Biological Resources Technical Report

Haynes Generating Station Sewer Force Main Project

June 2024

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Acronyms

ARSA	aquatic resources study area
BMP	best management practice
BRSA	Biological Resources Study Area
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
City	City of Long Beach
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
EPA	United States Environmental Protection Agency
ESA	environmentally sensitive area
ESHA	environmentally sensitive habitat area
FESA	Federal Endangered Species Act
HDD	horizontal directional drilling
HDPE	high density polyethylene
HGS	Haynes Generating Station
I-405	Interstate 405
I-605	Interstate 605
LACSD	Los Angeles County Services District
LADWP	Los Angeles Department of Water and Power
LAFCo	Los Angeles County Local Agency Formation Commission
LBU	Long Beach Utilities
LF	linear feet
MBTA	Migratory Bird Treaty Act
MGD	million gallons per day
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resource Conservation Service
OHWM	ordinary high water mark
OTC	once-through cooling
Project	Haynes Generating Station Sewer Pipeline Project
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SCE	Southern California Edison
SOI	sphere of influence
SR	State Route
SSC	Species of Special Concern
SWRCB	State Water Resources Control Board
TNW	traditionally navigable water
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WOS	waters of the state

WOUS	waters of the United States
WRF	Water Reclamation Facility

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1 Introduction

Pursuant to federal, state, and local regulatory requirements, HDR conducted a general biological survey, vegetation mapping, habitat assessment, and aquatic resources survey for the proposed Haynes Generating Station Sewer Force Main Project (Project) located within the City of Long Beach (City), in south Los Angeles County, California. The 593-acre biological resources study area (BRSA), which includes the Project footprint and surrounding areas, is located within the eastern portion of the City, adjacent to the San Gabriel River, and the southwestern corner of Seal Beach.

The Project would construct a new 12-inch diameter high density polyethylene (HDPE) sewer force main to convey existing industrial and stormwater discharges from the existing Los Angeles Department of Water and Power (LADWP) Haynes Generating Station (HGS) to the Los Angeles County Services District's (LACSD) Long Beach Water Reclamation Facility (WRF).

The following provides a description of goals and objectives for the Project, the proposed facility components, proposed construction methods, and anticipated regulatory approvals and permits.

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2 Project Description

2.1 Project Location

The Project is linear, and primarily located within the City of Long Beach, in south Los Angeles County, California. A small eastern portion of the Project is in the City of Seal Beach, California (Figure 2-1). The BRSA is roughly bounded by Stevely Avenue to the west, East Willow Street to the north, State Route (SR)-22 to the south, and Interstate 605 (I-605) to the east. The BRSA generally follows the western shoreline of the San Gabriel River and is intersected by I-405. LADWP maintains an existing electrical transmission easement along the southern portion of the San Gabriel River (Figure 2-2). Southern California Edison (SCE) maintains a separate electrical transmission easement to the north of the BRSA. The San Gabriel River Trail follows the eastern bank of the San Gabriel River and bisects the BRSA.

2.2 Project Goals and Objectives

The specific goal of the proposed Project is to maximize the beneficial reuse of existing industrial discharges and stormwater runoff from LADWP's HGS by conveying these flows to LACSD's Long Beach WRF for treatment and distribution. In this context, the primary objectives of the Project include the following:

- **Objective 1.** Implement necessary sanitary sewer system improvements to the LBUD's existing collection system to maximize LADWP's HGS operating capacity and compliance with existing National Pollution Discharge Elimination System (NPDES) and waste discharge requirements (WDRs) (Order No. R4-2004-0089, Rev No. 2000-081 and NPDES Permit No. CA0000353).
- **Objective 2.** Facilitate the integration of the LADWP's HGS with LACSD's Long Beach WRF through the construction of an interconnecting, 12-inch sewer force main to facilitate beneficial use of industrial discharge and on-site stormwater in compliance with Order Number R4-2022-0032 (NPDES No. CA0054119).
- **Objective 3.** Maximize the use of LBUD's collection system and LADWP's power existing easements to facilitate the placement of the proposed Project force main elements.
- **Objective 4.** Facilitate the annexation of LADWP's Haynes Generating Facility into LACSD's District Number 19 sphere of influence (SOI) and service area.

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Figure 2-1. Project Regional Location

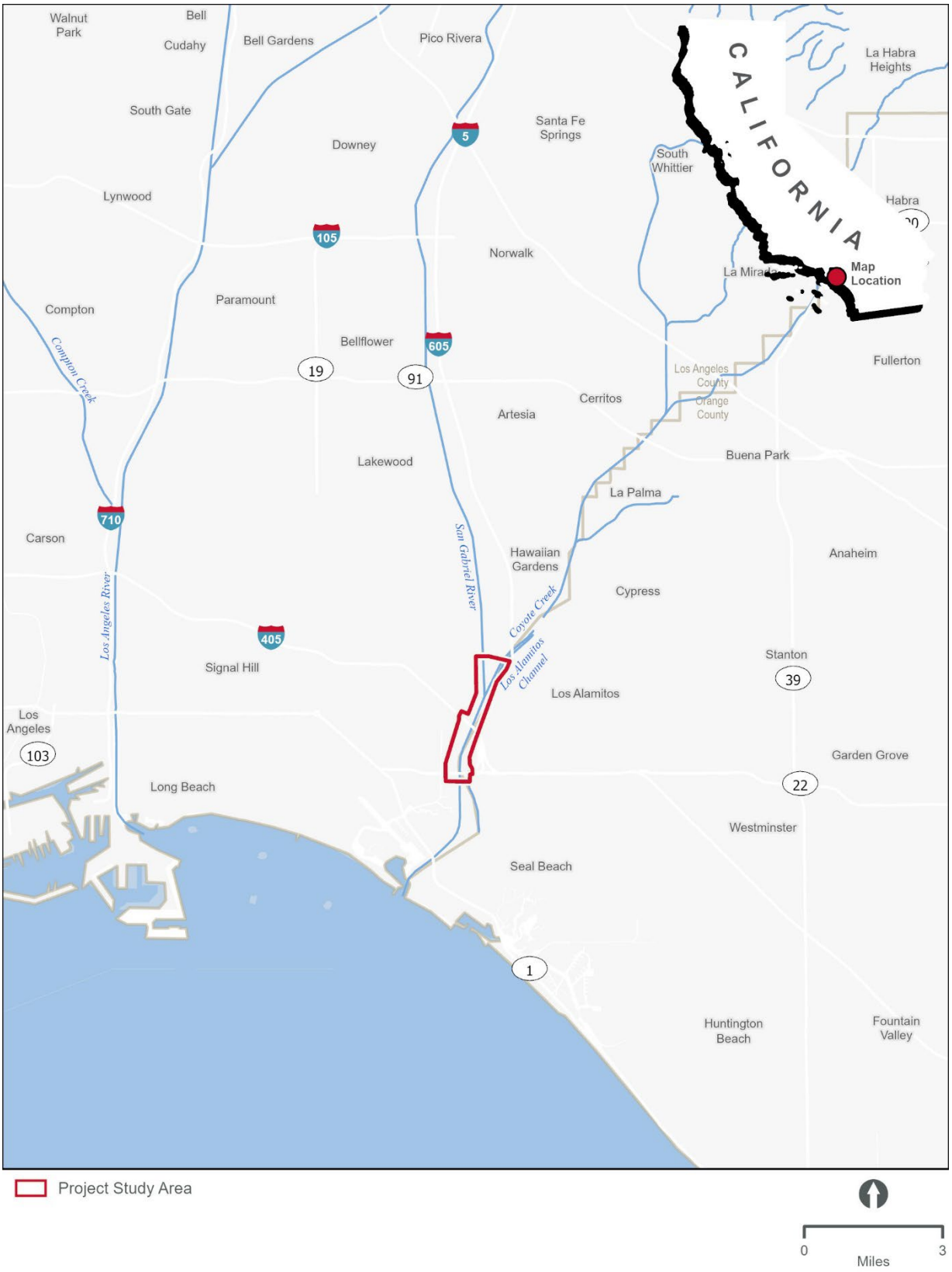

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Figure 2-2. Project Study Area

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Figure 2-3. LBUD Service Area

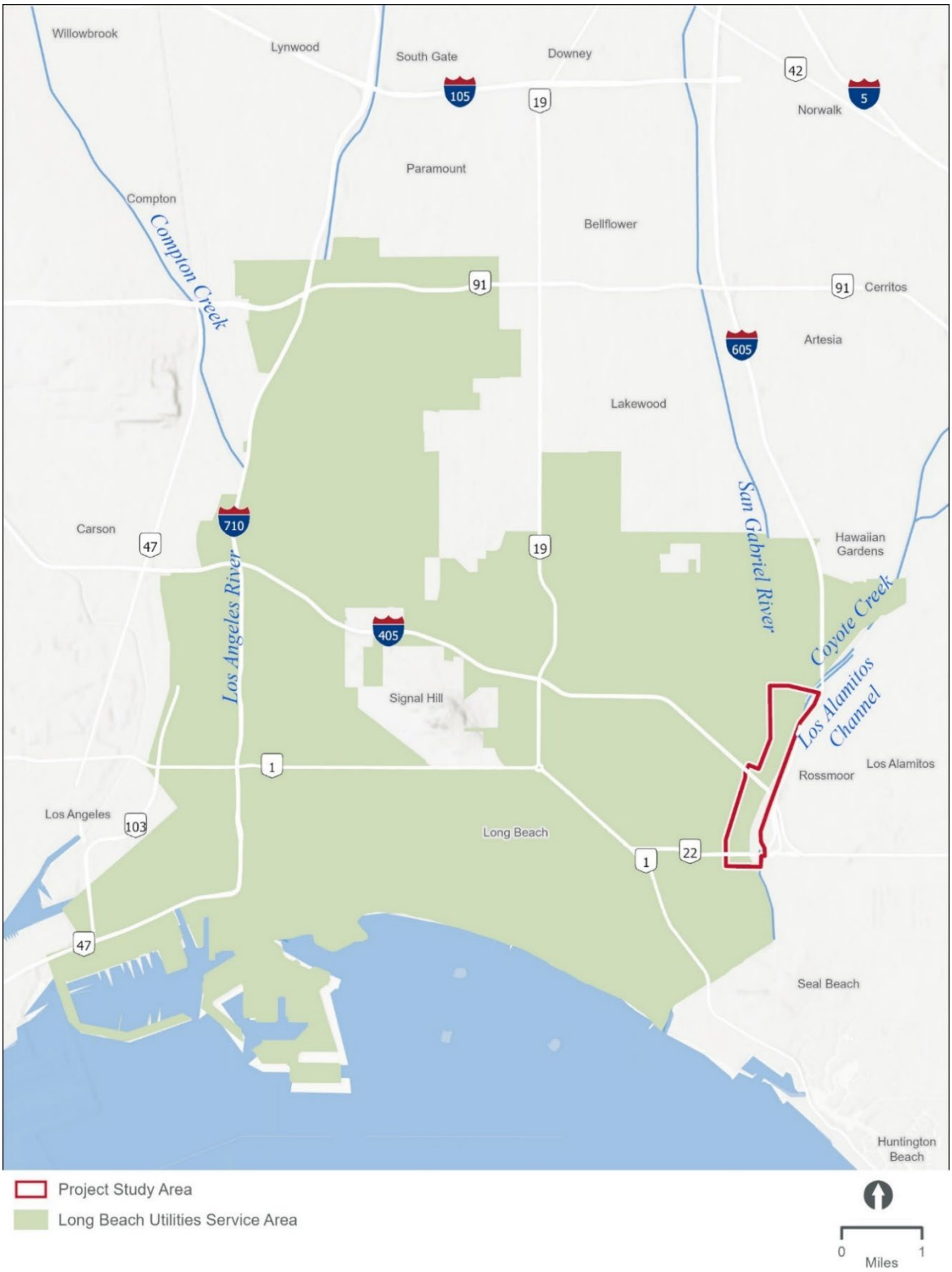

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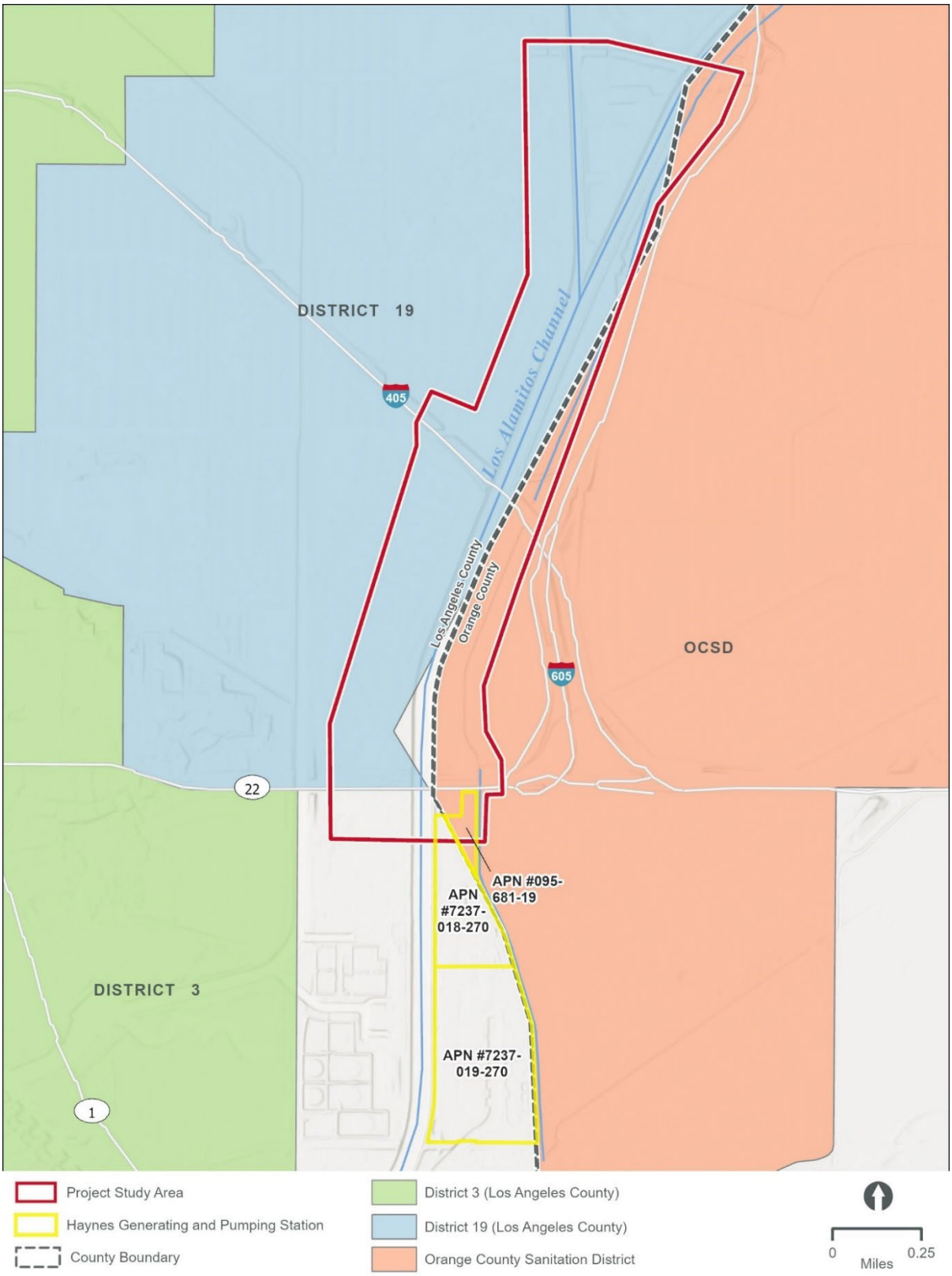
Figure 2-4. LACSD Service Area



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2.3 Project Components

Under the Project, a new sewer force main would be constructed that meets the LBUD's *Standard Drawings, Design Criteria for Potable Water Distribution System, and Design Criteria for Sanitary Sewer Facilities.* The Project includes the construction of a new 12-inch diameter sewer force main that would extend from LADWP's Haynes Generating Station to an existing LACSD 42-inch sewer main located at the LACSD's Long Beach WRF. Figure 2-5 shows the proposed Project components. At the bridge crossings, the 12-inch force main would be encased with a total diameter of 16-inches.

The Project would facilitate the beneficial reuse of up to 2.766 MGD of industrial wastewater discharge and 0.075 MGD of on-site storm water runoff (total 2.841 MGD) from the HGS to LACSD's Long Beach WRF. The proposed Project would consist of the following components. Figure 5 provides the location of these improvements. Each of these facilities are described further under the associated headings below.

Components covered under this project:

- 12-inch diameter HDPE pipeline – 16,855 linear feet (LF)
- Flow control/pressure reducing station at the LACSD Long Beach WRF

Conveyance – Force Main

The proposed 12-inch sewer force main pipeline would be installed within a combination of unpaved, utility rights-of-way and paved roadways within the City of Long Beach and a small portion in the City of Seal Beach. At bridge crossings, the diameter of the sewer force main would be reduced to 8" with a 16" casing. LBUD would construct the pipeline and obtain a permanent 20-foot easement to facilitate future access and maintenance. LBUD and/or LADWP would be responsible for long-term maintenance or the pipeline. Figure 2-5 illustrates the proposed sewer force main route extending from HGS north to the Long Beach WRF.

Starting at the HGS, the sewer force main would head north crossing SR-22 below grade to College Park Drive on the east side of the San Gabriel River, through horizontal directional drilling (HDD) construction methods (see Construction Details below). New pipeline would be hung above ground along the College Park Drive bridge crossing the San Gabriel River. On the west side of the San Gabriel River, the main would continue below grade along College Park Drive and then turn north along the following residential streets: Salida Avenue, East Lees Way, Stevely Avenue, and East El Cedral Street. Near Highway 405, the main would run northwest on the north side of Del Rio Street and then east at Atherton Street under Highway 405. The main would run north, parallel to an existing SCE corridor on the west side of the San Gabriel River. At East Willow Street, the main would head east crossing the East Willow Street/San Gabriel River bridge above ground, and then below grade to a connection point near the intersection of East Willow Street and Coyote Creek. At the two bridge crossings (College Park Drive over the San Gabriel River) and East Willow Street over the San Gabriel River), new pipeline would be hung alongside existing pipeline conduit.

- Pipeline installed via trenching[1]: 15,706 feet (full alignment except for existing bridges and trenchless construction areas as noted below)

[1] In general, pipe trenches would be 2- to 5-feet wide, and 4- to 10-feet deep.

- Pipeline installed above ground along existing conduit bridges: College Park Drive Bridge/San Gabrielle River bridge (374 feet), East Willow Street/San Gabriel River bridge (418 feet)
- Pipeline installed via trenchless construction methods: HGS to College Park Drive (357 feet)
- Total pipeline installed (16,855 LF)

Flow Control/Pressure Reducing Station

As part of the Project, a flow control and pressure reducing station would be installed, which would consist of an above grade or partially buried structure at the Long Beach WRF. The concrete structure would have a footprint of up to 30 feet by 30 feet, and less than 20 feet in height.

Only the force main and flow control/pressure reducing station are considered under this project. However, a new storage reservoir and pump station would be constructed at LADWP's HGS site. These components are connected actions and described below for context.

PUMP STATION

A new pump station would be constructed within a separate, new above ground concrete structure (or an underground vault) located on the HGS site. The new pumps would be electrically driven and constructed within a new enclosed structure or underground utility vault. The new electrical equipment, including a new LADWP transformer, would be placed at the new pump station site.

Utilities

Prior to construction, the Project contractor(s) will implement an underground services alert (USA) to identify existing underground utilities and service connections prior to commencing any excavation work. The exact utility locations would be determined by hand-excavated test pits dug at locations determined and approved by the construction manager (also referred to as "pot-holing"). Existing utilities would be avoided to the maximum extent practical and protected in place. Temporary disruption of service or relocation may be required to allow for construction pending final engineering design. Service on such lines would not be disrupted until prior approval is received from the service provider.

Construction Details

Construction of the Project is expected to begin in first quarter of 2025 and would continue approximately 12-months. Construction work would occur during normal City working hours, weekdays between the hours of 7 a.m. and 7 p.m. No nighttime or weekend construction hours are proposed. Concrete and steel would be the primary construction materials for the Project-related structures. The major construction phases for the Project would include the following:

- Site Clearing and Utility Relocation
- Trench Excavation and Sitework
- Structural Facilities
- Electrical, Process Mechanical, and Instrumentation
- Paving and Striping

- Startup and Testing

Site clearing and utility relocation would last approximately 2 months. Trench excavation and sitework, structural facilities would run for approximately 6 months. The remaining construction phases (electrical, process mechanical, and instrumentation; paving and striping; and startup and testing) would last approximately 4 months.

Construction Equipment and Staging

The construction footprint would cover approximately 56 acres including all staging, surface preparation, trench excavation, tunneling, and surface restoration. Staging would likely be conducted from the Long Beach WRF and HGS and restricted to the area identified in Figure 2-5. In order to characterize and analyze potential construction impacts, it is assumed that the Project would be constructed by up to three construction crews composed of up to 20 workers (with inspectors) for a total of update 60 daily workers, and 10 total daily haul trips.

Construction-Related Water Use

All connecting pipes and pumping facilities would undergo hydrostatic testing, prior to operation, using water supplies from local potable supplies. Water utilized during hydrostatic testing and, if required, construction dewatering would be discharged into the LBUD's sanitary sewer system.

Surface Preparation

Surface preparation involves removing any structures (such as fences), pavement, and/or vegetation from the surface of the trench area. Equipment used for this activity includes jack hammers, pavement saws, graders, bulldozers, loaders, and trucks. At the SR-22 bridge crossing, construction preparations would include the installation of a containment structure to prevent the discharge of bridge debris into the San Gabriel River during pipeline construction.

Trench Excavation/Shoring

The entire sewer force main would be constructed using standard trenching and trenchless methods, which are described in greater detail below. Typical pipeline construction processes include surface preparation, trenching (either open or tunneling) and surface restoration and are described below.

A backhoe, excavator, or trencher would be used to dig trenches for pipe installation. In general, trenches would have vertical side walls to minimize the amount of soil excavated, and the area needed for the construction easement. Soils excavated from the trenches, if of suitable quality, would be stockpiled alongside the trench or in staging areas for later reuse in backfilling the trench. If not reusable, the soil would be hauled off-site for disposal. Disposal options include use as cover material at sanitary landfills and use as "clean fill" at other sites. In general, pipe trenches would be 2- to 5-feet wide, and 4- to 10-feet deep.

Pipeline trenches, in any given location, would be open for two to three days on average. During construction, vertical wall trenches would be temporarily "closed" at the end of each workday, by covering with steel plates or backfill material, or installing fences to restrict access.

Trenches would be backfilled with either reused excavated soil or imported material. Dump trucks would be used to deliver imported, engineered backfill material to stockpiles near the trenching operation. Native soil would be reused for backfill to the greatest extent possible; however, the soil

may not have the properties necessary for compactibility and stability. In addition, following the installation of the pipe, the City expects to balance construction fill onsite.

Trenchless Construction Methods

At State Route 22 on the east side of the San Gabriel River, the sewer force main would need to be installed without disturbing the ground surface. In these circumstances, a tunneling method(s) referred to has horizontal directional drilling (HDD) or jack and boring methods would be employed. These two methods are described in more detail below. The existing groundwater level and available construction will be the deciding factors in the selection of tunneling method.

Jack and Boring. Jack and boring employs a non-steerable system that drives an open-ended pipe laterally using a percussive hammer, thereby resulting in the displacement of soil limited to the wall thickness of the pipe. For this construction method, pits would be dug on either side of the surface feature to be avoided (in this case SR-22). The pits are typically 10 to 15 feet wide and 50 feet long. The depth would depend on the feature to be avoided. The boring equipment and pipe would be lowered into the pit and aligned at the appropriate depth and angle to achieve the desired exit location. A compressor would supply air to the pneumatic ramming tool to thrust the pipe forward. A cutting shoe may be welded to the front of the lead pipe to help reduce friction and cut through the soil.

Several options are available for ramming various lengths of pipe. An entire length of pipe could be installed at once or, for longer distances, one section at a time could be installed. In that case the ramming tool would be removed after each section is in place and a new section would be welded on to the end of the newly installed section. The ramming machine would be connected to the new section and ramming would continue. In certain installations, a winch could be connected to the lead end of the pipe to assist in pulling it out. This would require installation of a connection via a pilot hole.

Depending on the size of the installation, spoils from inside the pipe would be removed with compressed air, water, a pig system, or a combination of techniques. A seal cap would be installed on the starter pit side of the installation and spoil would be discharged into the receiver pit. Using this technique, ground surface disturbance would not occur.

Horizontal Directional Drilling (HDD). HDD crossings are installed by using a drill rig laid on its side, with the top of the drill rig tilted up at to an angle of ten degrees from horizontal. The bore entry holes are drilled from the starting point to the destination point. In preparing the hole, a small diameter (3" wide) pilot hole is first drilled in a gentle arc from the drill rig to the completion hole on the other side of the area to be crossed. This pilot hole can be guided using magnetic readings transmitted from the drill bit back to the drill rig. After the initial hole is drilled, the final bore entry pit, approximately 10 feet square by approximately 8 feet deep, is constructed and is used as the collection point for Bentonite drilling mud and drill spoil. During the directional drill procedure, drilling mud is injected into the drill and recovered from the entry hole until the drill bit surfaces at the exit pit. Once the drill bit surfaces, the drilling mud is recovered at both the entry and exit hole, pumped into tanks and transported back to the rig location for cleaning and eventual reuse.

Surface Restoration

The final step in the installation process would be to restore the ground surface. Generally, surfaces that were disturbed will be restored to conditions prior to disturbance. When the pipe is installed in a paved roadway, repaving would occur after construction. New asphalt or concrete pavement would be placed to match the surrounding road type. For asphalt repaving, a temporary asphalt material may

be installed to allow traffic to use the roadway immediately after sewer construction. A repaving crew would follow the pipe installation crew and prepare the road surface for repaving. Final repaving would be done after pipe installation was completed for a whole street, width, lane width, or trench width.

Preliminary Geotechnical Investigation(s)

Additional geotechnical exploratory investigations would be required along the proposed conveyance route to identify and confirm localized soil conditions, groundwater levels, and groundwater quality.

2.4 Documents Incorporated by Reference

The following document is incorporated by reference:

- Draft Initial Study/Mitigated Negative Declaration, Haynes Generating Station Unit 8, SCH number 2021110083. 2021. Los Angeles Department of Water and Power. 111 North Hope Street, Room 1044, Los Angeles, California 90012.

The sections incorporated by reference are summarized below:

- Section 1, Project Description. This section describes the Haynes Generating Station Unit 8 Recycled Water Cooling System Retrofit Project in detail, including best management practices, project background and setting, construction schedule and procedures, and operations. The project background and setting is incorporated by reference.
- Appendix B, Biological Resources Report for Haynes Generating Station Unit 8 Cooling Tower.
- Section 3, Environmental Impact Assessment, Biological Resources

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Figure 2-5. Project Components and Study Area

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3 Regulatory Framework

3.1 Federal Regulations

3.1.1 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) 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 formally 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 FESA for all terrestrial species. The first pathway, a Section 10(a) incidental take permit, applies to situations where a non-federal governmental entity must resolve potential adverse impacts on species protected under FESA. 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 Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 Code of Federal Regulations 21).

All raptors and their nests are protected from take or disturbance under the MBTA (16 U.S. Code, Section 703 et seq.). 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 USACE to regulate the discharge of dredge and fill material into waters of the U.S. (WOUS), 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. An individual Section 404 permit or authorization to use an existing USACE nationwide permit must be obtained if any portion of an activity would result in dredge or fill impacts 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 either avoid wetlands where practicable, minimize wetland impacts, or provide compensation for any unavoidable destruction of wetlands.

Waters of the United States

On June 9, 2021, the U.S. Environmental Protection Agency (EPA) and the Department of the Army announced their intent to revise the Navigable Waters Protection Rule's definition of WOUS. That rulemaking process is anticipated to take approximately 2 years. In the meantime, pursuant to an

August 30, 2021, U.S. District Court for the District of Arizona order vacating and remanding the Navigable Waters Protection Rule (*Pascua Yaqui Tribe v. U.S. Environmental Protection Agency),* the EPA and USACE have halted implementation of the Navigable Waters Protection Rule that became effective on June 22, 2020 and are interpreting WOUS consistent with the pre-2015 regulatory regime until further notice. On December 7, 2021, the EPA and Department of the Army announced a proposed rule to restore the pre-2015 definition of WOUS. The pre-2015 definition of WOUS was defined in the USACE regulations at 33 Code of Federal Regulations Part 328.3(a) as:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters, including interstate wetlands;
3. All other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters;
    a. Which are or could be used by interstate or foreign travelers for recreation or other purposes; or
    b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
    c. Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as WOUS under the definition;
5. Tributaries of waters identified in paragraphs (a) (1) through (4) of this section;
6. The territorial seas;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1) through (6) of this section.
8. WOUS do not include prior converted cropland.

The limits of USACE jurisdiction in non-tidal waters extends to the ordinary high water mark (OHWM), which is defined at 33 Code of Federal Regulations 328.3(e) as:

> *…that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*

Wetlands

The term wetlands (a subset of WOUS) is defined at 33 Code of Federal Regulations 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987, USACE published a manual to guide its field personnel in determining jurisdictional wetland boundaries, followed by the Arid West Supplement in 2008 (USACE 2008a). The methodology set

forth in the 1987 *Wetland Delineation Manual* and *Arid West Supplement* generally requires that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics.

While the manual provides detail in methodology and allows for varying special conditions, a wetland should normally meet each of the following three criteria:

1. The plant community must be determined to by hydrophytic based on: the dominance test applied using the 50/20 rule,[1] or, where the vegetation fails the dominance test and wetland hydrology and hydric soils are present, vegetation is determined to be hydrophytic using the Prevalence Index test[2] based upon the indicator status (i.e., rated as facultative or wetter) in the *National List of Plant Species that Occur in Wetlands* [USACE 2020]);
2. Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., redoximorphic features with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and
3. Hydrologic characteristics must indicate that the ground is saturated to within 12 inches of the surface for a sufficient period to cause: the formation of hydric soils and establishment of a hydrophytic plant community. A positive test for wetland hydrology is based on the presence of one primary or two secondary indicators.

Supreme Court Decisions

SOLID WASTE AGENCY OF NORTH COOK COUNTY

On January 9, 2001, the Supreme Court of the U.S. issued a decision on *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.* with respect to whether the USACE could assert jurisdiction over isolated waters. The Solid Waste Agency of North Cook County ruling stated that the USACE does not have jurisdiction over non-navigable, isolated, or intrastate waters.

RAPANOS/CARABELL

In the Supreme Court cases of *Rapanos* v. *United States* and *Carabell* v. *United States* (herein referred to as *Rapanos*), the court attempted to clarify the extent of USACE jurisdiction under the CWA. The nine Supreme Court justices issued five separate opinions (one plurality opinion, two concurring opinions, and two dissenting opinions) with no single opinion commanding a majority of the court. In light of the *Rapanos* decision, the USACE will assert jurisdiction over traditional navigable waters, wetlands adjacent to traditional navigable waters, non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months), and wetlands that directly abut such tributaries. The USACE will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water: non-navigable tributaries that

[1] If a particular species accounts for more than 50 percent of the total coverage of vegetation in the stratum, or for at least 20 percent of the total coverage in the stratum which the species was found, that species is defined as dominant.

[2] A Prevalence Index is calculated using wetland indicator status and relative abundance for each vascular plant species present.

are not relatively permanent, wetlands adjacent to non-navigable tributaries that are not relatively permanent, and wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary.

Flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary indicate whether they significantly affect the chemical, physical, and biological integrity of downstream traditional navigable waters. Analysis of potentially jurisdictional streams includes consideration of hydrologic and ecologic factors. The consideration of hydrological factors includes volume, duration and frequency of flow, proximity to traditional navigable waters, size of watershed, average annual rainfall, and average annual winter snowpack. The consideration of ecological factors also includes the ability for tributaries to carry pollutants and flood waters to a traditional navigable water, the ability of a tributary to provide aquatic habitat that supports a traditional navigable water, the ability of wetlands to trap and filter pollutants or store flood waters, and maintenance of water quality.

According to a USACE guidance document (USACE 2008b), USACE generally will not assert jurisdiction over the following features: swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow) and ditches (including roadside ditches) excavated wholly in, and draining only, uplands that generally do not carry a relatively permanent flow of water.

Jurisdictional Determinations

Per USACE Regulatory Guidance Letter 08-02, when applying for a Section 404 permit, applicants may choose between two types of jurisdictional determinations: an approved jurisdictional determination or a preliminary jurisdictional determination (USACE 2008c), as follows:

- **Approved Jurisdictional Determination.** An approved jurisdictional determination is the USACE's confirmation that the jurisdictional delineation's findings are correct and is an official USACE determination that jurisdictional aquatic resources are present or absent from the subject site. An approved jurisdictional determination allows for the USACE to exclude features that they have reviewed and deemed non-jurisdictional.
- **Preliminary Jurisdictional Determination.** A preliminary jurisdictional determination is an advisory, non-binding indication that there may be jurisdictional aquatic resources on the subject site. A preliminary jurisdictional determination treats all features reviewed as jurisdictional aquatic resources. The applicant may obtain a USACE individual permit or general permit authorization based on a preliminary jurisdictional determination.

Alternatively, the applicant, in appropriate circumstances, such as authorizations by non-reporting nationwide general permits, can elect to not request a jurisdictional determination. The use of a preliminary jurisdictional determination may expedite the permitting process when compared with the approved jurisdictional determination process, which requires the determination to be coordinated with the EPA.

Section 401

In California, the State Water Resources Control Board (SWRCB) and nine RWQCBs 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 that issues project permits.

Section 401 specifies that certification from the state is required for any applicant requesting a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities that may result in any discharge into WOUS. A federal permit or license cannot be issued that may result in a discharge to WOUS unless certification under Section 401 of the CWA is granted or waived by the EPA, state, or tribe where the discharge would originate (SWRCB 2014). The Project is located within the boundaries of the Los Angeles (Region 4) RWQCB, which would have the authority to grant, grant with conditions, deny, or waive water quality certification for the Project.

Under Section 401, all activities regulated at the federal level by USACE are also regulated at the state level. Therefore, state jurisdiction usually includes all waters or tributaries to waters that are determined to be WOUS and, similar to WOUS, are typically delineated at the OHWM.

3.1.4 Magnuson-Stevens Fishery Conservation Act

The Magnuson-Stevens Fishery Conservation Act (MSA) designates the NOAA NMFS to work with regional Fishery Management Councils to develop Fishery Management Plans (FMP) for each fishery under their jurisdiction. The FMP must identify and describe essential fish habitat (EFH). Federal agencies must consult with NOAA Fisheries on any action that might adversely affect EFH. "Essential fish habitat" means those waters and substrate necessary for fish spawning, breeding, feeding, or growth to maturity (Magnuson-Stevens Act, 16 U.S.C. 1801 et seq.).

3.2 State Regulations

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 Fish and Game Code prohibits the taking of plants and animals listed under the California Endangered Species Act (CESA). Section 2081 established an incidental take permit program for state-listed species. In addition, the Native Plant Protection Act of 1977 (Fish and Game Code Section 1900 et seq.) gives CDFW authority to designate state endangered, threatened, and rare plants and provides specific protection measures for designated populations.

CDFW has also identified many species of special concern (SSC). 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 CEQA and are thereby warranted specific protection measures.

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 or a Memorandum of Understanding for scientific purposes.

3.2.3 Nesting Birds

CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. California Fish and Game Code sections that protect birds, eggs, and nests include Section 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), Section 3503.5 (regarding the take, possession, or destruction of any birds-of-prey in the order Falconiformes or Strigiformes, or their nests or eggs), and Section 3513 (regarding unlawful take of any migratory non-game bird as designated in the MBTA).

3.2.4 Lake and Streambed Alteration Program

CDFW regulates water resources under Sections 1600 et seq. of the California Fish and Game Code. 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 Agreement may also require a permit from the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the Streambed Alteration Agreement may overlap.

3.2.5 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. RWQCB's jurisdiction includes federally protected waters and areas that meet the definition of waters of the state (WOS). WOS are defined as any surface water or groundwater, including saline waters, within the boundaries of the state. Under Porter-Cologne, the RWQCB has the discretion to take jurisdiction over areas not federally protected under Section 401 of the CWA, provided they meet the definition of WOS, which would require issuance of waste discharge requirements. Mitigation requiring no net loss of wetland functions and values of WOS is typically required by RWQCB.

State Water Resources Control Board's 2019 State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State

On April 2, 2019, SWRCB adopted the State Wetland Definition and Procedures for the Discharge of Dredged or Fill Material to Waters of the State (SWRCB 2019). The procedures became effective on May 28, 2020. 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 WOS, subject to regulation. Second, the rules clarify requirements for permit applications to discharge dredged or fill material to any WOS.

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).*

SWRCB considers the following wetlands (as determined using methodology in the USACE *Wetland Delineation Manual* [Environmental Laboratory 1987]) as WOS:

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 on other WOS, 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 1 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 WOS 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 WOS. 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.

3.2.6 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. 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 (CRPR) Lists 1B and 2B would also typically be considered under CEQA. Plant populations of species meeting the CRPR List 3 and 4 designations that are locally significant may also warrant consideration under CEQA.

3.3 Local Regulations

3.3.1 City of Long Beach General Plan

The *City of Long Beach General Plan* includes goals and policies relevant to biological resources within the Conservation Element and Local Coastal Program Element (City of Long Beach 2019). These goals and policies include:

Conservation Element

GOALS:

- To conserve the natural resources of Long Beach through wise management and well-planned utilization of water, vegetation, wildlife, minerals, and other resources.
- To create and maintain a productive harmony between man and his environment through conservation of natural resources and protection of significant areas having environmental and aesthetic value.
- To revitalize and enhance areas where inadequate conservation measures occurred in the past.

- To improve and preserve the unique and fine qualities of Long Beach and to eliminate undesirable or harmful elements
- To promote the health, safety, and well-being of the people of Long Beach by adopting standards for the proper balance, relationship, and distribution of the various types of land uses, and by formulating and adopting a long-term capital improvement program.
- To establish a balanced program aimed at improving the qualitative conditions of life for all segments of the populations.
- To provide protective controls for lands supporting distinctive native vegetation, wildlife species which can be used for ecologic, scientific, and educational purposes.
- To perpetuate the ecological preserve in El Dorado Park.
- To locate, define, and protect other beneficial natural habitats in and about the City.
- To promote measures and plans which protect and preserve distinctive types of wildlife including wildlife, birds, marine organisms, and especially endangered species.

3.3.2 City of Seal Beach General Plan

The *City of Seal Beach General Plan* includes goals and policies relevant to biological resources within the City (City of Seal Beach 2003). The developed and urbanized nature of Seal Beach has few open space and natural areas. The Plan contains elements specific to the San Gabriel River, Seal Beach Wildlife Refuge, and the Gum Grove Nature Park. These conserved and protected areas are covered in the general plan and are managed by the City. The Project is not in conflict with any of the three areas mentioned. Therefore, the Project does not conflict with any conservation measures established in the Plan.

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4 Survey Methods

4.1 Study Area and Survey Areas

The BRSA includes the footprint of disturbance and surrounding areas, a total of 593 acres, for potential direct and indirect impacts on sensitive biological resources that could result from the Project. The ARSA includes the footprint of disturbance and a 50-foot buffer for potential direct and indirect impacts on jurisdictional aquatic resources that could result from the Project.

4.2 Literature Review

A literature search was conducted on April 14, 2023, and the results are provided in Appendix A. A list of special-status plant and animal species that have the potential to occur within the BRSA was prepared using information provided by the USFWS' Information for Planning and Consultation Online System (USFWS 2023), CDFW's California Natural Diversity Database (CNDDB) RareFind 5 program (CDFW 2023), and CNPS's Inventory of Rare and Endangered Plants of California (CNPS 2021). The Information for Planning and Consultation search was conducted using a shapefile of BRSA boundaries. The CNDDB and CNPS databases were searched for the nine topographic quadrangles including and surrounding the BRSA (*Anaheim, La Habra, Long Beach, Los Alamitos, Newport Beach, Seal Beach, South Gate, Whittier, California*).

Additional resources reviewed include current and historic aerial imagery (Google Earth 2023), U.S. Geological Survey topographic maps at a minimum 1:24,000 scale (U.S. Geological Survey 1949), National Hydrography Dataset (U.S. Geological Survey 2022), USFWS National Wetlands Inventory (USFWS 2021), and U.S. Department of Agriculture's (USDA) Natural Resource Conservation Service (NRCS) Soil Mapping (USDA NRCS 2018).

4.3 General Biological Field Surveys and Vegetation Mapping

HDR biologists conducted vegetation mapping and habitat assessments for federally and/or state-listed plant and wildlife species within the BRSA on April 21, 2023. Vegetation communities were mapped using the classification system methodology and associations described in *A Manual of California Vegetation* (Sawyer et al. 2009). This classification system was used to provide consistency with the National Vegetation Classification System and is currently the statewide standard for vegetation mapping (Section 1900 of the California Fish and Game Code).

All plant species encountered during the surveys were identified to species, if feasible. Plant nomenclature follows Jepson Flora Project (Jepson eFlora 2021). The Calflora online database (Calflora 2023) was also used as a tool to assist with plant identification.

4.4 Aquatic Resources Survey

An aquatic resources survey to identify and map all potential drainage features within the ARSA was conducted by HDR biologists on April 21, 2023. All aquatic resources within accessible areas of the ARSA were investigated on foot. Aquatic resources boundaries were mapped by hand on printed 1:2,400-scale 2022 aerial maps, or widths were recorded (in feet) with locational data using the Esri

Collector for ArcGIS application on an Android V.10 and an iPhone 11 connected to a Global Positioning System. Notes describing aquatic resource type, substrate type, flow regime, presence or absence of vegetation, and any other pertinent details regarding observed hydrology were taken at each feature. All features were later digitized using geographic information system software.

The complete methodology used to conduct the aquatic resources survey is included in Appendix B.

4.4.1 United States Army Corps of Engineers Jurisdiction

USACE jurisdiction was delineated according to the methods outlined in USACE's *Wetland Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008a), and *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States* (USACE 2008c).

When potential WOUS were encountered in linear features, the length of the drainage feature was walked, and the outer jurisdictional limits within the ARSA were recorded. The OHWM was measured at locations where indicators were apparent. Other data recorded included bank-to-bank width, bank height and morphology, substrate type, and all vegetation within and adjacent to the feature. Constructed ephemeral features that were created in uplands and clearly intended only to convey roadway or urban runoff were mapped as ditches constructed in uplands and were not considered jurisdictional.

Arid West wetland assessment data sheets were completed in areas exhibiting potential wetland conditions, including hydrophytic vegetation and/or hydrology. Soils were analyzed using the *NRCS Field Indicators of Hydric Soils in the U.S.*, Version 8.0, and the *Hydric Soils List for Los Angeles County, California* (USDA NRCS 2018) and a *Munsell Soil Color Chart* (*Munsell Color X-Rite* 2013).

4.4.2 Regional Water Quality Control Board Jurisdiction

RWQCB jurisdiction, for the purposes of CWA Section 401 certification, is identical to USACE jurisdiction. In addition, the ARSA was evaluated for isolated features that would not be subject to federal jurisdiction but would be potentially regulated under the Porter-Cologne Water Quality Control Act.

4.4.3 California Department of Fish and Wildlife Jurisdiction

Features potentially subject to CDFW jurisdiction were mapped from top-of-bank to top-of-bank or to the extent of riparian vegetation, whichever was greater. Constructed ephemeral features that were excavated in uplands and only drained upland areas into adjacent streets or storm drains, or were isolated from other jurisdictional features, were mapped but were not considered jurisdictional.

5 Results

5.1 Environmental Setting

The BRSA is located in southwest Los Angeles County, in the City of Long Beach. A small portion of the southeastern part of the BRSA is located within the City of Seal Beach. The BRSA generally occurs along the San Gabriel River within urban and developed habitat adjacent to the river.

5.1.1 Climate

Southern California has a hot semi-arid climate or a hot-summer Mediterranean climate, characterized by hot summers and mild to warm winters. Long Beach has temperatures ranging from 73.9 to 55.9 degrees Fahrenheit with average annual precipitation of 12.02 inches (NOAA 2021).

5.1.2 Soils

The online NRCS Web Soil Survey was referenced to identify potential hydric soils occurring within the BRSA (USDA NRCS 2023). The following soils are mapped within the BRSA (Figure 5-1)

- **Bolsa**: The soils of the Bolsa series are characterized by deep, somewhat poorly drained soils formed in mixed alluvium. They are nearly level soils found in flood plains and basins at elevations of 10 to 300 feet. Bolsa series soils within the BRSA include Bolsa silt loam (drained) and Bolsa silty clay loam (drained).
- **Urban Land**: Urban land soils consist of nearly level to moderately steep areas where the soils have been altered or obscured by urban works and structures. The soils can consist of human-transported materials, human-altered materials, or minimally altered or intact “native” soils. Urban land within the BRSA include the following:
    - Urban land-Biscailus-Hueneme, drained complex, 0 to 2 percent slopes
    - Urban land-Hueneme, drained-San Emigdio complex, 0 to 2 percent slopes
    - Urban land-Typic Xerorthents, dredged spoil complex, 0 to 2 percent slopes
    - Urban land, frequently flooded, 0 to 5 percent slopes
- **Water:** Areas designated by water is inundated by water and associated with the San Gabriel River and adjacent Coyote Creek.

5.1.3 National Wetlands Inventory

The USFWS National Wetlands Inventory was reviewed, and the following aquatic resources are mapped within the BRSA:

- **Estuarine and Marine Deepwater:** This system consists of deepwater tidal habitats and adjacent tidal wetlands which are semi-enclosed by land and have ocean water occasionally diluting with freshwater runoff from land. Within the ARSA this system occurs entirely in the Pacific Ocean.

- **Riverine:** This system includes all wetlands and deepwater habitats within a channel, except for wetlands dominated by trees, shrubs, persistent emergent, emergent mosses, or lichens, and habitats with water containing ocean-derived salts over 0.5%. Within the ARSA, this system occurs as the San Gabriel River and Coyote Creek.

Figure 5-1. USDA Soils

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5.1.4 Hydrology

The BRSA is located within the San Gabriel sub-basin (Hydrologic Unit Code 180701060), more specifically within the San Gabriel River watershed in the Lower San Gabriel River Hydrologic Area. The San Gabriel River watershed consists of a 689 square mile drainage area in the eastern Los Angeles County with headwaters in the San Gabriel Mountains. The upper portions of the watershed are mostly untouched with riparian and woodland habitats within wilderness and recreational use areas. As the river travels southwest through the San Gabriel Valley, the channel becomes heavily modified for flood and debris control. Further southwest, through the Los Angeles Coastal Plain, the channel becomes concrete-lined through heavily urbanized areas before returning to a soft bottom channel and ultimately discharging into the Pacific Ocean near the City of Long Beach (Los Angeles RWQCB 2014). At the northern end of the BRSA, Coyote Creek, a tributary to the San Gabriel River, enters and combines with the river.

5.1.5 Vegetation Communities and Other Land Cover Types

Vegetation communities are assemblages of plant species that coexist in the same area. The classification of vegetation communities is based upon the dominant species within that community and the associated flora. Vegetation communities and other land cover types in the BRSA are shown on Figure 5-2 and Figure 5-3. Acreages of vegetation communities and other land cover types in the BRSA are provided in Table 5-1. Descriptions of vegetation communities and other land cover types follow. These figures and acreages correspond with the BRSA. General site photos are included in Appendix C.

Table 5-1. Vegetation Communities and Other Land Cover Types in the BRSA

Vegetation Community or Other Land Cover Type	Acres
Tree-Dominated Habitats	
Salix laevigata Forest and Woodland Alliance	0.93
Eucalyptus sp. Woodland Semi-Natural Alliance	3.91
Schinus sp. – *Myoporum laetum* Forest and Woodland Semi-Natural Alliance	28.54
Shrub-Dominated Habitats	
Acacia spp. Shrubland Semi-Natural Alliance	0.75
Baccharis salicifolia Shrubland Alliance	2.80
Herbaceous-Dominated Habitats	
Carpobrotus ssp. Herbaceous Semi-Natural Alliance	6.48
Mediterranean California Naturalized Annual and Perennial Grassland	112.39
Other Land Cover Types	
Concrete-lined Channel	34.93
Disturbed Habitat	26.27
Open Water	55.42
Urban/Developed	319.91
Unvegetated Channel	0.60
Total[a]	***592.92***

Notes:
[a] Totals may differ due to rounding.

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Figure 5-2. Vegetation Communities and Other Land Cover Types in the BRSA (Sheet 1 of 2)

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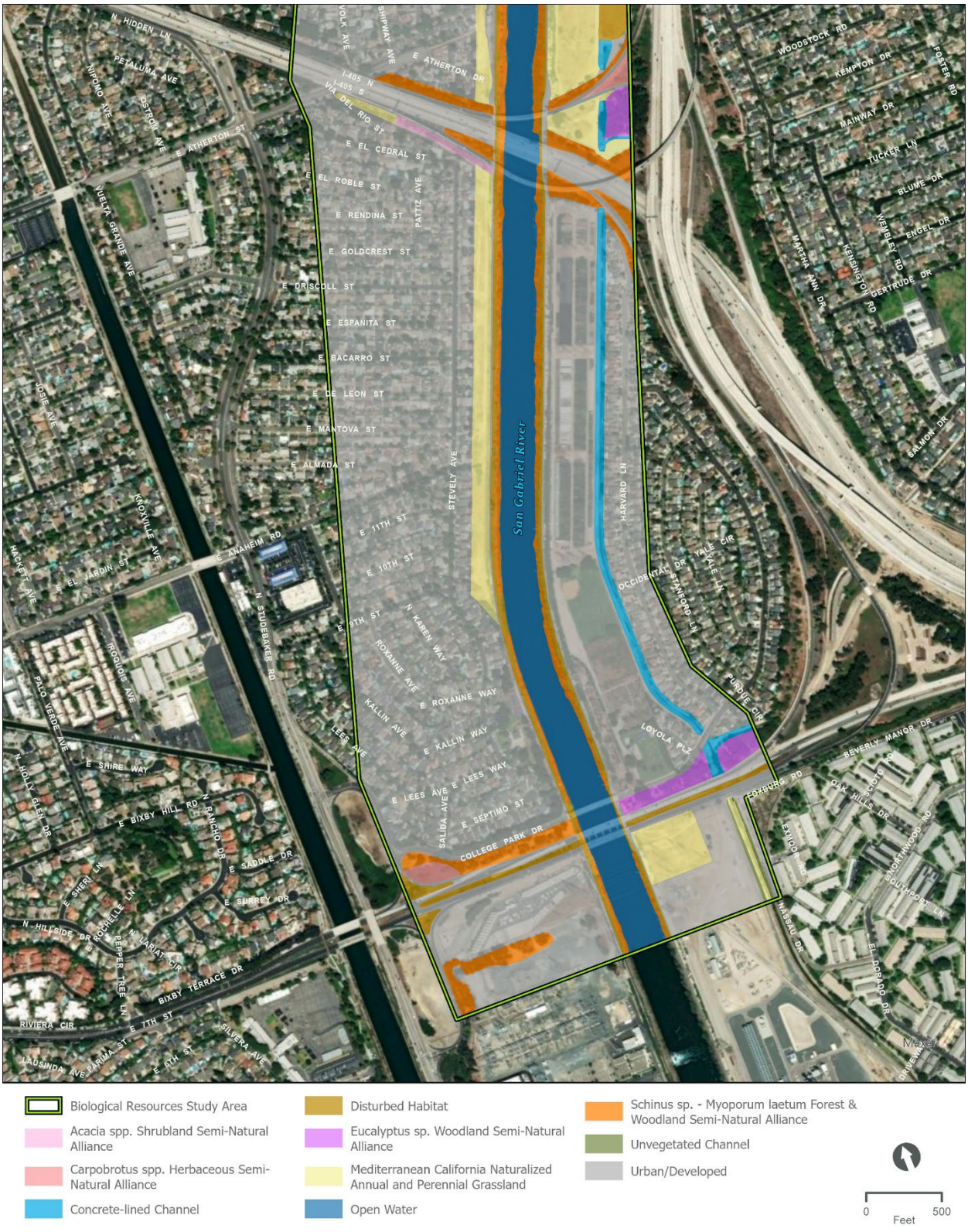
Figure 5-3. Vegetation Communities and Other Land Cover Types in the BRSA (Sheet 2 of 2)



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Tree-dominated Habitats

Salix laevigata Forest and Woodland Alliance

Salix laevigatea forest and woodland is dominated by red willow (*Salix laevigata*), with lesser amounts of other willow species (*Salix* spp.). Red willow is dominant or co-dominant in the shrub layer, with at least 5 percent relative cover, and grows on seasonally or intermittently flooded sites. Trees are less than 10 meters tall, with an open to continuous canopy and a variable herbaceous layer (Sawyer et al. 2009). Red willow thickets cover approximately 0.93 acres in a basin within the northern area of the BRSA.

Eucalyptus sp. Woodland Semi-Natural Alliance

Eucalyptus Woodland vegetation is generally made up of various species of eucalyptus trees with a sparse understory of non-native grasses. The dominant tree species that commonly occur in this vegetation community include Murray Red gum (*Eucalyptus camaldulensis*) Silver dollar gum (*Eucalyptus polyanthemos*) and other eucalyptus species (*Eucalyptus* spp.). The understory of this vegetation community is generally sparse due to high amount of leaf litter associated with the trees.

Within the BRSA, Eucalyptus stands occur along portions of SR-22 and I-405. This alliance covers approximately 3.91 acres within the BRSA.

Schinus sp. – Myoporum laetum Forest and Woodland Semi-Natural Alliance

This alliance is dominated by non-native myoporum (*Myoporum laetum*) or peppertree (*Schinus* sp.) within the tree canopy. Peppertree must account for greater than 80 percent relative cover within the tree layer, myoporum is greater than 50 percent relative cover, or a combination of the trees with more than 60 percent relative cover. Trees are less than 18 meters tall with a canopy that can be open or continuous. Vegetation within the shrub layer can be infrequent or common and simple to diverse within the herbaceous layer. This habitat type occurs within coastal canyons, washes slopes, riparian areas, or roadsides (Sawyer et al. 2009).

Within the BRSA, *Schinus sp*. – *Myoporum laetum* covers approximately 28.54 acres and occurs within along the toe of slope of the natural bottom portion of the San Gabriel River.

Shrub-dominated Habitats

Acacia spp. Shrubland Semi-Natural Alliance

Wattle (*Acacia* spp.) is dominant or co-dominant in the tall shrub or low tree canopy and may include different species of wattle or related species such as spider flower (*Grevillea* spp.) and coast tea tree (*Leptospermum laevigatum*). Wattle, spider flower, and/or coast tea tree must account for more than 60 percent of the shrub canopy or coastal wattle (*A. cyclops*) and other related species must account for more than 75 percent relative cover in the tall shrub to low tree canopy. Shrubs are less than 5 meters tall with an intermittent to continuous canopy and an open herbaceous layer. This habitat type occurs within coastal hillslopes, flats, and ridge tops (Sawyer et al. 2009).

Within the BRSA, coastal wattle covers approximately 0.75 acre and occurs on the slope of the southern side of the 405 Freeway.

Baccharis salicifolia Shrubland Alliance

Within this alliance, mule fat (*Baccharis salicifolia*) is dominant or co-dominant in the shrub canopy with California sagebrush (*Artemisia californica*), coyote brush (*Baccharis pilularis*), tree tobacco (*Nicotiana glauca*), and willow species (*Salix* spp.). Emergent trees may be present at low cover, including sycamore (*Platanus racemosa*), cottonwood (*Populus fremontii*), oak (*Quercus* spp.), or willow (*Salix* spp.). Mule fat is at least 50 percent relative cover in the shrub canopy and grows along canyon bottoms, floodplains, irrigation ditches, lake margins, and stream channels. Shrubs are less than 5 meters in height, with a continuous canopy and a sparse herbaceous layer. Within the BRSA, mule fat covers 2.80 acres along the north end of the BRSA, south of East Willow Street,

Herb-dominated Habitats

Carpobrotus ssp. Herbaceous Semi-Natural Alliance

This community is dominated by ice plant species, such as freeway iceplant (*Carpobrotus edulis*). Within this community, iceplant provides dense (>80 percent) cover, which precludes other plant species from establishing (Sawyer et al. 2009). Within the BRSA, this community covers 6.48 acres along portions of SR-22 and I-405 freeway associated with the study area.

Mediterranean California Naturalized Annual and Perennial Grassland

Mediterranean California naturalized annual and perennial grassland is generally characterized by the dominance of non-native plant species such as non-native grasses, mustards, and thistles, and limited cover of native plant species. Trees and shrub cover within this community is less than 5 percent. The classification of this grassland is at the group level rather than the alliance level because none of the non-native plant species present are clearly dominant or the relative dominance of such species is expected to change seasonally. This vegetation type is widespread and highly variable, representing generalized situations where non-native plants have replaced native plants through a history of repeated soil disturbance and the introduction of non-native plant species (Sawyer et al. 2009). This community covers 112.39 acres, is dominated by ripgut grass (*Bromus diandrus*), cheat grass (*B. tectorum*), wall barley (*Hordeum murinum*), and wild radish (*Raphanus sativus*) and occurs along the utility right of way adjacent to Coyote Creek and San Gabriel River within the BRSA.

5.1.6 Other Land Cover Types

Concrete-lined Channel

Concrete-lined Channel are artificial beds in which water flows and does not support vegetation. Concrete-lined channels cover 34.93 acres consisting of Coyote Creek and portions of the San Gabriel River with the BRSA.

Disturbed Habitat

Areas labeled disturbed are 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 non-native weedy and ruderal species. This is not a natural community and generally does not provide habitat for wildlife or special-status species, though exceptions occur. Examples of disturbed areas include areas that have

been graded for development or cleared for fuel management, staging areas, off-road vehicle trails, and abandoned home or business lots. Within the Project BRSA disturbed areas cover 26.27 acres.

Open Water

Open water is primarily used to describe the estuarine environment of San Gabriel River and the Pacific Ocean. Within the BRSA, 55.42 acres of open water occurs along the San Gabriel River and Coyote Creek, along with the natural bottom portion where the San Gabriel outlets to the Pacific Ocean.

Urban/Developed

Urban/developed land refers to areas that have been manipulated by grading and compacting soils to build infrastructure, such as roads, buildings, parks, fields, etc. These areas have no biological function or value except that they may provide habitat for nesting birds. Within the BRSA, paved roads, residential houses, associated landscaping and portions of the Haynes Generating Station were mapped as urban/developed. Urban/developed habitat occupies approximately 319.91 acres of the BRSA.

Unvegetated Channel

Unvegetated channels are natural or artificial beds in which water flows and does not support vegetation. Unvegetated channel covers approximately 0.60 acre at the southeastern end of the BRSA.

5.1.7 Sensitive Vegetation Communities

Riparian Habitat and Special-Status Vegetation Communities

A special-status vegetation community is one that has a state rarity rank of S1, S2, or S3, as determined by the NatureServe Heritage Program Status Ranking system (Faber-Langendoen et al. 2012) or is identified as subject to local, state, or federal regulations (e.g., vegetation communities meeting USACE's three-parameter wetland criteria). Definitions of the state ranks are as follows:

- **S1:** Critically imperiled and at a very high risk of extinction or elimination due to extreme rarity, very steep declines, or other factors
- **S2:** Imperiled and at high risk of extinction or elimination due to a very restricted range, very few populations or occurrences, steep declines, or other factors
- **S3:** Vulnerable and at moderate risk of extinction or elimination due to a restricted range, relatively few populations or occurrences, recent and widespread declines, or other factors

The BRSA study area does not support any sensitive vegetation communities.

5.1.8 Plant Species

During the general biological survey, 41 vascular plant species were observed and documented within the BRSA, including 6 native and 35 non-native species (Appendix D). The species detected are representative of the vegetation communities located within the BRSA. Common plant species observed included Mexican fan palm (*Washingtonia robusta*), Russian Thistle (*Salsola tragus*), Tree

of heaven (*Ailanthus altissima*), Wild Radish (*Raphanus sativus*), iceplant (*Carpobrotus edulis*), Chinese Elm (*Ulmus parvifolia*), and various Bromes (*Bromus* spp.). Special-status plant species with potential to occur in the BRSA are discussed below.

Federally and/or State-Listed Plant Species

Based on the literature search (Appendix A), none of the 41 special-status vascular plant species evaluated for potential to occur within the BRSA are federally or state-listed.

Other Special-Status Plant Species

The remaining special-status plant species identified in the literature search are not federally or state listed but are CRPR List 1B, 2B, 3, or 4 plants.[2] Details for these species, including habitat, life form, blooming period, and potential to occur within the BRSA, are provided in Appendix E. Of these, 3 have potential to occur in the BRSA. Focused plant surveys are recommended to determine the presence or absence of these plant species within the BRSA. The remaining special-status plant species are not expected to occur due to a lack of suitable habitat and/or soils or because the BRSA is located outside of the species' known geographic or elevation range.

5.1.9 Wildlife Species

Wildlife species observed during the survey included species commonly found within urban habitats, such as California brown pelican (*Pelecanus occidentalis californicus*), American crow (*Corvus brachyrhynchos*), black phoebe (*Sayornis nigricans*), Allen's hummingbird (*Selasphorus sasin*), Black-necked Stilt (*Himantopus mexicanus*), Mallard (*Anas platyrhynchos*), California Gull (*Larus californicus*) and Green Sea Turtle (*Chelonia mydas*). A list of all wildlife species observed in the BRSA is provided in Appendix F Special-status wildlife species with potential to occur in the BRSA are discussed below.

Federally and/or State-Listed Wildlife Species

Based on the results of the literature review, 42 special-status wildlife species were evaluated for potential to occur within the BRSA. Of these, 3 federally and/or state-listed wildlife species or candidates under consideration for listing are known to occur within the vicinity of the BRSA. These species and their listing status, provided by taxonomic grouping, are:

- Invertebrates
  - Crotch's bumble bee (*Bombus crotchii*) – state candidate endangered
  - Monarch butterfly (*Danaus Plexippus*) – federal candidate
- Fish
  - Steelhead, Southern California Distinct Population Segment (DPS) (*Onocorhynchus mykiss irideus)* – federally endangered

[2] California Rare Plant Rank (CRPR) 1B=Plants rare, threatened, or endangered in California and elsewhere; CRPR 2B=Plants rare, threatened or endangered in California but more common elsewhere; CRPR 3=Plants needing more information; CRPR 4=Plants of limited distribution. Threat ranks: 0.1=Seriously endangered in California. 0.2=Fairly endangered in California.

- Reptiles
    - Green sea turtle (*Chelonia mydas*) – federally threatened

The Project BRSA contains suitable habitat to support the federally and/or state-listed wildlife species listed above. The USFWS Information for Planning and Consultation search indicates that no designated critical habitat for listed species occurs within the Project footprint or within the overall Project BRSA.

Descriptions of these species, their habitat requirements, and their potential habitat within the BRSA are provided below. Appendix F identifies all listed wildlife species known to occur in the vicinity of the Project and their potential to occur within the BRSA.

Crotch's Bumble Bee

The Crotch's bumble bee is found between San Diego and Redding in a variety of habitats including open grasslands, shrublands, chaparral, desert margins including Joshua tree and creosote scrub, and semi-urban settings. It is endemic to California, with only a few records from Nevada and Mexico (CDFW 2022). The Crotch bumble bee, like most other species of bumble bees, primarily nests underground (Williams et al. 2014). Crotch bumble bees are generalist foragers and have been reported visiting a wide variety of flowering plants. The Crotch bumble bee has a short tongue, and thus is best suited to forage at open flowers with short corollas (CDFW 2019). Williams et al. (2014) report plants in the genera *Asclepias, Chaenactis, Lupinus, Medicago, Phacelia*, and *Salvia* as example food plants.

The BRSA supports approximately 112.39 acres of suitable open grasslands associated with the transmission ROWs.

Monarch Butterfly

Monarch butterflies are globally distributed throughout 90 countries, islands, and island groups. The North American populations, east and west of the Rocky Mountains, have been monitored since the mid-1990s. The population abundance of the species at overwintering sites along the California coast and Mexico have been fluctuating, showing long-term declines in abundance. The species also requires a diversity of blooming nectar resources for food and milkweed for their eggs and larval feeding. The species also roosts on several species on the California coast, including blue gum eucalyptus (*Eucalyptus globulus*), Monterey pine (*Pinus radiata*), and Monterey cypress (*Cupressus macrocarpa*) (USFWS 2020).

The BRSA supports 3.91 acres of suitable eucalyptus woodland habitat associated with areas near SR-22 and I-405.

Steelhead, Southern California DPS

The Southern California DPS of steelhead was listed by the National Marine Fisheries Service (NMFS) as endangered under the FESA in 1997. The fish species inhabits coastal stream networks from the Santa Maria River watershed south to the U.S.-Mexico border. Declines in the abundance of this population may be a result of loss of freshwater and estuarine habitat, periodic poor ocean conditions, and a variety of land use, flood control, and changes in watershed-wide processes as a result of water management processes (NMFS 2016).

The BRSA supports 31.38 acres of suitable habitat, which is associated with the soft bottom portion of the San Gabriel River.

Green sea turtle

Green sea turtle was federally listed as threatened in 2016. Green sea turtles have a brown, grey or olive colored shell with a yellow to white underside. Shells have five scutes running down the middle and four scutes on each side. Typically, three to four feet long and 300 – 350 pounds when fully grown, green sea turtle are a primarily aquatic turtle which inhabits shallow waters of lagoons, bays, estuaries, mangroves and seaweed beds foraging on aquatic vegetation such as algae and seas grasses (NOAA 2022).

The BRSA supports 31.38 acres of suitable habitat, which is associated with the soft bottom portion of the San Gabriel River.

Other Special-Status Wildlife

Based on the results of the literature review, 18 wildlife species that are not listed under FESA or CESA or candidates for listing but are considered SSCs or are fully protected have potential to occur within the Project vicinity. Of these, the following 4 have potential to occur in the BRSA:

- Reptiles:
  - Western pond turtle (*Emys marmorata*) – SSC
- Birds:
  - Burrowing owl (*Athene cunicularia*) – SSC
  - Yellow warbler (*Setophaga petechia*) – SSC
- Mammals:
  - Western mastiff bat (*Eumops perotis californicus*) – SSC

The remaining special-status wildlife species are not expected to occur due to a lack of suitable habitat or because the Project study area is located outside of the species' known geographic ranges. Appendix F provides details for these species, including habitat and potential to occur within the BRSA. No non-listed special-status wildlife were observed within the BRSA during the field survey.

5.2 Jurisdictional Aquatic Resources

5.2.1 United States Army Corps of Engineers

Approximately 1.804 acres of aquatic resources subject to USACE jurisdiction occurs within the ARSA, all of which is considered non-wetland WOUS. These aquatic resources are primarily associated with the San Gabriel River, a small portion associated with the Los Alamitos Channel in the very southeastern portion of the ARSA, and an unnamed concrete-lined channel in the northeastern corner of the ARSA. At the northern end of the ARSA, the 150-foot San Gabriel River is a concrete-lined trapezoidal channel from the top of bank to top of bank. Water was observed within this section of the river from the toe of slope on both sides of the river, approximately 80 feet wide. This portion of the San Gabriel River is mapped by the National Wetlands Inventory (NWI) as riverine and due to the

concrete lining and lack of vegetation; no potential wetland areas were observed; therefore, no wetland sampling points, or wetland determination data forms were completed.

Coyote Creek confluences with the San Gabriel River before it flows over riprap at the end of the concrete-lined channel and becomes soft bottomed with riprap along its banks. When the river enters the ARSA, the river is mapped by the NWI as estuarine and marine deepwater. The open water section inside the ARSA is approximately 257 feet across. Grouted riprap lines both banks of the river, with the eastern bank having minimal vegetation growing, consisting of a lone date palm. On the western bank, Indian tobacco, tree of heaven, and myoporum trees grow between the riprap. Due to the grouted riprap and lack of hydrophytic vegetation; no potential wetland areas were observed; therefore, no wetland sampling points, or wetland determination data forms were completed.

The Los Alamitos Channel enters the ARSA through a concrete box culvert at the very southeastern end of the ARSA. The channel travels through a nearby neighborhood and confluences with another concrete-lined channel incoming from the east before flowing through another concrete box culvert underneath the SR-22 highway. On the southern side of the highway, the channel flows south from the concrete box culvert and becomes a soft bottom channel. An approximately 20-foot-wide channel of open water was observed with low growing vegetation at intermittent points along the banks. The vegetation was sparse and looked to be maintained by the Los Angeles Flood Control District. Due to the limited access to the channel, no wetland sampling points, or wetland determination data forms were completed.

The unnamed channel in the northeastern corner of the ARSA is trapezoidal in shape and entirely concrete lined. Flows enter from the north and travel southwest through a concrete box culvert underneath Willow Street. An approximately 6-foot-wide channel of open water was observed with trash and debris obstructing the culvert entrance. On the southern side of Willow Street, a concrete-lined channel was observed on the adjacent fenced property.

A total of 1.804 acres of non-wetland WOUS potentially subject to USACE jurisdiction under CWA Section 404, are mapped within the ARSA, as shown on Figure 5-4 through Figure 5-7.

5.2.2 Regional Water Quality Control Board

The ARSA is within the jurisdiction of the Los Angeles RWQCB (Region 4). Within the ARSA, WOUS subject to RWQCB jurisdiction under CWA Section 401 are equivalent to those described for the USACE above. No features that were not considered WOUS but that could be regulated as waters of the state were observed.

A total of 1.804 acres of non-wetland WOUS potentially subject to RWQCB jurisdiction under CWA Section 401, are mapped within the ARSA, as shown on Figure 5-3.

5.2.3 California Department of Fish and Wildlife Jurisdiction

Features within the ARSA were assessed for CDFW jurisdiction based on whether they exhibited a stream bed and bank, provided habitat value for terrestrial and/or aquatic wildlife, and/or were associated with a naturally occurring drainage feature. CDFW jurisdiction extends beyond the active channel to the top of bank (often including floodplain banks) and edge of riparian habitat (if present). A total of 3.104 acres of CDFW regulated streambed was observed within the ARSA, including 2.975 acres of unvegetated streambed and 0.130 acre of riparian habitat. As previously described, the northern portion of the San Gabriel River is entirely concrete-lined, and the southern portion of the

San Gabriel River is soft bottom with banks of grouted riprap. In addition, the western bank of the southern portion of the San Gabriel River does exhibit low quality and sparse vegetation. The northern portion of Los Alamitos Channel is entirely concrete lined, and the southern portion is soft bottomed with sparse, low growing vegetation at intermittent parts along the banks. The unnamed concrete-lined channel in the northeastern corner of the ARSA exhibits a bed and bank and is completely concrete lined.

Table 5-2 summarizes the CDFW jurisdictional areas within the ARSA.

Table 5-2. CDFW Jurisdiction within the ARSA

Drainage Identification	Riparian (acres)	Unvegetated Streambed (acres)	Total CDFW (acres)
San Gabriel River	0.066	2.646	2.711
Los Alamitos Channel	0.064	0.313	0.377
Unnamed Concrete-lined Channel	0.000	0.016	0.016
Total CDFW Streambed	***0.130***	***2.975***	***3.104***

5.3 Nesting Birds

Suitable habitat to support nesting birds protected under the MBTA and California Fish and Game Code Section 3500 et seq., occurs within the BRSA and includes mature trees and shrubs. Bridge- and crevice-nesting birds could nest under the bridges or nearby buildings within the BRSA. There is low potential for ground-nesting birds, such as killdeer (*Charadrius vociferus*), to nest within portions of the BRSA due to the urban and highly disturbed areas in the western part of the BRSA. However, there is potential for ground-nesting birds to utilize the undeveloped areas adjacent to the river.

5.4 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 (Beier and Loe 1992). 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 which 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 would accommodate all or most of the necessary life requirements of predator and prey species.

Areas not considered as 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 interface.

The BRSA does contain a portion of the San Gabriel River that can provide wildlife connectivity to the Pacific Ocean, however, only a portion of the river near the outlet of the ocean is soft bottomed. The rest of the river within the BRSA is concrete-lined and surrounded by highly developed and urban areas.

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Figure 5-4. Aquatic Resources within the ARSA (Sheet 1 of 4)

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Figure 5-5. Aquatic Resources within the ARSA (Sheet 2 of 4)

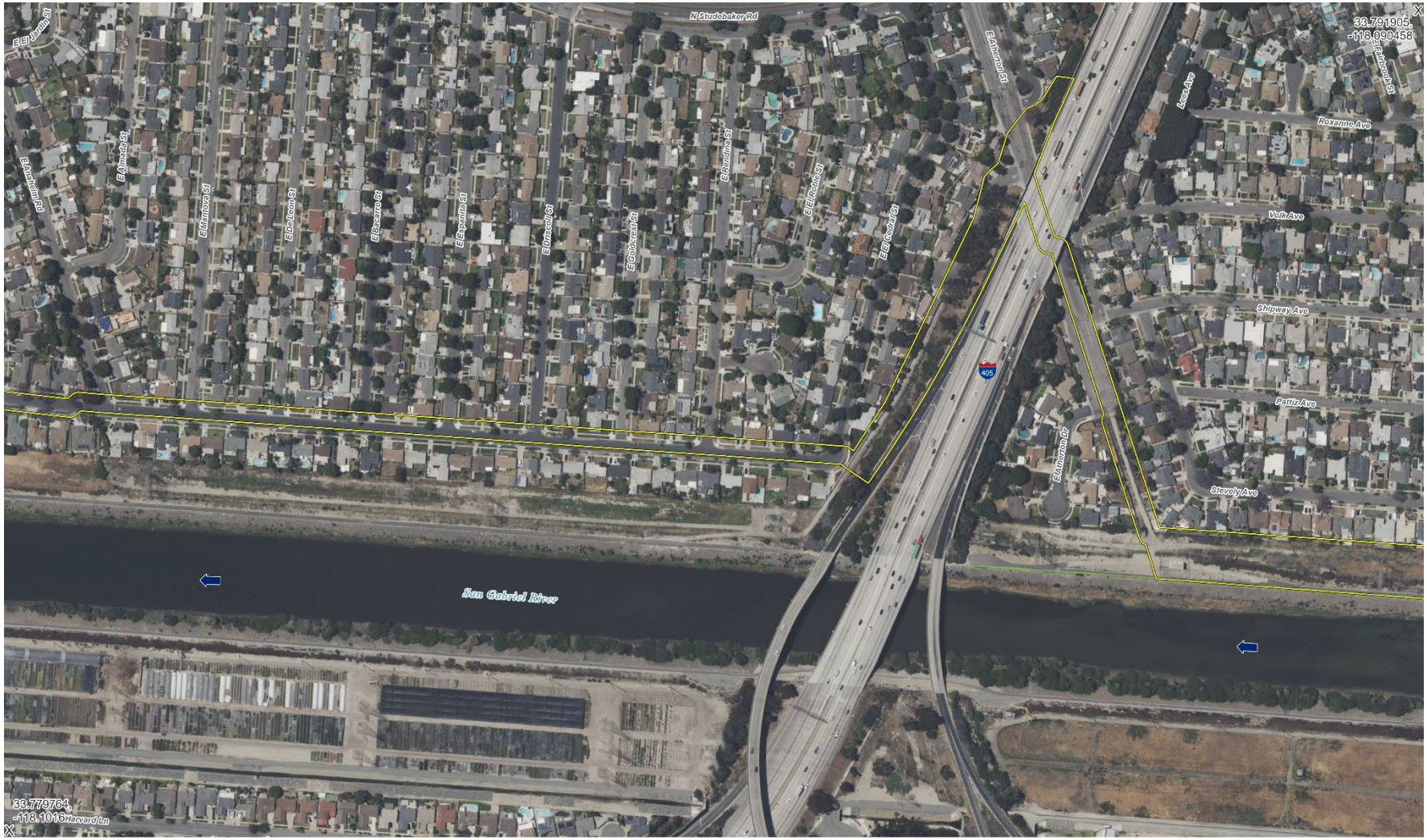

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Figure 5-6. Aquatic Resources within the ARSA (Sheet 3 of 4)

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Figure 5-7. Aquatic Resources within the ARSA (Sheet 4 of 4)

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6 Impacts Analysis

6.1 Vegetation Communities and Other Land Cover Types

Project implementation would result in minimal permanent or temporary impacts on native or naturalized vegetation communities. Proposed impacts on vegetation community types are shown on Figure 6-1 through Figure 6-4 and detailed in Table 6-1. The Project would result in a total of 18.900 acres of temporary direct impacts and 7.741 acres of permanent impacts on vegetation communities and other land cover types within the Project footprint. The majority of permanent and temporary impacts would occur within existing, disturbed and developed land cover types.

6.1.1 Sensitive Vegetation Communities

Sensitive vegetation communities do not occur within the BRSA. Therefore, the Project would not result in effects on these vegetation communities, and no Project-specific mitigation measures pertaining to sensitive vegetation are required.

6.2 Plant Species

6.2.1 Federally and/or State-Listed Plant Species

The majority of the Project footprint occurs within urban/developed, non-native, and disturbed habitats. No federally and/or state-listed plant species were found within the BRSA, and none are expected to occur. Therefore, the Project would not result in effects on these species, and no Project-specific mitigation measures pertaining to federally and/or state-listed plant species are required.

Table 6-1. Potential Project Impacts on Vegetation Communities

Vegetation Community	Temporary Impacts	Permanent Impacts	Total Impacts[a]
Tree-Dominated Habitats			
Eucalyptus sp. Woodland Semi-Natural Alliance	0.227	0.064	0.291
Schinus sp. – Myoporum laetum Forest and Woodland Semi-Natural Alliance	0.230	0.076	0.306
Shrub-Dominated Habitats			
Acacia spp. Shrubland Semi-Natural Alliance	0.164	0.078	0.243
Herbaceous-Dominated Habitats			
Mediterranean California Naturalized Annual and Perennial Grassland	10.206	2.842	13.047
Other Land Cover Types			
Concrete-lined Channel	0.044	0.029	0.074
Disturbed Habitat	0.059	0.042	0.101
Open Water[b]	0.229	0.153	0.382

Table 6-1. Potential Project Impacts on Vegetation Communities

Vegetation Community	Temporary Impacts	Permanent Impacts	Total Impacts[a]
Urban/Developed	7.740	4.456	12.196
Total[a]	**18.900**	**7.741**	**26.641**

[a] Totals may be different on account of rounding.

[b] Due to project design, no direct impacts, temporary or permanent, would occur to open water land cover as construction will be isolated to the bridge crossings above open water.

Figure 6-1. Project Impacts on Vegetation Communities and Other Land Cover Types (Sheet 1 of 4)

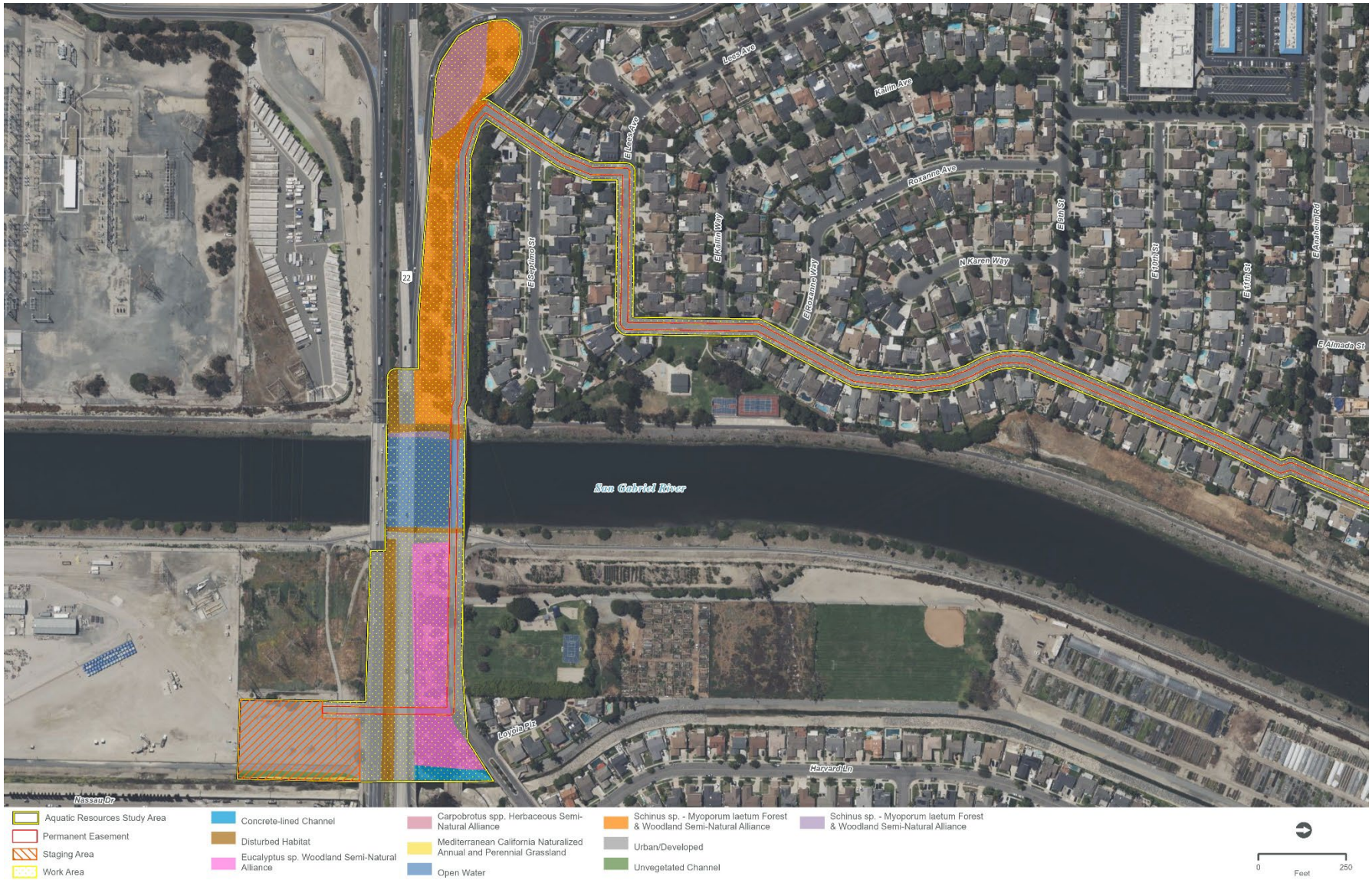

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Figure 6-2. Project Impacts on Vegetation Communities and Other Land Cover Types (Sheet 2 of 4)

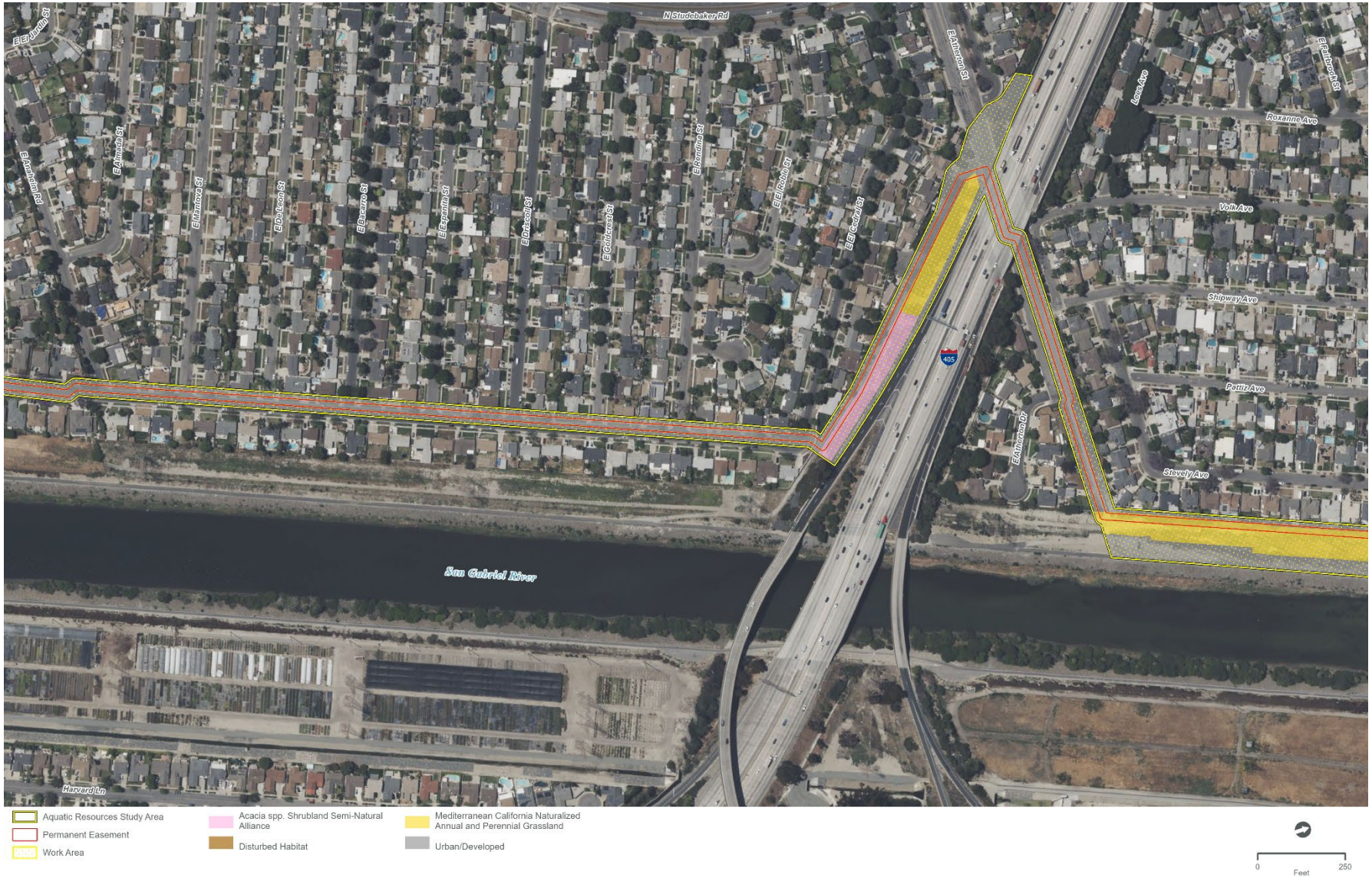

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Figure 6-3. Project Impacts on Vegetation Communities and Other Land Cover Types (Sheet 2 of 4)

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Figure 6-4. Project Impacts on Vegetation Communities and Other Land Cover Types (Sheet 4 of 4)

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6.2.2 Other Special-Status Plant Species

There are 3 special-status plant species that are not federally and/or state listed that have the potential to occur within the BRSA. Catalina mariposa lily (*Calochortus catalinae*, CNPS 4.2) and Plummer's mariposa lily (*Calochortus plummerae*, CNPS 4.2) have the potential to occur within poorly suitable non-native grassland habitat. In addition, the majority of the non-native grassland habitat is located within SCE transmission line ROW that is subject to frequent maintenance. Neither plant species was observed during biological resources surveys. Mud nama (*Nama stenocarpa*, CNPS 2B.2) may have the potential of occurring within the banks of the San Gabriel River. No impacts to the river are expected as a part of the Project as the proposed pipeline would be hung above the river along the existing bridge crossings. No other special-status plant species were found within or immediately adjacent to the BRSA, and none are expected to occur. Therefore, the Project would not result in effects on these species, and no Project-specific mitigation measures pertaining to other special-status plant species are required.

6.3 Wildlife Species

6.3.1 Federally and/or State-Listed Wildlife Species

As discussed above, the BRSA includes suitable habitat for 42 federally and/or state-listed wildlife species. However, suitable habitat for only three of these species, Crotch's bumble bee, Southern California steelhead and green sea turtle occurs within the BRSA. Suitable habitat for the remaining 39 species occurs adjacent to proposed construction areas. A discussion of temporary and permanent direct and indirect impacts on these species that may result from project implementation is provided below.

Crotch's Bumble Bee

The BRSA supports approximately 112.39 acres of suitable habitat along the open grasslands and may contain the necessary food plants utilized by the species. There are also planted plants within the vicinity of the BRSA that may contain sufficient floral resources for the species. As nesting habitat may include abandoned mammal burrows, perennial bunch grasses or thatched annual grasses, underbrush piles, old bird nests, or dead trees or hollow logs (Williams et al. 2014; Hatfield et al. 2018). Ground disturbance as a part of project construction may result in the loss of habitat or removing potential foraging habitat for the species and would be considered a significant impact. Measure BR-1 would be implemented to reduce impacts to Crotch's bumblebee by requiring focused surveys during appropriate flying season and appropriate compensatory mitigation should the species be detected. Potentially suitable habitat areas are located primarily along the Southern California Edison transmission line ROW that is subject to periodic maintenance and is frequently mowed. In this context, and with implementation of Measure BR-1, Crotch's bumble bee is not anticipated to be adversely affected by implementation of the proposed Project.

Monarch Butterfly

The BRSA supports approximately 3.91 acres of suitable habitat within the eucalyptus woodlands adjacent to SR-22 and I-405. As monarch butterflies may cluster in large groups in forested groves along the California coast, the eucalyptus woodlands may provide suitable overwintering habitat. Impacting existing eucalyptus trees may result in injury or mortality of any overwintering individuals,

reducing their health and vigor, or even reducing their chances of success during spring and summer migration to breeding sites. Although a trenchless construction method would be utilized within the eucalyptus woodland habitat, disturbance to the woodlands may occur. Noise, fugitive dust, or even minor vegetation removal within the suitable habitat may result in significant impacts to monarch butterflies. Implementation of Measure BR-2 would require focused surveys to determine if the Project BRSA supports overwintering groves or monarch population. Should surveys determine that an overwintering grove or monarch population is present within the BRSA, a Monarch Butterfly Overwintering Habitat Management Plan would be prepared to protect, manage, enhance, and restore overwintering habitat. In this context, monarch butterfly is not anticipated to be adversely affected by implementation of the proposed Project.

Steelhead and Green Sea Turtle

Suitable habitat for steelhead and green sea turtle is associated with the open water of the San Gabriel River. However, the river would not be directly impacted by project implementation. Construction access would occur on unpaved, utility ROWs, and paved roads located adjacent to the river. Installation of the pipeline would need to cross the river; however, the pipeline would be installed above ground along the bridge crossings. Construction within the waters of the river would not be necessary. During the vegetation mapping and habitat assessment, approximately 10 green sea turtles were observed within the estuarine habitat of the San Gabriel River, upstream from SR-22. The Project does not propose direct temporary or permanent impacts on Steelhead and Green sea turtle habitat.

6.3.2 Other Special-Status Wildlife Species

Based on the results of the literature review, 4 wildlife species that are not listed under FESA or CESA but that are considered California SSCs or are fully protected have potential to occur within the BRSA. These species include western pond turtle, burrowing owl, yellow warbler, and western mastiff bat.

These species may utilize upland habitats that occur within the BRSA. Proposed direct impacts are isolated to developed and disturbed land within urban and residential areas. In addition, there are direct impacts proposed to non-native grasslands and woodlands within the SCE ROW or adjacent to the roadway and highways. Burrowing owls, specifically, may utilize the disturbed non-native grasslands within Southern California Edison ROW or within the eucalyptus woodlands adjacent to SR-22 and I-405. Direct impacts to western pond turtle and yellow warbler would not be anticipated as potential habitat is associated with the San Gabriel River and installation of the pipeline would simply be hung along the bridge crossings. With implementation of Measure BR-3, direct impacts on suitable habitat for other special-status species is not anticipated. Should a special-status species enter the project site during construction, there is the potential for direct impact (injury/mortality) on the individual. However, the potential for direct impacts on sensitive wildlife species would be minimized and/or avoided by implementation of Measure BR-3 and Measure BR-4.

In addition, direct impacts on active burrowing owl and yellow warbler nests are prohibited by the MBTA and California Fish and Game Code and would be considered significant. However, impacts on nesting birds are not anticipated after implementation of preconstruction surveys and nest buffers around active nests per Measure BR-4. Measure BR-5 would also require focused surveys for burrowing owls per CDFW protocols and should burrowing owls be detected, appropriate buffers and monitoring would be implemented.

Indirect impacts on other special-status species could occur if they are present in areas adjacent to the Project footprint during construction. Indirect impacts may include decreased water quality; damage to potential foraging habitat resulting from fugitive dust associated with construction; or disruption of foraging, breeding, or communication resulting from additional noise associated with Project construction and operation. Potential indirect impacts on other special-status wildlife species would be of short duration and minimized after implementation of Measure BR-3. Residual impacts, if any, would be minor and are not expected to jeopardize any of these species' existence. Therefore, the Project is not anticipated to adversely affect these 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 3500 et seq. occurs within and adjacent to the Project footprint. Direct impacts on an active nest, such as the removal of vegetation or demolition of a structure that contains an active nest, would be considered significant and adverse. Although trees and shrubs are not proposed for removal, ground nesting birds, such as killdeer, may be directly or indirectly impacted by ground disturbance during construction. After implementation of preconstruction nesting surveys and nest buffers around active nests per Measure BR-3, the Project is not anticipated to adversely affect nesting birds.

6.4 Jurisdictional Aquatic Resources

The Project proposes to install a 12-inch sewer force main pipeline from the HGS to the Long Beach WRF. The pipeline would be installed through a combination of trenching, above ground along existing bridges, and trenchless construction. Although the Project would be constructed nearby aquatic resources, no direct impacts are proposed or expected, however, due to their proximity, there is a potential to indirectly impact or discharge into regulated aquatic resources. Potential impacts are discussed below.

6.4.1 Project Discharges into USACE and RWQCB Jurisdictional Aquatic Resources

The Proposed project would reduce the 12-inch sewer force main pipeline to 8 inches in diameter within a 16-inch casing when installed along the College Park Drive crossing over the San Gabriel River and the East Willow Street crossing over the San Gabriel River. The sewer force main pipeline would be hung alongside existing pipeline conduit above the aquatic resources below. As a result, minimal to no direct impacts would be expected to the WOUS or WOS associated with the San Gabriel River (Figure 6-5 through Figure 6-8). Immediately before and after each of these crossings, trenching construction activities would be utilized to install the pipeline below grade. Construction activities may result in indirect impacts related to discharge and runoff to the surrounding aquatic resources; however, implementation of construction best management practices (BMPs) would reduce or eliminate indirect impacts to WOUS or WOS. All work areas are positioned adjacent to the San Gabriel River, on the upper terrace. Construction spoils will be contained using BMPs in areas directly adjacent to aquatic resources.

6.4.2 Project Impacts on CDFW Regulated Streambed

CDFW regulated streambed is associated with the San Gabriel River, Los Alamitos Channel, and an unnamed concrete channel. As described above, the proposed Project would not result in direct impacts to these aquatic resources as the pipeline would be installed above the San Gabriel River along the existing bridge crossings (Figure 6-5 through Figure 6-8). Construction activities may result in discharge and runoff to the surrounding aquatic resources, however, implementation of construction BMPs would reduce or eliminate indirect impacts to any CDFW regulated streambed.

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Figure 6-5. Potential Impacts to Aquatic Resources (Sheet 1 of 4)

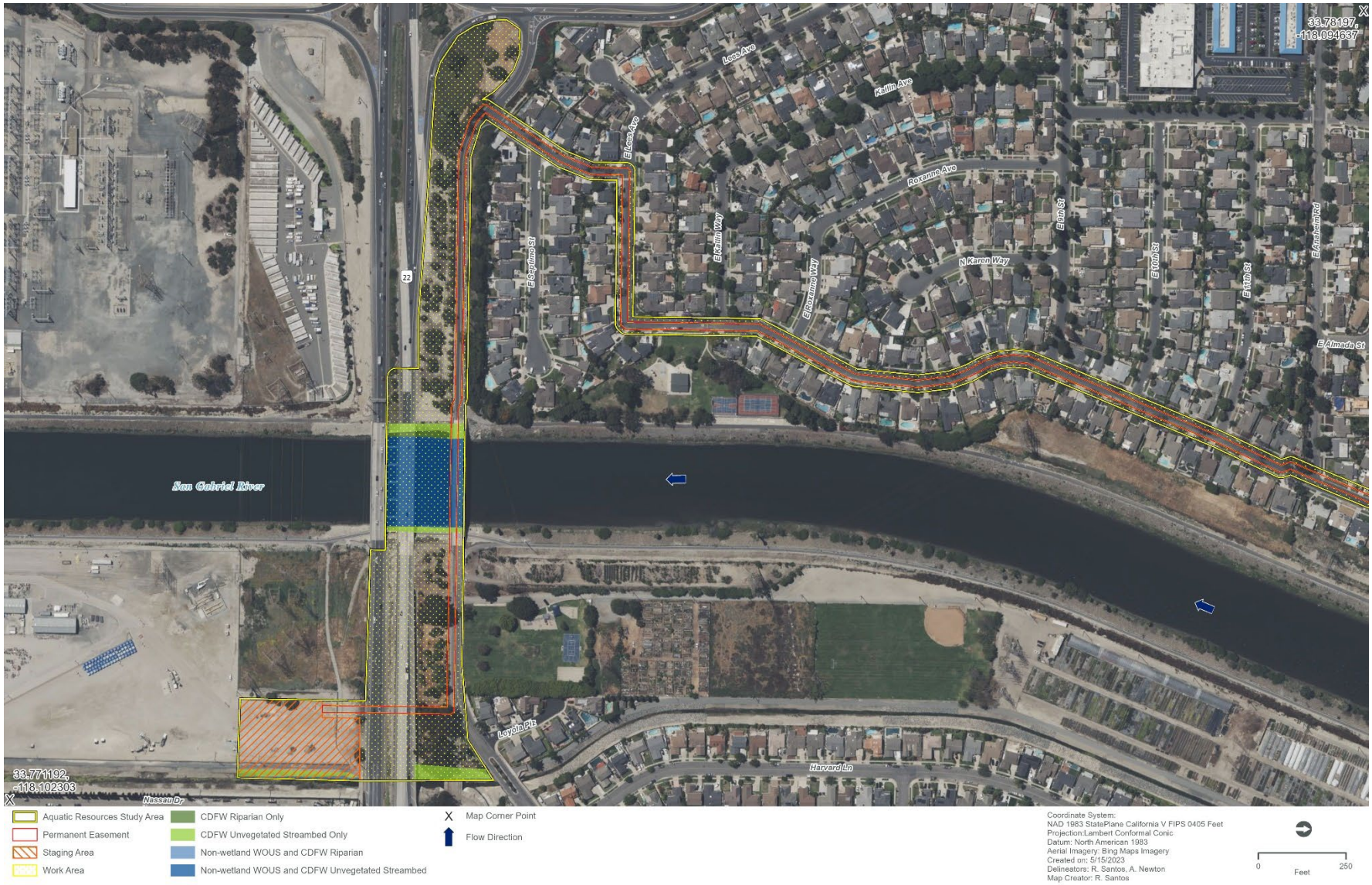

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Figure 6-6. Potential Impacts to Aquatic Resources (Sheet 2 of 4)

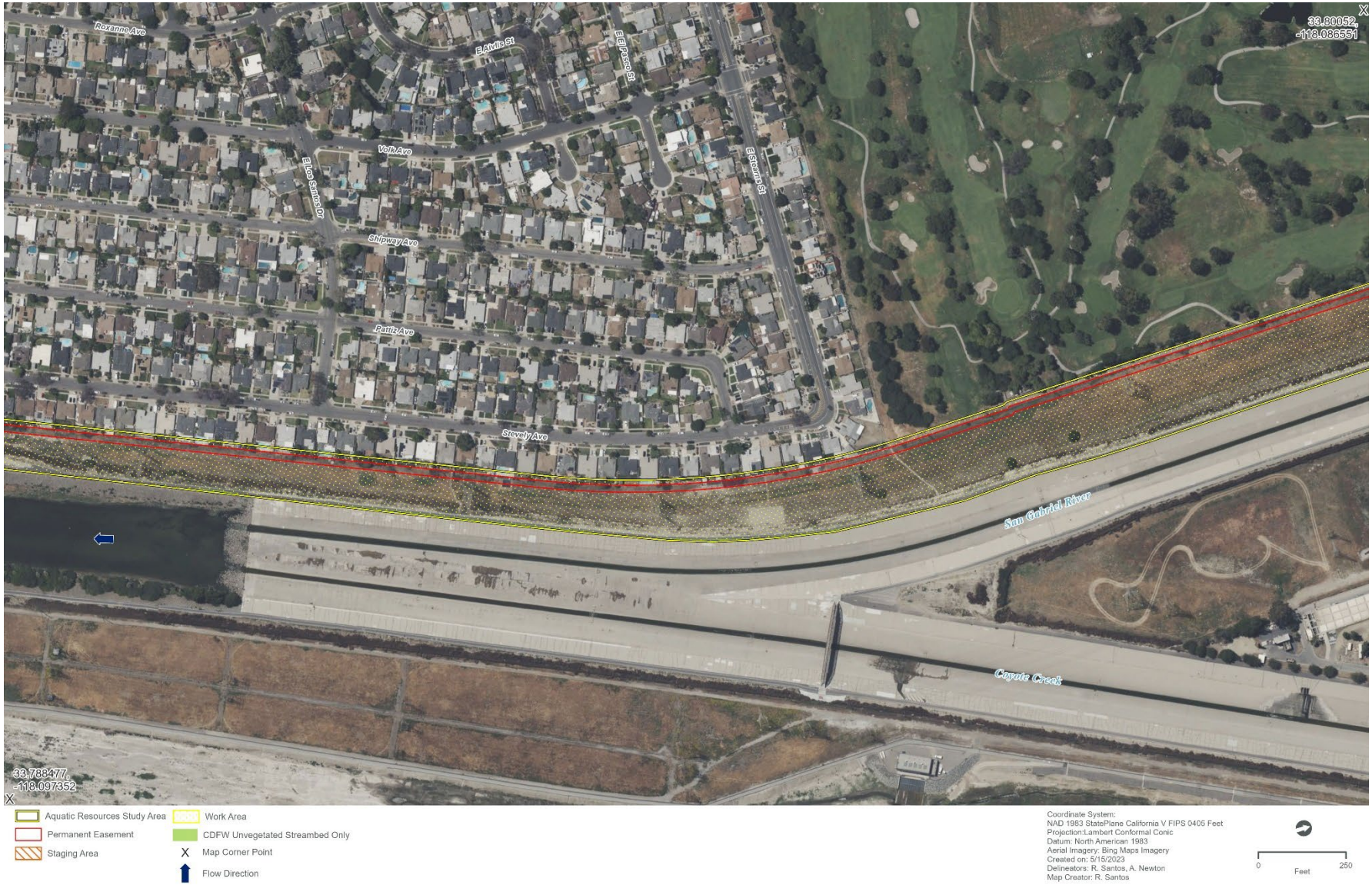

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Figure 6-7. Potential Impacts to Aquatic Resources (Sheet 3 of 4)

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Figure 6-8. Potential Impacts to Aquatic Resources (Sheet 4 of 4)

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6.5 Wildlife Corridors and Habitat Linkages

There are no wildlife corridors or habitat linkages within the Project BRSA. No impacts are expected as a result of Project implementation.

6.6 Local Policies

The Project is generally consistent with local policies pertaining to the protection of biological resources, as detailed in Table 6-2.

Table 6-2. Compliance with Local Policies Related to Biological Resources

Policy/Goal	Project Consistency	Consistent?
City of Long Beach General Plan		
To conserve the natural resources of Long Beach through wise management and well-planned utilization of water, vegetation, wildlife, minerals, and other resources.	The majority of the Project would remain on developed and disturbed habitat with impacts to non-native grasslands and woodlands.	Yes
To create and maintain a productive harmony between man and his environment through conservation of natural resources and protection of significant areas having environmental and aesthetic value.	The proposed Project would not impact significant areas of environmental or aesthetic value.	Yes
To revitalize and enhance areas where inadequate conservation measures occurred in the past.	The Project would be isolated to developed and disturbed habitat with impacts to non-native grasslands and woodlands.	Yes
To improve and preserve the unique and fine qualities of Long Beach and to eliminate undesirable or harmful elements	The Project would remain below grade in developed, disturbed habitat, and non-native grasslands and woodlands. The pipeline would be hung on bridge crossings alongside existing sewer casings.	Yes
To provide protective controls for lands supporting distinctive native vegetation, wildlife species which can be used for ecologic, scientific and educational purposes.	The majority of the Project would be on developed and disturbed habitat with impacts to non-native grasslands and woodlands that do not support rare or special-status vegetation or wildlife species.	Yes
To promote measures and plans which protect and preserve distinctive types of wildlife including wildlife, birds, marine organisms and especially endangered species.	The Project would be constructed within developed and disturbed habitat with some impacts to non-native grasslands and woodlands that do not support rare or special-status vegetation or wildlife. In addition, mitigation measures BR-1 through BR-7 would limit impacts to the surrounding biological resources.	Yes

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7 Mitigation Measures

Mitigation Measure BR-1 is required to avoid and minimize direct and indirect impacts on biological resources.

BR-1: **Avoid Effects on Crotch's Bumble Bee, if present.** Focused surveys for Crotch's bumble bee will be conducted prior to construction by a qualified entomologist. A minimum of three surveys will be needed throughout the entire Project site prior to construction and shall occur at least two to four weeks apart. If Crotch's bumble bee are detected, no work shall occur in that area until LBUD has coordinated with the CDFW to determine appropriate avoidance and minimization measures, and/or obtain necessary approvals. A qualified entomologist will be employed to complete a pre-construction survey for Crotch's bumble bee during the appropriate flying season (April – August). Pre-construction surveys will be conducted within 48 hours prior to initial ground disturbance and vegetation removal.

BR-2: **Avoid Effects on Monarch Butterfly, if present.** Roosting monarch surveys will be conducted prior to construction by a qualified biologist. Surveys will be needed throughout the entire Project site. An overwintering grove habitat and impact assessment will be completed after the season appropriate surveys. If overwintering grove habitat is detected, no work shall occur in that area until LBUD has coordinated with the CDFW to determine appropriate avoidance and minimization measures, and/or obtain necessary approvals. If vegetation removal activities occur between September 16 and March 14, roosting monarch surveys will be conducted prior to vegetation removal activities, and no vegetation removal will occur if monarch roosting sites are present. Vegetation removal can occur once a qualified biologist has confirmed that the overwintering monarchs have vacated the roosting site in the spring.

BR-3 **Avoid Effects on Migratory and Nesting Birds.** Vegetation removal, ground disturbance activities, and construction demolition shall occur outside of the nesting bird season (January 1 through September 31). If construction activities occur during this time period, a preconstruction nesting bird survey will be conducted (within 7 days prior to construction activities) by a qualified biologist to determine if active nests are present within the area proposed for disturbance. If active nests are found, standardized buffers will be implemented based on the species to avoid nesting activities of breeding birds/raptors. All construction personnel shall be notified regarding buffer distances directed to avoid entering buffer zones until the nest is determined to be inactive by a qualified biologist. Encroachment into buffer zones shall only occur at the discretion of the qualified biologist. This mitigation measure applies to all Project-related activities in the Study Area.

BR-4: **Worker Environmental Awareness Training.** Prior to the start of construction, all Project personnel and contractors who will be on site during construction shall complete mandatory training conducted by the Project Biologist or a designated qualified biologist. Any new Project personnel or contractors that come on board

after the initiation of construction shall also be required to complete the mandatory Worker Environmental Awareness Program training before they commence with work. The training shall advise workers of potential impacts on jurisdictional resources. At a minimum, the training shall include the following topics: (1) occurrences of special-status species and special-status vegetation communities in the Project Study Area (including vegetation communities subject to USACE, CDFW, and RWQCB jurisdiction), (2) the purpose for resource protection; (3) protective measures to be implemented in the field, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced to avoid jurisdictional resource areas in the field (i.e., avoid areas delineated on maps or on the Project site by fencing); (5) environmentally responsible construction practices; and (6) the protocol to resolve conflicts that may arise at any time during the construction process.

BR-5 **Avoid Effects on Burrowing Owls.** A qualified biologist shall conduct focused burrowing owls, per CDFW protocol. A minimum of four survey visits within suitable habitat for burrowing owl would be required with the following requirements: 1) at least one site visit between February 15 and April 15, and 2) a minimum of three survey visits, at least three weeks apart, between April 15 and July 15, with at least one visit after June 15. Surveys would occur within non-native grasslands within the SCE ROW and the eucalyptus woodland area adjacent to SR-22 and I-405.

Should active burrows (occupied by burrowing owls) be detected, no Project activities would take place within 200 feet of an active burrow. A Burrowing Owl Mitigation Plan may be required to report on any potential impacts and the management/mitigation procedures appropriate for the impacts. This may include the prohibition of construction activities within an active burrow until the offspring have fledged and left the burrow or an environmental awareness presentation to instruct contractors and workers on site on the presences of burrowing owls, restricted areas, and adherence to any buffer zones.

BR-6: **Impacts to trees protected under the City of Long Beach Tree Ordinance.** Trees located on City of Long Beach property require a tree trimming permit. If tree trimming or removal is required as part of the Project, the Project proponent shall acquire a tree trimming permit from the City. All conditions in the permit must be followed to be compliant with City regulations. In some cases, the City arborist shall be engaged to access the significance of the tree being impacted as well as guide trimming crews to the extent of vegetation that can be removed to avoid tree mortality, In addition, if a tree is determined to be historically or culturally significant, avoidance is recommended.

BR-7: **Impacts to bat species and/or maternity sites.** Although bat roosting, foraging, and maternity sites were not identified during field surveys, unanticipated impacts may occur during construction. Prior to Project activities, a qualified biologist shall conduct a survey of potential roosting sites (primarily inspections on bridge crossings over San Gabriel River) shall be performed to clear work areas no more than 14 days prior to the start of construction, if colonies or individuals are identified, work shall proceed under the guidance of a qualified biologist.

8 References

Beier, P. and S. Loe. 1992. A checklist for evaluating impacts to wildlife movement corridors. Wildlife Society Bulletin 20:434-440.

California Department of Fish and Wildlife (CDFW). 2019. Evaluation of The Petition From The Xerces Society, Defenders Of Wildlife, and the Center For Food Safety to List Four Species Of Bumble Bees As Endangered Under The California Endangered Species Act. Prepared by CDFW on April 4, 2019.

_____. 2022. News Room – Recent News Releases. CDFW Seeks Public Comment Related To Crotch's Bumble Bee, Franklin's Bumble Bee, Suckley's Cuckoo Bumble Bee And Western Bumble Bee. December 14, 2022. https://wildlife.ca.gov/News/cdfw-seeks-public-comment-related-to-crotchs-bumble-bee-franklins-bumble-bee-suckleys-cuckoo-bumble-bee-and-western-bumble-bee.

_____. 2023. RareFind 5 – California Natural Diversity Database Online Search. Accessed March 2023. https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data.Calflora. 2023. Information on California plants for education, research and conservation, based on data contributed by the Consortium of California Herbaria and dozens of other public and private institutions and individuals. Berkeley, California: The Calflora Database (a nonprofit organization). Accessed April 2023. http://www.calflora.org/.

California Native Plant Society (CNPS). 2023. Rare Plant Program. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Accessed March 2023. http://www.rareplants.cnps.org.

City of Long Beach. 2019. City of Long Beach General Plan. Accessed April 2023. https://www.longbeach.gov/lbds/planning/advance/general-plan/

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. United States Army Engineer Waterways Experiment Station, Vicksburg, MS. https://www.lrh.usace.army.mil/Portals/38/docs/USACE%2087%20Wetland%20Delineation%20Manual.pdf.

Faber-Langendoen, D., L. Master, J. Nichols, K. Snow, A. Tomaino, R. Bittman, G. Hammerson, B. Heidel, L. Ramsay, and B. Young. 2012. NatureServe Conservation Status Assessments: Methodology for Assigning Ranks (Revised Edition). Arlington, VA: NatureServe. https://www.natureserve.org/sites/default/files/publications/files/natureserveconservationstatusmethodology_jun12_0.pdf.

Google Earth. 2023. Various Date Maps showing Long Beach and Los Alamitos, CA. Google Earth. Accessed April 2023. earth.google.com/web/.

Hatfield, R., Jepsen, S., Foltz Jordan, S., Blackburn, M., Code, Aimee (Hatfield et al.). 2018. A Petition to the State of California Fish and Game Commission to List Four Species of Bumblebees as Endangered Species.

Jepson Flora Project (eds.) 2021. Jepson eFlora. Accessed April 2023. https://ucjeps.berkeley.edu/eflora/.

Los Angeles RWQCB. 2014. Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties. Accessed April 2023. https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/

Munsell Color X-Rite. 2013. *Munsell® Soil Color Book*. 2009 Year Revised I 2013 Production. Grand Rapids, MI.

National Oceanic and Atmospheric Administration (NOAA). 2021. U.S. Climate Normals Quick Access – Long Beach Daugherty Field, CA. Accessed April 2023. https://www.ncei.noaa.gov/access/us-climate-normals/#dataset=normals-annualseasonal&timeframe=30&station=USW00023129

———. 2022. Species Directory – Green Turtle. Accessed April 2023. https://www.fisheries.noaa.gov/species/green-turtle#overview

National Marine Fisheries Service (NMFS). 2016. 5-Year Review: Summary and Evaluation of Southern California Coast Steelhead Distinct Population Segment. National Marine Fisheries Service. West Coast Region. California Coastal Office. Long Beach, California. https://www.fisheries.noaa.gov/resource/document/5-year-review-summary-and-evaluation-southern-california-coast-steelhead-distinct.

Sawyer, John O., and Todd Keeler-Wolf. 2009. *A Manual of California Vegetation*. California Native Plant Society, Second Edition. Sacramento, California.

Schweiger, E.W., J.E. Diffendorfer, R.D. Holt, R. Pierotti, and M.S. Gaines. 2000. *The interaction of habitat fragmentation, plant, and small mammal succession in an old field*. Ecological Monographs 70:383-400.

State Water Resources Control Board (SWCRB). 2014. 401 Water Quality Certification Frequently Asked Questions. Accessed April 2023. https://www.waterboards.ca.gov/rwqcb9/water_issues/programs/401_certification/docs/401c/401FAQRB9V514.pdf.

——— 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. Adopted April 2, 2019. Accessed April 2023. https://www.waterboards.ca.gov/water_issues/programs/cwa401/wrapp.html.

United States Army Corps of Engineers (USACE). 2008a. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0).* https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/reg_supp/.

——— 2008b. Guidance on Clean Water Act Jurisdiction Following the Supreme Court Decision in Rapanos v. U.S. and Carabell v. U.S. December 2, 2008. https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Related-Resources/CWA-Guidance/. Accessed April 2023.

——— 2008c. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. Hanover, NH:Cold Regions Research and Engineering Laboratory. https://cawaterlibrary.net/wp-content/uploads/2018/03/FinalOHWMManual_2008.pdf.

——— 2020. National Wetland Plant List, version 3.5. https://wetland-plants.sec.usace.army.mil/nwpl_static/v34/home/home.html. Accessed April 2023.

United States (U.S.) Department of Agriculture Natural Resources Conservation Service. 2018. *Field Indicators of Hydric Soils in the U.S.*, Version 8.2.

——— 2023. Web Soil Survey. https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed April 2023.

United States Geological Survey (USGS). 1949. *Los Alamitos, California* 7.5-minute topographic quadrangle map. Accessed April 2023.

——— 2022. The National Map Hydrography. Accessed April 2023. https://hydro.nationalmap.gov/arcgis/rest/services/nhd/MapServer.

United States Fish and Wildlife Service (USFWS). 2020. Monarch (*Danaus Plexippus*) Species Status Assessment Report. V2.1 96 pp + appendices. https://www.fws.gov/media/monarch-butterfly-species-status-assessment-ssareport

———. 2021. National Wetlands Inventory website. Last revised: November 30, 2021. https://www.fws.gov/wetlands/. Accessed: April 2023.

———. 2023. Information for Planning and Consultation. Carlsbad Fish and Wildlife office. Accessed March 2023. https://ecos.fws.gov/ipac/.

Williams PH, Thorp RW, Richardson LL, Colla SR (Williams et al.). 2014. Bumble Bees of North America: An Identification Guide: An Identification Guide. Princeton University Press.

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Appendix A. Literature Review Results

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901

In Reply Refer To:
Project Code: 2023-0056273
Project Name: LBWD Haynes Wastewater

March 15, 2023

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

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

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.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found at the Fish and Wildlife Service's Endangered Species Consultation website at:

https://www.fws.gov/endangered/what-we-do/faq.html

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

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:

Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

PROJECT SUMMARY

Project Code: 2023-0056273
Project Name: LBWD Haynes Wastewater
Project Type: Wastewater Facility - Maintenance / Modification
Project Description: LBWD Haynes Generation Plant and LADWP
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.7886401,-118.09417864491755,14z

Counties: Los Angeles and Orange counties, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 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
Pacific Pocket Mouse *Perognathus longimembris pacificus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8080	Endangered

BIRDS

NAME	STATUS
California Least Tern *Sterna antillarum browni* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8104	Endangered
Coastal California Gnatcatcher *Polioptila californica californica* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8178	Threatened
Western Snowy Plover *Charadrius nivosus nivosus* Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Salt Marsh Bird's-beak *Cordylanthus maritimus ssp. maritimus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6447	Endangered
Ventura Marsh Milk-vetch *Astragalus pycnostachyus var. lanosissimus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1160	Endangered

CRITICAL HABITATS

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

IPAC USER CONTACT INFORMATION

Agency:	HDR Engineering Inc
Name:	Ronell Santos
Address:	591 Camino de la Reina
Address Line 2:	Suite 300
City:	San Diego
State:	CA
Zip:	92108
Email	ronell.santos@hdrinc.com
Phone:	8587128254

CNPS Rare Plant Inventory

California Native Plant Society

Search Results

42 matches found. Click on scientific name for details

Search Criteria: Quad is one of [**3311871:3311872:3311882:3311881:3311788:3311778:3311768:3311861**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Abronia maritima	red sand-verbena	Nyctaginaceae	perennial herb	Feb-Nov	None	None	G4	S3?	4.2		1994-01-01	 ©2003 Christopher L. Christie
Abronia villosa var. *aurita*	chaparral sand-verbena	Nyctaginaceae	annual herb	(Jan)Mar-Sep	None	None	G5T2?	S2	1B.1		2001-01-01	 © 2011 Aaron E. Sims
Aphanisma blitoides	aphanisma	Chenopodiaceae	annual herb	Feb-Jun	None	None	G3G4	S2	1B.2		1980-01-01	 © 2010 Larry Sward
Astragalus hornii var. *hornii*	Horn's milk-vetch	Fabaceae	annual herb	May-Oct	None	None	GUT1	S1	1B.1		2006-12-01	No Photo Available
Astragalus pycnostachyus var. *lanosissimus*	Ventura Marsh milk-vetch	Fabaceae	perennial herb	(Jun)Aug-Oct	FE	CE	G2T1	S1	1B.1	Yes	1974-01-01	No Photo Available
Atriplex coulteri	Coulter's saltbush	Chenopodiaceae	perennial herb	Mar-Oct	None	None	G3	S1S2	1B.2		1994-01-01	No Photo Available
Atriplex pacifica	south coast saltscale	Chenopodiaceae	annual herb	Mar-Oct	None	None	G4	S2	1B.2		1994-01-01	No Photo Available
Atriplex parishii	Parish's brittlescale	Chenopodiaceae	annual herb	Jun-Oct	None	None	G1G2	S1	1B.1		1988-01-01	No Photo Available
Atriplex serenana var. *davidsonii*	Davidson's saltscale	Chenopodiaceae	annual herb	Apr-Oct	None	None	G5T1	S1	1B.2		1994-01-01	No Photo Available
Calochortus catalinae	Catalina mariposa lily	Liliaceae	perennial bulbiferous herb	(Feb)Mar-Jun	None	None	G3G4	S3S4	4.2	Yes	1974-01-01	No Photo Available
Calochortus plummerae	Plummer's mariposa-lily	Liliaceae	perennial bulbiferous herb	May-Jul	None	None	G4	S4	4.2	Yes	1994-01-01	No Photo Available

Calochortus weedii var. *intermedius*	intermediate mariposa-lily	Liliaceae	perennial bulbiferous herb	May-Jul	None	None	G3G4T3	S3	1B.2	Yes	1994-01-01	No Photo Available
Calystegia felix	lucky morning-glory	Convolvulaceae	annual rhizomatous herb	Mar-Sep	None	None	G1Q	S1	1B.1	Yes	2014-07-16	No Photo Available
Camissoniopsis lewisii	Lewis' evening-primrose	Onagraceae	annual herb	Mar-May(Jun)	None	None	G4	S4	3		1994-01-01	No Photo Available
Centromadia parryi ssp. *australis*	southern tarplant	Asteraceae	annual herb	May-Nov	None	None	G3T2	S2	1B.1		1994-01-01	No Photo Available
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct(Nov)	FE	CE	G4?T1	S1	1B.2		1974-01-01	No Photo Available
Cistanthe maritima	seaside cistanthe	Montiaceae	annual herb	(Feb)Mar-Jun(Aug)	None	None	G3G4	S3	4.2		1980-01-01	No Photo Available
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	None	None	G4	S4	4.2		1994-01-01	No Photo Available
Dudleya multicaulis	many-stemmed dudleya	Crassulaceae	perennial herb	Apr-Jul	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
Eleocharis parvula	small spikerush	Cyperaceae	perennial herb	(Apr)Jun-Aug(Sep)	None	None	G5	S3	4.3		1980-01-01	 ©2018 Ron Vanderhoff
Eryngium aristulatum var. *parishii*	San Diego button-celery	Apiaceae	annual/perennial herb	Apr-Jun	FE	CE	G5T1	S1	1B.1		1974-01-01	No Photo Available
Helianthus nuttallii ssp. *parishii*	Los Angeles sunflower	Asteraceae	perennial rhizomatous herb	Aug-Oct	None	None	G5TX	SX	1A	Yes	1974-01-01	No Photo Available
Hordeum intercedens	vernal barley	Poaceae	annual herb	Mar-Jun	None	None	G3G4	S3S4	3.2		1994-01-01	No Photo Available
Isocoma menziesii var. *decumbens*	decumbent goldenbush	Asteraceae	perennial shrub	Apr-Nov	None	None	G3G5T2T3	S2	1B.2		1994-01-01	No Photo Available
Juglans californica	Southern California black walnut	Juglandaceae	perennial deciduous tree	Mar-Aug	None	None	G4	S4	4.2	Yes	1994-01-01	 © 2020 Zoya Akulova

Juncus acutus ssp. *leopoldii*	southwestern spiny rush	Juncaceae	perennial rhizomatous herb	(Mar)May-Jun	None	None	G5T5	S4	4.2		1988-01-01	 © 2019 Belinda Lo
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	None	None	G4T2	S2	1B.1		1994-01-01	 © 2013 Keir Morse
Lycium californicum	California box-thorn	Solanaceae	perennial shrub	Mar-Aug(Dec)	None	None	G4	S4	4.2		2001-01-01	No Photo Available
Nama stenocarpa	mud nama	Namaceae	annual/perennial herb	Jan-Jul	None	None	G4G5	S1S2	2B.2		1994-01-01	No Photo Available
Nasturtium gambelii	Gambel's water cress	Brassicaceae	perennial rhizomatous herb	Apr-Oct	FE	CT	G1	S1	1B.1		1980-01-01	No Photo Available
Navarretia prostrata	prostrate vernal pool navarretia	Polemoniaceae	annual herb	Apr-Jul	None	None	G2	S2	1B.2	Yes	2001-01-01	No Photo Available
Nemacaulis denudata var. *denudata*	coast woolly-heads	Polygonaceae	annual herb	Apr-Sep	None	None	G3G4T2	S2	1B.2		1994-01-01	No Photo Available
Orcuttia californica	California Orcutt grass	Poaceae	annual herb	Apr-Aug	FE	CE	G1	S1	1B.1		1974-01-01	No Photo Available
Pentachaeta lyonii	Lyon's pentachaeta	Asteraceae	annual herb	(Feb)Mar-Aug	FE	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
Phacelia ramosissima var. *austrolitoralis*	south coast branching phacelia	Hydrophyllaceae	perennial herb	Mar-Aug	None	None	G5?T3Q	S3	3.2		2007-05-17	No Photo Available
Phacelia stellaris	Brand's star phacelia	Hydrophyllaceae	annual herb	Mar-Jun	None	None	G1	S1	1B.1		1994-01-01	No Photo Available
Quercus engelmannii	Engelmann oak	Fagaceae	perennial deciduous tree	Mar-Jun	None	None	G3	S3	4.2		1988-01-01	No Photo Available
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	Yes	1984-01-01	 ©2013 Debra L. Cook
Sidalcea neomexicana	salt spring checkerbloom	Malvaceae	perennial herb	Mar-Jun	None	None	G4	S2	2B.2		1994-01-01	No Photo Available

Suaeda esteroa	estuary seablite	Chenopodiaceae	perennial herb	(Jan-May)Jul-Oct	None	None	G3	S2	1B.2		1984-01-01	No Photo Available
Suaeda taxifolia	woolly seablite	Chenopodiaceae	perennial evergreen shrub	Jan-Dec	None	None	G4	S4	4.2		1994-01-01	No Photo Available
Symphyotrichum defoliatum	San Bernardino aster	Asteraceae	perennial rhizomatous herb	Jul-Nov	None	None	G2	S2	1B.2	Yes	2004-01-01	No Photo Available

Showing 1 to 42 of 42 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 15 March 2023].

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **RareFind**

Query Summary:
Quad IS (Los Alamitos (3311871) OR Long Beach (3311872) OR South Gate (3311882) OR Whittier (3311881) OR La Habra (3311788) OR Anaheim (3311778) OR Newport Beach (3311768) OR Seal Beach (3311861))

Print Close

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Abronia villosa var. aurita	chaparral sand-verbena	Dicots	PDNYC010P1	98	3	None	None	G5T2?	S2	1B.1	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Coastal scrub, Desert dunes
Agelaius tricolor	tricolored blackbird	Birds	ABPBXB0020	955	3	None	Threatened	G1G2	S1S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern	Freshwater marsh, Marsh & swamp, Swamp, Wetland
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	Birds	ABPBX91091	235	1	None	None	G5T3	S3	null	CDFW_WL-Watch List	Chaparral, Coastal scrub
Ammodramus savannarum	grasshopper sparrow	Birds	ABPBXA0020	27	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Valley & foothill grassland
Anniella stebbinsi	Southern California legless lizard	Reptiles	ARACC01060	426	8	None	None	G3	S3	null	CDFW_SSC-Species of Special Concern, USFS_S-Sensitive	Broadleaved upland forest, Chaparral, Coastal dunes, Coastal scrub
Aphanisma blitoides	aphanisma	Dicots	PDCHE02010	82	2	None	None	G3G4	S2	1B.2	SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, SB_SBBG-Santa Barbara Botanic Garden	Coastal bluff scrub, Coastal dunes, Coastal scrub
Aspidoscelis hyperythra	orange-throated whiptail	Reptiles	ARACJ02060	369	1	None	None	G5	S2S3	null	CDFW_WL-Watch List, IUCN_LC-Least Concern, USFS_S-Sensitive	Chaparral, Cismontane woodland, Coastal scrub
Aspidoscelis tigris stejnegeri	coastal whiptail	Reptiles	ARACJ02143	148	4	None	None	G5T5	S3	null	CDFW_SSC-Species of Special Concern	null
Astragalus hornii var. hornii	Horn's milk-vetch	Dicots	PDFAB0F421	28	1	None	None	GUT1	S1	1B.1	BLM_S-Sensitive	Alkali playa, Meadow & seep, Wetland
Astragalus pycnostachyus var. lanosissimus	Ventura Marsh milk-vetch	Dicots	PDFAB0F7B1	7	1	Endangered	Endangered	G2T1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden	Coastal dunes, Coastal scrub, Marsh & swamp, Salt marsh, Wetland
Athene cunicularia	burrowing owl	Birds	ABNSB10010	2011	7	None	None	G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean

											Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	desert scrub, Sonoran desert scrub, Valley & foothill grassland
Atriplex coulteri	Coulter's saltbush	Dicots	PDCHE040E0	121	2	None	None	G3	S1S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley & foothill grassland
Atriplex pacifica	south coast saltscale	Dicots	PDCHE041C0	109	1	None	None	G4	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Alkali playa, Coastal bluff scrub, Coastal dunes, Coastal scrub
Atriplex parishii	Parish's brittlescale	Dicots	PDCHE041D0	15	2	None	None	G1G2	S1	1B.1	SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Alkali playa, Chenopod scrub, Meadow & seep, Vernal pool, Wetland
Atriplex serenana var. davidsonii	Davidson's saltscale	Dicots	PDCHE041T1	26	3	None	None	G5T1	S1	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Coastal bluff scrub, Coastal scrub
Bombus crotchii	Crotch bumble bee	Insects	IIHYM24480	437	10	None	Candidate Endangered	G2	S2	null	IUCN_EN-Endangered	null
Branchinecta sandiegonensis	San Diego fairy shrimp	Crustaceans	ICBRA03060	122	2	Endangered	None	G2	S1	null	IUCN_EN-Endangered	Chaparral, Coastal scrub, Vernal pool, Wetland
Buteo regalis	ferruginous hawk	Birds	ABNKC19120	107	1	None	None	G4	S3S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Great Basin grassland, Great Basin scrub, Pinon & juniper woodlands, Valley & foothill grassland
Buteo swainsoni	Swainson's hawk	Birds	ABNKC19070	2561	2	None	Threatened	G5	S3	null	BLM_S-Sensitive, IUCN_LC-Least Concern	Great Basin grassland, Riparian forest, Riparian woodland, Valley & foothill grassland
California Walnut Woodland	California Walnut Woodland	Woodland	CTT71210CA	76	4	None	None	G2	S2.1	null	null	Cismontane woodland
Calochortus plummerae	Plummer's mariposa-lily	Monocots	PMLIL0D150	230	6	None	None	G4	S4	4.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley & foothill grassland
Calochortus weedii var. intermedius	intermediate mariposa-lily	Monocots	PMLIL0D1J1	197	3	None	None	G3G4T3	S3	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Coastal scrub, Valley & foothill grassland
Calystegia felix	lucky morning-glory	Dicots	PDCON040P0	10	2	None	None	G1Q	S1	1B.1	null	Meadow & seep, Riparian scrub
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren	Birds	ABPBG02095	157	3	None	None	G5T3Q	S2	null	CDFW_SSC-Species of Special Concern, USFS_S-Sensitive, USFWS_BCC-Birds of Conservation Concern	Coastal scrub
Centromadia parryi ssp. australis	southern tarplant	Dicots	PDAST4R0P4	94	29	None	None	G3T2	S2	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, SB_SBBG-Santa Barbara Botanic Garden	Marsh & swamp, Salt marsh, Valley & foothill grassland, Vernal pool, Wetland
Charadrius nivosus nivosus	western snowy plover	Birds	ABNNB03031	138	8	Threatened	None	G3T3	S3	null	CDFW_SSC-Species of Special Concern,	Great Basin standing waters, Sand shore, Wetland

											NABCI_RWL-Red Watch List	
Chelonia mydas	green turtle	Reptiles	ARAAA02010	2	1	Threatened	None	G3	S1	null	IUCN_EN-Endangered	Marine bay
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	Dicots	PDSCR0J0C2	26	6	Endangered	Endangered	G4?T1	S1	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, SB_SBBG-Santa Barbara Botanic Garden	Coastal dunes, Marsh & swamp, Salt marsh, Wetland
Cicindela hirticollis gravida	sandy beach tiger beetle	Insects	IICOL02101	34	4	None	None	G5T2	S2	null	null	Coastal dunes
Cicindela latesignata	western beach tiger beetle	Insects	IICOL02110	27	7	None	None	G2G3	S1	null	null	Estuary, Mud shore/flats, Salt marsh, Sand shore
Cicindela senilis frosti	senile tiger beetle	Insects	IICOL02121	9	1	None	None	G2G3T1T3	S1	null	null	Mud shore/flats, Wetland
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Birds	ABNRB02022	165	7	Threatened	Endangered	G5T2T3	S1	null	BLM_S-Sensitive, NABCI_RWL-Red Watch List, USFS_S-Sensitive	Riparian forest
Coelus globosus	globose dune beetle	Insects	IICOL4A010	50	2	None	None	G1G2	S1S2	null	IUCN_VU-Vulnerable	Coastal dunes
Coturnicops noveboracensis	yellow rail	Birds	ABNME01010	45	1	None	None	G4	S1S2	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, NABCI_RWL-Red Watch List, USFS_S-Sensitive, USFWS_BCC-Birds of Conservation Concern	Freshwater marsh, Meadow & seep
Danaus plexippus plexippus pop. 1	monarch - California overwintering population	Insects	IILEPP2012	389	9	Candidate	None	G4T1T2Q	S2	null	IUCN_EN-Endangered, USFS_S-Sensitive	Closed-cone coniferous forest
Dudleya multicaulis	many-stemmed dudleya	Dicots	PDCRA040H0	154	3	None	None	G2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Coastal scrub, Valley & foothill grassland
Elanus leucurus	white-tailed kite	Birds	ABNKC06010	184	1	None	None	G5	S3S4	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_LC-Least Concern	Cismontane woodland, Marsh & swamp, Riparian woodland, Valley & foothill grassland, Wetland
Empidonax traillii extimus	southwestern willow flycatcher	Birds	ABPAE33043	70	2	Endangered	Endangered	G5T2	S1	null	NABCI_RWL-Red Watch List	Riparian woodland
Emys marmorata	western pond turtle	Reptiles	ARAAD02030	1424	5	None	None	G3G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive	Aquatic, Artificial flowing waters, Klamath/North coast flowing waters, Klamath/North coast standing waters, Marsh & swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland
Eryngium aristulatum var. parishii	San Diego button-celery	Dicots	PDAPI0Z042	83	1	Endangered	Endangered	G5T1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland

Eumops perotis californicus	western mastiff bat	Mammals	AMACD02011	296	4	None	None	G4G5T4	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland
Euphydryas editha quino	quino checkerspot butterfly	Insects	IILEPK405L	186	1	Endangered	None	G5T1T2	S1S2	null	null	Chaparral, Coastal scrub
Glyptostoma gabrielense	San Gabriel chestnut	Mollusks	IMGASB1010	24	2	None	None	G2	S3	null	null	null
Gonidea angulata	western ridged mussel	Mollusks	IMBIV19010	157	1	None	None	G3	S2	null	IUCN_VU-Vulnerable	Aquatic
Habroscelimorpha gabbii	western tidal-flat tiger beetle	Insects	IICOL02080	9	6	None	None	G2G4	S1	null	null	Estuary, Mud shore/flats
Helianthus nuttallii ssp. parishii	Los Angeles sunflower	Dicots	PDAST4N102	7	2	None	None	G5TX	SX	1A	null	Freshwater marsh, Marsh & swamp, Salt marsh, Wetland
Icteria virens	yellow-breasted chat	Birds	ABPBX24010	101	2	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Riparian forest, Riparian scrub, Riparian woodland
Isocoma menziesii var. decumbens	decumbent goldenbush	Dicots	PDAST57091	126	2	None	None	G3G5T2T3	S2	1B.2	BLM_S-Sensitive, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Coastal scrub
Lasionycteris noctivagans	silver-haired bat	Mammals	AMACC02010	139	2	None	None	G3G4	S3S4	null	IUCN_LC-Least Concern	Lower montane coniferous forest, Oldgrowth, Riparian forest
Lasiurus cinereus	hoary bat	Mammals	AMACC05032	238	1	None	None	G3G4	S4	null	IUCN_LC-Least Concern	Broadleaved upland forest, Cismontane woodland, Lower montane coniferous forest, North coast coniferous forest
Lasiurus xanthinus	western yellow bat	Mammals	AMACC05070	58	1	None	None	G4G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Desert wash
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Dicots	PDAST5L0A1	111	12	None	None	G4T2	S2	1B.1	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden	Alkali playa, Marsh & swamp, Salt marsh, Vernal pool, Wetland
Laterallus jamaicensis coturniculus	California black rail	Birds	ABNME03041	303	2	None	Threatened	G3T1	S1	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_EN-Endangered, NABCI_RWL-Red Watch List	Brackish marsh, Freshwater marsh, Marsh & swamp, Salt marsh, Wetland
Microtus californicus stephensi	south coast marsh vole	Mammals	AMAFF11035	7	2	None	None	G5T2T3	S2	null	CDFW_SSC-Species of Special Concern	null
Nama stenocarpa	mud nama	Dicots	PDHYD0A0H0	22	2	None	None	G4G5	S1S2	2B.2	null	Marsh & swamp, Wetland
Nasturtium gambelii	Gambel's water cress	Dicots	PDBRA270V0	13	2	Endangered	Threatened	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden	Brackish marsh, Freshwater marsh, Marsh & swamp, Wetland
Navarretia prostrata	prostrate vernal pool navarretia	Dicots	PDPLM0C0Q0	61	4	None	None	G2	S2	1B.2	null	Coastal scrub, Meadow & seep, Valley & foothill grassland, Vernal pool, Wetland
Nemacaulis denudata var. denudata	coast woolly-heads	Dicots	PDPGN0G011	42	7	None	None	G3G4T2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo	Coastal dunes

											CRES Native Gene Seed Bank	
Nyctinomops femorosaccus	pocketed free-tailed bat	Mammals	AMACD04010	90	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Joshua tree woodland, Pinon & juniper woodlands, Riparian scrub, Sonoran desert scrub
Nyctinomops macrotis	big free-tailed bat	Mammals	AMACD04020	32	2	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	null
Oncorhynchus mykiss irideus pop. 10	steelhead - southern California DPS	Fish	AFCHA0209J	19	1	Endangered	Candidate Endangered	G5T1Q	S1	null	AFS_EN-Endangered	Aquatic, South coast flowing waters
Orcuttia californica	California Orcutt grass	Monocots	PMPOA4G010	39	3	Endangered	Endangered	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Vernal pool, Wetland
Pandion haliaetus	osprey	Birds	ABNKC01010	504	1	None	None	G5	S4	null	CDF_S-Sensitive, CDFW_WL-Watch List, IUCN_LC-Least Concern	Riparian forest
Panoquina errans	wandering (=saltmarsh) skipper	Insects	IILEP84030	14	5	None	None	G4G5	S2	null	IUCN_NT-Near Threatened	Marsh & swamp, Wetland
Passerculus sandwichensis beldingi	Belding's savannah sparrow	Birds	ABPBX99015	39	8	None	Endangered	G5T3	S3	null	USFWS_BCC-Birds of Conservation Concern	Marsh & swamp, Wetland
Pelecanus occidentalis californicus	California brown pelican	Birds	ABNFC01021	27	1	Delisted	Delisted	G4T3T4	S3	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, USFS_S-Sensitive	null
Pentachaeta lyonii	Lyon's pentachaeta	Dicots	PDAST6X060	45	1	Endangered	Endangered	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Chaparral, Coastal scrub, Valley & foothill grassland
Perognathus longimembris pacificus	Pacific pocket mouse	Mammals	AMAFD01042	14	1	Endangered	None	G5T1	S2	null	CDFW_SSC-Species of Special Concern	Coastal scrub
Phacelia stellaris	Brand's star phacelia	Dicots	PDHYD0C510	15	2	None	None	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Coastal dunes, Coastal scrub
Phrynosoma blainvillii	coast horned lizard	Reptiles	ARACF12100	784	8	None	None	G3	S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub, Desert wash, Pinon & juniper woodlands, Riparian scrub, Riparian woodland, Valley & foothill grassland
Polioptila californica californica	coastal California gnatcatcher	Birds	ABPBJ08081	1087	36	Threatened	None	G4G5T3Q	S2	null	CDFW_SSC-Species of Special Concern, NABCI_YWL-Yellow Watch List	Coastal bluff scrub, Coastal scrub
Rallus obsoletus levipes	light-footed Ridgway's rail	Birds	ABNME05014	32	4	Endangered	Endangered	G3T1T2	S1	null	CDFW_FP-Fully Protected, NABCI_RWL-Red Watch List	Marsh & swamp, Salt marsh, Wetland
Riparia riparia	bank swallow	Birds	ABPAU08010	299	4	None	Threatened	G5	S2	null	BLM_S-Sensitive, IUCN_LC-Least Concern	Riparian scrub, Riparian woodland
Rynchops niger	black skimmer	Birds	ABNNM14010	7	1	None	None	G5	S2	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, NABCI_YWL-Yellow Watch List,	Alkali playa, Sand shore

											USFWS_BCC-Birds of Conservation Concern	
Sagittaria sanfordii	Sanford's arrowhead	Monocots	PMALI040Q0	143	1	None	None	G3	S3	1B.2	BLM_S-Sensitive	Marsh & swamp, Wetland
Setophaga petechia	yellow warbler	Birds	ABPBX03010	78	1	None	None	G5	S3S4	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Riparian forest, Riparian scrub, Riparian woodland
Sidalcea neomexicana	salt spring checkerbloom	Dicots	PDMAL110J0	30	3	None	None	G4	S2	2B.2	USFS_S-Sensitive	Alkali playa, Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Wetland
Sorex ornatus salicornicus	southern California saltmarsh shrew	Mammals	AMABA01104	4	2	None	None	G5T1?	S1	null	CDFW_SSC-Species of Special Concern	Salt marsh
Southern Coastal Salt Marsh	Southern Coastal Salt Marsh	Marsh	CTT52120CA	24	7	None	None	G2	S2.1	null	null	Marsh & swamp, Wetland
Southern Cottonwood Willow Riparian Forest	Southern Cottonwood Willow Riparian Forest	Riparian	CTT61330CA	111	1	None	None	G3	S3.2	null	null	Riparian forest
Southern Dune Scrub	Southern Dune Scrub	Dune	CTT21330CA	10	2	None	None	G1	S1.1	null	null	Coastal dunes
Southern Foredunes	Southern Foredunes	Dune	CTT21230CA	23	3	None	None	G2	S2.1	null	null	Coastal dunes
Spea hammondii	western spadefoot	Amphibians	AAABF02020	1425	6	None	None	G2G3	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened	Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Sternula antillarum browni	California least tern	Birds	ABNNM08103	75	12	Endangered	Endangered	G4T2T3Q	S2	null	CDFW_FP-Fully Protected, NABCI_RWL-Red Watch List	Alkali playa, Wetland
Streptocephalus woottoni	Riverside fairy shrimp	Crustaceans	ICBRA07010	83	1	Endangered	None	G1G2	S2	null	IUCN_EN-Endangered	Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Suaeda esteroa	estuary seablite	Dicots	PDCHE0P0D0	39	15	None	None	G3	S2	1B.2	null	Marsh & swamp, Salt marsh, Wetland
Symphyotrichum defoliatum	San Bernardino aster	Dicots	PDASTE80C0	102	8	None	None	G2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Valley & foothill grassland
Taxidea taxus	American badger	Mammals	AMAJF04010	594	3	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Alkali marsh, Alkali playa, Alpine, Alpine dwarf scrub, Bog & fen, Brackish marsh, Broadleaved upland forest, Chaparral, Chenopod scrub, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub, Desert dunes, Desert wash, Freshwater marsh, Great Basin grassland, Great Basin scrub, Interior dunes, Ione formation, Joshua tree woodland, Limestone, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Mojavean desert scrub, Montane dwarf scrub, North coast coniferous forest, Oldgrowth, Pavement plain, Redwood, Riparian forest, Riparian scrub, Riparian

												woodland, Salt marsh, Sonoran desert scrub, Sonoran thorn woodland, Ultramafic, Upper montane coniferous forest, Upper Sonoran scrub, Valley & foothill grassland
Trigonoscuta dorothea dorothea	Dorothy's El Segundo Dune weevil	Insects	IICOL51021	4	2	None	None	G1T1	S1	null	null	Coastal dunes
Tryonia imitator	mimic tryonia (=California brackishwater snail)	Mollusks	IMGASJ7040	39	2	None	None	G2	S2	null	IUCN_DD-Data Deficient	Aquatic, Brackish marsh, Estuary, Lagoon, Marsh & swamp, Salt marsh, Wetland
Vireo bellii pusillus	least Bell's vireo	Birds	ABPBW01114	504	6	Endangered	Endangered	G5T2	S2	null	NABCI_YWL-Yellow Watch List	Riparian forest, Riparian scrub, Riparian woodland

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Appendix B. Aquatic Resources Survey Report

Aquatic Resources Survey Report

Haynes Generating Station Sewer Force Main Project

June 2024

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Contents

Tables

Figures

Appendix

Acronyms

ARSA	Aquatic Resources Survey Area
CCC	
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
City	City of Long Beach
CWA	Clean Water Act
JD	Jurisdictional Determination
LACSD	Los Angeles County Services District
LBU	Long Beach Utilities
NRCS	Natural Resources Conservation Service
OHWM	Ordinary High Water Mark
Project	Haynes Generating Station Sewer Pipeline Project
RWQCB	Regional Water Quality Control Board
SR	State Route
SWRCB	State Water Resources Control Board
TNW	Traditional Navigable Waters
U.S.	United States
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USGS	United States Geological Survey
WOS	Waters of the State
WOUS	Waters of the United States
WRF	Water Reclamation Facility

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1 Introduction

At the request of the Long Beach Utilities (LBU) and pursuant to federal, state, and local regulatory requirements, HDR conducted a general biological survey, vegetation mapping, habitat assessment, and aquatic resources survey for the proposed Haynes Generating Station Sewer Pipeline Project (SC-0442) (Project) located within the City of Long Beach (City), in south Los Angeles County, California. The 593-acre Project study area, which includes the Project footprint and surrounding areas, is located within the eastern portion of the City and adjacent to the San Gabriel River.

The Project, as proposed by the Los Angeles Department of Water and Power (LADWP) and LBU, would construct a new 12-inch diameter high density polyethylene sewer force main to convey existing industrial and stormwater discharges from the LADWP Haynes Generating Station to the Los Angeles County Services District's (LACSD) Long Beach Water Reclamation Facility (WRF).

LBU is the lead agency for the purposes of complying with the California Environmental Quality Act (CEQA) and would be responsible for final engineering design and construction of the Project. This report includes a description of LBU's goals and objectives for the Project, the proposed facility components, proposed construction methods, and anticipated regulatory approvals and permits.

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2 Project Description

2.1 Project Location

The Project is linear and primarily located within the City of Long Beach in south Los Angeles County, California. A small eastern portion of the Project is in the City of Seal Beach, California (Figure 2-1). The study area is roughly bounded by Stevely Avenue to the west, East Willow Street to the north, State Route (SR) 22 to the south, and I-605 to the east. The Project study area generally follows the western shoreline of the San Gabriel River and is intersected by I-405. LADWP maintains an existing electrical transmission easement along the southern portion of the San Gabriel River (Figure 2-2). Southern California Edison maintains a separate electrical transmission easement to the north of the Project Study Area. The San Gabriel River Trail follows the eastern bank of the San Gabriel River and bisects the Project study area.

2.2 Project Components

Under the Project, LBU would construct a new sewer force main that meets the LBU's *Standard Drawings, Design Criteria for Potable Water Distribution System, and Design Criteria for Sanitary Sewer Facilities.* The Project includes the construction of a new 12-inch diameter sewer force main that would extend from LADWP's Haynes Generating Station to an existing LACSD 42-inch sewer main located at the LACSD's Long Beach WRF. Figure 2-2 shows the proposed Project components. At the bridge crossings, the 12-inch force main would be encased with a total diameter of 16-inches.

The Project would facilitate the beneficial reuse of up to 2.766 million gallons per day of industrial wastewater discharge and 0.075 million gallons per day of on-site storm water runoff (total 2.841 million gallons per day) from the Haynes Generating Station to LACSD's Long Beach WRF. One or more storage facilities may be needed to temporarily store the industrial wastewater discharge due to operational limitations at the LACSD's Long Beach Reclamation Facility.

The proposed Project would consist of the following components:

- 12-inch diameter high density polyethylene pipeline – 16,855 linear feet
- Flow control/pressure reducing station at the LACSD Long Beach WRF

2.3 Aquatic Resources Survey Area

The Aquatic Resources Survey Area (ARSA) consists of the Project footprint plus a 50-foot buffer and is located along the length of the proposed pipeline in the City of Long Beach, Los Angeles County. The majority of the ARSA is located within heavily urban areas; however, some areas do cross with the San Gabriel River. In addition, staging areas are located within undeveloped and disturbed areas adjacent to the proposed pipeline. The ARSA occurs within the United States (U.S.) Geological Survey (USGS) *Los Alamitos, California* 7.5-minute quadrangles, see Figure 2-3.

The ARSA was determined using the limits of LBU and Los Angeles Department of Water and Power's right-of-way, as well as all temporary construction easements, and includes the footprint of disturbance for potential direct and indirect effects on jurisdictional waters that could result from the Project.

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Figure 2-1. Regional Location

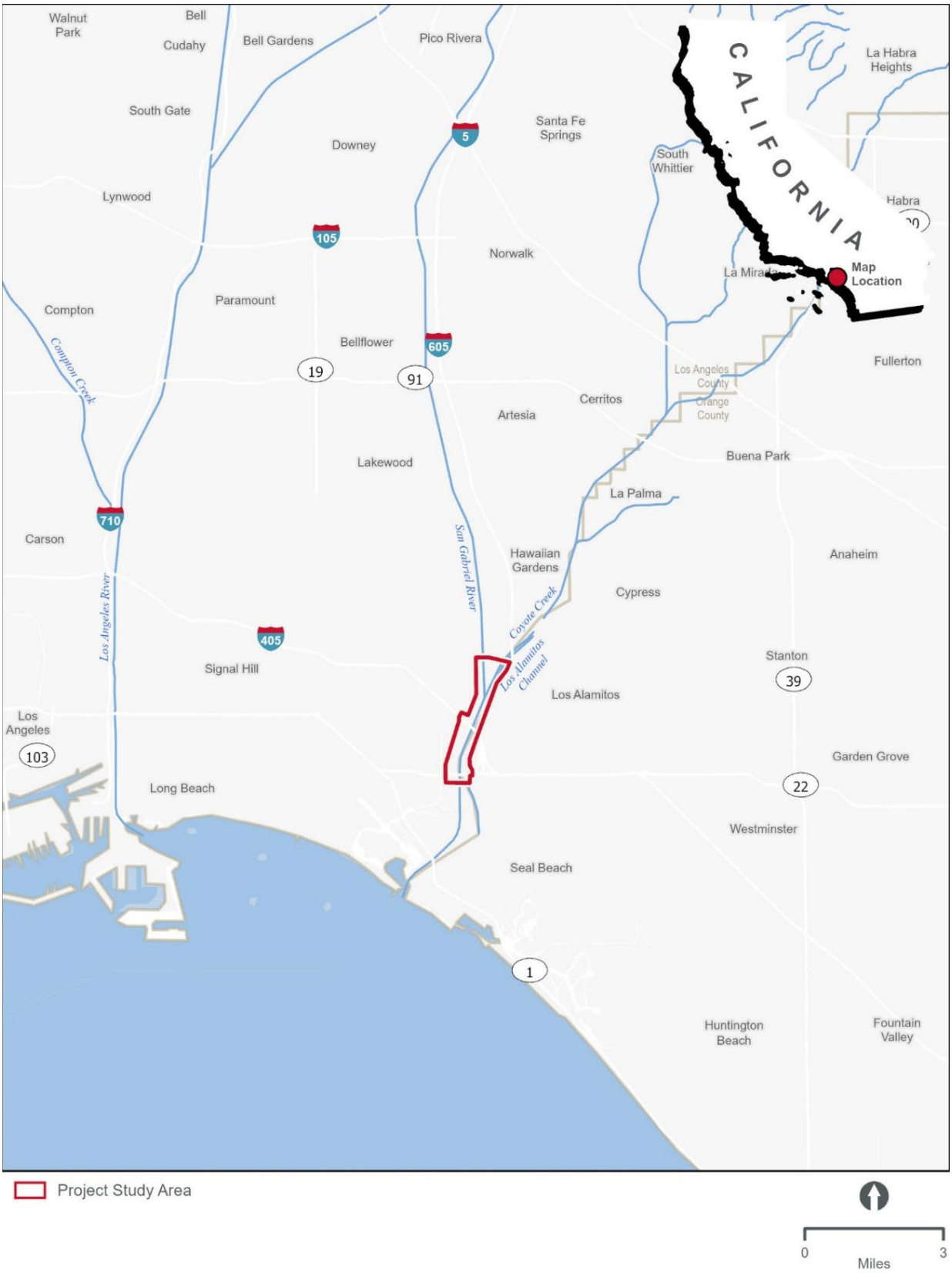

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Figure 2-2. Project Location and Study Area

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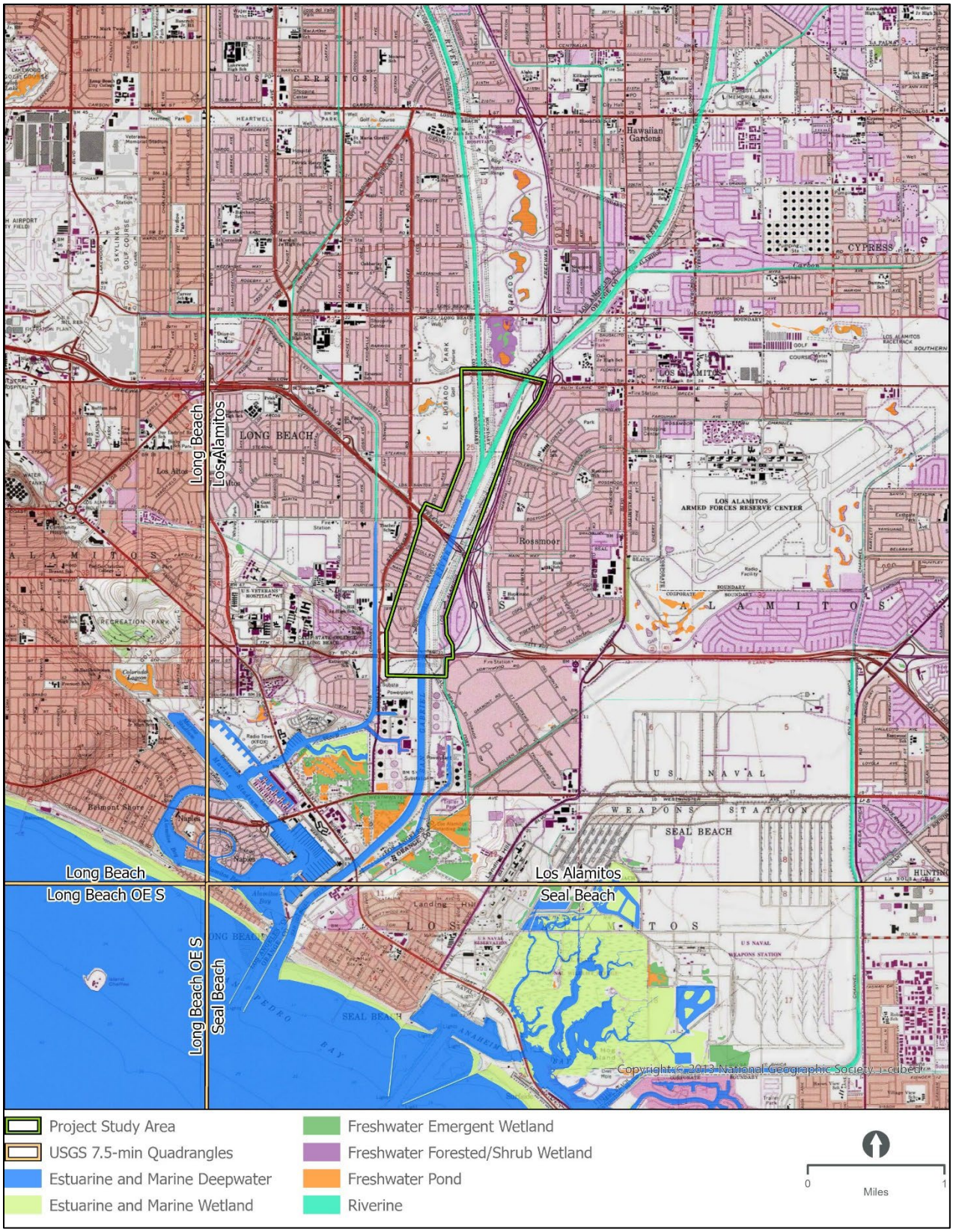
Figure 2-3. U.S. Geological Survey *Los Alamitos*, *California* 7.5-Minute Quadrangle Map



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3 Regulatory Setting

3.1 United States Army Corps of Engineers

3.1.1 Section 404 of the Clean Water Act

Section 404 of the Clean Water Act (CWA) establishes a program for U.S. Army Corps of Engineers (USACE) to regulate the discharge of dredge and fill material into waters of the U.S. (WOUS), 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. An individual Section 404 permit or authorization to use an existing USACE nationwide permit must be obtained if any portion of an activity would result in dredge or fill impacts 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 either avoid wetlands where practicable, minimize wetland impacts, or provide compensation for any unavoidable destruction of wetlands.

Waters of the United States

On June 9, 2021, the U.S. Environmental Protection Agency and the Department of the Army announced their intent to revise the Navigable Waters Protection Rule's definition of WOUS. That rulemaking process is anticipated to take approximately 2 years. In the meantime, pursuant to an August 30, 2021, U.S. District Court for the District of Arizona order vacating and remanding the Navigable Waters Protection Rule (*Pascua Yaqui Tribe v. U.S. Environmental Protection Agency*), the U.S. Environmental Protection Agency and USACE have halted implementation of the Navigable Waters Protection Rule that became effective on June 22, 2020, and are interpreting WOUS consistent with the pre-2015 regulatory regime until further notice. On December 7, 2021, the U.S. Environmental Protection Agency and Department of the Army announced a proposed rule to restore the pre-2015 definition of WOUS. The pre-2015 definition of WOUS was defined in the USACE regulations at 33 Code of Federal Regulations Part 328.3(a) as:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters;
    a. Which or could be used by interstate or foreign travelers for recreation or other purposes; or
    b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
    c. Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as Waters of the U.S. under the definition;
5. Tributaries of waters identified in paragraph(s) (1) through (4) of this section;

6. The territorial seas;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1) through (6) of this section;
8. Waters of the U.S. do not include prior converted cropland.

The limits of USACE jurisdiction in non-tidal waters extends to the ordinary high water mark (OHWM), which is defined at 33 Code of Federal Regulations 328.3(e) as:

> … that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Per USACE Regulatory Guidance Letter 08-02, when applying for a Section 404 permit, applicants may choose to proceed under the assumption that all drainage features that exhibit an OHWM within a project footprint are subject to regulation if a discharge of fill is proposed. This assumption is considered a preliminary jurisdictional determination (JD). Alternatively, applicants may request an approved JD, which is USACE's concurrence that the jurisdictional delineation's findings are correct and is an official USACE determination that jurisdictional aquatic resources are present or absent from the subject site. An approved JD is typically valid for up to 5 years and allows for the USACE to exclude features that they have reviewed and deemed non-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.

Wetlands

The term wetlands (a subset of WOUS) is defined at 33 Code of Federal Regulations 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987, USACE published a manual to guide its field personnel in determining jurisdictional wetland boundaries followed by the *Arid West Supplement* in 2008 (USACE 2008a). The methodology set forth in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* generally requires that to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the manual provides detail in methodology and allows for varying special conditions, a wetland should normally meet each of the following three criteria (three parameter definition). The plant community must be determined to by hydrophytic based on:

1. The dominance test applied using the 50/20 rule,[1] or where the vegetation fails the dominance test and wetland hydrology and hydric soils are present, vegetation is determined to be hydrophytic using the Prevalence Index test[2] based upon the indicator status (i.e., rated as facultative or wetter in the 2018 National List of Plant Species that Occur in Wetlands [USACE 2020]);

[1] If a particular species accounts for more than 50 percent of the total coverage of vegetation in the stratum, or for at least 20 percent of the total coverage in the stratum which the species was found, that species is defined as dominant.

[2] A Prevalence Index is calculated using wetland indicator status and relative abundance for each vascular plant species present.

2. Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., redoximorphic features with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and
3. Hydrologic characteristics must indicate that the ground is saturated to within 12 inches of the surface for a sufficient period to cause: the formation of hydric soils; and establishment of a hydrophytic plant community. A positive test for wetland hydrology is based on the presence of one primary or two secondary indicators.

Supreme Court Decisions

Solid Waste Agency of North Cook County

On January 9, 2001, the Supreme Court of the U.S. issued a decision on *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.* with respect to whether USACE could assert jurisdiction over isolated waters. The Solid Waste Agency of North Cook County ruling stated that USACE does not have jurisdiction over non-navigable, isolated, intrastate waters.

Rapanos/Carabell

In the Supreme Court cases of *Rapanos* v. *United States* and *Carabell* v. *United States* (herein referred to as *Rapanos*), the court attempted to clarify the extent of USACE jurisdiction under the CWA. The nine Supreme Court justices issued five separate opinions (one plurality opinion, two concurring opinions, and two dissenting opinions) with no single opinion commanding a majority of the court. In light of the *Rapanos* decision, the USACE will assert jurisdiction over traditional navigable waters (TNW), wetlands adjacent to TNWs, non-navigable tributaries of TNWs that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months) and wetlands that directly abut such tributaries (USACE 2008b). The USACE will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a TNW: non-navigable tributaries that are not relatively permanent, wetlands adjacent to non-navigable tributaries that are not relatively permanent, and wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary.

Flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary indicate whether they significantly affect the chemical, physical, and biological integrity of downstream TNWs. Analysis of potentially jurisdictional streams includes consideration of hydrologic and ecologic factors. The consideration of hydrological factors includes volume, duration and frequency of flow, proximity to TNWs, size of watershed, average annual rainfall, and average annual winter snowpack. The consideration of ecological factors also includes the ability for tributaries to carry pollutants and flood waters to a TNW, the ability of a tributary to provide aquatic habitat that supports a TNW, the ability of wetlands to trap and filter pollutants or store flood waters, and maintenance of water quality.

According to a USACE guidance document (USACE 2008d), USACE generally will not assert jurisdiction over the following features: swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short-duration flow) and ditches (including roadside ditches) excavated wholly in, and draining only, uplands that generally do not carry a relatively permanent flow of water.

3.2 Regional Water Quality Control Board

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 that issues project permits.

3.2.1 Section 401 of the Clean Water Act

Section 401 specifies that certification from the state is required for any applicant requesting a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities that may result in any discharge into WOUS. A federal permit or license cannot be issued that may result in a discharge to WOUS unless certification under Section 401 of the CWA is granted or waived by the U.S. Environmental Protection Agency, state, or tribe where the discharge would originate (SWRCB 2014). The ARSA is located within the boundaries of the Los Angeles (Region 4) RWQCB, which would have the authority to grant, grant with conditions, deny, or waive water quality certification for the Project.

Under Section 401, all activities regulated at the federal level by USACE are also regulated at the state level. Therefore, state jurisdiction usually includes all waters or tributaries to waters that are determined to be WOUS and, similar to WOUS, are typically delineated at the OHWM.

3.2.2 Porter-Cologne Water Quality Control Act

RWQCB also regulates discharge of waste to Waters of the State (WOS), pursuant to California's Porter-Cologne Water Quality Control Act enacted in 1969, which provides the legal basis for water quality regulation within California. Under this act, WOS are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (Water Code Section 13050(e)). Should RWQCB determine that discharge of pollutants (including fill) is proposed to waters that meet the definition of WOS but not WOUS, waste discharge requirements may be required.

3.2.3 State Wetland Definition and Procedures for the Discharge of Dredged or Fill Material to Waters of the State

On April 2, 2019, SWRCB adopted the State Wetland Definition and Procedures for the Discharge of Dredged or Fill Material to WOS. The procedures became effective May 28, 2020. 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 WOS subject to regulation. Second, the rules clarify requirements for permit applications to discharge dredged or fill material to any WOS.

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).

SWRCB considers the following wetlands (as determined using methodology in the USACE *Wetland Delineation Manual* [USACE Environmental Laboratory 1987]) as WOS:

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 on other WOS, 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 1 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 WOS 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 WOS. 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.

3.3 California Department of Fish and Wildlife

3.3.1 California Fish and Game Code Section 1600 et seq.

The State of California regulates water resources under Section 1600 et seq. of the California Fish and Game Code. Section 1602 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.

California Department of Fish and Wildlife (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.

4 Methodology

4.1 Literature Review

The following literature and materials were reviewed both prior to conducting aquatic resources delineation fieldwork and in the process of determining jurisdictional status of features identified in the field:

- Current and historical aerial photographs (Google Earth 2023; Historic Aerials 2023)
- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil mapping data (USDA NRCS 2023a)
- USGS *Los Alamitos, California* 7.5-minute topographical quadrangle map to determine the current or historical presence of any blue line drainages or other mapped water features (USGS 1949)
- National Hydrography Dataset (USGS 2022)
- U.S. Fish and Wildlife Service National Wetlands Inventory data to identify areas mapped as wetland features (U.S. Fish and Wildlife Service 2022)

4.2 Field Investigation

A field survey of the ARSA was conducted by HDR biologists Aaron Newton and Ronell Santos on April 21, 2023. All aquatic resources within accessible areas of the ARSA were investigated on foot. Aquatic resource boundaries were mapped by hand on printed 1:2,400-scale 2022 aerial maps, or widths were recorded (in feet) with locational data using the Esri Collector for ArcGIS application on an Android V.10 or a iPhone 11 phone connected to a global positioning system. Notes describing aquatic resource type, substrate type, flow regime, presence or absence of vegetation, and any other pertinent details regarding observed hydrology were taken at each feature. All features were later digitized using geographic information system software.

Plant species observed were identified by visual characteristics and morphology in the field. Taxonomic nomenclature for plants follows the *Jepson Manual: Vascular Plants of California*, second edition (Baldwin et al. 2012) and the Jepson eFlora database (Jepson Flora Project 2021). Vegetation communities were characterized using *A Manual of California Vegetation*, second edition (Sawyer et al. 2009).

Representative photographs of the ARSA and features identified within the ARSA are included in Appendix A.

4.2.1 United States Army Corps of Engineers Jurisdiction

Aquatic resources potentially subject to USACE jurisdiction were delineated according to 33 Code of Federal Regulations Part 328.4 and using the methods outlined in the USACE *Wetland Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008a), and *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008c).

Aquatic features were investigated for evidence of an OHWM or other jurisdictional indicators, such as presence of hydrophytic vegetation. Wetland indicator status of plant species was determined using the 2020 *USACE National Wetland Plant List, Version 3.5* (USACE 2020). Soils were analyzed using the

Natural Resources Conservation Service Field Indicators of Hydric Soils in the U.S., Version 8.2 (USDA NRCS 2023a), the Hydric Soils List for Los Angeles County, California (USDA NRCS 2023b), and *Munsell® Soil Color Book* (Munsell 2013).

Ephemeral aquatic features that were constructed in uplands for the sole purpose of managing upland stormwater flows were mapped but are not considered jurisdictional (USACE Guidance Document [USACE 2008d]).

Common plant species were identified by visual characteristics and morphology in the field, while less common or otherwise unknown plant species were collected and identified later with the aid of plant keys. Taxonomic nomenclature for plants follows the Jepson eFlora (Jepson Flora Project 2021).

4.2.2 Regional Water Quality Control Board Jurisdiction

RWQCB jurisdiction, for the purposes of CWA Section 401 regulation, is identical to USACE jurisdiction. In addition, the ARSA was evaluated for isolated features that would not be subject to federal jurisdiction but would be potentially regulated under the Porter-Cologne Water Quality Control Act.

4.2.3 California Department of Fish and Wildlife

The ARSA was surveyed for features that exhibit streambed and stream banks and/or riparian vegetation and would, therefore, be subject to CDFW jurisdiction. Any such features would be mapped from top-of-bank to top-of-bank, or to the extent of riparian vegetation, whichever is greater.

5 Results

5.1 Environmental Setting

The Project study area is located in southwest Los Angeles County, in the City of Long Beach. The Project study area generally occurs along the San Gabriel River within urban and developed habitat adjacent to the river.

5.1.1 Climate

Southern California has a hot semi-arid climate or a hot-summer Mediterranean climate, characterized by hot summers and mild to warm winters. Long Beach has temperatures ranging from 73.9 to 55.9 degrees Fahrenheit with average annual precipitation of 12.02 inches (National Oceanic and Atmospheric Administration 2021).

5.1.2 Soils

The online NRCS Web Soil Survey was referenced to identify potential hydric soils occurring within the Project study area (USDA NRCS 2023a). The following soils are mapped within the ARSA (Figure 5-1)

- **Bolsa**: The soils of the Bolsa series are characterized by deep, somewhat poorly drained soils formed in mixed alluvium. They are nearly level soils found in flood plains and basins at elevations of 10 to 300 feet. Bolsa series soils within the Project study area include Bolsa silt loam (drained) and Bolsa silty clay loam (drained).
- **Urban Land**: Urban land soils consist of nearly level to moderately steep areas where the soils have been altered or obscured by urban works and structures. The soils can consist of human-transported materials, human-altered materials, or minimally altered or intact native soils. Urban land within the Project study area includes the following:
    - Urban land-Biscailus-Hueneme, drained complex, 0 to 2 percent slopes
    - Urban land-Hueneme, drained-San Emigdio complex, 0 to 2 percent slopes
    - Urban land-Typic Xerorthents, dredged spoil complex, 0 to 2 percent slopes
    - Urban land, frequently flooded, 0 to 5 percent slopes
- **Water:** Areas designated by water are inundated by water and associated with the San Gabriel River and adjacent Coyote Creek.

5.1.3 Hydrology

The Project study area is located within the San Gabriel sub-basin (Hydrologic Unit Code 180701060), more specifically within the San Gabriel River watershed in the Lower San Gabriel River Hydrologic Area. The San Gabriel River watershed consists of a 689 square mile drainage area in the eastern Los Angeles County with headwaters in the San Gabriel Mountains. The upper portions of the watershed are mostly untouched with riparian and woodland habitats within wilderness and recreational use areas. As the river

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Figure 5-1. U.S. Department of Agriculture Mapped Soils

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travels southwest through the San Gabriel Valley, the channel becomes heavily modified for flood and debris control. Further southwest, through the Los Angeles Coastal Plain, the channel becomes concrete-lined through heavily urbanized areas before returning to a soft bottom channel and ultimately discharging into the Pacific Ocean near the City of Long Beach (Los Angeles RWQCB 2014). At the northern end of the Project study area, Coyote Creek, a tributary to the San Gabriel River, enters and combines with the river.

5.1.4 Vegetation and Land Cover Types

Vegetation communities are assemblages of plant species that coexist in the same area. The classification of vegetation communities is based upon the dominant species within that community and the associated flora. Vegetation communities and other land cover types in the biological resources study area are shown on Figure 5-2. Acreages of vegetation communities and other land cover types in the biological resources study area are provided in Table 5-1. Descriptions of vegetation communities and other land cover types follow. These figures and acreages correspond with the Project study area or biological resources study area.

Table 5-1. Vegetation Communities and Other Land Cover Types in the Biological Resources Study Area

Vegetation Community or Other Land Cover Type	Acres
Tree-Dominated Habitats	
Salix laevigata Forest and Woodland Alliance	0.93
Eucalyptus sp. Woodland Semi-Natural Alliance	3.91
Schinus sp. – *Myoporum laetum* Forest and Woodland Semi-Natural Alliance	28.54
Shrub-Dominated Habitats	
Acacia spp. Shrubland Semi-Natural Alliance	0.75
Baccharis salicifolia Shrubland Alliance	2.80
Herbaceous-Dominated Habitats	
Carpobrotus ssp. Herbaceous Semi-Natural Alliance	6.48
Mediterranean California Naturalized Annual and Perennial Grassland	112.39
Other Land Cover Types	
Concrete-lined Channel	34.93
Disturbed Habitat	26.27
Open Water	55.42
Urban/Developed	319.91
Unvegetated Channel	0.60
Total[a]	***592.92***

Notes:
[a] Totals may differ due to rounding.

The habitat within the ARSA is primarily characterized by urban and developed habitat associated with residential and roadway areas. Disturbed habitat is associated with staging areas and the banks of the San Gabriel River. A large portion of the ARSA is located within Mediterranean California Naturalized

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Figure 5-2. Vegetation Communities and Other Land Cover Types (Sheet 1 of 2)

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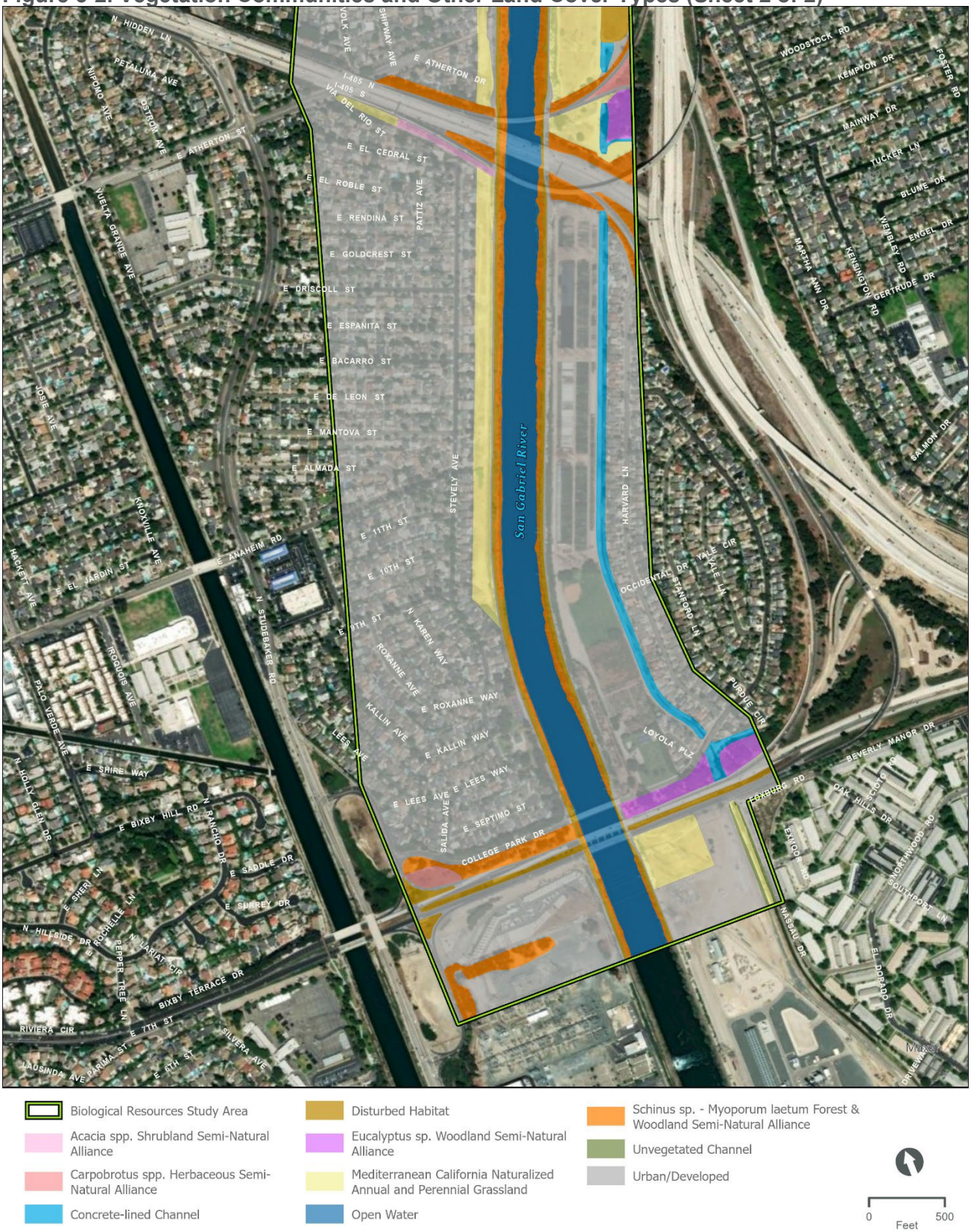
Figure 5-2. Vegetation Communities and Other Land Cover Types (Sheet 2 of 2)



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Annual and Perennial Grassland that contains a dominance of non-native plant species, including non-native grasses, mustards, and thistles. Within the ARSA, these areas are dominated by ripgut grass (*Bromus diandrus*), cheat grass (*B. tectorum*), wall barley (*Hordeum murinum*), and wild radish (*Raphanus sativus*). The concrete-lined portions of the San Gabriel River and Los Alamitos Channel are located within the ARSA as well as portions of open water associated with those waterways. The remaining areas of the ARSA are vegetated by non-native trees (peppertree [*Schinus* sp.], myoporum [*Myoporum lavaetum*], and eucalyptus [*Eucalyptus* sp.]) and ice plant (*Carpobrotus edulis*) adjacent to the major roadways.

5.2 Aquatic Resources Delineation Results

5.2.1 United States Army Corps of Engineers

Approximately 1.804 acres of aquatic resources subject to USACE jurisdiction occurs within the ARSA, all of which is considered non-wetland WOUS. These aquatic resources are primarily associated with the San Gabriel River, a small portion associated with the Los Alamitos Channel in the very southeastern portion of the ARSA, and an unnamed concrete-lined channel in the northeastern corner of the ARSA. At the northern end of the ARSA, the 150-foot San Gabriel River is a concrete-lined trapezoidal channel from the top of bank to top of bank. Water was observed within this section of the river from the toe of slope on both sides of the river, approximately 80 feet wide. This portion of the San Gabriel River is mapped by the National Wetlands Inventory as riverine and due to the concrete lining and lack of vegetation; no potential wetland areas were observed; therefore, no wetland sampling points, or wetland determination data forms were completed.

Coyote Creek confluences with the San Gabriel River before it flows over riprap at the end of the concrete-lined channel and becomes soft bottomed with riprap along its banks. When the river enters the ARSA, the river is mapped by the National Wetlands Inventory as estuarine and marine deep water. The open water section inside the ARSA is approximately 257 feet across. Grouted riprap lines both banks of the river, with the eastern bank having minimal vegetation growing consisting of a lone date palm. On the western bank, Indian tobacco, tree of heaven, and myoporum trees grow between the riprap. Due to the grouted riprap and lack of hydrophytic vegetation; no potential wetland areas were observed; therefore, no wetland sampling points, or wetland determination data forms were completed.

The Los Alamitos Channel enters the ARSA through a concrete box culvert at the very southeastern end of the ARSA. The channel travels through a nearby neighborhood and confluences with another concrete-lined channel incoming from the east before flowing through another concrete box culvert underneath the SR 22 highway. On the southern side of the highway, the channel flows south from the concrete box culvert and becomes a soft bottom channel. An approximately 20-foot-wide channel of open water was observed with low growing vegetation at intermittent points along the banks. The vegetation was sparse and looked to be maintained by the Los Angeles Flood Control District. Due to the limited access to the channel, no wetland sampling points, or wetland determination data forms were completed.

The unnamed channel in the northeastern corner of the ARSA is trapezoidal in shape and entirely concrete lined. Flows enter from the north and travel southwest through a concrete box culvert underneath Willow Street. An approximately 6-foot-wide channel of open water was observed with trash and debris obstructing the culvert entrance. On the southern side of Willow Street, a concrete-lined channel was observed on the adjacent fenced property.

A total of 1.804 acres of non-wetland WOUS potentially subject to USACE jurisdiction under CWA Section 404, are mapped within the ARSA, as shown on Figure 5-3.

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Figure 5-3. Aquatic Resources Survey Area United States Army Corps of Engineers/Regional Water Quality Control Board Jurisdiction

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5.2.2 Regional Water Quality Control Board

The ARSA is within the jurisdiction of the Los Angeles RWQCB (Region 4). Within the ARSA, WOUS subject to RWQCB jurisdiction under CWA Section 401 are equivalent to those described for the USACE above. No features that were not considered WOUS but that could be regulated as waters of the state were observed.

A total of 1.804 acres of non-wetland WOUS potentially subject to RWQCB jurisdiction under CWA Section 401, are mapped within the ARSA, as shown on Figure 5-3.

5.2.3 California Department of Fish and Wildlife Jurisdiction

Features within the ARSA were assessed for CDFW jurisdiction based on whether they exhibited a stream bed and bank, provided habitat value for terrestrial and/or aquatic wildlife, and/or were associated with a naturally occurring drainage feature. CDFW jurisdiction extends beyond the active channel to the top of bank (often including floodplain banks) and edge of riparian habitat (if present). A total of 3.104 acres of CDFW regulated streambed was observed within the ARSA, including 2.975 acres of unvegetated streambed and 0.130 acre of riparian habitat. As previously described, the northern portion of the San Gabriel River is entirely concrete lined, and the southern portion of the San Gabriel River is soft bottom with banks of grouted riprap. In addition, the western bank of the southern portion of the San Gabriel River does exhibit low quality and sparse vegetation. The northern portion of Los Alamitos Channel is entirely concrete lined, and the southern portion is soft bottomed with sparse, low growing vegetation at intermittent parts along the banks. The unnamed concrete-lined channel in the northeastern corner of the ARSA exhibits a bed and bank and is completely concrete lined.

Table 5-2 summarizes the CDFW jurisdictional areas within the ARSA.

Table 5-2. California Department of Fish and Wildlife Jurisdiction within the Aquatic Resources Survey Area

Drainage Identification	Riparian (acres)	Unvegetated Streambed (acres)	Total CDFW (acres)
San Gabriel River	0.066	2.646	2.711
Los Alamitos Channel	0.064	0.313	0.377
Unnamed Concrete-lined Channel	0.000	0.016	0.016
Total CDFW Streambed	***0.130***	***2.975***	***3.104***

Notes:
CDFW=California Department of Fish and Wildlife

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Figure 5-4. Aquatic Resources Survey Area California Department of Fish and Wildlife/California Coastal Commission Jurisdiction (Sheet 1 of 4)

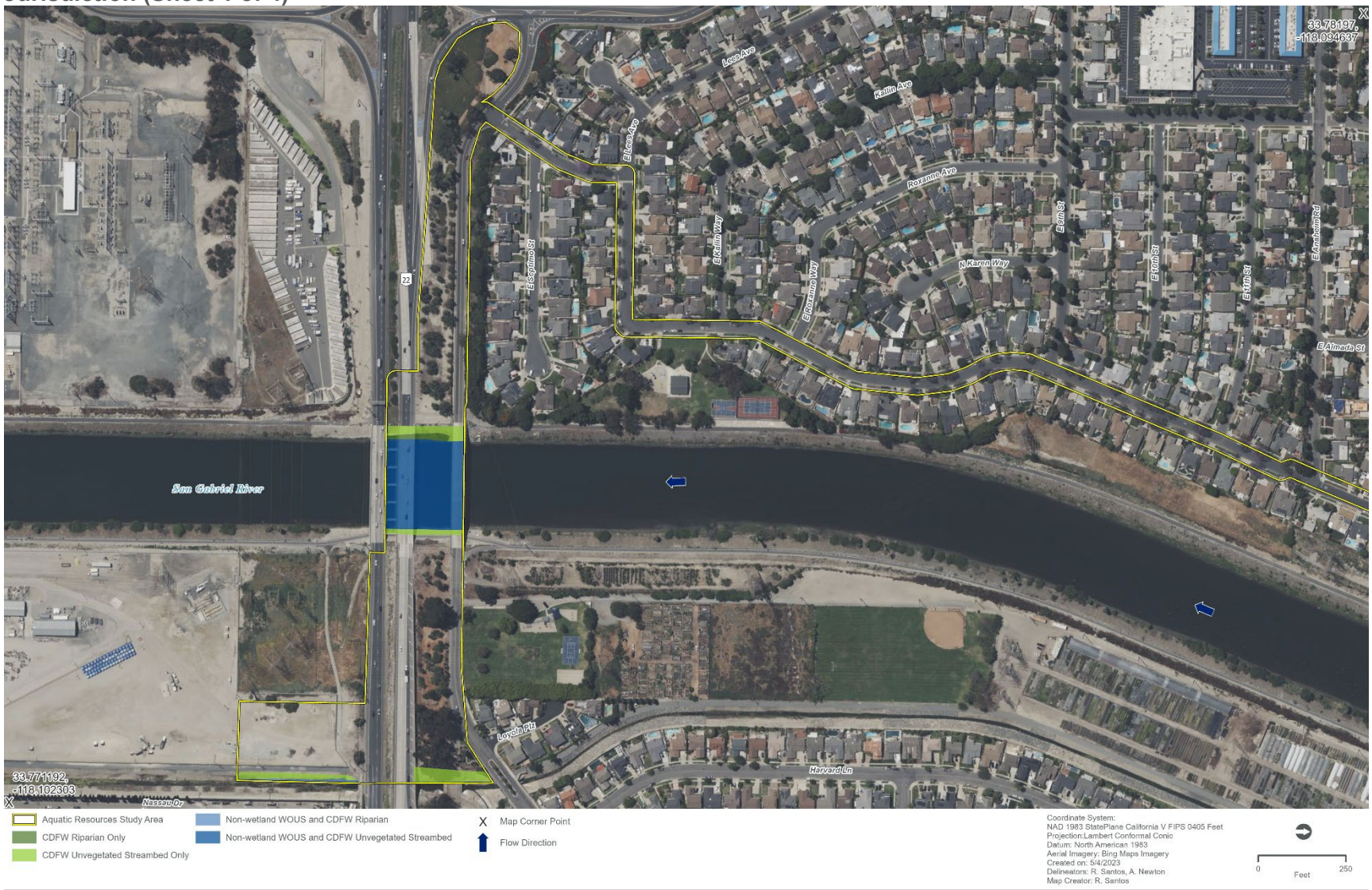

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Figure 5-4. Aquatic Resources Survey Area California Department of Fish and Wildlife/California Coastal Commission Jurisdiction (Sheet 2 of 4)

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Figure 5-4. Aquatic Resources Survey Area California Department of Fish and Wildlife/California Coastal Commission Jurisdiction (Sheet 3 of 4)

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Figure 5-4. Aquatic Resources Survey Area California Department of Fish and Wildlife/California Coastal Commission Jurisdiction (Sheet 4 of 4)

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6 Conclusions

Aquatic features potentially subject to USACE/RWQCB/CDFW/California Coastal Commission jurisdiction occur within the ARSA. Future Project design plans will avoid direct and indirect impacts on features subject to USACE/RWQCB/CDFW/CCC jurisdiction. If the project design changes and direct impacts include discharge of fill to USACE/RWQCB jurisdictional features or should substantial modification of CDFW/CCC jurisdictional features be unavoidable, the Project will require authorization and mitigation for impacts as described below.

6.1 Clean Water Act

The ARSA contains 1.804 acres of WOUS subject to jurisdiction pursuant to CWA Sections 404/401, all of which consist of non-wetland WOUS. USACE makes the final determination regarding whether an aquatic feature is subject to CWA Section 404 and 401 jurisdiction.

6.2 Porter-Cologne Water Quality Control Act

RWQCB also regulates discharge of waste to WOS, pursuant to California's Porter-Cologne Water Quality Control Act. Should the RWQCB determine that discharge of pollutants (including fill) is proposed to waters that meet the definition of WOS but not WOUS, waste discharge requirements may be required.

The ARSA contains 1.804 acres of potential WOS subject to jurisdiction pursuant to the Porter-Cologne Water Quality Control Act, all of which consist of non-wetland WOS.

6.3 California Department of Fish and Wildlife Jurisdiction

The ARSA contains 3.104 acres of streambed potentially subject to CDFW jurisdiction pursuant to California Fish and Game Code Section 1602, which consists of 2.975 acres of unvegetated streambed and 0.130 acre of riparian habitat. If Project activities would result in direct impacts on any of these areas, a CDFW Streambed Alteration Notification would be required.

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7 References

Baldwin, Bruce G., Douglas Goldman, David J. Keil, Robert Patterson, Thomas J. Rosatti, and Dieter H. Wilken). 2012. *The Jepson Manual Vascular Plants of California*, 2nd Edition. University of California Press, Berkeley.

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. United States Army Engineer Waterways Experiment Station, Vicksburg, MS. https://www.lrh.usace.army.mil/Portals/38/docs/USACE%2087%20Wetland%20Delineation%20Manual.pdf.

Google Earth. 2023. Various Date Maps showing Long Beach, CA. Google Earth. Accessed April 2023. earth.google.com/web/.

Historic Aerials. 2023. Various date maps showing Long Beach, CA. Accessed April 2023. https://www.historicaerials.com/.

Jepson Flora Project. 2021. "Jepson eFlora." Accessed April 2023. https://ucjeps.berkeley.edu/eflora/.

Los Angeles Regional Water Quality Control Board (RWQCB). 2014. Water Quality Control Plan for the Los Angeles Region. Amended September 11, 2014. https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/basin_plan_documentation.html

Munsell. 2013. *Munsell Soil Color Charts: with Genuine Munsell Color Chips.* Grand Rapids, MI. 2009 Year Revised / 2013 Production.

National Oceanic and Atmospheric Administration (NOAA). 2021.

Sawyer and Keeler-Wolf. 2009. *A Manual of California Vegetation*. California Native Plant Society, Second Edition. Sacramento, California.

State Water Resources Control Board (SWRCB). 2014. 401 Water Quality Certification Frequently Asked Questions. Accessed February 2022. https://www.waterboards.ca.gov/rwqcb9/water_issues/programs/401_certification/docs/401c/401FAQRB9V514.pdf.

——— 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. Adopted April 2, 2019. Accessed February 2022. https://www.waterboards.ca.gov/water_issues/programs/cwa401/wrapp.html.

United States Army Corps of Engineers (USACE). 2008a. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0).* Revised. https://cawaterlibrary.net/wp-content/uploads/2017/12/trel08-28.pdf.

_____2008b. Guidance on Clean Water Act Jurisdiction Following the Supreme Court Decision in Rapanos v. U.S. and Carabell v. U.S. December 2, 2008. https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Related-Resources/CWA-Guidance/. Accessed March 2022.

——— 2008c. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. Hanover, NH:Cold Regions Research and Engineering Laboratory. https://cawaterlibrary.net/wp-content/uploads/2018/03/FinalOHWMManual_2008.pdf.

——— 2008d. Regulatory Guidance Letter No 08-02: Jurisdictional Determinations. 26 June 2008.

——— 2020. National Wetland Plant List, version 3.5. https://wetland-plants.sec.usace.army.mil/nwpl_static/v34/home/home.html.
Accessed May and June 2020.

United States (U.S.) Department of Agriculture Natural Resources Conservation Service (NRCS). 2018. Field Indicators of Hydric Soils in the U.S., Version 8.2.

——— 2023a. Web Soil Survey. https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed 2023.

——— 2023b. Hydric soils list for California. https://www.nrcs.usda.gov/publications/query-by-state.html Accessed 2023.

United States Fish and Wildlife Service. 2022. National Wetlands Inventory website. Last revised: November 30, 2021. https://www.fws.gov/wetlands/. Accessed April 2023.

United States Geological Survey (USGS). 1949. *Los Alamitos, California* 7.5-minute topographic quadrangle map. Accessed April 2023.

——— 2022. The National Map Hydrography. Accessed April 2023. https://hydro.nationalmap.gov/arcgis/rest/services/nhd/MapServer.

Appendix A. Photographs

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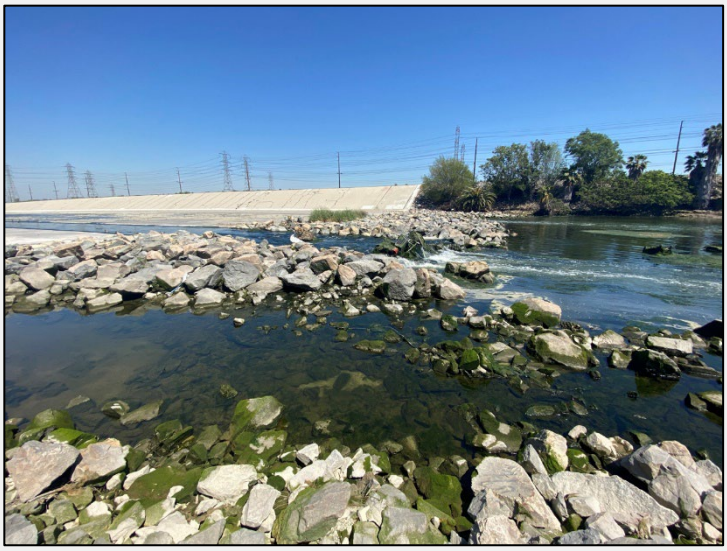
Appendix C. General Site Photographs

Biological Resources Technical Report Photographs

Photograph	Information
	Photograph #: 01 Photo Date: 4/21/2023 Latitude/Longitude: 33.773573 / -118.095561 Direction: North Notes: View of Urban/Developed lot within the Haynes Generating Facility. Area generally cleared of any vegetation.
	Photograph #: 02 Photo Date: 4/21/2023 Latitude/Longitude: 33.774088 / -118.094895 Direction: South Notes: View of Los Alamitos Channel adjacent to the Urban/Developed lot within the Haynes Generating Facility. Non-native grassland vegetation growing on banks of channel.
	Photograph #: 03 Photo Date: 4/21/2023 Latitude/Longitude: 33.774738 / -118.095335 Direction: West Notes: View of Eucalyptus Woodland north of SR-22, area appears well maintained.

Photograph	Information
	Photograph #: 04 Photo Date: 4/21/2023 Latitude/Longitude: 33.783839 / -118.095782 Direction: Southwest Notes: View of the San Gabriel River. Channel banks are covered in riprap and vegetation in channel is dominated by non-natives.
	Photograph #: 05 Photo Date: 4/21/2023 Latitude/Longitude: 33.786013 / -118.095022 Direction: Southwest Notes: View of Mediterranean California Naturalized Annual and Perennial Grassland. Vegetation along utility right of way routinely mowed and consists primarily of weedy species due to frequent disturbance.
	Photograph #: 06 Photo Date: 4/21/2023 Latitude/Longitude: 33.786677 / -118.095296 Direction: Southwest Notes: View of Urban/Developed area consisting of a residential neighborhood west if San Gabriel River.

Photograph	Information
	Photograph #: 07 Photo Date: 4/21/2023 Latitude/Longitude: 33.790828 / -118.092214 Direction: East Notes: View of rock riprap where the concrete San Gabriel River outlets to a natural bottom channel.
	Photograph #: 08 Photo Date: 4/21/2023 Latitude/Longitude: 33.803645 / -118.090714 Direction: Southwest Notes: View of Mediterranean California Naturalized Annual and Perennial Grassland south of East Willow Street. Vegetation along utility right of way routinely mowed and consists primarily of weedy species due to frequent disturbance. El Dorado Park Golf Course in the background.
	Photograph #: 09 Photo Date: 4/21/2023 Latitude/Longitude: 33.802974 / -118.085297 Direction: Northeast Notes: View of concrete lined Coyote Creek.

Photograph	Information
	Photograph #: 10 Photo Date: 4/21/2023 Latitude/Longitude: 33.803869 / -118.085151 Direction: South Notes: View of unnamed concrete-lined channel north of the Long Beach WRF site. Non-native grassland, iceplant mat, and peppertree growing adjacent to channel. Trash and debris littering the channel in the foreground.
	Photograph #: 11 Photo Date: 4/21/2023 Latitude/Longitude: 33.804023 / -118.086399 Direction: West Notes: View of Schinus sp. Myoporum laetum Forest and Woodand area along northern slope of East Willow Street.
	Photograph #: 12 Photo Date: 4/21/2023 Latitude/Longitude: 33.803443 / -118.088139 Direction: South Notes: View of mulefat area south of East Willow Street.

Photograph	Information
	Photograph #: 13 Photo Date: 4/21/2023 Latitude/Longitude: 33.802592 / -118.084101 Direction: North Notes: View of concrete-lined channel, east of Coyote Creek. Channel originates to the north outside of BRSA.

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Appendix D. Wildlife and Vegetation Species Observed On Site

Appendix D – Wildlife and Plant Species Observed

Wildlife Species Observed

	Group Of Family	Scientific Name	Common Name	Special Status
REPTILES				
	CHELONIIDAE - MARINE TURTLE FAMILY			
		Chelonia mydas	Green Sea Turtle	FT
	IGUANIDAE - IGUANA FAMILY			
		Sceloporus cowlesi	Southwestern Fence Lizard	
BIRDS				
	ACCIPITRIDAE - RAPTOR FAMILY			
		Buteo jamaicensis	Red-tailed Hawk	
	AEGITHALIDAE - BUSHTIT FAMILY			
		Psaltriparus minimus	Bushtit	
	ANATIDAE - WATERFOWL FAMILY			
		Anas platyrhynchos	Mallard	
		Aythya affinis	Lesser Scaup	
		Branta canadensis	Canada Goose	
		Spatula clypeata	Northern Shoveler	
	ARDEIDAE - HERON FAMILY			
		Ardea alba	Great Egret	
		Butorides virescens	Green Heron	
	COLUMBIDAE - PIGEON FAMILY			
		Zenaida macroura	Mourning Dove	
	CORVIDAE - CROW FAMILY			
		Corvus brachyrhynchos	American Crow	
	FRINGILLIDAE - NEW WORLD FINCH FAMILY			
		Haemorhous mexicanus	House Finch	
	HIRUNDINIDAE - SWALLOW FAMILY			
		Stelgidopteryx serripennis	Northern Rough-winged Swallow	
	LARIDAE - GULL FAMILY			
		Hydroprogne caspia	Caspian Tern	
		Larus californicus	California Gull	
		Larus delawarensis	Ring-billed Gull	

Appendix D – Wildlife and Plant Species Observed

PASSERELLIDAE - NEW WORLD SPARROW FAMILY		
	Melospiza melodia	Song Sparrow
	Melozone crissalis	California Towhee
PELECANIDAE - PELICAN FAMILY		
	Pelecanus occidentalis californicus	Brown Pelican
PHALACROCORACIDAE - CORMORANT FAMILY		
	Nannopterum auritum	Double-crested Cormorant
RALLIDAE - RAIL FAMILY		
	Fulica americana	American Coot
RECURVIROSTRIDAE - STILT FAMILY		
	Himantopus mexicanus	Black-necked Stilt
SCOLOPACIDAE - SHOREBIRD FAMILY		
	Actitis macularius	Spotted Sandpiper
STURNIDAE - MYNA FAMILY		
	*Sturnus vulgaris**	European Starling
TROCHILIDAE - HUMMINGBIRD FAMILY		
	Calypte anna	Anna's Hummingbird
	Selasphorus sasin	Allen's Hummingbird
TYRANNIDAE - TYRANT FLYCATCHER FAMILY		
	Sayornis nigricans	Black Phoebe
MAMMALS		
SCIURIDAE - SQUIRREL FAMILY		
	Callospermophilus lateralis	Common Golden-mantled Ground Squirrel

LEGEND

Federal (USFWS):
BGEPA=Bald and Golden Eagle Protection Act
FE=Endangered
FT=Threatened
FC=Candidate
FCE=Federal Candidate Endangered
FCT= Federal Candidate Threatened

Appendix D – Wildlife and Plant Species Observed

Plant Species Observed

Section	Family	Scientific Name	Common Name	Special Status
EUDICOTS				
	AIZOACEAE – FIG–MARIGOLD FAMILY			
		*Carpobrotus edulis**	freeway iceplant	
	ANACARDIACEAE – SUMAC FAMILY			
		*Schinus terebinthifolius**	Brazilian pepper tree	
	APIACEAE – CARROT FAMILY			
		*Foeniculum vulgare**	fennel	
	ASTERACEAE – SUNFLOWER FAMILY			
		Artemisia californica	California sagebrush	
		Baccharis pilularis ssp. consanguinea	coyote brush	
		Baccharis salicifolia ssp. salicifolia	mule fat	
		*Carduus tenuiflorus**	fine-flowered thistle	
		Encelia farinosa	brittlebush	
		*Glebionis coronaria**	crown daisy	
		Heterotheca grandiflora	telegraph weed	
		*Pseudognaphalium luteoalbum**	white lamb cudweed	
		*Silybum marianum**	blessed milk thistle	
		*Sonchus oleraceus**	common sow thistle	
	BRASSICACEAE – MUSTARD FAMILY			
		*Lepidium latifolium**	perennial pepperweed	
		*Raphanus sativus**	radish	
	CACTACEAE – CACTUS FAMILY			
		*Opuntia ficus-indica**	mission prickly-pear	
	CHENOPODIACEAE – GOOSEFOOT FAMILY			
		*Atriplex prostrata**	fat-hen	
		*Salsola tragus**	Russian thistle	
	EUPHORBIACEAE – SPURGE FAMILY			
		*Ricinus communis**	castor bean	
	FABACEAE – LEGUME FAMILY			
		*Acacia sp.**	wattle	
		*Melilotus indicus**	Indian sweetclover	
	GERANIACEAE – GERANIUM FAMILY			
		*Erodium cicutarium**	redstem filaree	

Appendix D – Wildlife and Plant Species Observed

	MALVACEAE – MALLOW FAMILY		
		*Malva parviflora**	cheeseweed
	MYRTACEAE – MYRTLE FAMILY		
		*Eucalyptus camaldulensis**	red gum
		*Eucalyptus polyanthemos**	silver dollar gum
		*Melaleuca citrina**	crimson bottlebrush
	NYCTAGINACEAE – FOUR O'CLOCK FAMILY		
		Bougainvillea sp.	bougainvillea
	POLYGONACEAE – BUCKWHEAT FAMILY		
		*Rumex crispus**	curly dock
	SCROPHULARIACEAE – FIGWORT FAMILY		
		*Myoporum laetum**	ngaio tree
	SIMAROUBACEAE – SIMAROUBA FAMILY		
		*Ailanthus altissima**	tree of heaven
	SOLANACEAE – NIGHTSHADE FAMILY		
		*Nicotiana glauca**	tree tobacco
		Solanum douglasii	Douglas' nightshade
	ULMACEAE – ELM FAMILY		
		*Ulmus parvifolia**	Chinese elm
	URTICACEAE – NETTLE FAMILY		
		*Urtica urens**	dwarf nettle
MONOCOTS			
	ARECACEAE – PALM FAMILY		
		*Phoenix canariensis**	Canary Island palm
		*Washingtonia robusta**	Mexican fan palm
	POACEAE – GRASS FAMILY		
		*Arundo donax**	giant reed
		*Avena barbata**	slender wild oat
		*Bromus diandrus**	ripgut grass
		*Bromus rubens**	red brome
		*Bromus tectorum**	cheat grass
		*Hordeum murinum**	wall barley
		*Pennisetum setaceum**	crimson fountain grass

Appendix D – Wildlife and Plant Species Observed

Legend

Symbols:

* Non-native species
cf. confer: This designation is used when a species or infraspecific taxon cannot be confirmed, but is believed to be the selected species of infraspecific taxon based on available anatomy

Federal Designations:

U.S. Fish and Wildlife Service:

FE Endangered
FT Threatened
FC Candidate Species

U.S. Forest Service:

FSS Forest Service Sensitive
WL Watch List

U.S. Army Corps of Engineers Wetland Rank:

OBL: Obligate Wetland - Almost always occur in wetlands. With few exceptions, these plants are found in standing water or seasonally saturated soils near the surface.
FACW: Facultative Wetland - Usually occur in wetlands, but may occur in non-wetlands. These plants predominately occur with hydric soils, often in geomorphic settings where water saturates the soils or floods the soil surface at least seasonally.
FAC: Facultative - Occur in wetlands and non-wetlands. These plants can grow in hydric, mesic, or xeric habitats.
FACU Facultative Upland - Usually occur in non-wetlands, but may occur in wetlands. These plants predominately occur on drier or more mesic sites in geomorphic settings where water rarely saturates the soils or floods the soil surface seasonally.
None (UPL): Upland - Almost never occur in wetlands. These plants occupy mesic to xeric non-wetland habitats. They almost never occur in standing water or saturated soils.

Other Designations:

California Invasive Plant Council Rank:

High These species have severe ecological impacts on the surrounding habitat. They have moderate to high rates of dispersal and establishment, and most are widely distributed.
Moderate These species have substantial and apparent—but generally not severe—ecological impacts on the surrounding habitat. They have moderate to high rates of dispersal.

State of California Designations:

California Department of Fish and Wildlife:

SE Endangered
ST Threatened
SR Rare

California Rare Plant Rank:

1A Plants presumed extirpated in California and either rare or extinct elsewhere
1B Plants Rare, Threatened, or Endangered in California and elsewhere
2A Plants presumed extirpated in California, but more common elsewhere
2B Plants Rare, Threatened, or Endangered in California, but more common elsewhere
3 Plants about which we need more information - review list
4 Plants of limited distribution - watch list

Threat Code Extensions:
None Plants lacking any threat information
.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)
.2 Moderately threatened in California (20–80% of occurrences threatened; moderate degree and immediacy of threat)
.3 Not very threatened in California (<20% of occurrences threatened; low degree and immediacy of threat or no current threats known)

California Department of Food and Agriculture
Weed Rank:

A eradication, containment, rejection, or other holding action at the state-County level is mandated
B eradication, containment, control, or other holding action is at the discretion of the commissioner
C no state action is required except to retard the speed of

Appendix D – Wildlife and Plant Species Observed

Distribution may range from limited to widespread.
Limited These species are invasive, but their ecological impacts are minor on a statewide level. They have low to moderate rates of colonization. Although their distribution is generally limited, these species may be locally persistent and problematic.
Watch List These species are predicted to become invasive if no further actions are taken. Distribution may range from limited to widespread in specific regions.

spreading
4500 this plant is included in CCR Section 4500 list of state noxious weeds

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Appendix E. Special-Status Plant Species Table

Appendix E – Special-Status Plant Species Table

Scientific Name	Common Name	USFWS	CDFW	CRPR	Habitat Characteristics	Potential	Rationale
Abronia maritima	red sand-verbena	None	None	4.2	Coastal dunes. Elevation: 0–328 feet. Blooming period: February–November	N	Suitable habitat is absent from the BRSA.
Abronia villosa var. *aurita*	chaparral sand-verbena	None	None	1B.1	Sandy soils in chaparral, coastal scrub, and desert dunes. Elevation: 246–5,248 feet. Blooming period: January–September	N	Suitable habitat is absent from the BRSA and outside of the species elevation range.
Aphanisma blitoides	aphanisma	None	None	1B.2	Sandy soils in coastal bluff scrub, coastal dunes, and coastal scrub. Elevation: 3–1,000 feet. Blooming period: March–June	N	Suitable habitat is absent from the BRSA.
Astragalus hornii var. Hornii	Horn's milk-vetch	None	None	1B.1	Lake margins and alkaline soils in meadows, seeps, and playas. Elevation: 196–2,788 feet. Blooming period: May–October	N	Suitable habitat is absent from the BRSA.
Astragalus pycnostachyus var. Lanosissimus	Ventura marsh milk-vetch	FE	SE	1B.1	Coastal dunes and scrub, marshes and swamps at ocean edges. Elevation: 3–115 feet. Blooming period: June–October	N	Suitable habitat is absent from the BRSA
Atriplex coulteri	Coulter's saltbush	None	None	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	N	Suitable habitat and soils are absent from the BRSA.
Atriplex pacifica	South Coast saltscale	None	None	1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, playas. Elevation: 0–459 feet. Blooming period: March–October	N	Suitable habitat is absent from the BRSA.
Atriplex parishii	Parish's brittlescale	None	None	1B.1	Alkaline soils in chenopod scrub, playas, and vernal pools. Elevation: 82–6,232 feet. Blooming period: June–October	N	Suitable habitat and soils are absent from the BRSA.
Atriplex serenana var. *davidsonii*	Davidson's saltscale	None	None	1B.2	Alkaline conditions in coastal bluff scrub and coastal scrub. Elevation: 32–656 feet. Blooming period: April–October	N	Suitable habitat is absent from the BRSA.
Calochortus catalinae	Catalina mariposa lily	None	None	4.2	Chaparral, cismontane woodland, coastal scrub, and grassland. Elevation: 49–2,296 feet. Blooming period: February–June	Y	Potentially suitable habitat is present within the BRSA.

Appendix E – Special-Status Plant Species Table

Scientific Name	Common Name	USFWS	CDFW	CRPR	Habitat Characteristics	Potential	Rationale
Calochortus plummerae	Plummer's mariposa lily	None	None	4.2	Chaparral, cismontane woodland, riparian woodland, grassland. 98–2,755 feet. Blooming period: April–June	Y	Potentially suitable habitat is present within the BRSA.
Calochortus weedii var. *intermedius*	intermediate mariposa lily	None	None	1B.2	Rocky and calcareous areas in chaparral, coastal scrub, and grassland. Elevation: 345–2,804 feet. Blooming period: May–July	N	BRSA is outside of species' elevation range.
Calystegia felix	lucky morning-glory	None	None	1B.1	Meadows and seeps that are sometimes alkaline and alluvial riparian scrub. Elevation: elevation range unknown. Blooming period: March–September	N	Suitable habitat is absent from the BRSA.
Camissoniopsis lewisii	Lewis' evening-primerose	None	None	3	Coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland. Elevation: 0-985 feet. Blooming period: March-June	N	Suitable habitat is absent from the BRSA.
Centromadia parryi ssp. *australis*	southern tarplant	None	None	1B.1	Found within the margin of marshes and swamps, vernally mesic soils in grassland, and vernal pools. Elevation: 0–1,574 feet. Blooming period: May–November	N	Suitable habitat is absent from the BRSA
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	FE	SE	1B.2	Coastal dunes and coastal salt marshes and swamps. Elevation: 0–98 feet. Blooming period: May–October	N	Suitable habitat is absent from the BRSA.
Cistanthe maritima	seaside cistanthe	None	None	4.2	Sandy soils in coastal bluff scrub, coastal scrub, and grassland. Elevation: 16–984 feet. Blooming period: February–August	N	Suitable habitat and soils are absent from the BRSA.
Convolvulus simulans	small-flowered morning-glory	None	None	4.2	Friable clay soils or serpentine seeps in chaparral openings, coastal scrub, and grassland. Elevation: 98–2,297 feet. Blooming period: March–July	N	Suitable habitat and soils are absent from the BRSA.
Dudleya multicaulis	many-stemmed dudleya	None	None	1B.2	Often in clay soils in chaparral, coastal scrub, and grassland. Elevation: 49–2,591 feet. Blooming period: April–July	N	Suitable habitat and soils are absent from the BRSA.
Eleocharis parvula	small spikerush	None	None	4.3	Marshes and swamps. Elevation: 3–9,908 feet. Blooming period: April–September	N	Suitable habitat is absent from the BRSA.

Appendix E – Special-Status Plant Species Table

Scientific Name	Common Name	USFWS	CDFW	CRPR	Habitat Characteristics	Potential	Rationale
Eryngium aristulatum var. *parishii*	San Diego button-celery	FE	SE	1B.1	Mesic soils in coastal scrub, grassland, and vernal pools. Elevation: 65–2,034 feet. Blooming period: April–June	N	Suitable habitat and soils are absent from the BRSA.
Helianthus nuttallii ssp. *parishii*	Los Angeles sunflower	None	None	1A	Coastal salt and freshwater marshes and swamps. Elevation: 33–5,494 feet. Blooming period: August–October	N	Suitable habitat is absent from the BRSA.
Hordeum intercedens	vernal barley	None	None	3.2	Coastal dunes, coastal scrub, saline flats and depressions in grassland, and vernal pools. Elevation: 16–3,280 feet. Blooming period: March–June	N	Suitable habitat is absent from the BRSA.
Isocoma menziesii var. *decumbens*	decumbent goldenbush	None	None	1B.2	Chaparral and sandy coastal scrub, often in sandy disturbed areas. Elevation: 33–443 feet. Blooming period: April–November	N	Suitable habitat is absent from the BRSA.
Juglans californica	Southern California black walnut	None	None	4.2	Alluvial areas in chaparral, cismontane woodland, and coastal scrub. Elevation: 164–2,952 feet. Blooming period: March–August	N	BRSA is located outside of the species' elevation range.
Juncus acutus ssp. *leopoldii*	southwestern spiny rush	None	None	4.2	Mesic soils in coastal dunes, alkaline seeps in meadows and seeps, and coastal salt marshes and swamps. Elevation: 9–2,953 feet. Blooming period: (March) May–June	N	Suitable habitat is absent from the BRSA.
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	None	None	1B.1	Coastal salt marsh, coastal salt swamps, playas, vernal pools. Elevation: 3–4,001 feet. Blooming period: February–June	N	Suitable habitat is absent from the BRSA.
Lycium californicum	California box-thorn	None	None	4.2	Coastal bluff scrub and coastal scrub. Elevation: 16–492 feet. Blooming period: December–August	N	Suitable habitat is absent from the BRSA.
Nama stenocarpa	mud nama	None	None	2B.2	Marshes and swamps, also riverbanks and lake margins. Elevation: 16–1,640 feet. Blooming period: January–July	Y	Potentially suitable habitat is present within the BRSA.
Nasturtium gambelii	Gambel's water cress	FE	ST	1B.1	Freshwater or brackish marshes and swamps. Elevation: 16–1,000 feet. Blooming period: April–October	N	Suitable habitat is absent from the BRSA.
Navarretia prostrata	prostrate vernal pool navarretia	None	None	1B.1	Mesic coastal scrub, meadows and seeps, alkaline grassland, and vernal pools. Elevation: 49–3,968 feet. Blooming period: April–July	N	Suitable habitat and soils are absent from the BRSA.

Appendix E – Special-Status Plant Species Table

Scientific Name	Common Name	USFWS	CDFW	CRPR	Habitat Characteristics	Potential	Rationale
Nemacaulis denudata var. *denudata*	coast woolly-heads	None	None	1B.2	Coastal dunes. Elevation: 0–328 feet. Blooming period: April–September	N	Suitable habitat is absent from the BRSA.
Orcuttia californica	California Orcutt grass	FE	SE	1B.1	Vernal pools. Elevation: 49–2,165 feet. Blooming period: April–August	N	Suitable habitat is absent from the BRSA.
Pentachaeta lyonia	Lyon's pentachaeta	FE	SE	1B.1	Rocky or clay soils in coastal scrub, grassland, and openings in chaparral. Elevation: 98–2,066 feet. Blooming period: March–August	N	Suitable habitat is absent from the BRSA and outside of species' elevation range.
Phacelia ramosissima var. *austrolitoralis*	south coast branching phacelia	None	None	3.2	Sandy and rocky soils in chaparral, coastal dunes, coastal scrub, coastal salt marshes and swamps. Elevation: 16–984 feet. Blooming period: March–August	N	Suitable habitat is absent from the BRSA.
Phacelia stellaris	Brand's star phacelia	None	None	1B.1	Coastal dunes, coastal scrub. Elevation: 3–1,312 feet. Blooming period: March–June	N	Suitable habitat is absent from the BRSA.
Quercus engelmannii	Engelmann oak	None	None	4.2	Cismontane woodland, chaparral, riparian woodland, and grassland. Elevation: 164–4,265 feet. Blooming period: March–June	N	BRSA is outside of the species' elevation range.
Sagittaria sanfordii	Sanford's arrowhead	None	None	1B.2	Fresh water marshes and swamps that are typically shallow. Elevation: 0–2,132 feet. Blooming period: May–October	N	Suitable aquatic resources are absent from the BRSA.
Sidalcea neomexicana	salt spring checkerbloom	None	None	2B.2	Alkaline and mesic soils within chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas. Elevation: 49–5,020 feet. Blooming period: March–June	N	Suitable habitat is absent from the BRSA.
Suaeda esteroa	estuary seablite	None	None	1B.2	Coastal salt marshes and swamps. Elevation: 0–16 feet. Blooming period: May–January	N	Suitable habitat is absent from the BRSA.
Suaeda taxifolia	woolly seablite	None	None	4.2	Coastal bluff scrub, coastal dunes, and the margins of coastal salt marshes and swamps. Elevation: 0–164 feet. Blooming period: January–December	N	Suitable habitat is absent from the BRSA.

Appendix E – Special-Status Plant Species Table

Scientific Name	Common Name	USFWS	CDFW	CRPR	Habitat Characteristics	Potential	Rationale
Symphyotrichum defoliatum	San Bernardino aster	None	None	1B.2	Near ditches, streams, and springs in Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and vernally mesic grassland. Elevation: 7–6,693 feet. Blooming period: July–November	N	Suitable habitat is absent from the BRSA

= Potential for species to occur within the Project BRSA

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

California Rare Plant Rank (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

4: Plants of limited distribution

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). 2023. 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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Appendix F. Special-Status Wildlife Species Table

Appendix F – Special Status Wildlife Species Table

Scientific Name	Common Name	USFWS	CDFW	Critical Habitat Affected	Habitat and Distribution	Potential	Rationale
Invertebrates							
Bombus crotchii	Crotch's bumble bee	None	SCE	None	Found between San Diego and Redding in a variety of habitats including open grasslands, shrublands, chaparral, desert margins including Joshua tree and creosote scrub, and semi-urban settings. It is near endemic to California, with only a few records from Nevada and Mexico (CDFW 2022). Williams et al. (2014) report plants in the genera *Asclepias, Chaenactis, Lupinus, Medicago, Phacelia*, and *Salvia* as example food plants.	Y	Potentially suitable habitat is present within the BRSA.
Branchinecta sandiegonensis	San Diego fairy shrimp	FE	None	None	Vernal pool complexes primarily near the coast in Orange and San Diego Counties, but currently known from as far north as Long Beach and south to northwestern Baja California. Restricted to dilute vernal pools, having relatively low sodium concentrations (below 60 milli-moles per liter), low alkalinity (below 1000 milligrams per liter), and neutral pH (USFWS 2008).	N	Suitable habitat is absent from the BRSA.
Danaus plexippus pop. 1	monarch butterfly (California overwintering population)	FC	None	None	Typically overwinter in groves of eucalyptus (*Eucalyptus* spp.), Monterey pine (*Pinus radiata*), or Monterey cypress (*Hesperocyparis macrocarpa*) along the California coast (IELP 2012).	Y	Potentially suitable habitat is present within the BRSA.
Euphydras editha quino	Quino checkerspot	FE	None	None	Patchy shrub or small tree landscapes with openings of several meters between large plants, or a landscape of open swales alternating with dense patches of shrubs. Host plants include California plantain (*Plantago erecta*), Patagonia plantain (*P. patagonica*), and Coulter snapdragon (*Antirrhinum coulterianum*) (USFWS 2009).	N	The BRSA is surrounded by urban areas and suitable landscapes of open swales is absent from the BRSA.
Streptocephalus woottoni	Riverside fairy shrimp	FE	None	None	Restricted to vernal pools and non-vegetated ephemeral pools deeper than 12 inches. Inland areas of Riverside, Orange, and San Diego Counties. Coastal areas of San Diego County and northwestern Baja California (USFWS 2008).	N	No vernal pools or depressions large enough for this species present in the BRSA.
Fish							
Oncorhynchus mykiss irideus pop. 10	steelhead (southern California DPS)	FE	None	None	Includes naturally spawned anadromous steelhead originating below natural and manmade impassable barriers from the Santa Maria River to the U.S.-Mexico Border. Spawning habitat = gravel-bottomed, fast-flowing, well-oxygenated rivers and streams. Non-spawning = estuarine, marine waters (NOAA 2019).	Y	Suitable soft-bottom channel for non-spawning habitat is present within the BRSA, however, no CNDDB records are available for the entirety of the watershed. Nearest CNDDB records are located

Appendix F – Special Status Wildlife Species Table

Scientific Name	Common Name	USFWS	CDFW	Critical Habitat Affected	Habitat and Distribution	Potential	Rationale
							southeast of the BRSA, associated with the Santa Ana River.
Amphibians							
Spea hammondii	western spadefoot	None	SSC	None	Ranges in western California except for the northwest corner. Generally found in grasslands, oak woodlands, coastal sage scrub, and chaparral in washes, floodplains, alluvial fans, playas, and alkali flats. Natural and artificial water bodies are used for breeding. Specifically, vernal pools used by this species have an average ponding duration of 81 days, and successful recruitment occurs in ponds that last on average 21 days longer than larval development time. Pool temperature requirements are from 9°C to 32°C. Pools with invasive species, such as crayfish, bullfrogs (*Xenopus laevis*), or fish often exclude this species in its northern population. The southern population is not necessarily excluded by the presence of invasive species; however, the effect of invasives on the southern population are not fully understood (Thomson et al. 2016).	N	Suitable habitat is not present within the BRSA.
Reptiles							
Anniella stebbinsi	Southern California legless lizard	None	SSC	None	Little is known about this species and this information is based on *Anniella pulchra* before it was split into five species. The current known range is cismontane southern California and the Mojave Desert portion of Kern County (CDFW 2019). Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodland, desert scrub, sandy washes, and stream terraces (Nafis 2019). Originally known to occur throughout Southern California south of the Transverse Ranges into northern Baja California, Mexico (Papenfuss and Parham 2013).	N	Suitable habitat is not present within the Project BRSA.
Aspidoscelis tigris stejnegeri	Coastal whiptail	None	SSC	None	Ranges in cismontane southern California. Generally found in a wide range of habitats including coastal sage scrub, chaparral, riparian areas, woodlands, and rocky areas. Specifically, this species prefers sand or gravel-bottomed habitats with decent shrub cover and is not often found near development (Thomson et al. 2016).	N	Suitable habitat is absent from the BRSA.
Chelonia mydas	green sea turtle	FT	None	None	Inhabits the shallow waters of lagoons, bays, estuaries, mangroves, eelgrass and seaweed	Y	Potentially suitable habitats are present and a CNDDB

Appendix F – Special Status Wildlife Species Table

Scientific Name	Common Name	USFWS	CDFW	Critical Habitat Affected	Habitat and Distribution	Potential	Rationale
					beds. Prefers areas with abundant aquatic vegetation, such as pastures of sea grasses and algae, in shallow, protected water. Recorded along the Pacific coasts of the Americas from Alaska to Chile. Common as far north as San Quintin Bay in Baja California, but uncommon along the California coast (Nafis 2019).		occurrence is reported near the Haynes Generation Station within the BRSA.
Emys marmorata	western pond turtle	None	SSC	None	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).	Y	Potentially suitable habitats are present and a CNDDB occurrence is reported near the confluence of Coyote Creek and San Gabriel River.
Phrynosoma blainvillii	Blainville's horned lizard	None	SSC	None	Ranges in the southern half of California outside of the desert and 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)	N	Potentially suitable habitat occurs within the BRSA, however, CNDDB occurrences are from 1951 and 1961, both possibly extirpated.
Birds							
Agelaius tricolor	tricolored blackbird	None	ST, SSC	None	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. Needs access to open water. Strips of emergent vegetation along canals are avoided as nest sites unless they are about 10 or more meters wide but, in some ponds, especially where associated with Himalayan blackberries and deep water, settlement may be in narrower fetches of cattails. (Hamilton 2004). 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 central coast and San Francisco Bay area,	Y	Potentially suitable habitat is present within a small strip of habitat located at the northern end of the BRSA.

Appendix F – Special Status Wildlife Species Table

Scientific Name	Common Name	USFWS	CDFW	Critical Habitat Affected	Habitat and Distribution	Potential	Rationale
					and can be found in portions of the Colorado Desert (CDFW 2019).		
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	None	None	None	Chaparral, coastal sage scrub and coastal bluff scrub, especially in recently burned areas. Forage under shrub or in dense herbaceous cover. Breed in sparsely vegetated scrubland on hillsides and canyons from 197-4,593 ft. (60-1,400 m.) in elevation (Thorngate & Parsons 2005)	N	Suitable habitat is absent from the BRSA.
Ammodramus savannarum	grasshopper sparrow	None	SSC	None	Known to breed in grassland habitats throughout the northeastern and mid-Atlantic U.S., southeastern Canada, coastal and Central Valley of California, and a few other areas of Canada and northern Mexico (Shuford and Gardali 2008). In the East and Midwest, tallgrass and mixed grass prairie is preferred, whereas in the West and Southwest, the species typically utilizes shortgrass and semi-desert grasslands. Additionally, individuals can sometimes be found in corn (*Zea mays*) and oat (*Avena sativa*) fields and avoid areas with high shrub cover (Shuford and Gardali 2008).	N	Suitable habitat is absent from the BRSA.
Athene cunicularia	burrowing owl	None	SSC	None	Species known to be a yearlong resident of open, dry grasslands and varying desert habitats (CWHR 1999). Nesting habitat includes open areas with mammal burrows, including rolling hills, grasslands, fallow fields, sparsely vegetated desert scrub, vacant lots, and human-disturbed lands. Soils must be friable for burrows (Bates 2006).	Y	Suitable burrowing and foraging habitat is present within the BRSA.
Buteo swainsoni	Swainson's hawk	None	ST	None	Nests in stands with few trees in riparian areas, juniper-sage flats, and oak savannah. Forages in adjacent grasslands, agricultural fields, and pastures. Breeding resident and migrant in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen Co., and Mojave Desert. Very limited breeding reported from Lanfair Valley, Owens Valley, Fish Lake Valley, and Antelope Valley (CWHR 2006).	N	Suitable habitat is absent from the BRSA.
Campylorhynchus brunneicapillus sandiegensis	Coastal cactus wren	None	SSC	None	Taxonomically intermediate between more widespread subspecies in southern U.S. and Baja California, Mexico. This taxon is thought to only occur in coastal sage scrub community in southern Orange and San Diego Counties. The key habitat element is thickets of cholla (*Cylindropuntia ssp.*)	N	Suitable habitat is absent from the BRSA.

Appendix F – Special Status Wildlife Species Table

Scientific Name	Common Name	USFWS	CDFW	Critical Habitat Affected	Habitat and Distribution	Potential	Rationale
					or prickly-pear (*Opuntia ssp.*) tall enough to support nests (Shuford 2008).		
Charadrius alexandrinus nivosus	western snowy plover	FT	SSC	None	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 (CWHR 2008).	N	Suitable habitat is absent from the BRSA.
Coccyzus americanus occidentalis	western yellow-billed cuckoo	FT	SE	None	Riparian woodland with dense cover; primarily old-growth cottonwood forests with willow understory, but will also nest in overgrown orchards adjacent to streams and dense thickets alongside marshes (USFWS 2019).	N	Suitable habitat is absent from the BRSA.
Coturnicops noveboracensis	yellow rail	None	SSC	None	Densely vegetated marshes. Require sedge marshes/meadows with moist soil or shallow standing water for breeding (Shuford and Gardali 2008).	N	Suitable habitat is absent from the BRSA.
Elanus leucurus	white-tailed kite	None	FP	None	Occurs in herbaceous and open stages of valley lowland habitats, usually near agricultural land. Forages in undisturbed, open grasslands, meadows, farmlands, and emergent wetlands (CWHR 2005). Typically nests in the upper third of trees that may be 10–160 feet tall. These can be open-country trees growing in isolation or at the edge of or within a forest (Cornell 2017).	N	Suitable nesting and foraging habitat is absent from the BRSA.
Empidonax traillii extimus	southwestern willow flycatcher	FE	SE	None	Dense riparian forest and scrub habitats associated with rivers, swamps, wetlands, lakes, and reservoirs (USFWS 2002).	N	Suitable habitat is absent from the BRSA.
Icteria virens	yellow-breasted chat	None	SSC	None	Nest in early-successional riparian habitats with a well-developed shrub layer and an open canopy. Restricted to narrow border of streams, creeks, sloughs, and rivers. Often nests in dense thicket plants such as blackberry and willow (Shuford 2008).	N	Suitable habitat is absent from the BRSA.
Laterallus jamaicensis coturniculus	California black rail	None	ST, FP	None	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	N	Suitable habitat is absent from the BRSA.

Appendix F – Special Status Wildlife Species Table

Scientific Name	Common Name	USFWS	CDFW	Critical Habitat Affected	Habitat and Distribution	Potential	Rationale
					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 (CWHR 1999).		
Passerculus sandwichensis beldingi	Belding's savannah sparrow	None	SE	None	Coastal salt marshes. Associated with dense pickleweed, particularly Salicornia virginica, for nesting (Zambal and Hoffman 2010).	N	Suitable habitat is absent from the BRSA.
Pelecanus occidentalis californicus	California brown pelican	None	FP	None	Breeds on dry, rocky offshore islands. Forages over open ocean, along surfline, and in coastal marine and estuarine environments. Rare inland. (Cornell 2017).	N	Suitable habitat is absent from the BRSA.
Polioptila californica californica	Coastal California gnatcatcher	FT	SSC	None	Scrub dominated plant communities, strongly associated with coastal scrub, sage scrub, and coastal succulent scrub communities. Distribution ranges from southern Ventura County down through Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties (USFWS 2010).	N	Suitable habitat is absent from the BRSA.
Rallus obsoletus levipes	light-footed Ridgway's rail	FE	SE, FP	None	Coastal salt marshes, lagoons, and their maritime environs from Santa Barbara County south past San Diego into Baja California. Require shallow water and mudflats for foraging, with adjacent higher vegetation for cover during high tide (USFWS 2019).	N	Suitable habitat is absent from the BRSA.
Riparia riparia	bank swallow	None	ST	None	Riparian, lacustrine, and coastal areas with vertical banks, bluffs, or cliffs with fine-textured or sandy soils, into which it digs nesting holes. Also nests in earthen banks as well as sand and gravel pits (CWHR 1999).	N	Suitable habitat is absent from the BRSA.
Rynchops niger	black skimmer	None	SSC	None	Requires calm, shallow water for foraging, and sand bars, beaches, or dikes for roosting and nesting (CWHR 2005).	N	Suitable habitat is absent from the BRSA.
Setophaga petechia	yellow warbler	None	SSC	None	Usually found in riparian deciduous habitats in summer: cottonwoods (*Populus* ssp.), willows (*Salix* ssp.), alders (*Alnus* ssp.), and other small trees and shrubs typical of low, open-canopy riparian woodland. Also breeds in montane shrubbery in open coniferous forests (CWHR Program Staff 2005).	N	Suitable habitat is absent from the BRSA

Appendix F – Special Status Wildlife Species Table

Scientific Name	Common Name	USFWS	CDFW	Critical Habitat Affected	Habitat and Distribution	Potential	Rationale
Sternula antillarum browni	California least tern	FE	SE, FP	None	Nest and roost in colonies on open beaches, forage over near shore ocean waters and in shallow estuaries and lagoons (USFWS 2006).	N	Suitable habitat is absent from the BRSA.
Vireo bellii pusillus	least Bell's vireo	FE	SE	None	Obligate riparian breeder. Cottonwood, willow, oak woodlands, and mule fat scrub along watercourses (USFWS 1998).	N	Suitable habitat is absent from the BRSA.
Mammals							
Eumops perotis californicus	western mastiff bat	None	SSC	None	Ranges throughout all of Southern California, the Central Coast, and the Sierra Nevada Mountain Range. Generally occurs in open, arid, or semi-arid habitats. Specifically, this speciess roosts in rock crevices and buildings (CDFW 2018).	Y	Suitable roosting habitat is present within the BRSA.
Lasiurus xanthinus	western yellow bat	None	SSC	None	Ranges in most of Southern California south of San Bernardino. Occurs in riparian, palm oasis, and desert wash habitats (CWHR Program Staff 2008).	N	Suitable roosting habitat is absent from the BRSA.
Microtus californicus stephensi	south coast marsh vole	None	SSC	None	Coastal marshes in Ventura, Los Angeles, and Orange Counties (Bolster 1998).	N	Suitable habitat is absent from the BRSA.
Nyctinomops femorosaccus	pocketed free-tailed bat	None	SSC	None	Associated with creosote scrub or chaparral, and large rock features such as boulder jumbles or rocky canyons (Bolster 1998). Colonial and roosts primarily in crevices of rugged cliffs, high rocky outcrops, and slopes. It has been found in a variety of plant associations, including desert shrub and pine-oak forests. The species may also roost in buildings, caves, and under roof tiles (WBWG 2016).	N	Outside of species known range.
Nyctinomops macrotis	big free-tailed bat	None	SSC	None	Rock crevices in canyon settings in arid, high relief landscapes (Bolser 1998). mainly an inhabitant of rugged, rocky habitats in arid landscapes. It has been found in a variety of lowland plant associations, including desert shrub, woodlands, and evergreen forests. Roosts mainly in the crevices of rocks in cliff situations, although there is some documentation of roosting in buildings, caves, and tree cavities (WBWG 2016).	N	Outside of species known range.
Perognathus longimembris pacificus	Pacific pocket mouse	FE	SSC	None	Historically occurred on fine, sandy soil within about 12 miles of the Pacific coast of southern California. Associates with open coastal scrub and grassland communities (Spencer 2005).	N	Suitable habitat is absent from the BRSA.

Appendix F – Special Status Wildlife Species Table

Scientific Name	Common Name	USFWS	CDFW	Critical Habitat Affected	Habitat and Distribution	Potential	Rationale
Sorex ornatus salicornicus	Southern California saltmarsh shrew	None	SSC	None	Generally found within coastal salt marshes within Los Angeles, Orange, and Ventura counties. Habitat characteristics include dense vegetative ground cover, protected nesting sites above mean high tide which are free from inundation, and moist surroundings. Vegetation may include salt grass (*Distichalis* sp.), willow thickets (*Salix* sp.), bulrush thickets (*Scirpus* sp.), and pickleweed marshes (*Salicornia* sp.) (Bolster 1998).	N	Suitable habitat is absent from the BRSA.
Taxidea taxus	American badger	None	SSC	None	Ranges in all of California except the extreme northwest corner. Generally found in drier open areas of habitats with friable soils (CDFW 2018).	N	Suitable habitat is absent from the BRSA.

Notes:

= Potential for species to occur within the Project BRSA

Special Status Ranking:

BGEPA=Bald and Golden Eagle Protection Act
FP=Fully Protected (CDFW)
FE=Federally Endangered; FT=Federally Threatened; SE=State Endangered; SSC=CDFW Species of Special Concern; SCE=State Candidate Endangered; ST=State threatened

Sources:

Bates, C. 2006. Burrowing Owl (*Athene cunicularia*). In The Draft. Desert Bird Conservation Plan: a strategy for reversing the decline of desert-associated birds in California. California Partners in Flight. http://www.prbo.org/calpif/htmldocs/desert.html.

Bolster, B.C., editor. 1998. Terrestrial Mammal Species of Special Concern in California. Draft Final Report prepared by P.V. Brylski, P.W. Collins, E.D. Pierson, W.E. Rainey and T.E. Kucera. Report submitted to California Department of Fish and Game.

California Department of Fish and Wildlife (CDFW).

CDFW. 2022. News Room – Recent News Releases. *CDFW Seeks Public Comment Related To Crotch's Bumble Bee, Franklin's Bumble Bee, Suckley's Cuckoo Bumble Bee And Western Bumble Bee*. December 14, 2022. https://wildlife.ca.gov/News/cdfw-seeks-public-comment-related-to-crotchs-bumble-bee-franklins-bumble-bee-suckleys-cuckoo-bumble-bee-and-western-bumble-bee.

CDFW. 2019. California Natural Diversity Database. Rarefind 5. All Records of Occurrences. Available online https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed February 4, 2019. CDFW, Natural Heritage Division, Sacramento, CA.

CDFW. 2019. 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.

CDFW. 2018. 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.

California Wildlife Habitat Relationships (CWHR).

CWHR. 2008. Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Department of Fish and Game, Sacramento, California. Updated by CWHR Program Staff, February 2005 and August 2008.

CWHR. 2006. Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Department of Fish and Game, Sacramento, California. Updated by CWHR Program staff, January 2006.

CWHR. 2005. Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Department of Fish and Game, Sacramento, California. Updated by CWHR Program staff, July 2005.

CWHR. 1999. Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Department of Fish and Game, Sacramento, California. Updated by CWHR Program staff, September 1999.

CWHR. 1999. Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Department of Fish and Game, Sacramento, California. Updated by CWHR Program Staff, September 1999.

Conservation Biology Institute (CBI). 2019. Developing Updateable Habitat Models for Endangered Stephens' Kangaroo Rats Using Satellite Imagery. August 2019. Stephens' Kangaroo Rat Habitat Modeling.pdf. Viewed 4/2021.

Cornell University. 2017. https://www.allaboutbirds.org/guide/White-tailed_Kite/lifehistory.

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. 2019. California Wildlife Habitat Relationships System.

IELP. 2012. The Legal Status of Monarch Butterflies in California. International Environmental Law Project; Portland, OR.

Moyle, P.B., R.M. Quiñones, J.V. Katz, and J. Weaver. 2015. Fish Species of Special Concern in California. Sacramento: California Department of Fish and Wildlife. www.wildlife.ca.gov.

Nafis, Gary. 2017. California Herps: A Guide to Reptiles and Amphibians of California. http://www.californiaherps.com/.

National Oceanic and Atmospheric Administration (NOAA) 2019.

NOAA. 2019. NOAA Fisheries ESA Threatened & Endangered Species Directory. https://www.fisheries.noaa.gov/species/black-abalone.

NOAA. 2019. NOAA Fisheries ESA Threatened & Endangered Species Directory. https://www.fisheries.noaa.gov/species/white-abalone.

NOAA. 2019. NOAA Fisheries, West Coast Region, Protected Species Accounts, https://archive.fisheries.noaa.gov/wcr/protected_species/salmon_steelhead/salmon_and_steelhead_listings/steelhead/southern_california/index.html.

Papenfuss, T.J., and J.F. Parham. 2013. Four New Species of California Legless Lizards (*Anniella*). *Breviora*. 10.3099/mCZ10.1.

Ruth, J.M. 2015. Status Assessment and Conservation Plan for the Grasshopper Sparrow (*Ammodramus savannarum*). Version 1.0 U.S. Fish and Wildlife Service, Lakewood, Colorado. 109 pp.

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.

Spencer, W.D. 2005. Recovery research for the endangered Pacific pocket mouse: an overview of collaborative studies. USDA Forest Service General Technical Report PSW-GTR-195.

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.

United States Fish And Wildlife Service (USFWS)

USFWS. 2019. San Diego Bay National Wildlife Refuge, Facts About Light-footed Ridgway's Rail https://www.fws.gov/refuge/san_diego_bay/wildlife_and_habitat/Light-footed_Ridgways_Rail.html.

USFWS. 2010. Coastal California Gnatcatcher (*Polioptila californica californica*) 5-year Review: Summary and Evaluation. USFWS; Carlsbad, CA.

USFWS. 2009. Arroyo Toad (*Bufo californicus* (=*microscaphus*)) 5-Year Review: Summary and Evaluation. USFWS; Ventura, CA.

USFWS. 2008. Riverside Fairy Shrimp (*Streptocephalus woottoni*) 5-year Review: Summary and Evaluation. USFWS; Carlsbad, CA.

USFWS. 2008. San Diego Fairy Shrimp (*Branchinecta sandiegonensis*) 5-Year Review: Summary and Evaluation. USFWS; Carlsbad, CA.

USFWS. 2007. Tidewater Goby (*Eucyclogobius newberryi*) 5-Year Review: Summary and Evaluation. USFWS; Ventura, CA.

USFWS. 2006. California Least Tern 5-Year Review. USFWS; Carlsbad, CA.

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.

USFWS. 2002. Final Recovery Plan Southwestern Willow Flycatcher (*Empinodax traillii extimus*). USFWS; Albuquerque, NM.

USFWS. 1998. Draft recovery plan for least Bell's vireo. U.S. Fish and Wildlife Service, Portland, Oregon

WBWG (Western Bat Working Group). 2016. Western Bat Species Accounts. http://wbwg.org/western-bat-species/.

Western Riverside County Multiple Species Habitat Conservation Plan. 2003. Riverside County Integrated Project. Western Riverside County Final MSHCP. Volume II-B. Species Accounts. Mammals. Stephens' kangaroo rat (*Dipodomys stephensi*). M-197 - M-220.

Williams PH, Thorp RW, Richardson LL, Colla SR. 2014. Bumble Bees of North America: An Identification Guide: An Identification Guide. Princeton University Press.

Zambal, R. and S.M. Hoffman. 2010. A Survey of the Belding's Savannah Sparrow (*Passerculus sandwichensis beldingi*) in California 2010. Clapper Rail Recovery Fun; Huntington Beach, CA.

Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Department of Fish and Game, Sacramento, California.

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