest along barren to sparsely vegetated flats and along shores of alkaline and saline lakes, reservoirs, ponds, braided river channels, agricultural wastewater ponds, and salt evaporation ponds (Shuford and Gardali 2008). Inland nesting occurs at Salton Sea, Mono Lake, and isolated sites on the shores of alkali lakes in northeastern California, the Central Valley, and southeastern deserts (CDFW 2020a).	USFWS. 2005. Designation of Critical Habitat for the Pacific Coast Population of the Western Snowy Plover (*Charadrius alexandrinus nivosus*). Federal Register Vol. 70 (188): 56969-57018 | Shuford, W.D. and Gardali, T., editors. 2008. California Bird Species of Special Concern | CDFW. 2020. California Wildlife Habitat Relationships System Life History Accounts and Range Maps. Available online: https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range. CDFW Biogeographic Data Branch; Sacramento, CA	No	No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Federal: FT State: SE	Has declined drastically in California due primarily to loss of habitat. Requires riparian woodland with dense cover; primarily old-growth cottonwood (*Populus spp.*) forests with willow (*Salix spp.*) understory, but will also nest in overgrown orchards adjacent to streams and dense thickets alongside marshes. Persists in small numbers along the Sacramento River between Red Bluff and Colusa, the Feather River between Yuba City and the Bear River, Owens Valley, the Kern River Valley, the Colorado River Valley, the Santa Ana River near Prado Basin, and the San Luis Rey River in northern San Diego County (USFWS 2019).	USFWS. 2019. ECOS Environmental Conservation Online System - Species Profile for Yellow-billed Cuckoo. Available online: https://ecos.fws.gov/ecp0/profile/speciesProfile?spcode=B06R	No	No suitable habitat present.
Elanus leucurus	white-tailed kite (nesting)	Federal: None State: FP	Fairly common resident of the Central Valley, coast, and Coast Range Mountains. Nests in oak savanna, oak and willow riparian, and other open areas with scattered trees near foraging habitat. Forages in open grasslands, meadows, farmlands, and emergent wetlands. Often seen hover foraging over roadsides or grassy highway medians (CDFW 2020a).	CDFW. 2020. California Wildlife Habitat Relationships System Life History Accounts and Range Maps. Available online: https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range. CDFW Biogeographic Data Branch; Sacramento, CA	Yes	Low potential to occur. May use adjacent grassland/woodl and for foraging and nesting. Would not be impacted by project.

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Empidonax traillii extimus	southwestern willow flycatcher	Federal: FE State: SE	Uncommon to rare summer resident in the southern Sierra Nevada Range, the Lower Kern River Valley, along the Santa Margarita River, and the upper San Luis Rey River. Prefers dense riparian forests with willow (Salix spp.) component and scrub habitats associated with arroyos, washes, rivers, lakes, and reservoirs. Has declined drastically as much of its preferred willow habitat has been taken over by invasive tamarisk (*Tamarix* spp.), though does now sometimes use tamarisk for nesting and foraging in the absence of native vegetation (USFWS 2002).	USFWS. 2002. Final Recovery Plan Southwestern Willow Flycatcher (*Empinodax traillii extimus*). USFWS; Albuquerque, NM.	No	No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Gymnogyps californianus	California condor	Federal: FE State: SE, FP	Formerly ranged across much of North America, but over the course of the 20th Century, disappeared over nearly its entire range. Dwindled to such small numbers that by the 1980's, all remaining birds were removed from the wild to a captive rearing program. In the 1990's, began being re-released, and now the species has re-established in the foothills of the southern Sierra Nevada Range, across the Tehachapi Range and through the Transverse Ranges from Los Angeles County to Santa Barbara County, and up the Coast Range Mountains to Big Sur and Pinnacles National Park. Nests in cavities located on steep rock formations or in the burned out hollows of old-growth coast redwoods (Sequoia semervirens) or giant sequoias (Sequoiadendron giganteum). Less commonly uses cliff ledges or large old nests of other bird species. Forages in open terrain of foothill grassland and oak savanna habitats, and at coastal sites in central California (USFWS 2013).	USFWS. 2013. California Condor (*Gymnogyps californianus*) 5-Year Review: Summary and Evaluation. USFWS; Pacific Southwest Region.	No	No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Lanius ludovicianus	loggerhead shrike (nesting)	Federal: None State: SSC	Shrublands and open woodlands with a fair amount of grass cover and areas of bare ground. Requires tall shrubs or trees, fences, or power lines for hunting perches and territorial advertisement. Also requires open areas of short grasses, forbs, or bare ground for hunting, large shrubs or trees for nest placement, and thorny vegetation or barbed wire fences for impaling prey. Ranges across most of the state, but absent from the highest mountains and the northwest forests and coast (Shuford and Gardali 2008).	Shuford, W. D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.	Yes	Low potential to occur. May use adjacent grassland/woodl and for foraging and nesting. Would not be impacted by project.
Laterallus jamaicensis coturniculus	California black rail	Federal: None State: ST, FP	Saline, brackish, and fresh emergent wetlands. Scarce, but true abundance difficult to determine due to small size and extremely secretive nature. Known to nest at scattered locations in the San Francisco Bay Area and Delta region, Point Reyes National Seashore, San Luis Obispo and Orange Counties, as well as the Imperial and Lower Colorado River Valleys. Appears intermittently and sparingly at a few locations in the Sacramento Valley (CDFW 2020a).	CDFW. 2020. California Wildlife Habitat Relationships System Life History Accounts and Range Maps. Available online: https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range. CDFW Biogeographic Data Branch; Sacramento, CA	No	No suitable habitat present.
Rallus obsoletus obsoletus	California Ridgway's rail	Federal: FE State: SE, FP	Restricted to tidal marshes on the fringes of San Pablo Bay, San Francisco Bay, Monterey Bay, and Morro Bay. Requires intricate network of sloughs with small natural berms along tidal channels, preferably with cordgrass (*Spartina spp.*) and pickleweed (*Salicornia spp.)* (USFWS 2017).	USFWS. 2017. Bay Delta Fish & Wildlife Office, Species Accounts, California Ridgway's Rail (formerly California Clapper Rail). Available online: https://www.fws.gov/sfbaydelta/EndangeredSpecies/Species/Accounts/ClapperRail/ClapperRail.htm	No	No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Vireo bellii pusillus	least Bell's vireo	Federal: FE State: SE	Once occupied much of the Central Valley, but has disappeared from most its former range, and is now restricted to southern California from southern Inyo and Monterey Counties south through the South Coast and Inland Empire regions. Obligate riparian breeder, favoring cottonwood (*Populus spp.*), willow (Salix spp.), and oak (*Quercus spp.*) woodlands, and mule fat (*Baccharis salicifolia*) scrub along watercourses (USFWS 2006).	USFWS. 2006. Least Bell's Vireo (*Vireo bellii pusillus*) 5-Year Review: Summary and Evaluation. USFWS; Carlsbad, CA.	No	No suitable habitat present.
Mammals						
Antrozous pallidus	pallid bat	Federal: None State: SSC	Ranges across nearly all of California except for high elevation portions of the Sierra Nevada Mountains and Del Norte, western Siskiyou, Humboldt, and northern Mendocino Counties. Generally found in a wide variety of habitats but with some preference for drier areas. Day roosts are in caves, crevices, mines, and occasionally in decadent trees and buildings (CDFW 2020a).	CDFW. 2020. California Wildlife Habitat Relationships System Life History Accounts and Range Maps. Available online: https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range. CDFW Biogeographic Data Branch; Sacramento, CA	No	No potentially suitable roosting habitat associated with buildings within the study area

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Corynorhinus townsendii	Townsend's big-eared bat	Federal: None State: SSC	Ranges throughout California except for high elevation portions of the Sierra Nevada Mountains. Generally prefers mesic habitats but known to occur in all nonalpine habitats of California. Roosting occurs in caves, tunnels, mines, buildings, or other structures that provide cavern-like space and this species may use different roosting sites for day and night (CDFW 2020a).	CDFW. 2020. California Wildlife Habitat Relationships System Life History Accounts and Range Maps. Available online: https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range. CDFW Biogeographic Data Branch; Sacramento, CA Gruver, J.C. and D.A. Keinath. 2006. Townsend's Big-eared Bat (*Corynorhinus townsendii*): a technical conservation assessment. [Online]. USDA Forest Service, Rocky Mountain Region. Available: http://www.fs.fed.us/r2/projects/scp/assessments/townsendsbigearedbat.pdf [03/18/2021].	No	No roosting habitat present on site.
Dipodomys heermanni morroensis	Morro Bay kangaroo rat	Federal: FE State: SE, FP	Occurs in the vicinity of Morro Bay, specifically in the vicinity of Los Osos in San Luis Obispo County. Occurs in old, stabilized sand dunes, among the Baywood Fine Sand soil type (USFWS 2011).	USFWS. 2011. Morro Bay Kangaroo Rat (Dipodomys heermanni morroensis) 5-Year Review: Summary and Evaluation. USFWS; Ventura, CA.	No	No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Neotoma lepida intermedia	San Diego desert woodrat	Federal: None State: SSC	This species prefers Joshua tree (Yucca brevifolia), pinyon-juniper, mixed and chamise (Adenostoma fasciculatum) or red shanks (Adenostoma sparsifolium) chaparral, sagebrush (Artemisia spp.), and most desert habitats, but is also found in a variety of other habitats. Moderate to dense canopies are preferred. Particularly abundant in rock outcrops and rocky cliffs and slopes, especially those with Joshua trees. Elevational range from sea level to 8,500 feet (CDFW 2020a).	CDFW. 2020. California Wildlife Habitat Relationships System Life History Accounts and Range Maps. Available online: https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range. CDFW Biogeographic Data Branch; Sacramento, CA.	No	No suitable habitat present.
Nyctinomops macrotis	big free-tailed bat	Federal: None State: SSC	Found in rugged, rocky terrain up to 8,000 feet in elevation in New Mexico, southern Arizona, and Texas where it is probably a yearlong resident. Rare in California, and probably does not breed in the state. Many individuals wander widely in autumn, resulting in records far out of the normal range. Records of the species are from urban areas of San Diego County and vagrants found in fall and winter. A probable vagrant was collected in Alameda County but this record is suspect (CDFW 2020a).	CDFW. 2020. California Wildlife Habitat Relationships System Life History Accounts and Range Maps. Available online: https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range. CDFW Biogeographic Data Branch; Sacramento, CA	No	No nearby water present and maternity roost habitat.
Taxidea taxus	American badger	Federal: None State: SSC	Ranges across nearly all of California except northernmost Humboldt and Del Norte Counties. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils (CDFW 2020a).	CDFW. 2020. California Wildlife Habitat Relationships System Life History Accounts and Range Maps. Available online: https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range. CDFW Biogeographic Data Branch; Sacramento, CA	No	No suitable habitat present.

Scientific Name	Common Name	Status	Habitat Characteristics	Citation	Potential to Occur	Rationale
Vulpes macrotis mutica	San Joaquin kit fox	Federal: FE State: ST	The subspecies historically ranged in alkali scrub/shrub and arid grasslands throughout the level terrain of the San Joaquin Valley floor from southern Kern County north to Tracy in San Joaquin County, and up into more gradual slopes of the surrounding foothills and adjoining valleys of the interior Coast Range. Occurs in desert-like habitats characterized by sparse or absent shrub cover, sparse ground cover, and short vegetative structure. Prefers areas with open, level, sandy ground (USFWS 2010).	USFWS. 2010. San Joaquin Kit Fox (*Vulpes macrotis mutica*) 5-Year Review: Summary and Evaluation. USFWS; Sacramento, CA.	No	No suitable habitat present.

Special-status ranking:

FD=Federally Delisted (monitored for 5 years); FT=Federally Candidate; FT=Federally Endangered; FT=Federally Threatened; FP= Fully Protected (CDFW); SE=State Endangered; SSC=CDFW Species of Special Concern; SCE=State Candidate Endangered