

Appendix D

Biological Resources Technical Report





Biological Resources Technical Report

All Vision LLC

Transportation Communication Network
Program

Los Angeles, California

August 30, 2022



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Acronyms

BSA	Biological Survey Area
CAGN	Coastal California gnatcatcher
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CWA	Clean Waters Act
ESHA	Environmentally Sensitive Habitat Area
FESA	Federal Endangered Species Act
FF	Freeway Facing
LADWP	Los Angeles Department of Water and Power
LBVI	Least Bell's vireo
MBTA	Migratory Bird Treaty Act
NFF	Non-Freeway Facing
NWI	National Wetland Inventory
ROW	Right of Way
RWQCB	Regional Water Quality Control Board
SR	State Route
SSC	Species of Special Concern
TCN	Transportation Communication Network
U.S.	United States
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

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1 Introduction

This memorandum was prepared to provide a description of the existing biological resources that could be potentially affected by implementation of the Transportation Communication Network (TCN) Program (Project or TCN Program). For this impact analysis, a Biological Study Area was defined to include the proposed footprint of each TCN Structure as well as a 300-foot radius buffer so that criteria outlined in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (as amended) could be applied to assess the significance of Project-related impacts on biological resources. Based on the results of the evaluation, avoidance and minimization measures are proposed to reduce potential impacts on biological resources.



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2 Project Description

2.1 Project Overview

Metro proposes to implement the TCN Program, which would provide a network of structures with digital displays (TCN Structures) that would incorporate intelligent technology components to promote roadway efficiency, improve public safety, augment Metro’s communication capacity, provide for outdoor advertising where revenues would fund new and expanded transportation programs consistent with the goals of the Metro 2028 Vision Plan, and result in an overall reduction in static signage displays throughout the City. Implementation of the Project would include the installation of up to 34 Freeway-Facing TCN Structures and 22 Non-Freeway Facing TCN Structures all on Metro-owned property (Table 1 and Table 2). The total maximum amount of digital signage associated with the TCN Structures would be up to approximately 55,000 square feet. As part of implementation of the TCN Structures, a take-down program would also be implemented whereby existing static displays would be removed. Signage to be removed would include approximately 200 static displays located within the City.

As part of the Project, the City must amend the City’s sign regulations in the Zoning Code (Zoning Ordinance) to create a mechanism to review and approve the TCN Structures Citywide. The regulations would generally affect the location, design, operations, take-down program, and community benefits of the TCN Structures. General digital display and illumination standards would be adopted to support the implementation of the TCN Structures.

2.2 Project Location

The proposed TCN Structures are located within the City of Los Angeles (City) in Los Angeles County, California (Figure 1). The majority of site locations are located on vacant land and are used primarily for Metro operations such as rail corridors, stations, parking, bus depots, and equipment lots. The proposed TCN Structures located in the Community Plan areas of Central City, Central City North, Silver Lake–Echo Park–Elysian Valley, Sherman Oaks–Studio City–Toluca Lake–Cahuenga Pass, North East Los Angeles, Boyle Heights, North Hollywood–Village Valley, Sun Valley–La Tuna Canyon, Arleta–Pacoima, Granada Hills–Knollwood, Sylmar, Encino–Tarzana West Los Angeles Community Plan, South Los Angeles, Southeast Los Angeles, Palms-Mar Vista-Del Rey, Westchester-Playa-Del-Rey, Van Nuys-North Sherman Oaks, West Adams-Baldwin Hills-Leimert, and Wilshire.



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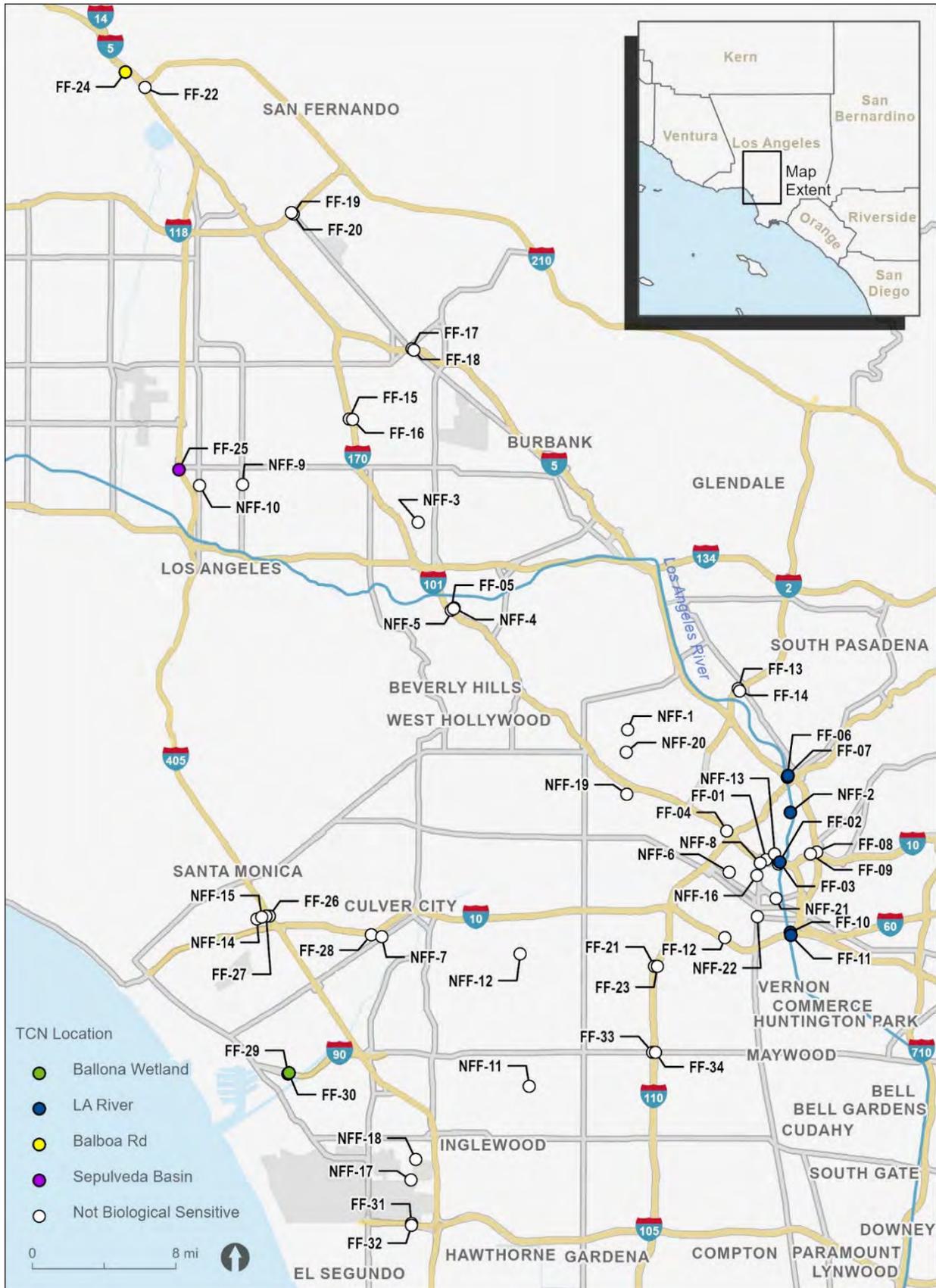
Table 1. Freeway Facing TCN Structures

Sign ID	Location	Sign ID	Location
FF-01	US-101 North Lanes at Union Station	FF-18	I-5 South Lanes South of Tuxford Street
FF-02	US-101 South Lanes at Center Street	FF-19	SR-118 East of San Fernando Road
FF-03	US-101 North Lanes at Keller Street	FF-20	SR-118 East of San Fernando Road
FF-04	US-101 South Lanes at Beaudry Street	FF-21	I-110 South Lanes at Exposition Boulevard
FF-05	US-101 North Lanes, Northwest of Lankershim Boulevard	FF-22	I-5 North Lanes at San Fernando Road
FF-06	I-5 South Lanes at North Avenue 19	FF-23	I-110 North Lanes at Exposition Boulevard
FF-07	I-5 North Lanes at San Fernando Road	FF-24	I-5 South Lanes at San Fernando Road and Sepulveda Boulevard
FF-08	I-5 South Lanes and Exit Ramp to I-10	FF-25	I-405 South Lanes at Victory Boulevard
FF-09	I-10 West Lanes (Bus Yard)	FF-26	I-405 North Lanes at Exposition Boulevard
FF-10	I-10 West Lanes and Entrance Ramp from I-5	FF-27	I-405 South Lanes at Exposition Boulevard
FF-11	I-10 East Lanes and Exit Ramp to SR-60 and I-5	FF-28	I-10 West at Robertson Boulevard
FF-12	I-10 West Lanes at Griffin Avenue and East 16th Street	FF-29	SR-90 East at Culver Boulevard
FF-13	SR-2 South Lanes Northeast of Casitas Avenue	FF-30	SR-90 West at Culver Boulevard
FF-14	SR-2 North Lanes Northeast of Casitas Avenue	FF-31	I-105 West Lanes at Aviation Boulevard
FF-15	SR-170 South Lanes at Raymer Street	FF-32	I-105 East Lanes at Aviation Boulevard
FF-16	SR-170 North Lanes North of Sherman Way	FF-33	I-110 South Lanes at Slauson Avenue
FF-17	I-5 North Lanes South of Tuxford Street	FF-34	I-110 North Lanes at Slauson Avenue

Table 2. Non-Freeway Facing TCN Structures

Sign ID	Location
NFF-1	Northeast corner of Vermont Avenue and Sunset Boulevard
NFF-2	Spring Street Bridge, 326 feet North of Aurora Street
NFF-3	Northwest corner of Lankershim Boulevard and Chandler Boulevard
NFF-4	Northwest corner of Lankershim Boulevard and Universal Hollywood Drive
NFF-5	Southwest corner of Lankershim Boulevard and Universal Hollywood Drive
NFF-6	Southwest corner of 4 th Street and Hill Street
NFF-7	Venice Boulevard, 240 feet West of Robertson Boulevard
NFF-8	Southeast corner of Alameda Street and Commercial Street
NFF-9	Northeast corner of Van Nuys Boulevard and Orange Line Busline
NFF-10	Southeast corner of Sepulveda Boulevard and Erwin Street
NFF-11	Southwest of Crenshaw Boulevard, 175 feet South of 67 th Street
NFF-12	Southeast corner of Crenshaw Boulevard and Exposition Boulevard
NFF-13	Southeast corner of East Cesar Chavez Avenue and North Vignes Street
NFF-14	Pico Boulevard and Exposition Boulevard, South of rail
NFF-15	Pico Boulevard, 445 feet West of Sawtelle Boulevard
NFF-16	Southeast corner of South Central Avenue and East 1st Street
NFF-17	Century Boulevard, 152 feet West of Aviation Boulevard
NFF-18	Southwest Aviation Boulevard and South of Arbor Vitae Street
NFF-19	Northwest corner of Vermont Avenue and Beverly Boulevard
NFF-20	Southwest corner of Santa Monica Boulevard and Vermont Avenue
NFF-21	South of 4th Street 210 feet East of South Santa Fe Avenue
NFF-22	Northwest corner of East 7 th Street and South Alameda Street

Figure 1. Regional Location



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2.3 Construction

Construction is anticipated to commence in 2023 and be completed in 2025. Installation of the TCN Structures would occur in a phased approach, with each sign taking approximately four weeks to complete installation. Approximately 93 cubic yards of soil export per TCN Structure would be required, totaling approximately 5,208 cubic yards of export.

Work would start with the removal of existing static displays, with the TCN Structures being constructed in a 10-foot by 10-foot area, depending on existing soil conditions. A drill rig would be used to drill a hole up to 50 feet deep and 10 feet by 10 feet wide. The digital display would be constructed by placing a steel column with a crane and use concrete to cast in place. The face(s) of the digital display(s) would be assembled at grade and affixed to the column structure via crane. Minor trenching would be required to install electrical conduit and connect to Los Angeles Department of Water and Power (LADWP) facilities.

2.4 Operation and Lighting

Freeway Facing TCN Structures would include signage that can be viewed from the highway, while Non-Freeway Facing TCN Structures would be viewed from major streets. Each TCN Structure would have one or two faces depending on the location and line of sight visibility. The digital display faces would be designed to provide efficient and effective illumination while minimizing light spill-over, reducing sky-glow, and improving nighttime visibility through glare reduction. The digital display faces of the TCN Structures would use light emitting diodes (LED) lighting with a daytime maximum up to 6,000 maximum candelas and 300 maximum candelas at nighttime, depending on the site location. Louvers would be installed to shade the LED lights from creating unintentional light spillage, assist in reducing reflection, and create a sharper image.

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3 Regulatory Framework

3.1 Federal Regulations

3.1.1 Federal Endangered Species Act

The federal Endangered Species Act (ESA) defines and lists species as “endangered” or “threatened” and provides regulatory protection for the listed species. The federal ESA provides a program for conservation and recovery of threatened and endangered species. It also ensures the conservation of designated critical habitat that the USFWS has determined is required for the survival and recovery of these listed species. Section 9 of the federal ESA prohibits the “Take” of species listed by the USFWS as threatened or endangered. Take is defined as: “...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in such conduct.” In recognition that Take cannot always be avoided, Section 10(a) of the federal ESA includes provisions for Take that is incidental to, but not the purpose of, otherwise lawful activities. Section 10(a)(1)(B) permits (incidental take permits) may be issued if Take is incidental and does not jeopardize the survival and recovery of the species.

Section 7(a)(2) of the federal ESA requires all federal agencies evaluate Projects with respect to any species proposed for listing or already listed as endangered or threatened and any proposed or designated critical habitat for the species. Federal agencies must undertake programs for the conservation of endangered and threatened species and are prohibited from authorizing, funding, or carrying out any action that will jeopardize a listed species or destroy or modify its critical habitat.

As defined in the federal ESA, individuals, organizations, states, local governments, and other nonfederal entities are affected by the designation of critical habitat only if their actions occur on federal lands; require a federal permit, license, or other authorization; or involve federal funding.

3.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) provides special protection for migratory families of birds (i.e., those avian species that winter south of the U.S. but breed within the U.S.) by regulating hunting or trade. The Act prohibits anyone to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 Code of Federal Regulations (CFR) 10, including feathers or other parts nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). “Take” is defined in 50 CFR 10.12 as “Take means to pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture or collect.” Only “collect” applies to nests. A December 22, 2017 Department of interior Memorandum provides additional guidance, concluding that that the MBTA’s prohibition on pursuing, hunting, taking, capturing, killing, or attempting to do the same applies only to direct and affirmative purposeful actions that reduce migratory birds, their eggs, or their nests, by killing or capturing, to human control. “Such activity is potentially punishable by fines and/or imprisonment. The use of families as opposed to individual species within the Act means that numerous non-migratory birds are extended protection under the MBTA. Most nesting birds are covered by the MBTA.

3.1.3 Clean Water Act

Section 401 of the Clean Water Act

In California, the State Water Resources Control Board (SWRCB) and nine RWQCBs regulate discharge activities into waters pursuant to Section 401(a)(1) of the federal CWA. Section 401 of the

CWA 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 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. The Project is within the boundaries of the Los Angeles RWQCB (Region 4), which would have the authority to grant, grant with conditions, deny, or waive 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.

Section 404 of the Clean Water Act

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 U.S.

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 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 great 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 be 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 test² 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];

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 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 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 waters, the ability of a tributary to provide aquatic habitat that supports a traditional navigable waters, 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.

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, California Fish and Game Code Section 2081.7, specifically related to the 2003 Quantification Settlement Agreement, and the Agreement for Transfer of Conserved Water among Imperial Irrigation District, Metropolitan Water District, and Coachella Valley Water District, 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. Sections 3503 and 3503.5 of the State Fish and Game Code provide regulatory protection to resident and migratory birds and all birds of prey within the State of California, including the prohibition of the taking of nests and eggs, unless otherwise provided for by the Code. Specifically, these sections of the Code make it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code.

3.2.4 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 Ballona Wetlands Restoration Project Environmental Impact Statement/Environmental Impact Report (State Clearinghouse No. 2012071090)

The Ballona Wetlands Restoration Project Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) was drafted in September 2017 by Environmental Science Associates (ESA) for the United States Army Corps of Engineers, Los Angeles District, and CDFW. The Ballona Wetlands Ecological Reserve used to be comprised of over 2,100 acres of marshes, mud flats, salt pans, and sand dunes, providing valuable habitat for many sensitive species of plants and wildlife. Currently, the wetlands provide about 153 acres of wetland habitat and 83 acres of non-wetland waters of the United States (U.S.) and is transected by Ballona Creek. Since the aquatic resources within the reserve are so degraded, CDFW proposed a restoration project that would involve enhancing and establishing native coastal aquatic and upland habitats within the reserve (ESA 2017).

4 Methodology

4.1 Biological Study Area

The Biological Study Area was defined to include the proposed footprint of each TCN Structure as well as a 300-foot radius buffer (Figure 2, Sheets 1 through 10), and totals 362.975 acres. The 300-foot buffer was used to identify adjacent biological resources that could potentially be affected by the Project and to allow for minor project modifications in the future without requiring an additional biological resources analysis. A larger buffer was not warranted as all TCN locations are located in disturbed areas that support minimal biological resources and are surrounded by existing urbanized development.

4.2 Literature Review

HDR biologist Rebecca Schartau performed a literature review to determine the potential for federally and/or state listed and other special-status plant and animal species to occur in the BSA, as well as to identify the potential for presence of designated critical habitat for federally listed species. The following databases and resources were consulted during the desktop review of federal, state, and local documents:

- U.S. Fish and Wildlife Service (USFWS) Information Planning and Conservation (IPaC) System (USFWS 2022a)
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Data Base (CNDDDB) [CDFW 2022]
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2022a)
 - Online Manual of California Vegetation (CNPS 2022b)
 - Ballona Wetlands Restoration Project Draft EIR/EIS (ESA 2017)

The CNDDDB and CNPS database searches included the 18 USGS 7.5-minute series quadrangles centered on the Project site (San Fernando, Burbank, Pasadena, Van Nuys, Los Angeles, Hollywood, Beverly Hills, Venice, Inglewood, Oat Mountain, Canoga Park, Topanga, Sunland, El Monte, South Gate, Torrance, Mint Canyon, and Newhall) and were refined based on the elevation range of the BSA.

Other desktop resources reviewed included:

- June 10, 2022 Google Earth aerial photography and various street view images (Google Earth 2022)
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) soil mapping (USDA NRCS 2022)
- USFWS National Wetland Inventory mapping (USFWS 2022b)
- USGS GAP Vegetation data (USGS 2011)

The location of potential waters of the U.S. were mapped based upon the USFWS National Wetland Inventory (NWI) combined with USDA NRCS soil mapping and review of aeriels. A field delineation was not conducted, and mapped resources should be field verified prior to construction.

Appendix A includes record search results. Appendix B includes a compiled list of special-status plant and wildlife species and their potential for occurrence within the BSA based on the records search and habitat, elevation, substrate, and hydrology present in the BSA.

4.3 Vegetation Community and Land Cover Mapping

General vegetation mapping was conducted using Google Earth and the USGS Gap Analysis Project [(GAP); USGS 2022] vegetation data. For the majority of the sites, a biologist was able to confidently verify vegetation communities and land covers using available aerial photography. For areas where Google imagery did not provide a sufficient view and the biologists' determination is less confident, vegetation communities and land covers were noted as potentially occurring.

GAP data uses the National Vegetation Classification system. Vegetation communities within this report were mapped and defined 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).

4.4 Potential Jurisdictional Aquatic Resources

Potential aquatic resources within the BSA were identified by reviewing USFWS' National Wetlands Inventory (NWI) (Figure 2, Sheets 1 through 10) and Google Earth imagery. Areas where NWI mapping indicated presence of wetland or riverine areas were reviewed in detail on aerial photographs to determine if NWI mapping was accurate for each location. Note that the presence or absence of jurisdictional aquatic resources within the BSA can only be confirmed with a field verification.

5 Results

5.1 Environmental Setting

Elevations at the various TCN Structures range from approximately 15 feet at the southern range of locations to 1,900 feet at the northern range locations. The BSA is within the Ballona Creek Watershed (Hydrologic Unit Code 18070104), the Santa Monica Bay Watershed (Hydrologic Unit Code 18070104), and the Los Angeles River Watershed (Hydrologic Unit Code 18070105). These watersheds are further described below.

- The Ballona Creek Watershed is comprised of Ballona Creek, which is a nine-mile long flood protection channel which drains the Los Angeles Basin (LADPW 2022). The watershed is approximately 130 square miles, with the Santa Monica Mountains in the north, the Harbor Freeway in the east, and the Baldwin Hills in the south. Major tributaries to the watershed include Centinela Creek, Sepulveda Canyon Channel, Benedict Canyon Channel, and various storm drains, and is made up of Beverly Hills, Culver City, Inglewood, Los Angeles, Santa Monica, West Hollywood, and unincorporated Los Angeles County.
- The Santa Monica Bay Watershed covers approximately 414 square miles, with its northern boundary extending along the Santa Monica Mountains, the Ventura/Los Angeles County line to the west, and the Ballona Creek Watershed to the east. The watershed has about 200 storm drain outlets conveying over 30 billion gallons of runoff to the Bay annually (LA City Sanitation 2022). Twenty-seven subwatersheds are contained in Santa Monica Bay Watershed, with the two largest water bodies in the area being Topanga and Malibu Creeks. The City of Los Angeles contains 27,500 acres of the Santa Monica Bay Watershed, with the majority of land use being urban/residential.
- The Los Angeles River Watershed is 55 miles long and covers approximately 824 square miles in area, with headwaters originating in the Santa Monica, Santa Susana, and San Gabriel Mountains (RWQCB 2022). Due to historic flooding issues, the majority of the river is concrete lined, with the only soft-bottomed location in the San Fernando Valley being the Sepulveda Flood Control Basin. The Los Angeles River (LA River) flows through a combination of natural areas and urban environments, with approximately 324 square miles of the watershed covered by forest or open space land.

Although most of the BSA is developed or disturbed, special biological resource areas within the BSA that were considered in this report due to their biological significance include the Ballona Wetlands, the LA River, the Sepulveda Basin Wildlife Reserve, and Balboa Road (Figure 2, Sheets 1 through 10). These areas are further described below.

- Ballona Wetlands - The Ballona Wetlands are an ecological reserve located in the City of Los Angeles, and partially within unincorporated Los Angeles County, California (ESA 2017). The wetlands are separated by Ballona Creek, and are comprised of marshes, mud flats, salt pans, and sand dunes, creating about 153 acres of wetland habitat and 83 acres of non-wetland waters. The wetlands provide important habitat for many special-status species, including federally and/or state endangered species. The wetlands are considered an Environmentally Sensitive Habitat Area (ESHA). TCN Structures FF-29 and FF-30 occur approximately 150 feet from the northeastern edge of the wetlands, which are mapped as non-wetland habitat, and the TCN Structures are outside of the ESHA boundary.

- LA River - The LA River flows within 300 feet of six TCN Structures within the BSA: FF-03, FF-06, FF-07, FF-10, FF-11, and NFF-2. In these locations, the LA River is concrete-lined and does not support riparian vegetation; however, a field visit would be required to verify.
- Sepulveda Basin Wildlife Reserve - The Sepulveda Basin Wildlife Reserve was created by the City of Los Angeles Department of Recreation and Parks and consists of two sections located at the southeast end of the Sepulveda Flood Control Basin (Sepulveda Basin Wildlife.org 2022). The South Reserve, located south of Burbank Blvd, was created in 1979 by the Army Corps of Engineers as a revegetation experiment. The South Reserve features a man-made pond and the southern reach of Haskell Creek, which flows into the LA River. The North Reserve was created in 1988 by developing an 11-acre lake east of Haskell Creek. The eastern and northern portions of the North Reserve are highly managed and developed, with public restrooms, paved roads, and an archery range. TCN Structure FF-25 would be located within 300-feet of the northeastern portion of the Sepulveda Basin Wildlife Reserve.
- Balboa Road - TCN Structure FF-24 is located northeast of Balboa Road, and within 300-feet of GAP vegetation mapped as California Buckwheat Scrub. This habitat could potentially provide suitable habitat for special status species; however, a field visit would be needed to confirm presence.

5.2 Soils

Soils within the BSA were identified using USDA NRCS soil mapping data. The BSA is primarily mapped as urban land, which indicates that the on-site soils were likely altered during construction by grading and excavation and are generally covered by development. Soils mapped at TCN Structures located near the Ballona Wetlands (Structure FF-29 and FF-30) and LA River (Structure FF-03, FF-06, FF-07, FF-10, FF-11, and NFF-2) had 0 to 5 percent slopes and were subject to frequent flooding. Soils mapped at TCN Structures located near the Sepulveda Basin Wildlife Reserve (FF-25) and Balboa Road (FF-24) were primarily urban, with 0 to 50 percent slopes. Figure 2, Sheets 1 through 10, show the soils mapped for TCN Structures located within 300 feet of the potentially sensitive biological resources referenced above.

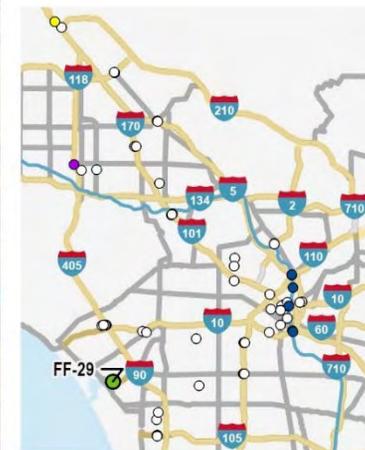
5.3 Vegetation Communities and Land Cover Types

Vegetation communities and other land cover types in the BSA are shown on Figure 3, Sheets 1 through 10, for TCN Structures located within 300 feet of potentially sensitive biological resources, including the Ballona Wetlands, LA River, Sepulveda Basin Wildlife Reserve, and Balboa Road. Acreages of vegetation communities and other land cover types in the BSA are provided in Table 3. Descriptions of vegetation communities and other land cover types follow. Since a field survey was not conducted, all mapped vegetation communities and land covers are estimated and field verification is required for definitive identification. For the majority of the sites, the biologist was able to confidently verify vegetation communities and land covers using available aerial photography. For areas where Google imagery did not provide a sufficient view and the biologists' determination is less confident, vegetation communities and land covers were noted as potentially occurring.

Figure 2. USGS Soils and NWI Mapped within the BSA
 (Sheet 1 of 10)



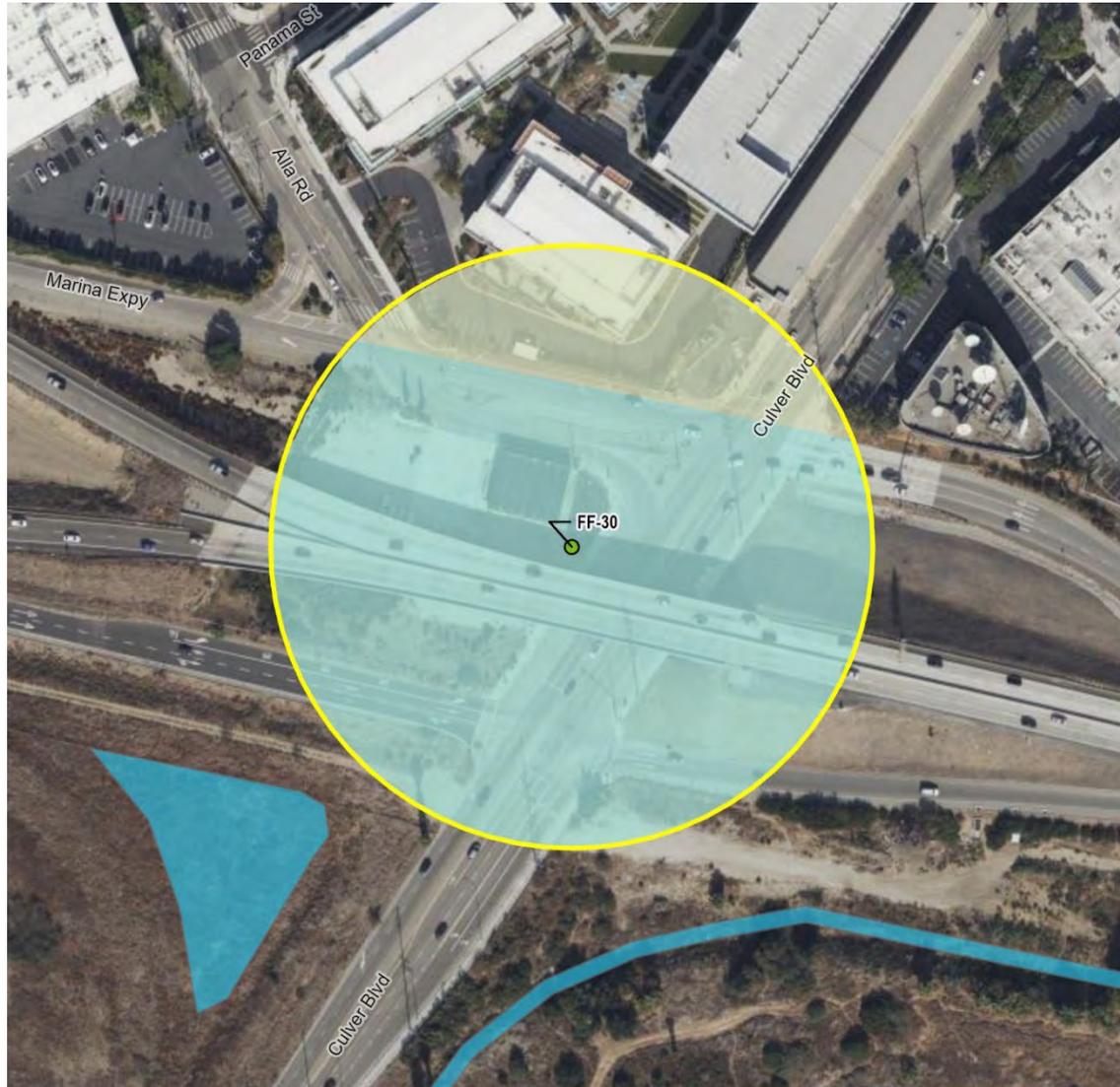
- TCN Location
- Ballona Wetland
 - Project Footprint (300 ft buffer)
- USDA Soil Type
- Typic Fluvaquents-Typic Xerorthents, dredged spoil complex, 0 to 1 percent slopes
 - Urban land-Aquic Xerorthents, graded-Pacheco, warm complex, 0 to 2 percent slopes
- NWI Data
- Freshwater Emergent Wetland



0 100 Feet



Figure 2. USGS Soils and NWI Mapped within the BSA
(Sheet 2 of 10)



- TCN Location
- Ballona Wetland
 - Project Footprint (300 ft buffer)
- USDA Soil Type
- Typic Fluvaquents-Typic Xerothents, dredged spoil complex, 0 to 1 percent slopes
 - Urban land-Aquic Xerothents, graded-Pacheco, warm complex, 0 to 2 percent slopes
- NWI Data
- Freshwater Emergent Wetland

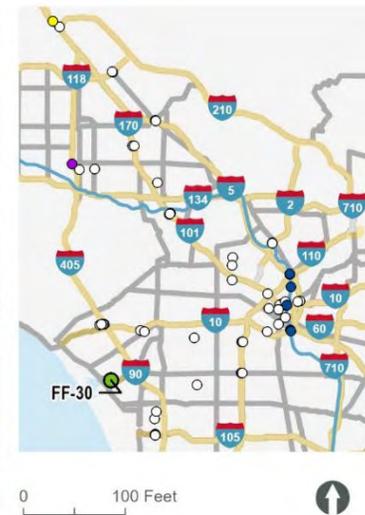
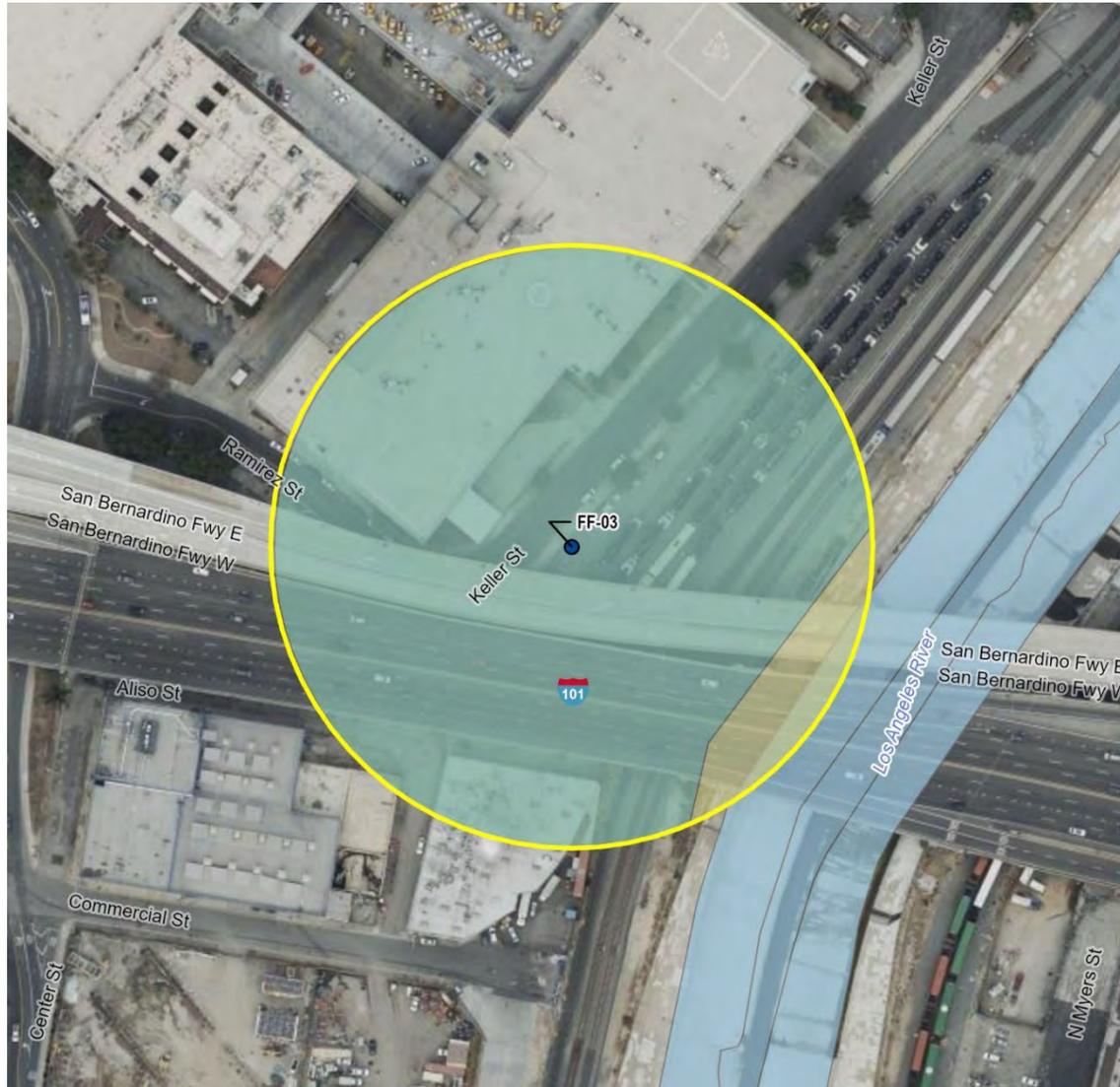


Figure 2. USGS Soils and NWI Mapped within the BSA
 (Sheet 3 of 10)



- TCN Location
 - LA River
- Project Footprint (300 ft buffer)
- USDA Soil Type
 - Urban land, commercial, 0 to 5 percent slopes
 - Urban land, frequently flooded, 0 to 5 percent slopes
- NWI Data
 - Riverine

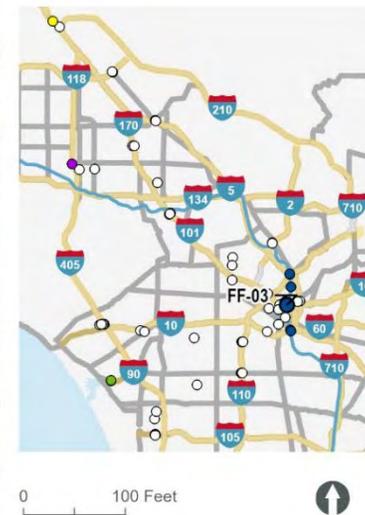
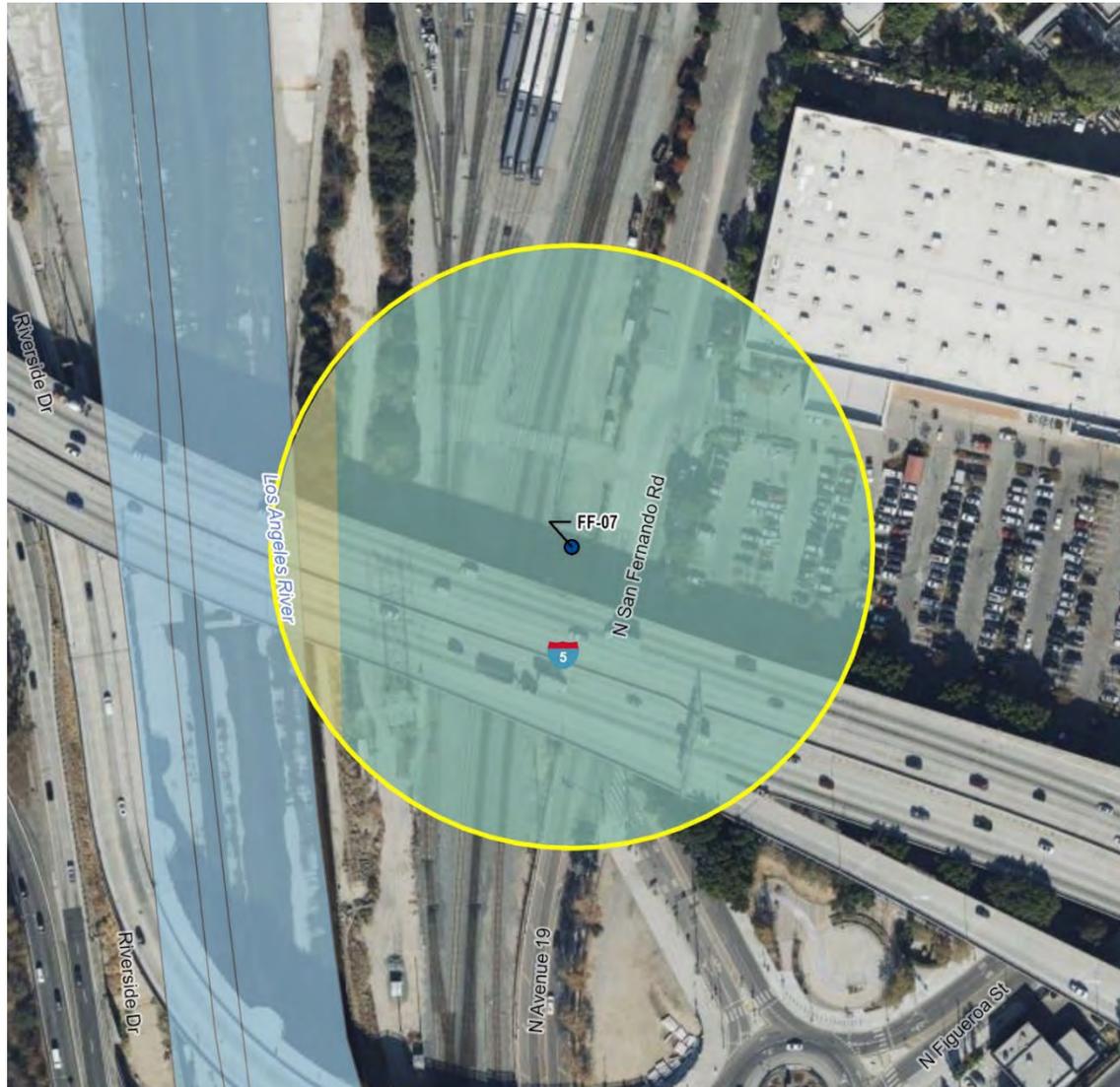


Figure 2. USGS Soils and NWI Mapped within the BSA
(Sheet 4 of 10)



Figure 2. USGS Soils and NWI Mapped within the BSA
 (Sheet 5 of 10)



- TCN Location
- LA River
- Project Footprint (300 ft buffer)
-
- USDA Soil Type
- Urban land, commercial, 0 to 5 percent slopes
 - Urban land, frequently flooded, 0 to 5 percent slopes
- NWI Data
- Riverine

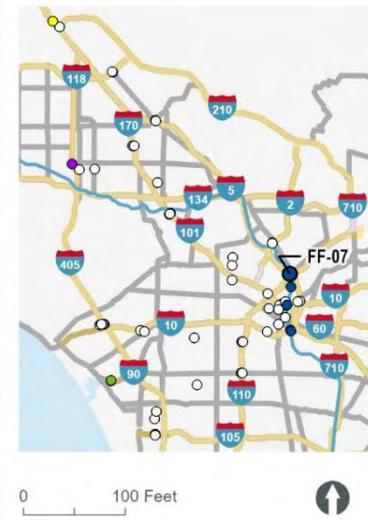


Figure 2. USGS Soils and NWI Mapped within the BSA
(Sheet 6 of 10)

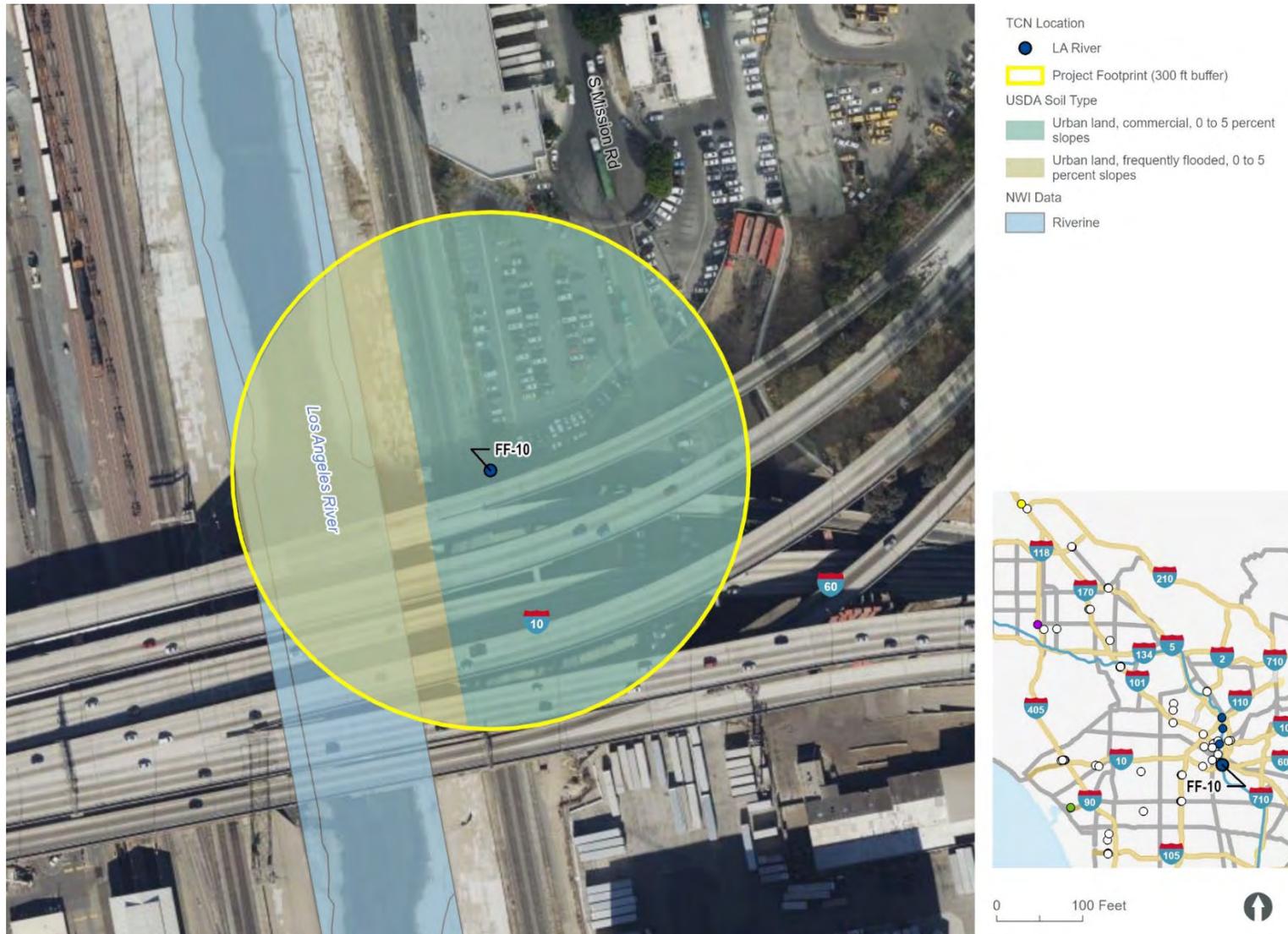
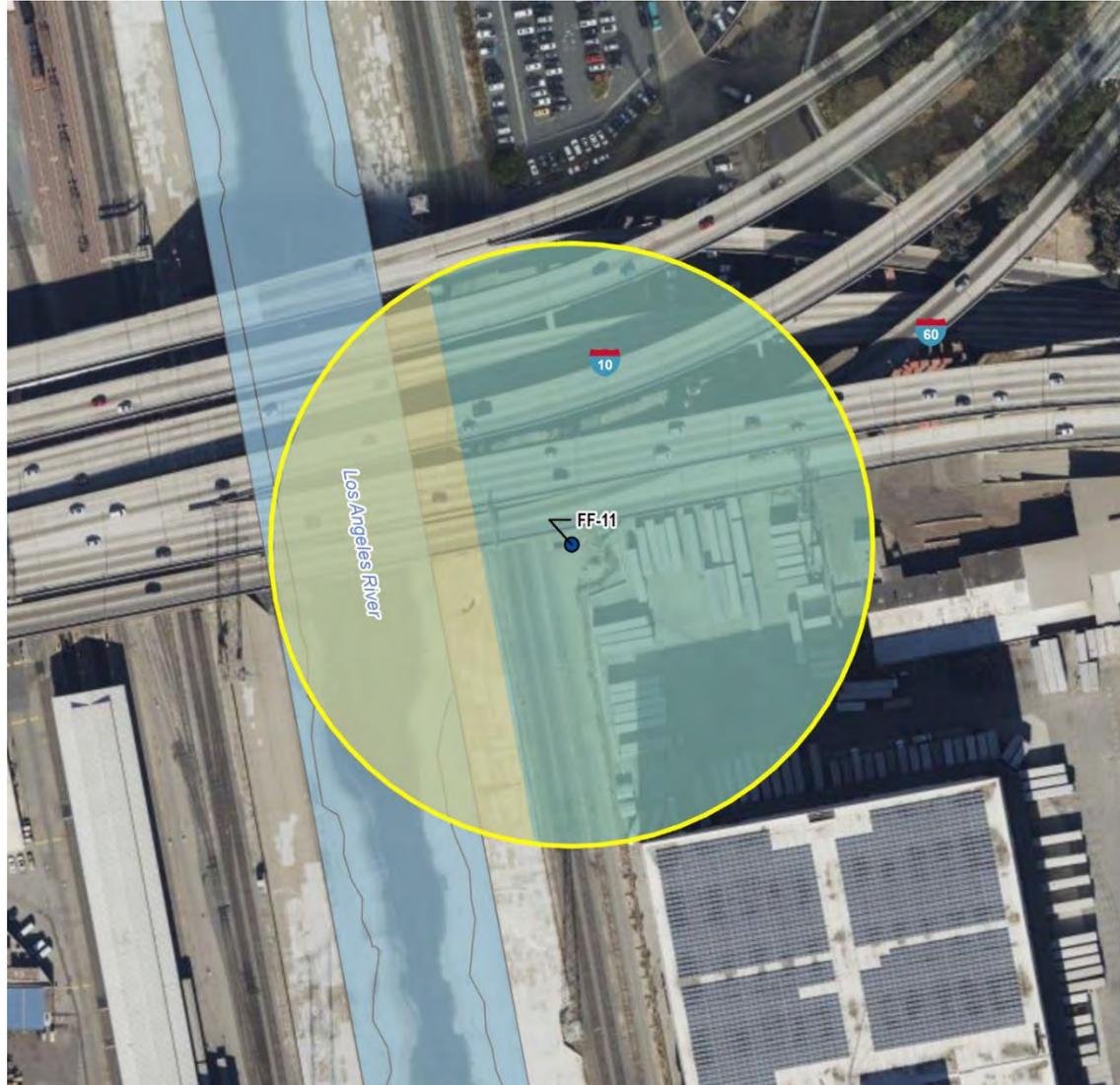


Figure 2. USGS Soils and NWI Mapped within the BSA
(Sheet 7 of 10)



- TCN Location
- LA River
 - Project Footprint (300 ft buffer)
- USDA Soil Type
- Urban land, commercial, 0 to 5 percent slopes
 - Urban land, frequently flooded, 0 to 5 percent slopes
- NWI Data
- Riverine

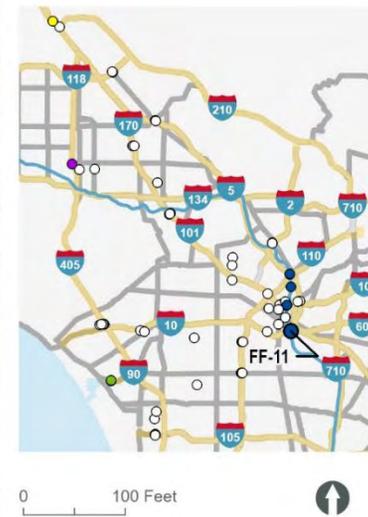
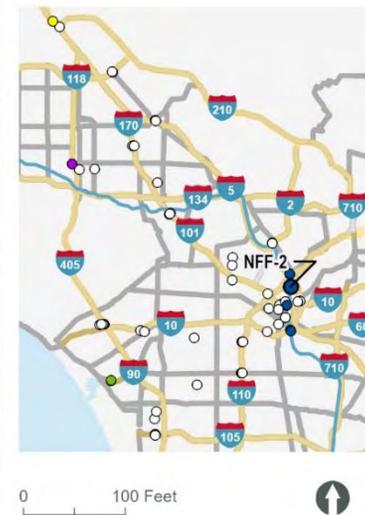


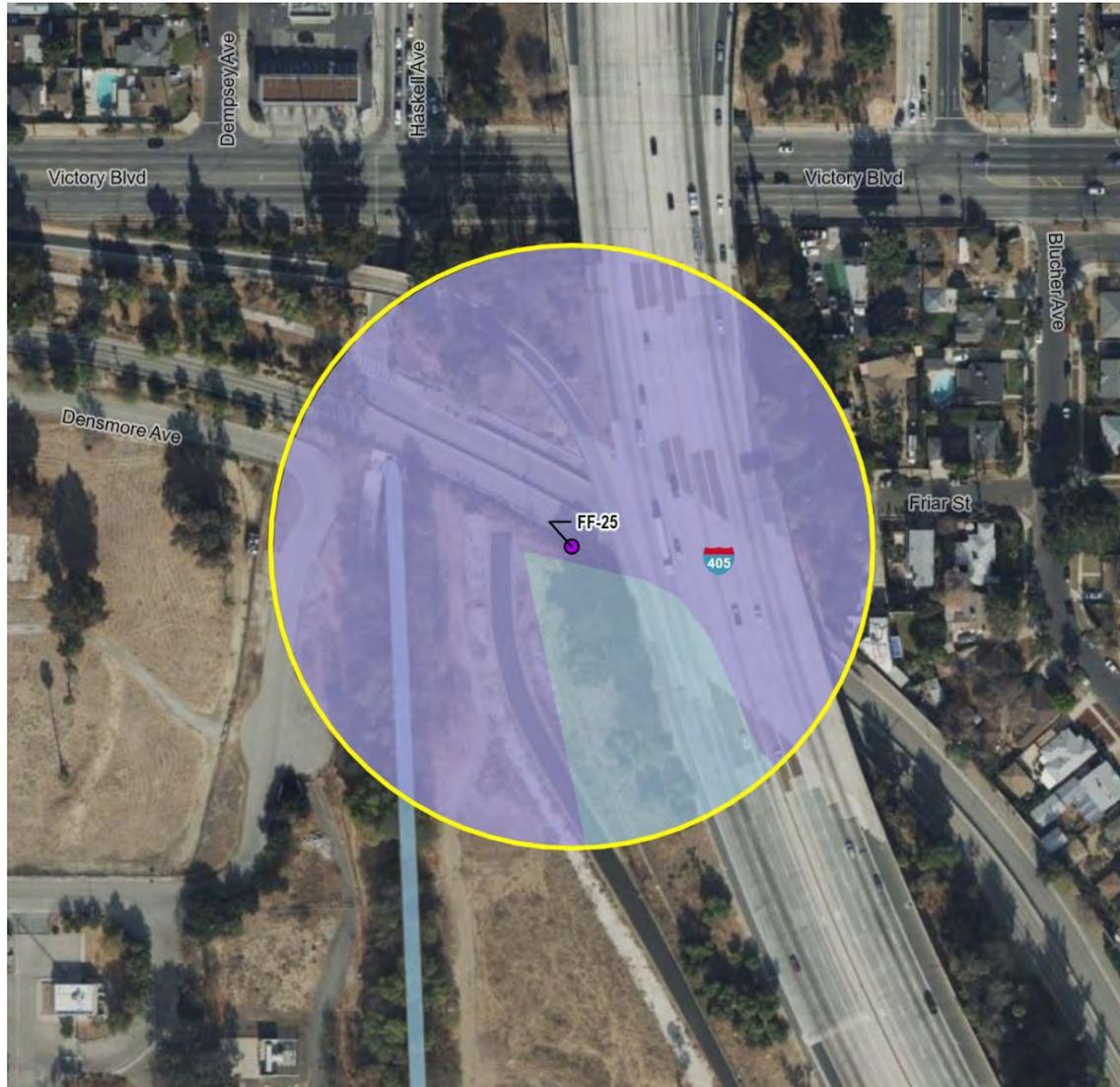
Figure 2. USGS Soils and NWI Mapped within the BSA
(Sheet 8 of 10)



- TCN Location
- LA River
 - Project Footprint (300 ft buffer)
- USDA Soil Type
- Urban land, commercial, 0 to 5 percent slopes
 - Urban land, frequently flooded, 0 to 5 percent slopes
- NWI Data
- Riverine



**Figure 2. USGS Soils and NWI Mapped within the BSA
 (Sheet 9 of 10)**



- TCN Location
- Sepulveda Basin
- Project Footprint (300 ft buffer)
-
- USDA Soil Type
- Conejo-Urban land complex, 0 to 2 percent slopes, MLRA 19
 - Dams
- NWI Data
- Riverine

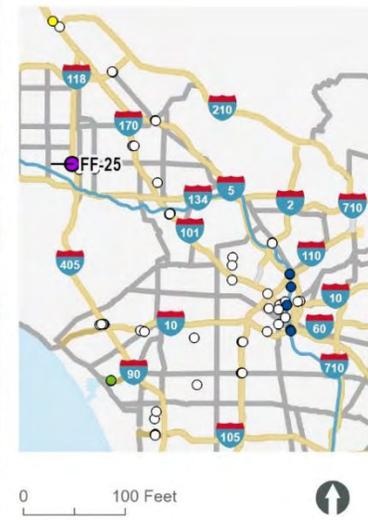


Figure 2. USGS Soils and NWI Mapped within the BSA
(Sheet 10 of 10)

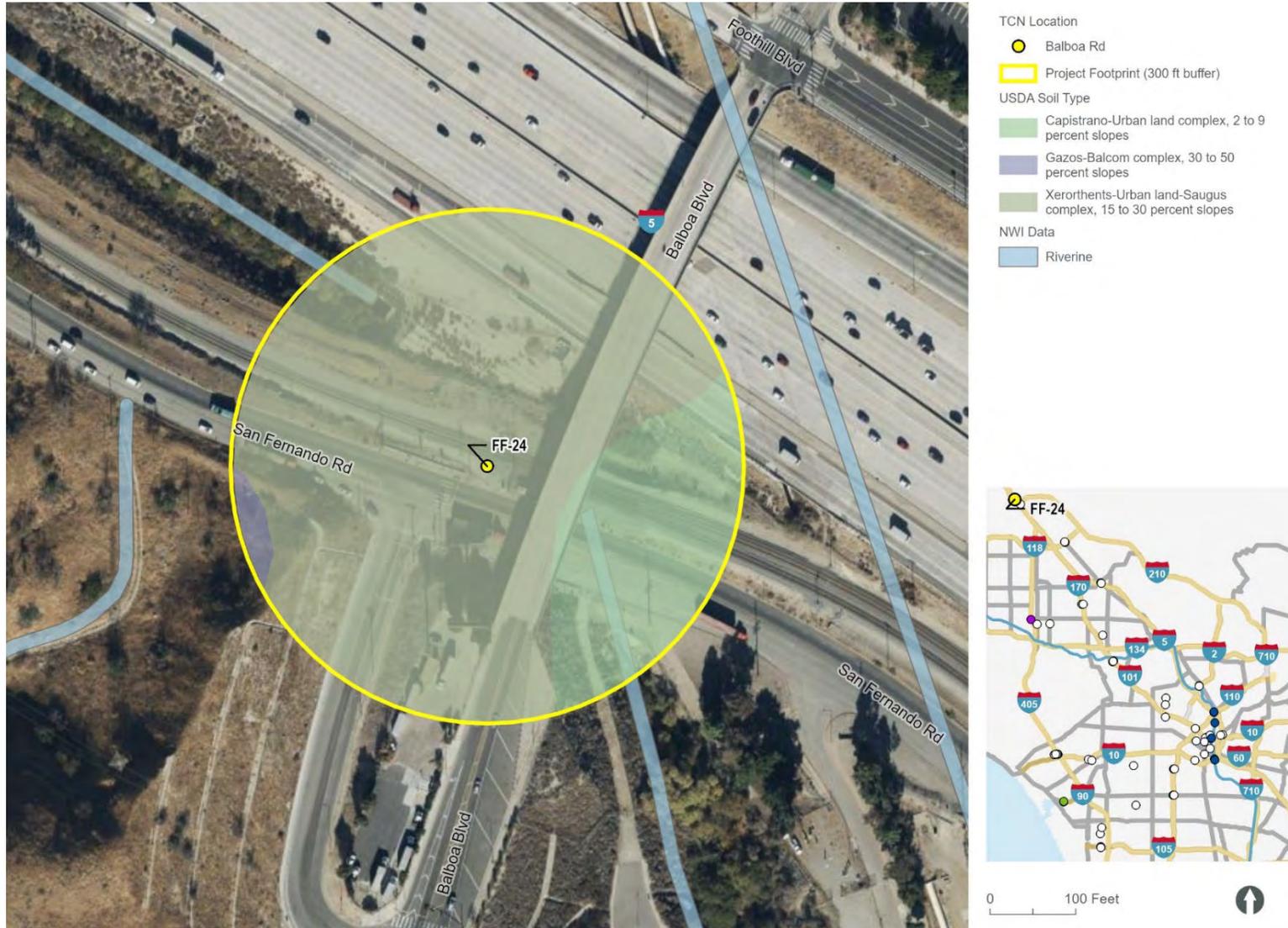
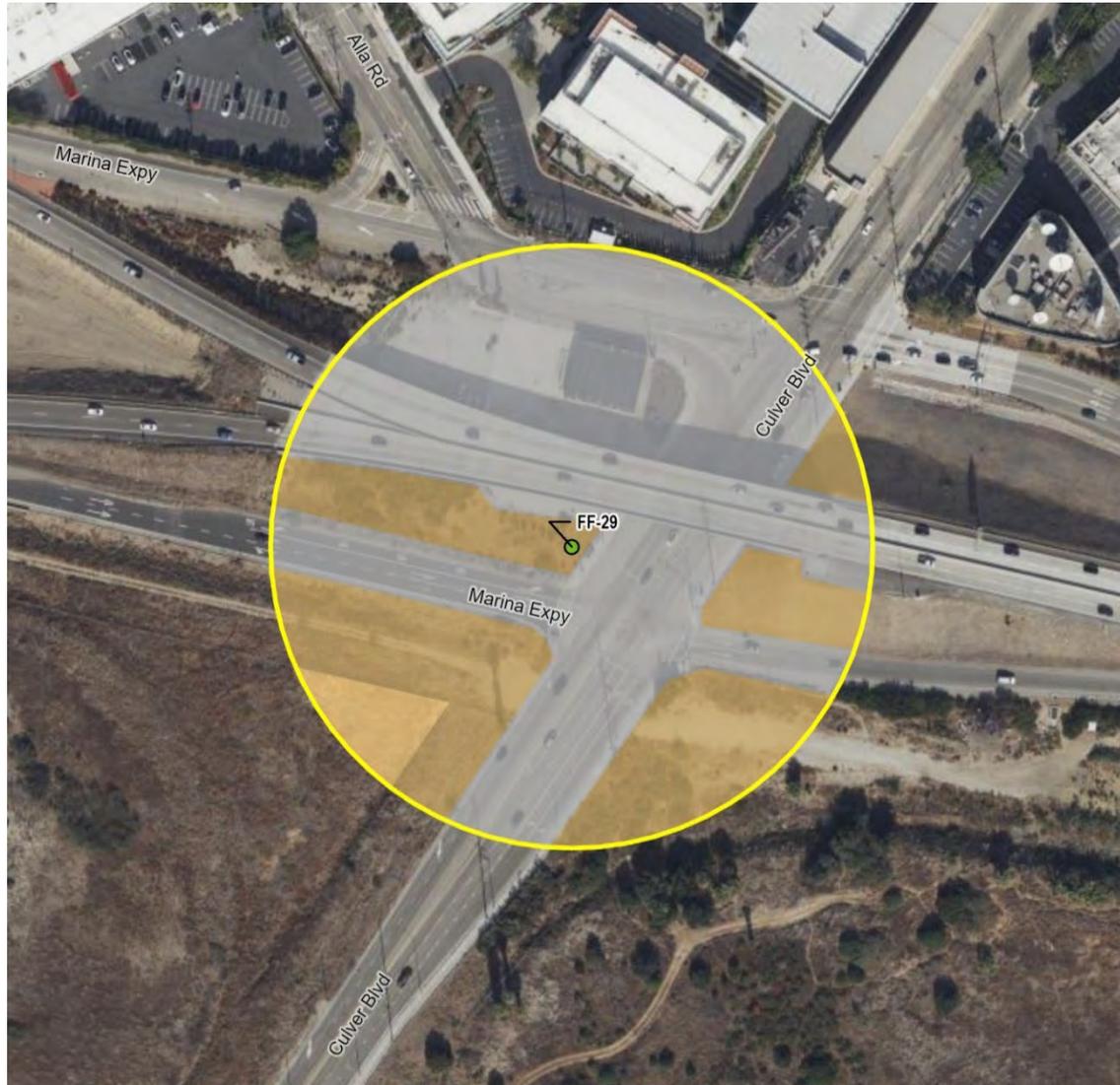


Figure 3. Vegetation Communities Mapped within the BSA
 (Sheet 1 of 10)



- TCN Location
- Ballona Wetland
 - Project Footprint (300 ft buffer)
- Vegetation
- Urban/Developed
 - Disturbed/Ruderal
 - Brassica nigra-Centaurea (spp.)
Herbaceous Semi-Natural Alliance

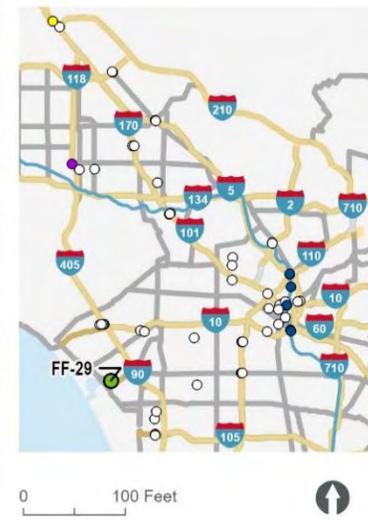
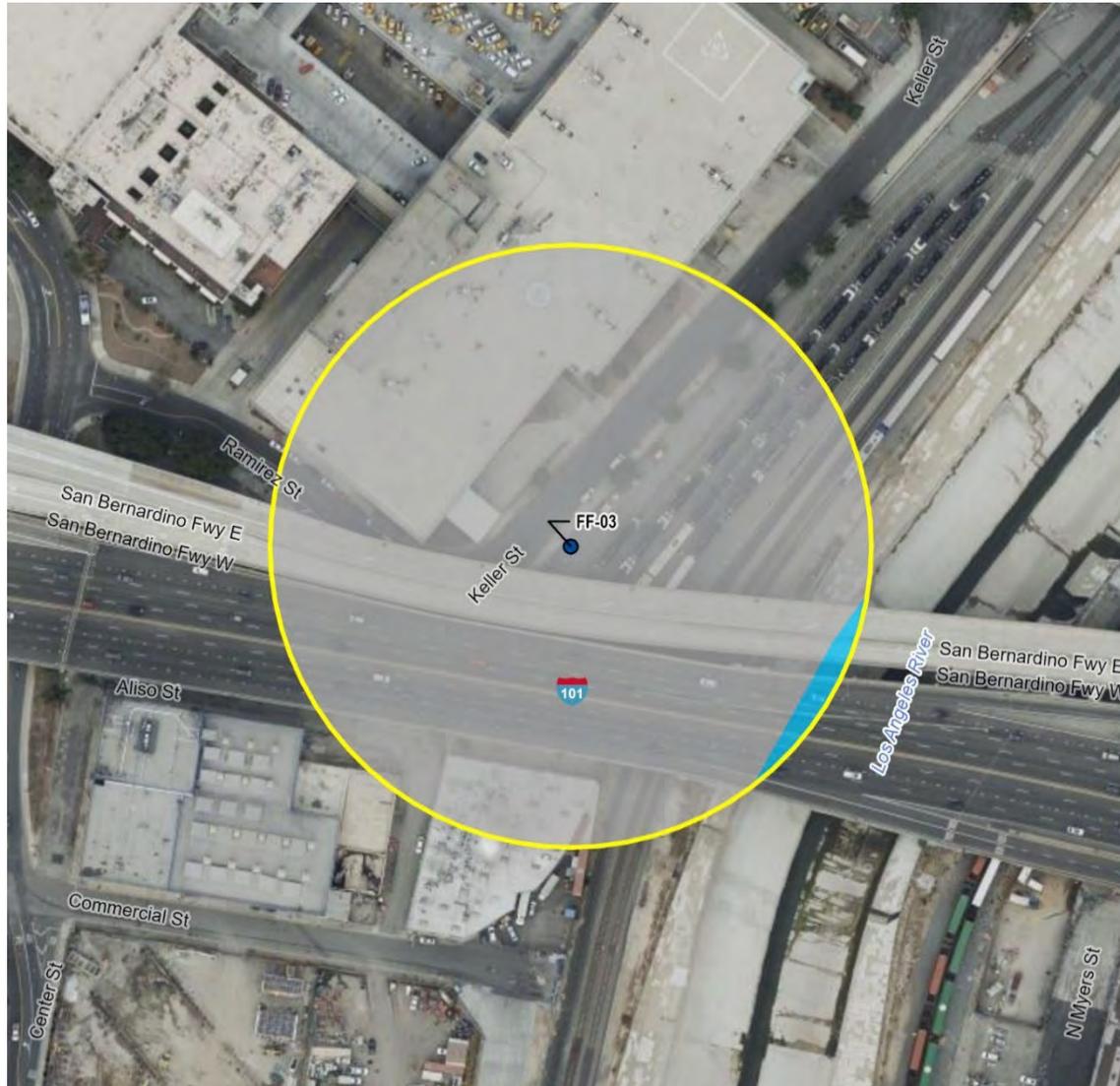


Figure 3. Vegetation Communities Mapped within the BSA
(Sheet 2 of 10)



Figure 3. Vegetation Communities Mapped within the BSA
(Sheet 3 of 10)



- TCN Location
- LA River
 - ▭ Project Footprint (300 ft buffer)
- Vegetation
- Urban/Developed
 - Modified Channel

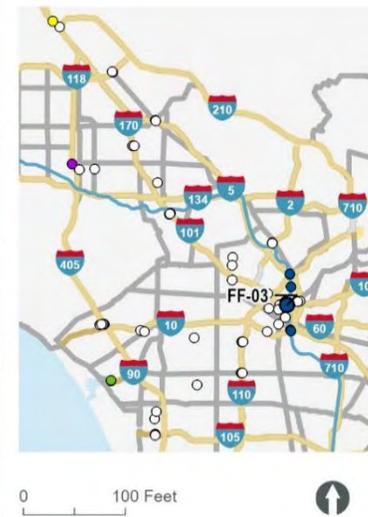


Figure 3. Vegetation Communities Mapped within the BSA
(Sheet 4 of 10)

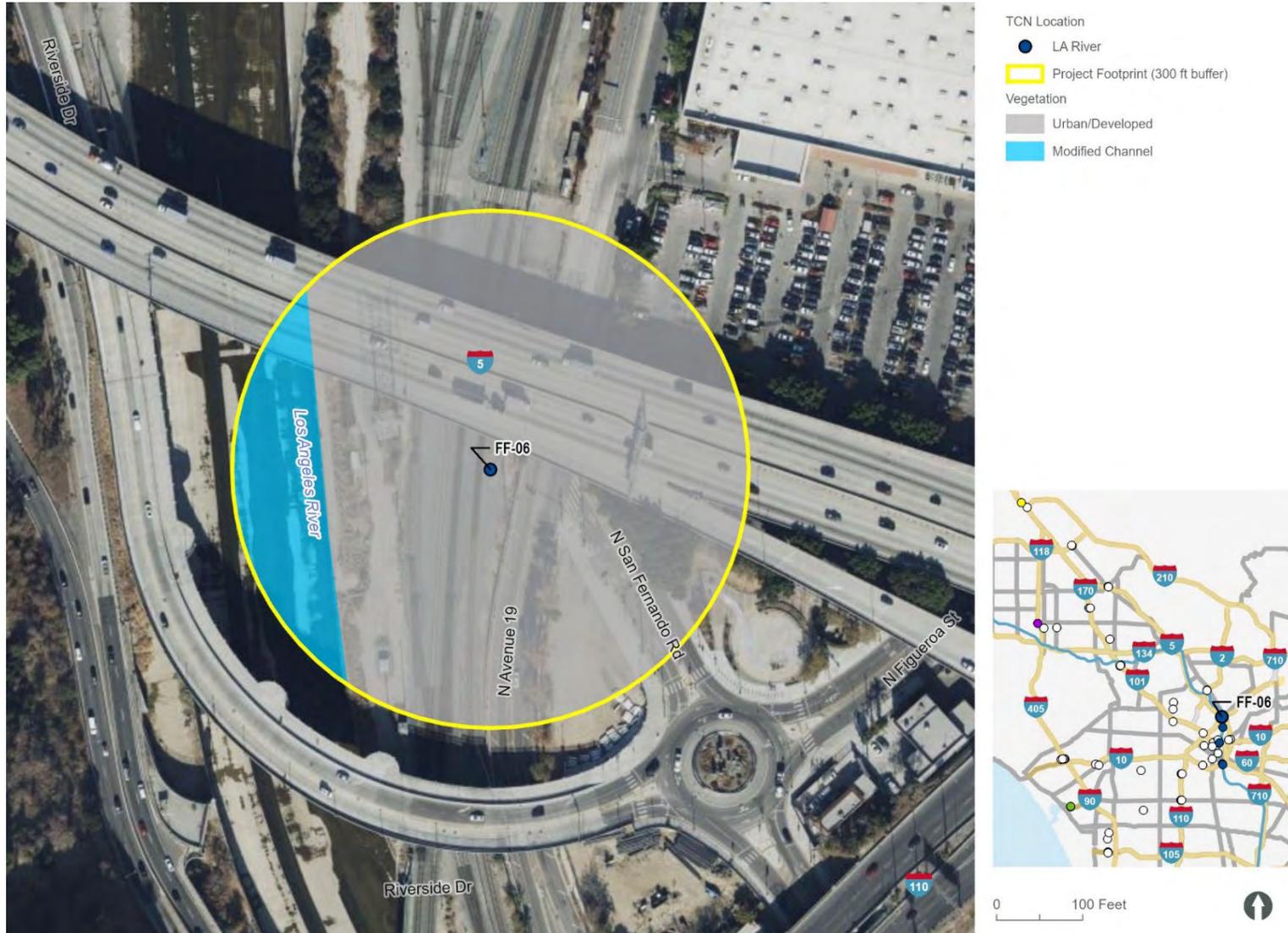
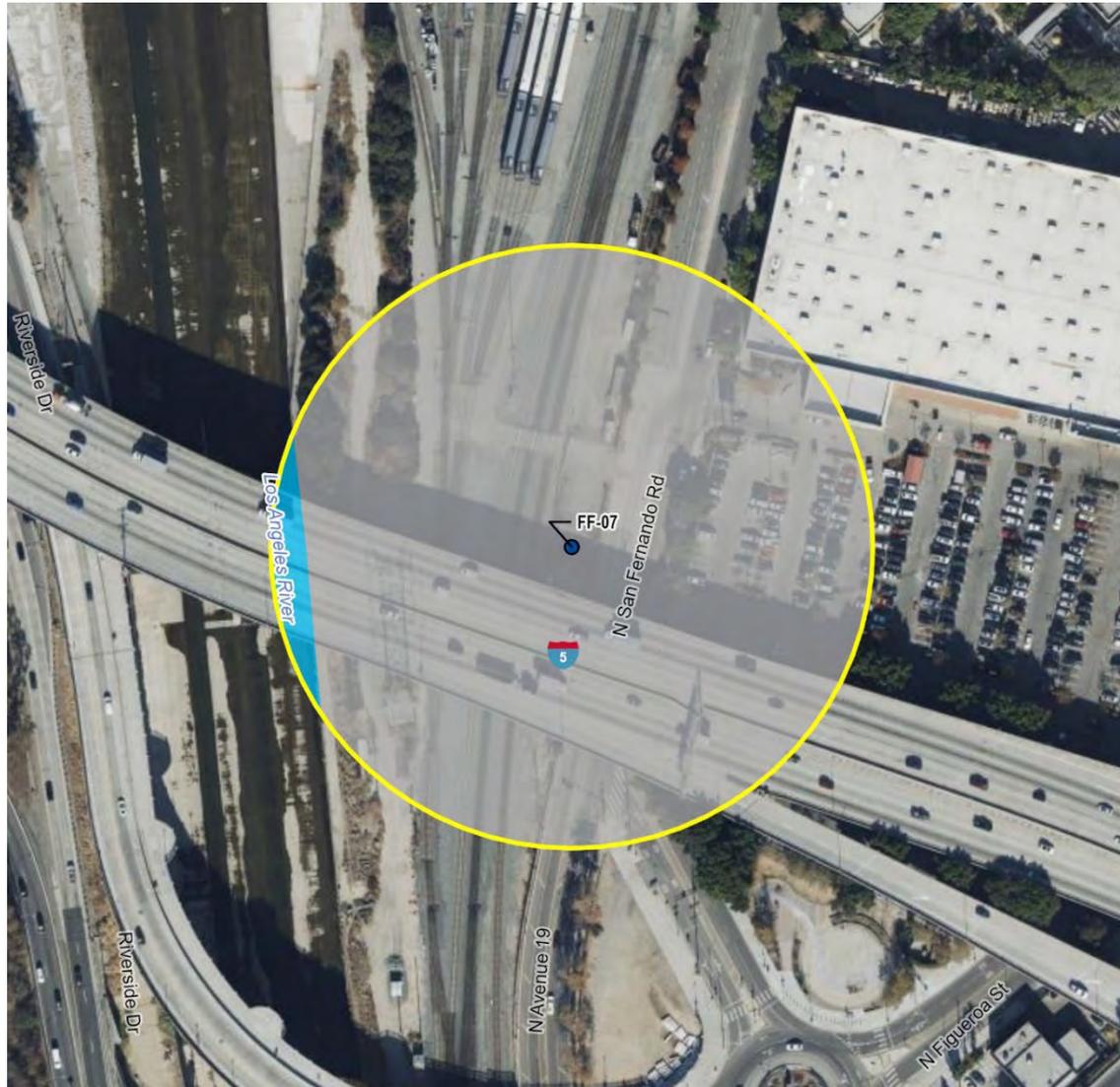


Figure 3. Vegetation Communities Mapped within the BSA
(Sheet 5 of 10)



- TCN Location
- LA River
- Project Footprint (300 ft buffer)
-
- Vegetation
- Urban/Developed
 - Modified Channel

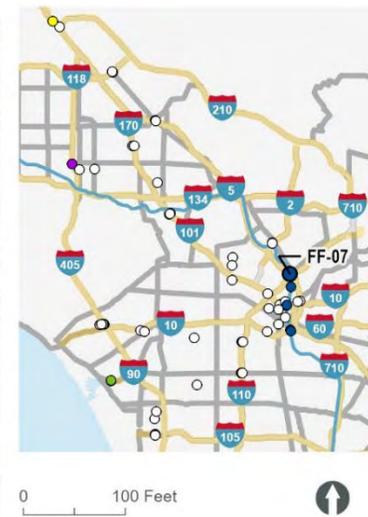


Figure 3. Vegetation Communities Mapped within the BSA
(Sheet 6 of 10)

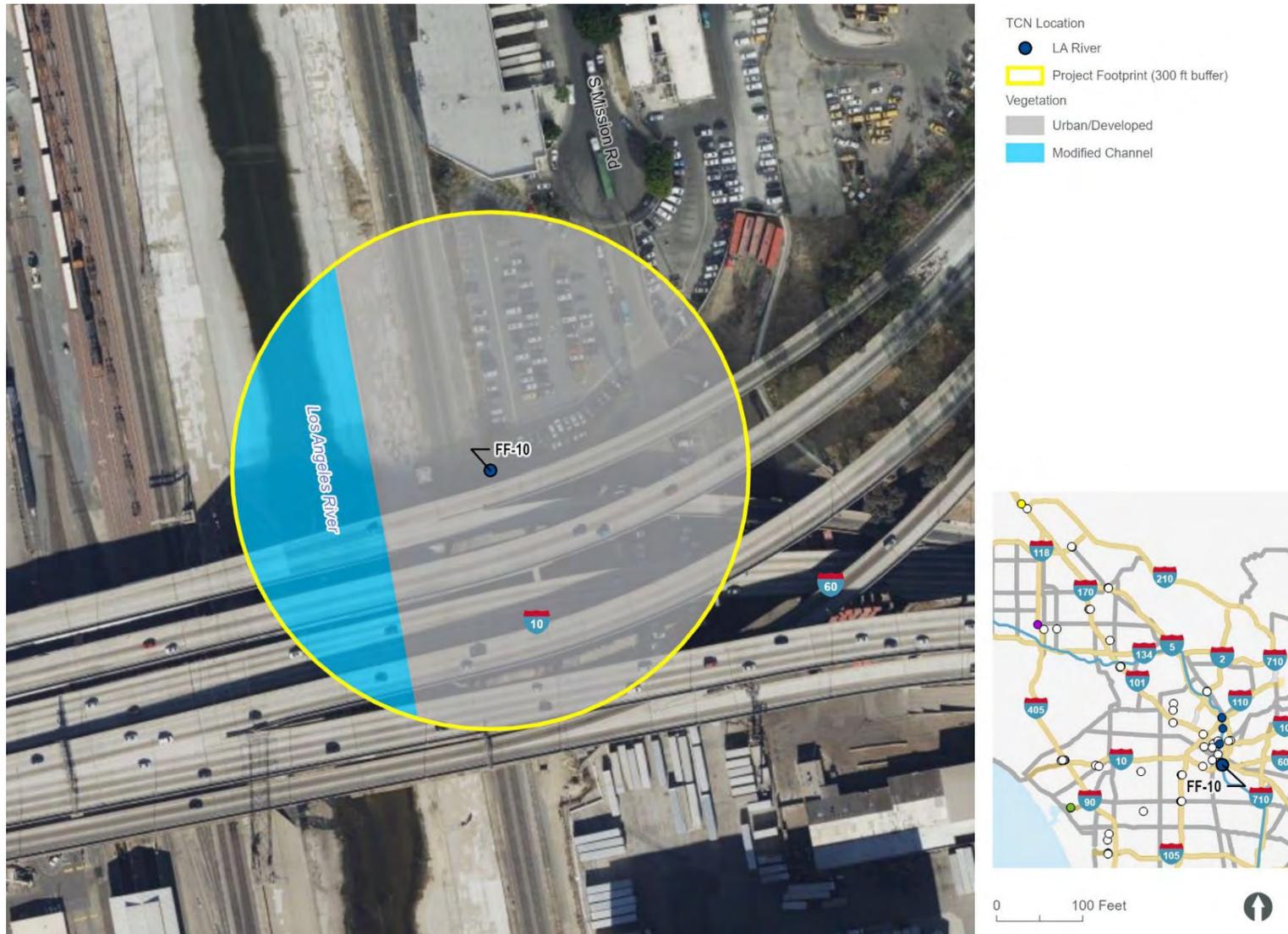
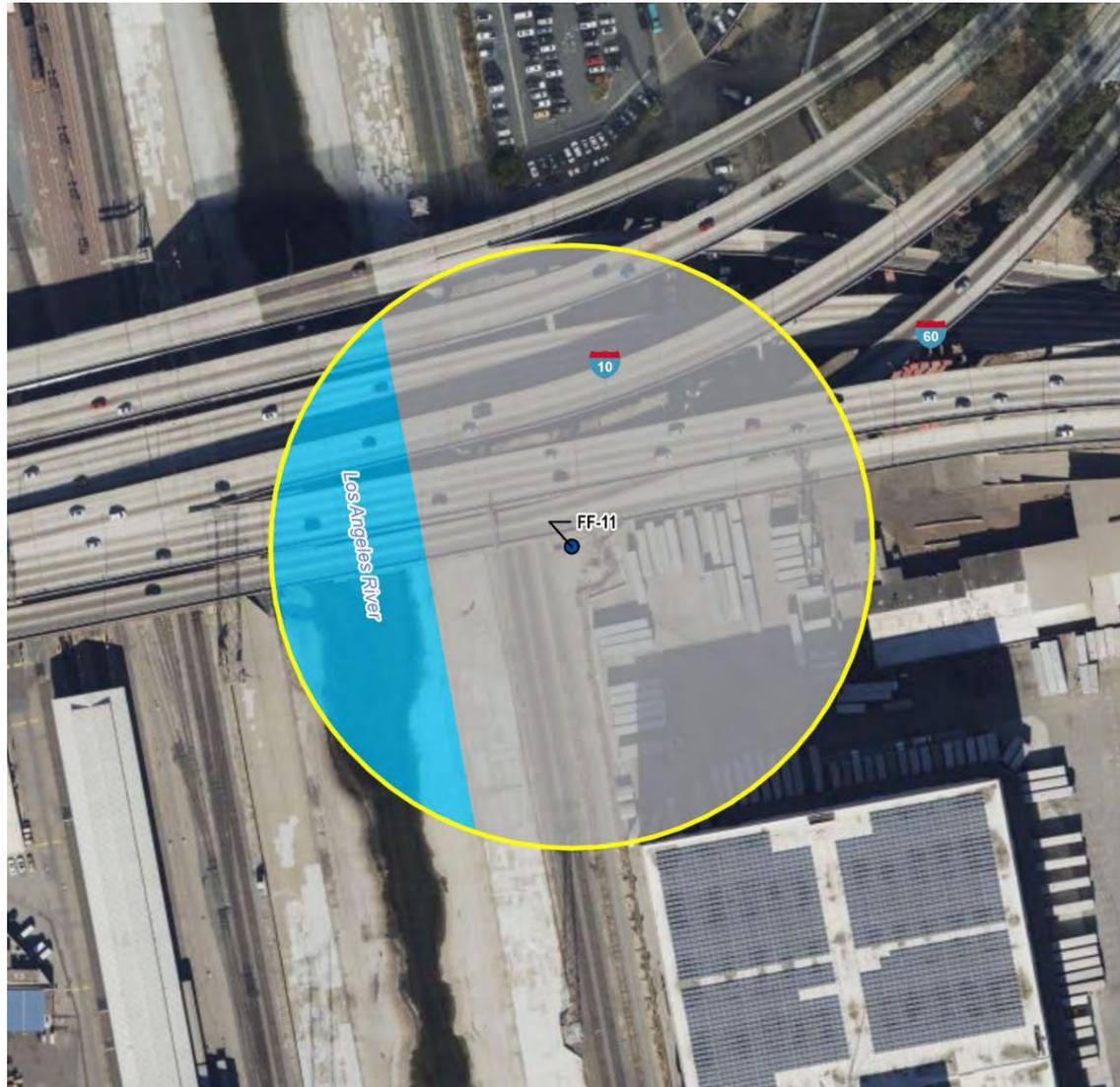


Figure 3. Vegetation Communities Mapped within the BSA
(Sheet 7 of 10)



- TCN Location
- LA River
 - ▭ Project Footprint (300 ft buffer)
- Vegetation
- ▭ Urban/Developed
 - ▭ Modified Channel

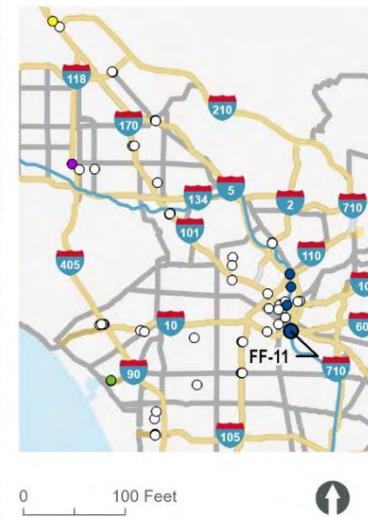
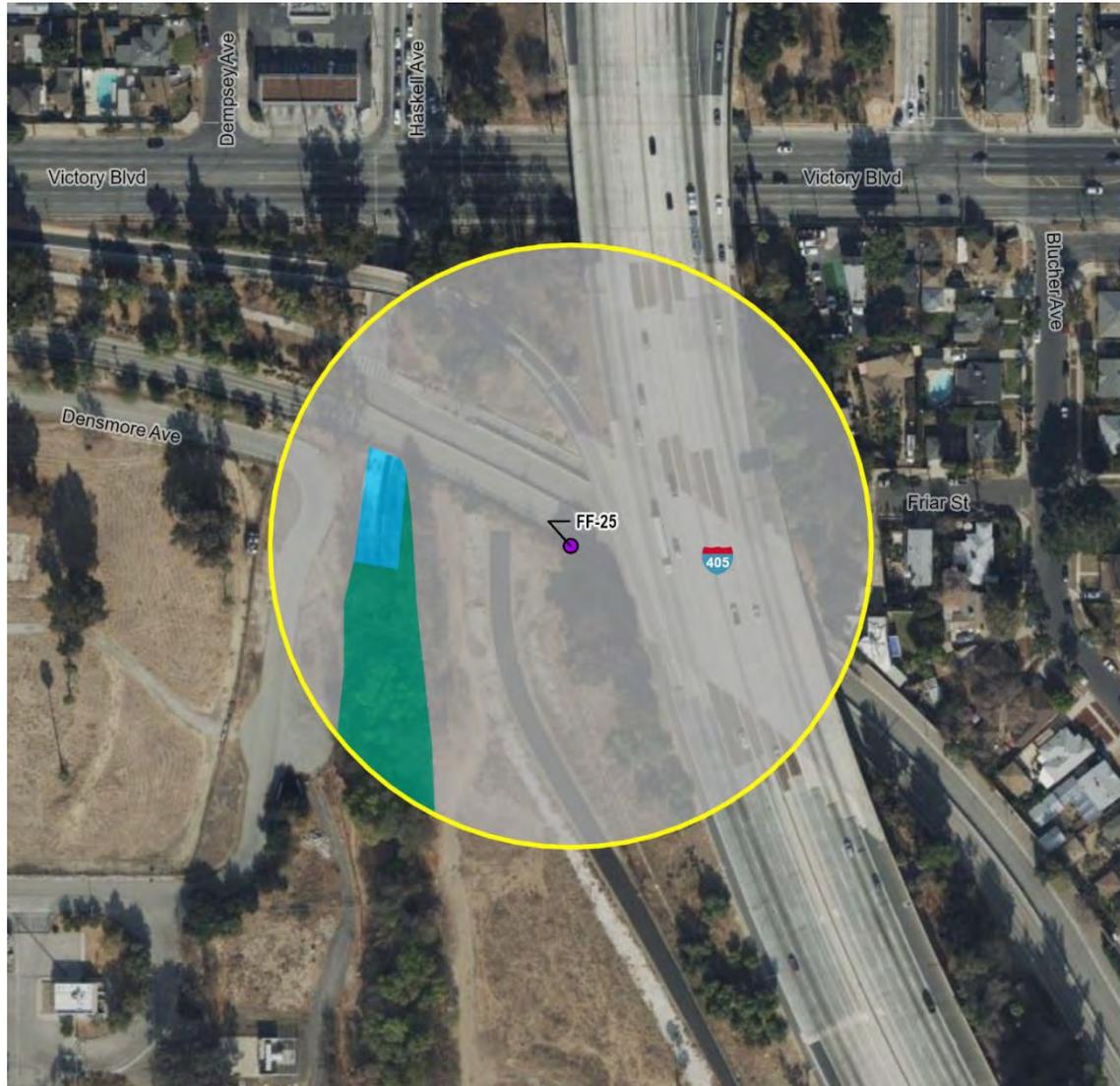


Figure 3. Vegetation Communities Mapped within the BSA
(Sheet 8 of 10)



Figure 3. Vegetation Communities Mapped within the BSA
 (Sheet 9 of 10)



- TCN Location
- Sepulveda Basin
 - Project Footprint (300 ft buffer)
- Vegetation
- Urban/Developed
 - Potential Salix gooddingii Forest and Woodland Alliance
 - Modified Channel

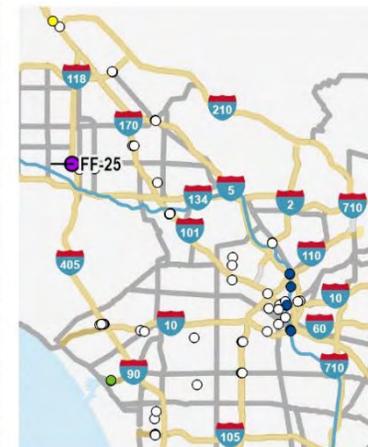


Figure 3. Vegetation Communities Mapped within the BSA
(Sheet 10 of 10)

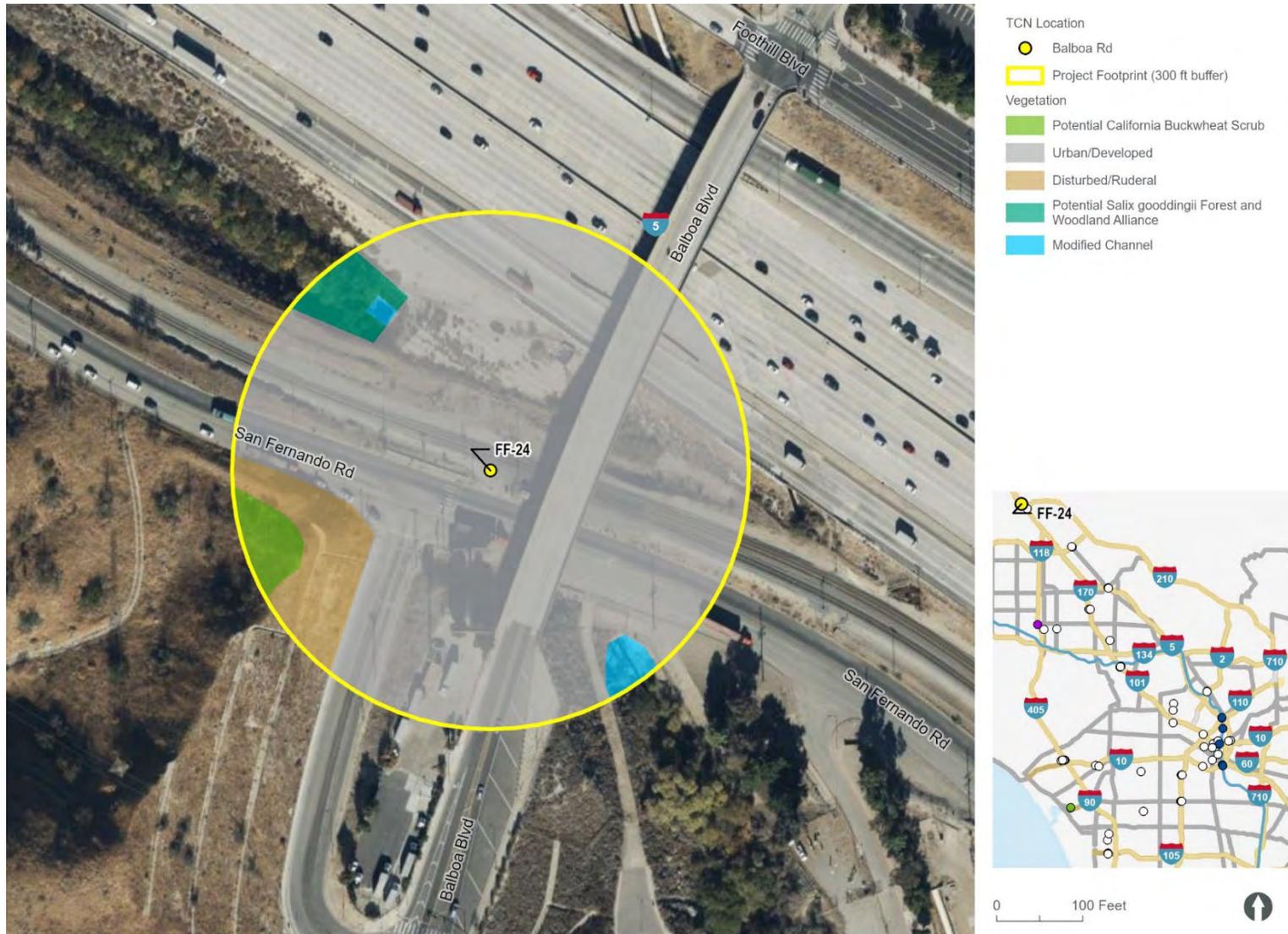


Table 3. Vegetation Communities and Land Cover Types Mapped in the Biological Study Area

Vegetation Community Or Land Cover Type	Acreage
California Buckwheat Scrub	0.137
<i>Salix gooddingii</i> Forest and Woodland Alliance	0.585
<i>Brassica nigra</i> - <i>Centaurea</i> (spp.) Herbaceous Semi-Natural Alliance	0.196
Modified Channel	5.596
Disturbed/Ruderal	3.744
Urban/Developed	352.716
TOTAL	362.975

California Buckwheat Scrub (*Eriogonum fasciculatum* Shrubland Alliance)

California buckwheat scrub is dominated by California buckwheat (*Eriogonum fasciculatum*), which accounts for at least 50 percent relative cover in the shrub layer. This alliance usually occurs on upland slopes, intermittently flooded arroyos, channels, and washes. Shrubs are typically less than 2 meters in height, with an intermittent-to-continuous canopy and a variable, grassy herbaceous layer (Sawyer et al. 2009). Within the BSA, California buckwheat scrub potentially covers 0.137 acres, located at TCN Structure FF-24. Google imagery did not provide a sufficient view of this habitat for the biologist to make a confident determination of this community. Therefore, a field visit would be required to verify the occurrence of California buckwheat scrub at this location.

Salix gooddingii Forest and Woodland Alliance

Salix gooddingii Forest and Woodland Alliance includes a combination of areas dominated by various species of willow (*Salix* spp.), cattails (*Typha* spp.), and cottonwood (*Populus* spp.). This alliance can occur along rivers, canyons, floodplains, intermittent streams, seeps, drainages, and springs. Within the BSA, *Salix gooddingii* Forest and Woodland Alliance potentially covers 0.585 acres of TCN Structures FF-24 and FF-25. Google imagery and aerials did not provide a sufficient view of this habitat for the biologist to make a confident determination of this community. Therefore, a field visit would be required to verify the occurrence of mixed riparian forest at this location.

Brassica nigra-*Centaurea* (spp.) Herbaceous Semi-Natural Alliance

Brassica nigra-*Centaurea* (ssp.) Herbaceous Semi-Natural Alliance habitat is defined by monocultures or co-dominant mixes of invasive herbs, such as black mustard (*Brassica nigra*), crown daisy (*Glebionis coronaria*), jointed charlock (*Raphanus sativus*), and star-thistle (*Centaurea diluta*). Also included are castor bean (*Ricinus communis*) monocultures since they exhibit similar habitat functions. These areas are typically located on well-draining soils with higher elevations than the surrounding landscape such as berms and raised upland areas (ESA 2017).

Within the Project footprint, this alliance is found at TCN Structure FF-29 and covers 0.196 acres.

Modified Channel

Modified channel habitats are characterized by aquatic habitats within a channel that can be either natural/earthen bottomed, or concrete-lined. Three aquatic resources within the Project footprint are mapped as modified channel from aerials, a field visit would be required to verify if these resources are natural-bottomed or concrete lined. Modified channel is mapped within the BSA of nine TCN Structures, including FF-03, FF-06, FF-07, FF-10, FF-11, FF-17, FF-24, FF-25, and NFF-2. The Los

Angeles River is the primary modified channel located within the BSA, flowing through the TCN Structures of FF-03, FF-06, FF-07, FF-10, FF-11, and NFF-2. Haskell Creek flows through the BSA of TCN Structure FF-25, while an unnamed channel flows through the BSA of TCN Structure FF-24. Modified channel covers 5.596 acres within the BSA.

Disturbed/Ruderal

Disturbed/ruderal habitat is primarily used to identify areas of severe impacts on natural communities to the extent where it is no longer sustaining or functioning naturally. These areas have been previously physically disturbed but continue to retain a soil substrate. Disturbed/ruderal areas consist of predominantly non-native weedy and ruderal exotic species. This is not a natural community and generally does not provide habitat for wildlife or special-status species. Examples of disturbed/ruderal habitat include areas that have been graded, cleared areas for fuel management, staging areas, off-road vehicle trails, and abandoned home sites.

Within the Project footprint, disturbed/ruderal habitat occurs as dirt trails, slopes, vacant lots, and off-road recreation areas, covering 3.744 acres within the BSA.

Urban/Developed

Urban/developed land refers to areas that have been manipulated by planting ornamental vegetation, 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 Project footprint, paved roads, associated landscaping, and portions of the railroad ROW were mapped as urban/developed. Urban/developed land occupies approximately 352.716 acres of the BSA.

5.3.1 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

There are no vegetation communities within the BSA designated as S1, S2, or S3 state rarity rank. Riparian vegetation, which includes communities that are associated with streambeds, wetlands, and adjacent riparian areas, are also considered special-status by CDFW regardless of their state rarity ranking and are regulated pursuant to Section 1600, et seq. of the California Fish and Game Code. There are potential riparian communities mapped within the BSA, which could include various species of willow (*Salix* spp.), cattails (*Typha* spp.), and cottonwood (*Populus* spp.). Based on review of aerial imagery, riparian habitat is potentially located within the BSA at TCN Structure FF-24 and FF-25. As

discussed previously, since vegetation was mapped only using available data and Google Earth imagery, a field visit would be required to verify occurrence of riparian habitat at these locations. Potential project impacts to riparian habitat are discussed in Section 6.4.

5.4 Plant Species

Because a field visit was not conducted, individual plant species occurring within the BSA were not recorded. All listed and other special-status plant species that were evaluated for their potential to occur in the BSA based on the results of the IPaC, CNDDDB, and CNPS electronic inventory searches are included in Appendix B. Federally listed, state listed, and special-status plants with suitable habitat present within or adjacent to the BSA are discussed below.

5.4.1 Federally and/or State-Listed Plant Species

Based on the results of the literature review, there is no potential for federally- or state-listed plant species to occur within the study area. The full list of special-status species analyzed for potential to occur in the vicinity of the BSA is provided in Appendix B.

5.4.2 Other Special-Status Plant Species

Since most of the BSA is highly disturbed and surrounded by development, most of the special-status plant species identified in Appendix B are not expected to occur in the BSA. However, potentially suitable habitat for five plant species that are identified under the California Rare Plant Rank¹ (CRPR) ranking system occurs within the Ballona Wetlands, adjacent to the BSA at TCN Structures FF-29 and FF-30:

1. Lewis' evening primrose (*Camissoniopsis lewisii*), CRPR 3
2. Southern tarplant (*Centromadia parryi* ssp. *australis*), CRPR 1B.1
3. Orcutt's pincushion (*Chaenactis glabriuscula* var. *orcuttiana*), CRPR 1B.1
4. Suffrutescent wallflower (*Erysimum suffrutescens*), CRPR 4.2
5. South coast branching phacelia (*Phacelia ramosissima* var. *austrolitoralis*), CRPR 3.2

5.5 Wildlife Species

Because a field visit was not conducted, individual wildlife species occurring within the BSA were not recorded. All listed and other special-status wildlife species that were evaluated for their potential to occur in the BSA based on the results of the IPaC, CNDDDB, and CNPS electronic inventory searches are included in Appendix B. Federally listed, state listed, and special-status wildlife with suitable habitat present within or adjacent to the BSA are discussed below.

¹ 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.

5.5.1 Federally and/or State-Listed Wildlife Species

The BSA for TCN Structures FF-29 and FF-30 is within 300 feet of the Ballona Wetlands, which supports habitat that is potentially suitable for five federally and/or state-listed wildlife species². Additionally, one federally and/or state-listed wildlife species is located with the BSA for TCN Structure FF-24:

1. Monarch butterfly (*Danaus plexippus* pop. 1), FC (FF-29, FF-30)
2. El Segundo blue (*Euphilotes battoides allyni*), FE (FF-29, FF-30)
3. Belding's savannah sparrow (*Passerculus sandwichensis beldingi*), SE (FF-29, FF-30)
4. California least tern (*Sternula antillarum browni*), FE/SE/FP (FF-29, FF-30)
5. Least Bell's vireo (*Vireo bellii pusillus*), FE/SE (FF-29, FF-30)
6. Coastal California gnatcatcher (*Polioptila californica californica*), FT/SSC (FF-24)

Monarch Butterfly and El Segundo Blue

The Ballona Wetlands are located adjacent to TCN Structures FF-29 and FF-30 and provide suitable habitat for both monarch butterflies and El Segundo blues. The BSA at each structure does not contain suitable habitat for either species, however, they could potentially move through the BSA due to the proximity of the wetlands.

Belding's Savannah Sparrow and Least Bell's Vireo

Belding's savannah sparrow and least Bell's vireo have been confirmed as breeding and foraging within the Ballona Wetlands, which occur adjacent to TCN Structures FF-29 and FF-30. However, neither suitable breeding nor foraging habitat for either species occurs within the BSA.

Coastal California Gnatcatcher

As discussed in Section 5.6, a small amount of potentially suitable California buckwheat scrub occurs within the BSA of TCN Structure FF-24, however, this vegetation has not been field verified and is based off of aerial identification.

California Least Tern

Foraging habitat for California least tern does occur in the Ballona Wetlands, which are adjacent to the BSA for TCN Structures FF-29 and FF-30. However, suitable foraging habitat does not occur within the Project footprint.

5.5.2 Other Special-Status Wildlife Species

The BSA supports potentially suitable habitat for ten CDFW species of special concern (SSC):

1. Arroyo chub (*Gila orcutti*), SSC

² Federal (USFWS/USDA): FE=Federally Endangered, FT=Federally Threatened, FC=Federal Candidate; State: SE=State Endangered, ST=State Threatened, CT=Candidate Threatened, FP=Fully Protected, SSC=Species of Special Concern

2. Southern California legless lizard (*Anniella stebbinsi*), SSC
3. Loggerhead shrike (*Lanius ludovicianus*), SSC
4. Pallid bat (*Antrozous pallidus*), SSC
5. Townsend's big-eared bat (*Corynorhinus townsendii*), SSC
6. Spotted bat (*Euderma maculatum*), SSC
7. Western mastiff bat (*Eumops perotis californicus*), SSC
8. Western yellow bat (*Lasiurus xanthinus*), SSC
9. California leaf-nosed bat (*Macrotus californicus*)
10. Pocket free-tailed bat (*Nyctinomops femorosaccus*), SSC

Arroyo chub

Arroyo chub are known to historically occur in the LA River, however, they have been extirpated from much of their native range. Within the BSA, arroyo chub has potential to occur within or adjacent to TCN Structures FF-03, FF-06, FF-07, FF-10, FF-11, and NFF-2.

Southern California legless lizard

Southern California legless lizard is known to occur in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodland, desert scrub, sandy washes, and stream terraces. While suitable habitat for this species does not occur within the BSA, potential suitable habitat occurs adjacent to the BSA at TCN Structures FF-29 and FF-30.

Loggerhead shrike

Loggerhead shrikes are found in shrublands and open woodlands, in areas of high grass cover and areas of bare ground. Within the BSA, there is potential foraging habitat for loggerhead shrike at TCN Structures FF-02, FF-03, FF-06, FF-07, FF-10, FF-11, FF-22, FF-24, FF-25, FF-29, FF-30, and NFF-2. While there is little potential of breeding loggerhead shrike within the BSA, nesting birds are afforded extra protections under the MBTA, which is discussed in Section 5.7 and Section 6.5.

Pallid bat, Townsend's big-eared bat, Spotted bat, Western mastiff bat, Western yellow bat, California leaf-nosed bat, and Pocket free-tailed bat

Seven special-status bat species were found to have potential to occur within and/or adjacent to the BSA: pallid bat, Townsend's big-eared bat, spotted bat, western mastiff bat, western yellow bat, California leaf-nosed bat, and pocket free-tailed bat. All seven species can utilize buildings as roosting habitat, and several species will also use railroad underpasses, culverts, and/or trees. Due to the urbanized nature of the BSA, potentially suitable habitat for these seven special-status bat species can be found within or adjacent to every TCN Structure considered as part of the Project.

5.6 Potential Jurisdictional Aquatic Resources

The only type of aquatic resource NWI mapped within the BSA was riverine (Google Earth was reviewed to determine the accuracy of NWI mapping). This system is characterized by wetlands and

deep-water habitats within a channel, with the exception of wetlands dominated by trees, shrubs, persistent emergent, emergent mosses or lichens, and habitats with water containing greater than 0.5 percent ocean-derived salts.

Based on the desktop review, three features potentially subject to USACE, RWQCB, and/or CDFW jurisdiction were mapped within the BSA (a field visit would be required to verify jurisdictional status) (Figure 2, Sheets 1 through 10). These three features are described below.

- LA River is within the BSA at six TCN Structures: FF-03, FF-06, FF-07, FF-10, FF-11, and NFF-2. Within the BSA, the LA River is a concrete-lined flood control channel.
- Haskell Creek, a modified channel that appears to support potential riparian vegetation and wetland waters of the U.S. occurs within the BSA at TCN Structure FF-25. The bottom of Haskell Creek is not visible in aerial imagery, but it may support wetland waters of the U.S.
- One unnamed concrete-lined channel occurs within the BSA at TCN Structure FF-24. This feature appears to support potential non-wetland waters of the U.S. and unvegetated streambed.

Although potentially jurisdictional features occur within the BSA, none are located within the Site Location footprint for any of the TCN Structures.

5.7 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 BSA and includes mature trees and shrubs located within, and adjacent to, the BSA. Bridge- and crevice-nesting birds could nest on any of the overpasses and/or structures adjacent to the BSA. There is low potential for ground-nesting birds, such as killdeer (*Charadrius vociferus*), to nest within portions of the BSA, although the high level of disturbance and lack of nearby foraging habitat reduces the potential for nests to occur.

5.8 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.

The LA River could function as a wildlife corridor for multiple species, such as mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), and multiple species of bats.

6 Impact Assessment

The Project would impact biological resources within an existing urban/developed environment. Since the Project footprint is not available at this time, direct and indirect impacts to biological resources cannot be quantified, however a qualitative assessment of potential impacts is provided based on the desktop analysis performed within the BSA.

6.1 Vegetation Communities and Land Cover Types

Based on the desktop analysis of vegetation communities and landcover types mapped within the BSA, the only sensitive vegetation community within the BSA is *Salix gooddingii* Forest and Woodland Alliance, covering 0.585 acres. If this vegetation is field verified to occur, these areas would be considered sensitive and subject to potential impacts upon construction of TCN Structures FF-24 and FF-25. Avoidance Measure BR-1 includes provisions for placement of exclusion fencing to avoid sensitive vegetation if present that would reduce potential impacts on sensitive vegetation communities to a level considered less than significant.

6.2 Plant Species

6.2.1 Federally and/or State Listed Plant Species

No federally and/or state-listed plant species have potential to occur within or immediately adjacent to the BSA. Therefore, the Project would not result in impacts on these species, and no Project-specific mitigation or avoidance measures pertaining to federally and/or state-listed plant species are required.

6.2.2 Other Special-Status Plant Species

No other special-status plant species are expected to occur within the BSA. However, potentially suitable habitat for the five special-status plant species discussed in Section 5.5.2 occurs adjacent to the BSA for TCN Structures FF-29 and FF-30. Avoidance Measure BR-1 includes provisions for preconstruction surveys and placement of exclusion fencing to avoid special-status plant species if present that would reduce potential indirect impacts on special-status plant species to a level considered less than significant.

6.3 Wildlife Species

6.3.1 Federally and/or State Listed Wildlife Species

As discussed in Section 5.6.1, potentially suitable habitat for six federally and/or state-listed wildlife species occurs within or adjacent to the BSA for TCN Structures FF-24, FF-29, and FF-30. Potential project impacts on each species are discussed below.

Monarch Butterfly

Potentially suitable habitat for monarch butterfly occurs adjacent to the BSA for TCN Structures FF-29 and FF-30. Avoidance Measure BR-1 includes provisions for preconstruction surveys, worker awareness training, and monitoring of construction activities by a qualified biologist that would reduce potential impacts on the monarch butterfly to a level considered less than significant.

El Segundo blue

Potentially suitable habitat for El Segundo blue occurs adjacent to the BSA for TCN Structures FF-29 and FF-30. Avoidance Measure BR-1 includes provisions for preconstruction surveys, worker awareness training, and monitoring of construction activities by a qualified biologist that would reduce potential impacts on EL Segundo blue to a level considered less than significant.

Belding's savannah sparrow

Potentially suitable habitat for Belding's savannah sparrow occurs adjacent to the BSA for TCN Structures FF-29 and FF-30. Avoidance Measure BR-1 includes provisions for preconstruction surveys, worker awareness training, and monitoring of construction activities by a qualified biologist and Avoidance Measure BR-2 includes provisions for preconstruction nesting bird surveys if construction activities occur within the nesting season. Implementation of Avoidance Measures BR-1 and BR-2 would reduce potential impacts on Belding's savannah sparrow to a level considered less than significant.

Coastal California gnatcatcher

Potentially suitable habitat for coastal California gnatcatcher occurs adjacent to the BSA for TCN Structure FF-24. Avoidance Measure BR-1 includes provisions for preconstruction surveys, worker awareness training, and monitoring of construction activities by a qualified biologist, Avoidance Measure BR-2 includes provisions for preconstruction nesting bird surveys if construction activities occur within the nesting season, and Avoidance Measure BR-3 includes provisions to remove any potentially suitable habitat outside of the nesting season and avoid impacts on California gnatcatcher if present. Implementation of Avoidance Measures BR-1, BR-2, and BR-3 would reduce potential impacts on coastal California gnatcatcher to a level considered less than significant.

California least tern

Potentially suitable habitat for California least tern occurs adjacent to the BSA for TCN Structures FF-29 and FF-30. Avoidance Measure BR-1 includes provisions for preconstruction surveys, worker awareness training, and monitoring of construction activities by a qualified biologist and Avoidance Measure BR-2 includes provisions for preconstruction nesting bird surveys if construction activities occur within the nesting season. Implementation of Avoidance Measures BR-1 and BR-2 would reduce potential impacts on California least tern to a level considered less than significant.

Least Bell's vireo

Potentially suitable habitat for least Bell's vireo occurs adjacent to the BSA for TCN Structures FF-29 and FF-30. Avoidance Measure BR-1 includes provisions for preconstruction surveys, worker awareness training, and monitoring of construction activities by a qualified biologist, Avoidance Measure BR-2 includes provisions for preconstruction nesting bird surveys if construction activities occur within the nesting season, and Avoidance Measure BR-3 includes provisions to remove any potentially suitable habitat outside of the nesting season and avoid impacts on least Bell's vireo if present. Implementation of Avoidance Measures BR-1, BR-2, and BR-3 would reduce potential impacts on least Bell's vireo to a level considered less than significant.

6.3.2 Other Special-Status Wildlife Species

As discussed in Section 5.5.2, potentially suitable habitat for ten special-status wildlife species occurs within or adjacent to the BSA; no suitable habitat for any other special-status wildlife species occurs within the BSA. Potential Project impacts on special-status species are discussed below.

Arroyo chub

Although suitable habitat for arroyo chub could occur within the LA River channel, which occurs within the BSA for Site Locations FF-03, FF-06, FF-07, FF-10, FF-11 and NFF-2, suitable habitat for arroyo chub does not occur within the Site Location footprint for any TCNs. Avoidance Measure BR-1 includes provisions for placement of exclusion fencing to avoid sensitive vegetation if present that would avoid unanticipated indirect impacts on arroyo chub habitat adjacent to the Site Location footprint(s). Implementation of Avoidance Measure BR-1 would reduce potential impacts on arroyo chub to a level considered less than significant.

Southern California legless lizard

Southern California legless lizard would likely be unaffected by the Project since the BSA occurs in urban and highly developed areas that are subject to daily disturbances, and this species can move away from the BSA if disturbances are significant. Potential Project impacts on southern California legless lizard are considered less than significant.

Loggerhead shrike

Loggerhead shrike would likely be unaffected by the Project since they are both a highly mobile species and they would likely be acclimated to significant levels disturbance since the BSA is located in a highly developed/urban area. Nesting loggerhead shrike are not likely to occur within the BSA since suitable habitat is absent, however, potentially suitable nesting habitat occurs in some locations adjacent to the BSA. Avoidance Measure BR-2 includes provisions for preconstruction nesting bird surveys if construction activities occur within the nesting season. Implementation of Avoidance Measure BR-1 would reduce potential Project impacts on nesting loggerhead shrikes to a level considered less than significant.

Pallid bat, Townsend's big-eared bat, Spotted bat, Western mastiff bat, Western yellow bat, California leaf-nosed bat, and Pocket free-tailed bat

Seven special-status bat species may roost in railroad underpasses, culverts, trees, or bridges adjacent to the BSA for all TCN Structures. If maternal colonies are found to be present adjacent to or within the BSA, short-term and long-term indirect impacts could be considered significant. Demolition of pre-existing billboard structures could directly impact special-status bat species using the structure as a roost. Construction activities including lighting for nighttime work or increased noise could result in indirect impacts on bats such by delaying emergence for foraging or causing roost abandonment due to increased exposure upon emerging from and returning to the roost (Bat Conservation Trust, 2018) or interfering with echolocation (Bunkley, 2015). Additionally, operational lighting from digital billboards could adversely impact bats in the vicinity, again by delaying emergence or causing roost abandonment. As discussed in Section 2.4, the TCN Structures will be designed so that they are viewed from the highway or major streets. The digital display faces will be designed to provide efficient and effective illumination while minimizing light spill-over, reducing sky-glow, and improving nighttime visibility through glare reduction. The digital display faces of the TCN Structures would use light emitting diodes lighting with a daytime maximum up to 6,000 maximum candelas and 300

maximum candelas at nighttime, depending on the Site Location. Louvers would be installed to shade the LED lights from creating unintentional light spillage, assist in reducing reflection, and in turn would create a sharper image. These design elements will reduce potential indirect operational lighting impacts on special-status bats to a level considered less than significant.

Avoidance Measure BR-1 includes provisions for preconstruction surveys, worker awareness training, and monitoring of construction activities by a qualified biologist and Avoidance Measure BR-4 includes provisions for preconstruction bat surveys during the bat maternity season and implementation of a bat management plan if roosting bats are found to be present adjacent to construction activities. Implementation of Avoidance Measures BR-1 and BR-4 would reduce potential direct and indirect impacts on special-status bats during static display take down and construction of the TCN Structures to a level considered less than significant.

6.4 Jurisdictional Areas

Direct impacts on potentially jurisdictional areas would be avoided, however, potential short-term indirect impacts to downstream aquatic resources could occur if fill or hazardous material is allowed to spill into the drainages.

Indirect impacts on waters of the U.S. or streambed would be considered significant. Avoidance Measure BR-1 includes provisions for preconstruction surveys, worker awareness training, placement of exclusion fencing to avoid aquatic features, and monitoring of construction activities by a qualified biologist that would reduce potential impacts on jurisdictional areas to a level considered less than significant.

6.5 Nesting Birds

Suitable nesting and foraging habitat for birds protected by the MBTA and California Fish and Game Code Sections 3300-5500 occurs within and adjacent to the Project footprint. Direct impacts on an active nest would be considered significant. Avoidance Measure BR-2 includes provisions for preconstruction nesting bird surveys that would reduce potential impacts on migratory and nesting birds to a level considered less than significant.

6.6 Wildlife Corridors and Habitat Linkages

Impacts to animals utilizing wildlife corridors and habitat linkages could occur from construction during improvements associated with the Project. Noise, nighttime lighting, increased human activity, fugitive dust, and other impacts associated with Project construction and operations could deter animals from moving between patches of suitable habitat. However, the majority of proposed TCN Structures would be located in highly developed and disturbed environments, surrounded by commercial and industrial uses including surface streets and highways, and any wildlife moving through the BSA would have already been exposed to substantial disturbance. An increase in disturbance resulting from Project construction and operations would be negligible in an already highly developed and disturbed environment.

The LA River could potentially be utilized as a corridor or habitat linkage by wildlife. The LA River is located within the BSA of six TCN Structures (FF-03, FF-06, FF-07, FF-10, FF-11, and NFF-2). These structures are all located in developed areas surrounded by commercial and industrial uses, and the LA River is channelized at these locations. The Project will be designed to avoid direct impacts to the LA River. Avoidance Measures BR-1, BR-2, and BR-4 include numerous provisions that would reduce

potential indirect impacts on wildlife migrating through the LA River should they stray outside of that habitat and closer to Project construction or operations. Implementation of Avoidance Measures BR-1, BR-2, and BR-4 would reduce potential impacts on wildlife corridors and habitat linkages to a level considered less than significant.

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7 Avoidance and Minimization Measures

The following measures are proposed to avoid or minimize impacts to special-status species, vegetation communities, jurisdictional aquatic resources and nesting birds.

BR-1 Implement Biological Resource Protection Measures during Construction (All TCN Structures). Metro will implement the following BMPs, during construction to minimize direct and indirect impacts on biological resources and special-status species:

- Prior to the commencement of construction, Metro shall designate a Project biologist (a person with, at minimum, a bachelor's degree in biology, ecology, or a related environmental science; greater than five years of experience and knowledge of natural history, habitat affinities, and id of flora and fauna species; and knowledge of all relevant federal, state, and local laws governing biological resources, including CDFW qualifications for field surveyors) to be responsible for overseeing compliance with protective measures for biological resources during vegetation clearing and work activities within and adjacent to areas of native habitat. The Project biologist will be familiar with the local habitats, plants, and wildlife and maintain communications with the contractor on issues relating to biological resources and compliance with applicable environmental requirements. The Project biologist may designate other qualified biologists or biological monitors to help oversee Project compliance or conduct preconstruction surveys for special-status species. These biologists will have familiarity with the species for which they would be conducting preconstruction surveys or monitoring construction activities.
- The Project biologist or designated qualified biologist shall review final plans; designate areas that need temporary fencing (e.g., environmentally sensitive area [ESA] fencing); and monitor construction activities within and adjacent to areas with native vegetation communities, regulated aquatic features, or special-status plant and wildlife species. The qualified biologist shall monitor compliance with applicable environmental requirements during construction activities within designated areas during critical times, such as initial ground-disturbing activities (fencing to protect native species). The qualified biologist shall check construction barriers or exclusion fencing and provide corrective measures to the contractor to ensure the barriers or fencing are maintained throughout construction. The qualified biologist shall have the authority to stop work if a federally or state-listed species is encountered within the Project footprint during construction. Construction activities shall cease until the Project biologist or qualified biologist determines that the animal will not be harmed or that it has left the construction area on its own. The Project biologist shall notify Metro, and Metro shall notify the appropriate regulatory agency within 24 hours of sighting of a federally or state-listed species.
- 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 start 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 special-status vegetation communities and special-status species and the potential penalties for impacts on such vegetation communities and species. At a minimum, the training shall include the following topics: (1) occurrences of special-status species and special-status vegetation communities in the Project footprint (including vegetation communities subject to USACE, CDFW, and RWQCB jurisdiction); (2) the purpose for resource protection; (3) sensitivity of special-status species to human activities; (4) protective measures to be implemented in the field, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced areas to avoid special-status resource areas in the field (i.e., avoided areas delineated on maps or in the BSA by fencing); (5) environmentally responsible construction practices; (6) the protocol to resolve conflicts that may arise at any time during the construction process; (7) reporting requirements and procedures to follow should a special-status species be encountered during construction; and (8) Avoidance Measures designed to reduce the impacts on special-status species.

- The training program will include color photos of special-status species and special-status vegetation communities. Following the education program, the photos will be made available to the contractor. Photos of the habitat in which special-status species are found will be posted on site. The contractor shall provide Metro with evidence of the employee training (e.g., a sign-in sheet) on request. Project personnel and contractors shall be instructed to immediately notify the Project biologist or designated biologist of any incidents that could affect special-status vegetation communities or special-status species. Incidents could include fuel leaks or injury to any wildlife. The Project biologist shall notify Metro of any incident, and Metro shall notify the appropriate regulatory agency.
- The Project biologist shall conduct a preconstruction survey for special-status species within the Project footprint prior to vegetation clearing, and/or ground disturbance. Any wildlife encountered will be encouraged to leave the Project footprint or relocated outside of the Project footprint if feasible.
- The Project biologist shall request that the contractor halt work, if necessary, and confer with Metro prior to contacting the appropriate regulatory agencies to ensure the proper implementation of species and habitat protection measures. The Project biologist shall report any noncompliance issue to Metro, and Metro will notify the appropriate regulatory agencies.
- The Project biologist shall inspect the Project footprint immediately prior to, and during, construction to identify the presence of invasive weeds and recommend measures to avoid their inadvertent spread in association with the Project. Such measures may include inspection and cleaning of construction equipment and use of eradication strategies.
- ESA fencing shall be placed along the perimeter of the identified work area, where necessary, to prevent inadvertent intrusions into habitat identified as ESA. Work areas will be clearly marked in the field and confirmed by the Project biologist or designated biologist prior to any clearing, and the marked boundaries will be

maintained throughout the duration of the work. Staging areas, including lay down areas and equipment storage areas, will be flagged and fenced with ESA fencing (e.g., orange plastic snow fence, orange silt fencing). Fences and flagging will be installed by the contractor in a manner that does not impact habitats to be avoided and such that it is clearly visible to personnel on foot and operating heavy equipment. If work occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied to the satisfaction of Metro.

- No work activities, materials or equipment storage, or access shall be permitted outside the Project limits without permission from Metro. All parking and equipment storage used by the contractor related to the Project shall be confined to the Project limits and established paved areas. Undisturbed areas and special-status vegetation communities outside and adjacent to the Project limits shall not be used for parking or equipment storage. Project-related vehicle traffic shall be restricted to the Project limits and established roads and construction access points.
- The contractor shall be required to conduct vehicle refueling and maintenance in upland areas where fuel cannot enter waters of the U.S. or waters of the State and areas that do not have suitable habitat to support federally and/or state-listed species. Equipment and containers shall be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces shall be cleaned up and disposed of in accordance with applicable local, state, and federal requirements.

BR-2 **Avoid Impacts on Migratory and Nesting Birds (All TCN Structures and locations of static display removal).** If construction activities occur between January 15 and September 15, a preconstruction nesting bird survey (within seven days prior to construction activities) shall be conducted by a qualified biologist to determine if active nests are present within the area proposed for disturbance in order to avoid the nesting activities of breeding birds by establishing a buffer until the fledglings have left the nest. The size of the buffer area varies with species and local circumstances (e.g., presence of busy roads) and is based on the professional judgement of the monitoring biologist, in coordination with the CDFW. The results of the surveys shall be submitted to Metro (and made available to the wildlife agencies [USFWS/CDFW], upon request) prior to initiation of any construction activities.

BR-3 **Avoid impacts on CAGN, and LBVI, if present (TCN Structures FF-24, FF-29, and FF-30).** Suitable habitat for CAGN, and LBVI shall be removed outside of the nesting season (February 15 through September 30), between September 1 and February 14 for CAGN and October 1 and March 14 for LBVI. Should habitat for CAGN and LBVI require removal between February 15 and August 30 for CAGN or between March 15 and September 30 for LBVI, or construction activities are initiated during this time, preconstruction surveys consisting of three separate surveys no more than 7 days prior to vegetation removal shall be conducted by a qualified biologist. Should CAGN and LBVI be detected within 500 feet of the Project limits, construction activities shall be halted unless authorization has been obtained from USFWS.

BR-4 **Avoid Potential Impacts on Special-Status Bats (All TCN Structures and locations of static display removal).**

A qualified bat biologist shall conduct a preconstruction survey for potential bat habitat within the take down area of the static display or Site Location prior to vegetation

clearing, and/or ground disturbance for take down locations and all Site Locations. If suitable habitat is not found, then no further action is required.

If suitable habitat is determined to be present:

- A qualified bat biologist shall survey potentially suitable structures and vegetation during bat maternity season (May 1st through October 1st), prior to construction, to assess the potential for the structures' and vegetation's use for bat roosting and bat maternity roosting, as maternity roosts are generally formed in spring. The qualified bat biologist shall also perform preconstruction surveys or temporary exclusion within 2 weeks prior to construction during the maternity season, as bat roosts can change seasonally. These surveys will include a combination of structure inspections, exit counts, and acoustic surveys.

If a roost is detected, a bat management plan shall be prepared if it is determined that Project construction would result in direct impacts on roosting bats. The bat management plan shall be submitted to California Department Fish and Wildlife (CDFW) for review and approval prior to implementation and include appropriate avoidance and minimization efforts such as:

- **Temporary Exclusion.** If recommended by the qualified bat biologist, to avoid indirect disturbance of bats while roosting in areas that would be adjacent to construction activities, any portion of a structure deemed by a qualified bat biologist to have potential bat roosting habitat that may be affected by the Project shall have temporary bat eviction and exclusion devices installed under the supervision of a qualified and permitted bat biologist prior to the initiation of construction activities. Eviction and subsequent exclusion shall be conducted during the fall (September or October) to avoid trapping flightless young bats inside during the summer months or hibernating/overwintering individuals during the winter. Such exclusion efforts are dependent on weather conditions, take a minimum of 2 weeks to implement, and must be continued to keep the structures free of bats until the completion of construction. All eviction and/or exclusion techniques shall be coordinated between the qualified bat biologist and the appropriate resource agencies (e.g., CDFW) if the structure is occupied by bats. If deemed appropriate, the biologist may recommend installation of temporary bat panels during construction.

If a roost is detected but would only be subject to indirect impacts:

- **Daytime Work Hours.** All work conducted under the occupied roost shall take place during the day. If this is not feasible, lighting and noise will be directed away from night roosting and foraging areas.

8 References

- Bat Conservation Trust and Institute of Lighting Professionals. 2018. Bats and Artificial Lighting in the UK. Accessed electronically on May 2022 via <https://cdn.bats.org.uk/pdf/Resources/ilp-guidance-note-8-bats-and-artificial-lighting-compressed.pdf?mtime=20181113114229&focal=none>.
- Beier, P. and S. Loe. 1992. A checklist for evaluating impacts to wildlife movement corridors. *Wildlife Society Bulletin* 20:434-440.
- Bunkley, Jesse et al. 2015. Anthropogenic Noise Alters Bat Activity Levels and Echolocation Calls. *Global Ecology and Conservation*. Volume 3, January 2015, Pages 62-71 accessed electronically June 2022 via <https://www.sciencedirect.com/science/article/pii/S235198941400064X>.
- CDFW. 2017. Ballona Wetlands Restoration Project Draft EIS/EIR. September 2017.
- _____. 2022. Rare Find 5 – California Natural Diversity Data Base (CNDDDB) Online Search. <http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>. May 2022.
- CEQA. 2012. California Natural Resources Agency. “California Environmental Quality Act.” <http://resources.ca.gov/ceqa/>. Viewed January 10, 2018.
- City of Los Angeles Department of Sanitation. 2022. Santa Monica Bay Watershed. https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-wp/s-lsh-wwd-wp-ewmp/s-lsh-wwd-wp-ewmp-smb?_afLoop=8017276451707946&_afWindowMode=0&_afWindowId=null&_adf.ctrl-state=102br2a0u6_78#!%40%40%3F_afWindowId%3Dnull%26_afLoop%3D8017276451707946%26_afWindowMode%3D0%26_adf.ctrl-state%3D102br2a0u6_82. Accessed June 2022.
- CNPS, Rare Plant Program. 2022a. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.45). Website <http://www.rareplants.cnps.org> [last accessed June 2022].
- _____. 2022b. Online Manual of California Vegetation, last accessed electronically <http://vegetation.cnps.org/> on May 2022.
- ESA. 2017. Ballona Wetlands Restoration Project Draft EIS/EIR. <https://wildlife.ca.gov/regions/5/ballona-eir>. Accessed May-June 2022.
- 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. http://www.natureserve.org/sites/default/files/publications/files/natureserve_conservationstatusmethodology_jun12_0.pdf.
- Google Earth. 2022. *Aerial imagery for the survey area*. Imagery dated: September 2021. Accessed: May-June 2022.
- Los Angeles County Department of Public Works (LADPW). 2022. Ballona Creek Watershed. <http://www.ladpw.org/wmd/watershed/bc/>. Accessed June 2022.
- RWQCB. 2022. Los Angeles River Watershed. https://www.waterboards.ca.gov/rwqcb4/water_issues/programs/regional_program/Water_Quality_and_Watersheds/los_angeles_river_watershed/la_summary.shtml. Accessed May 2022.

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. CNPS, Sacramento. 1,300 pp.

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.

Sepulveda Basin Wildlife Reserve.org. 2022. Sepulveda Basin Wildlife Reserve. <https://www.sepulvedabasinwildlife.org/sbwr.html>. Accessed June 2022.

USDA NRCS. 2022. Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usda.gov/>. Accessed June 2022.

USFWS. 2022a. Official Species List of threatened and endangered species that may occur in your proposed Project location, and/or may be affected by your proposed Project. Carlsbad Fish and Wildlife Office, Carlsbad, CA.

_____ 2022b. National Wetlands Inventory. Accessed electronically via <https://www.fws.gov/wetlands/data/mapper.html> on June 2022.

USGS. 2011. GAP/LANDFIRE National Terrestrial Ecosystems 2011 Data. <https://www.usgs.gov/programs/gap-analysis-project/science/land-cover-data-download>. Accessed May 2022.

Appendix A. Records Search Results

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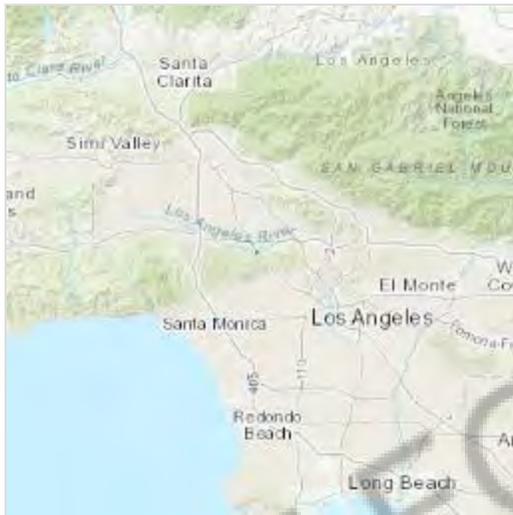
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Los Angeles County, California



Local offices

Carlsbad Fish And Wildlife Office

☎ (760) 431-9440

📠 (760) 431-5901

2177 Salk Avenue - Suite 250

Carlsbad, CA 92008-7385

Ventura Fish And Wildlife Office

☎ (805) 644-1766

📠 (805) 644-3958

2493 Portola Road, Suite B

Ventura, CA 93003-7726

<https://www.fws.gov/verobeach/>

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [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.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
California Condor <i>Gymnogyps californianus</i> There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/8193	Endangered
California Least Tern <i>Sterna antillarum browni</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Coastal California Gnatcatcher <i>Polioptila californica californica</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo <i>Vireo bellii pusillus</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/5945	Endangered
Light-footed Clapper Rail <i>Rallus longirostris levipes</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6035	Endangered
Marbled Murrelet <i>Brachyramphus marmoratus</i> There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/4467	Threatened

Southwestern Willow Flycatcher *Empidonax traillii extimus*

Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/6749>

Western Snowy Plover *Charadrius nivosus nivosus*

Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/8035>

Fishes

NAME

STATUS

Santa Ana Sucker *Catostomus santaanae*

Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/3785>

Insects

NAME

STATUS

Monarch Butterfly *Danaus plexippus*

Candidate

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

Crustaceans

NAME

STATUS

Riverside Fairy Shrimp *Streptocephalus woottoni*

Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/8148>

Vernal Pool Fairy Shrimp *Branchinecta lynchi*

Threatened

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/498>

Flowering Plants

NAME

STATUS

Braunton's Milk-vetch *Astragalus brauntonii*

Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/5674>

California Orcutt Grass *Orcuttia californica*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4923>

Coastal Dunes Milk-vetch *Astragalus tener* var. *titi*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/7675>

Gambel's Watercress *Rorippa gambellii*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4201>

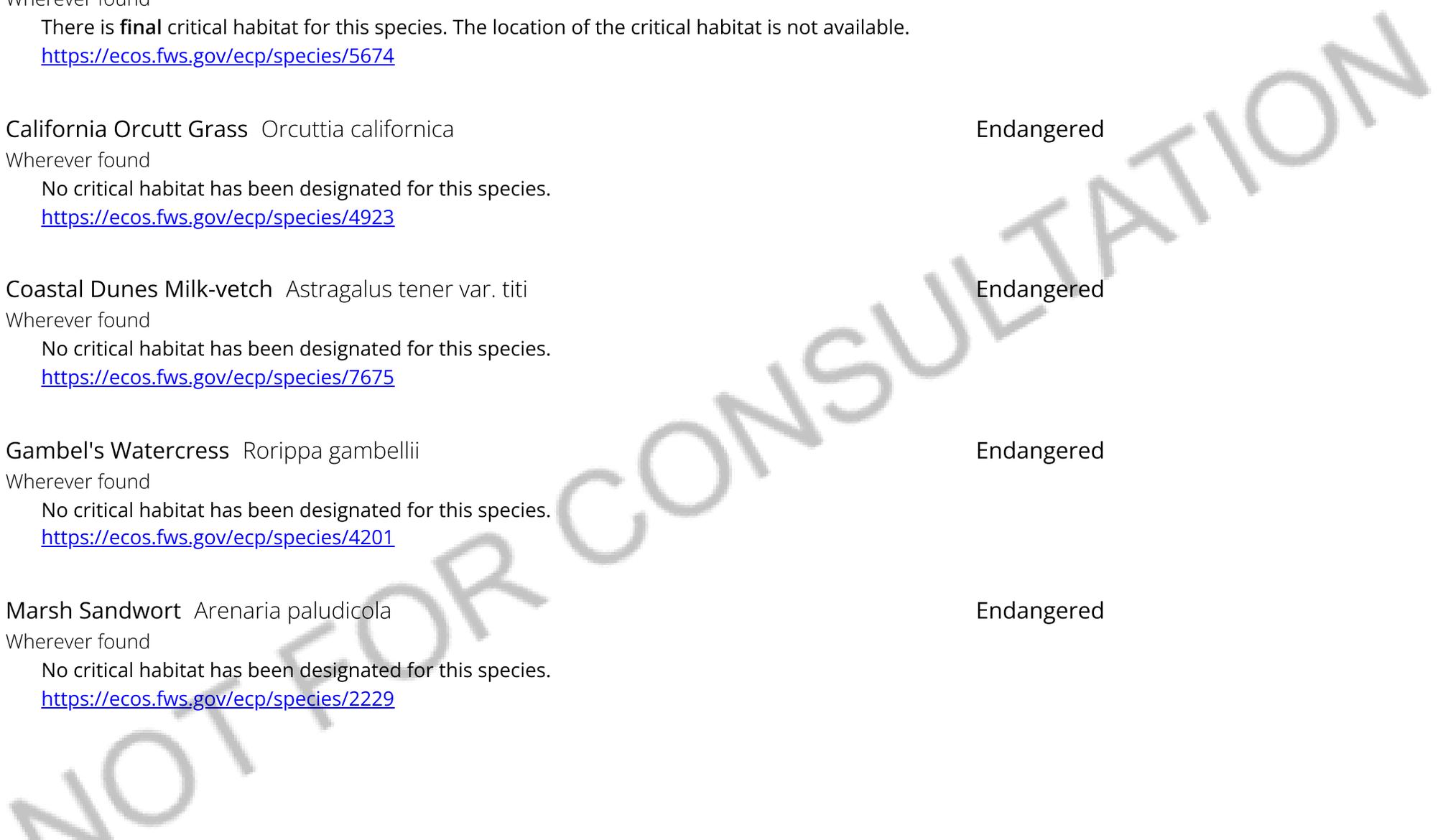
Marsh Sandwort *Arenaria paludicola*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/2229>



Nevin's Barberry *Berberis nevinii*

Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/8025>

Salt Marsh Bird's-beak *Cordylanthus maritimus* ssp. *maritimus*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/6447>

Slender-horned Spineflower *Dodecahema leptoceras*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4007>

Spreading Navarretia *Navarretia fossalis*

Threatened

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/1334>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\) list](#) or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Allen's Hummingbird *Selasphorus sasin*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9637>

Breeds Feb 1 to Jul 15

Bald Eagle *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

Breeds Jan 1 to Aug 31

Black Oystercatcher *Haematopus bachmani*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9591>

Breeds Apr 15 to Oct 31

Black Skimmer *Rynchops niger*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/5234>

Breeds May 20 to Sep 15

Black Swift *Cypseloides niger*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8878>

Breeds Jun 15 to Sep 10

Black Tern *Chlidonias niger*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3093>

Breeds May 15 to Aug 20

Black Turnstone *Arenaria melanocephala*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

Black-chinned Sparrow *Spizella atrogularis*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9447>

Breeds Apr 15 to Jul 31

California Thrasher *Toxostoma redivivum*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Jan 1 to Jul 31

Cassin's Finch *Carpodacus cassinii*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9462>

Breeds May 15 to Jul 15

Clark's Grebe *Aechmophorus clarkii*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Jun 1 to Aug 31

Common Yellowthroat *Geothlypis trichas sinuosa*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/2084>

Breeds May 20 to Jul 31

Golden Eagle *Aquila chrysaetos*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Breeds Jan 1 to Aug 31

Lawrence's Goldfinch *Carduelis lawrencei*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Breeds Mar 20 to Sep 20

Long-eared Owl *asio otus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3631>

Breeds Mar 1 to Jul 15

Marbled Godwit *Limosa fedoa*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9481>

Breeds elsewhere

Nuttall's Woodpecker *Picoides nuttallii*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9410>

Breeds Apr 1 to Jul 20

Oak Titmouse *Baeolophus inornatus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Breeds Mar 15 to Jul 15

Olive-sided Flycatcher *Contopus cooperi*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Breeds May 20 to Aug 31

Short-billed Dowitcher *Limnodromus griseus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9480>

Breeds elsewhere

Tricolored Blackbird *Agelaius tricolor*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3910>

Breeds Mar 15 to Aug 10

Willet *Tringa semipalmata*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



NOT FOR CONSULTATION

Black Skimmer
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the continental
USA and Alaska.)



Black Swift
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the continental
USA and Alaska.)



Black Tern
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the continental
USA and Alaska.)



Black Turnstone
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the continental
USA and Alaska.)



Black-chinned Sparrow
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the continental
USA and Alaska.)



California Thrasher
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the continental
USA and Alaska.)



NOT FOR CONSULTATION

Cassin's Finch
 BCC Rangewide (CON)
 (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Clark's Grebe
 BCC Rangewide (CON)
 (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Common Yellowthroat
 BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



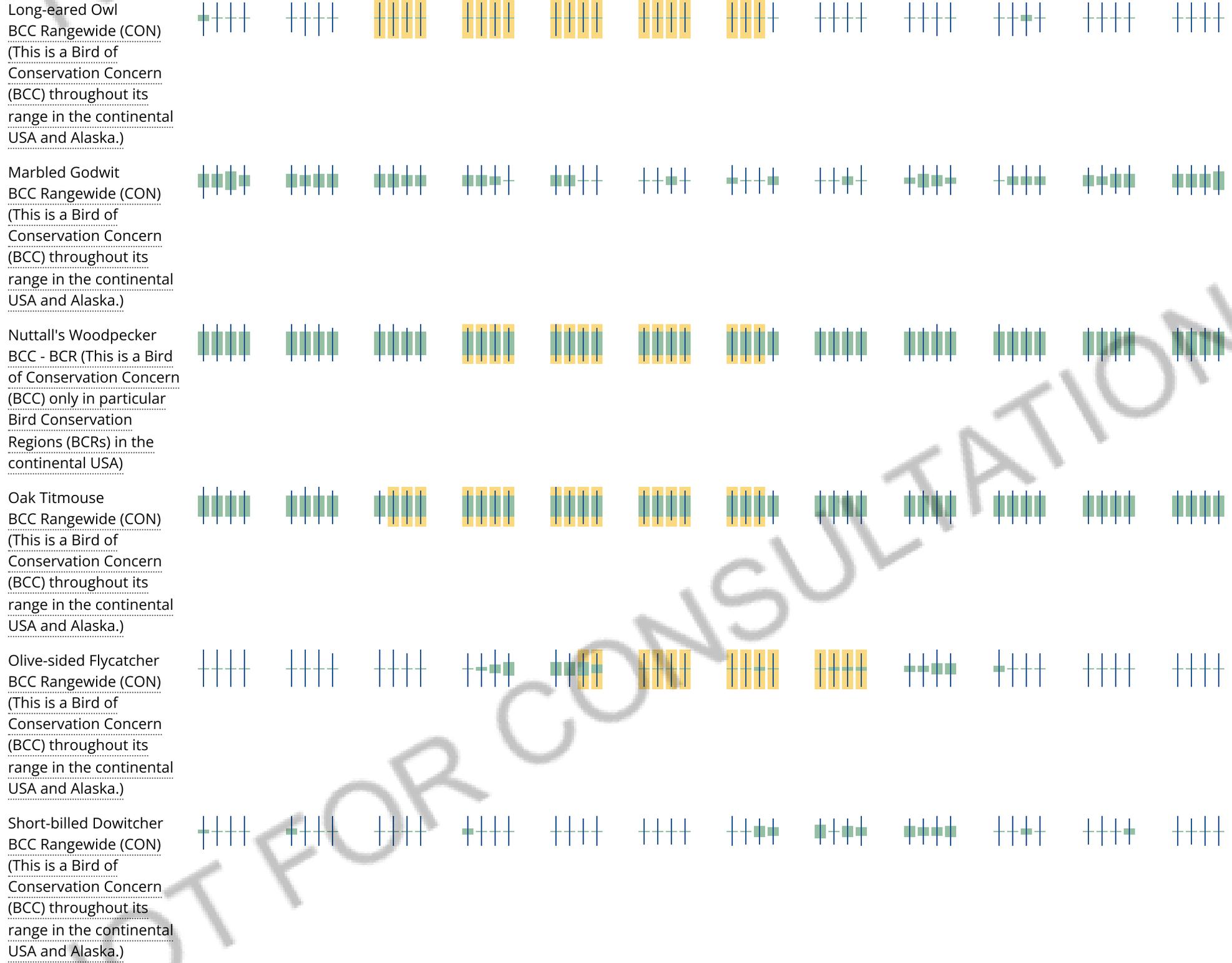
SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Golden Eagle
 Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



Lawrence's Goldfinch
 BCC Rangewide (CON)
 (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)





NOT FOR CONSULTATION

Tricolored Blackbird
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the continental
USA and Alaska.)



Willet
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the continental
USA and Alaska.)



Wrentit
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the continental
USA and Alaska.)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Coastal Barrier Resources System

Projects within the [John H. Chafee Coastal Barrier Resources System](#) (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local [Ecological Services Field Office](#) or visit the [CBRA Consultations website](#). The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

THERE ARE NO KNOWN COASTAL BARRIERS AT THIS LOCATION.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the [official CBRS maps](#). The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: <https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

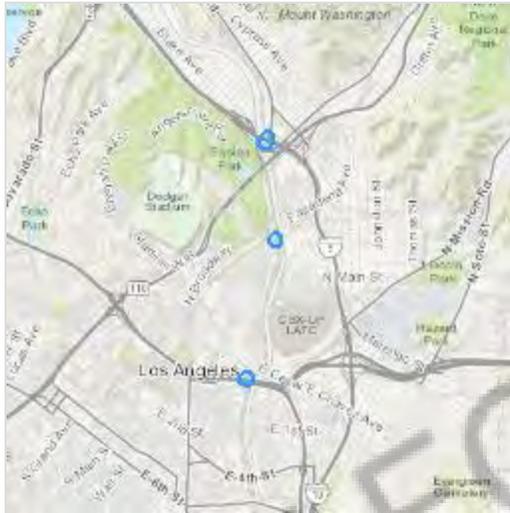
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Los Angeles County, California



Local office

Carlsbad Fish And Wildlife Office

☎ (760) 431-9440

📠 (760) 431-5901

2177 Salk Avenue - Suite 250

Carlsbad, CA 92008-7385

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

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For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
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3. Log in (if directed to do so).
4. Provide a name and description for your project.
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Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [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.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
Coastal California Gnatcatcher <i>Polioptila californica californica</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/8178	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\) list](#) or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Allen's Hummingbird *Selasphorus sasin*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9637>

Breeds Feb 1 to Jul 15

Bald Eagle *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

Breeds Jan 1 to Aug 31

Black Swift *Cypseloides niger*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8878>

Breeds Jun 15 to Sep 10

California Thrasher *Toxostoma redivivum*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Jan 1 to Jul 31

Clark's Grebe *Aechmophorus clarkii*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Jun 1 to Aug 31

Common Yellowthroat *Geothlypis trichas sinuosa*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/2084>

Breeds May 20 to Jul 31

Golden Eagle *Aquila chrysaetos*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Breeds Jan 1 to Aug 31

Lawrence's Goldfinch *Carduelis lawrencei*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Breeds Mar 20 to Sep 20

Long-eared Owl *asio otus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3631>

Breeds Mar 1 to Jul 15

Nuttall's Woodpecker *Picoides nuttallii*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9410>

Breeds Apr 1 to Jul 20

Oak Titmouse *Baeolophus inornatus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Breeds Mar 15 to Jul 15

Olive-sided Flycatcher *Contopus cooperi*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Breeds May 20 to Aug 31

Tricolored Blackbird *Agelaius tricolor*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3910>

Breeds Mar 15 to Aug 10

Willet *Tringa semipalmata*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

Wrentit *Chamaea fasciata*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Mar 15 to Aug 10

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

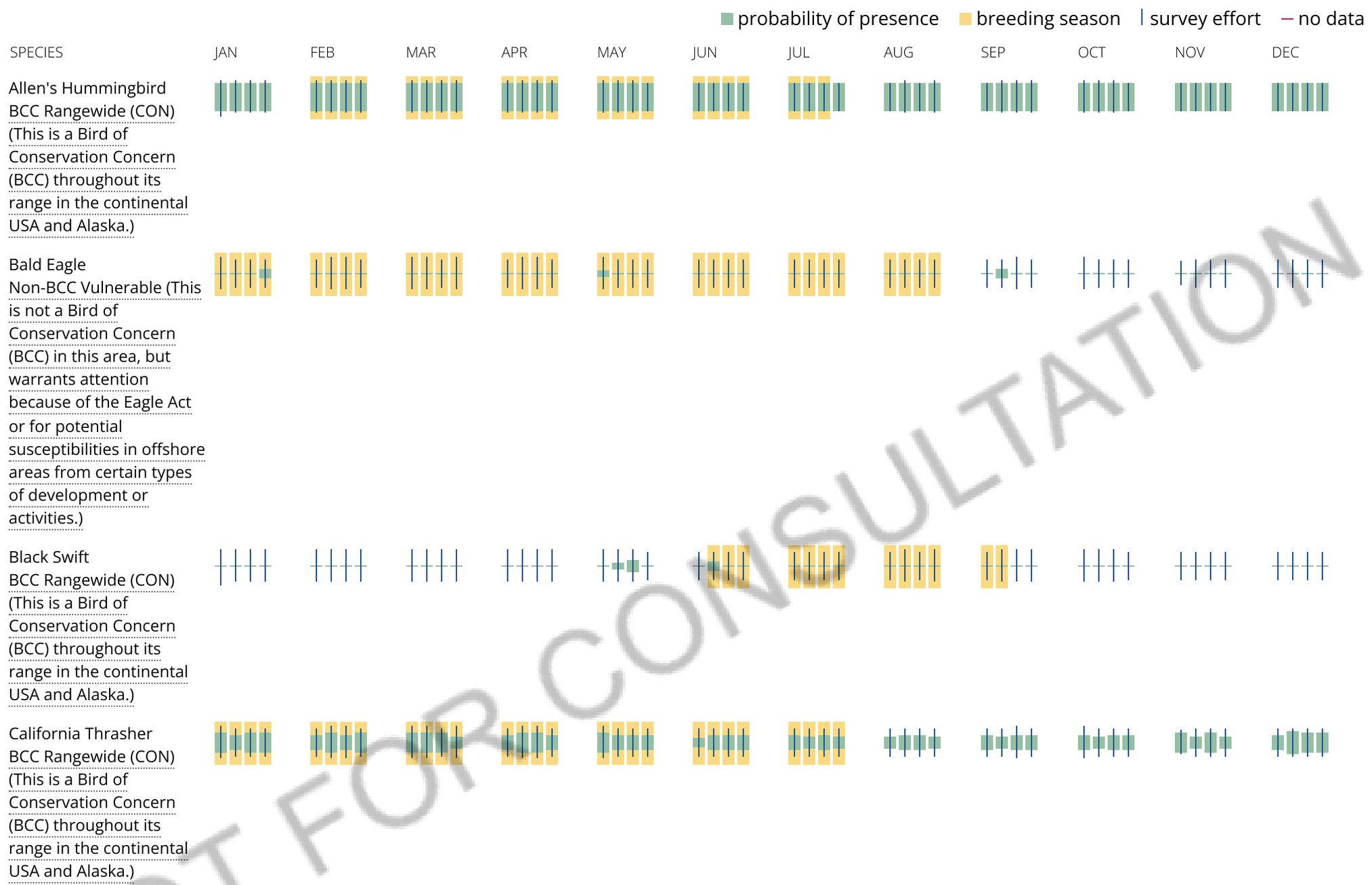
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

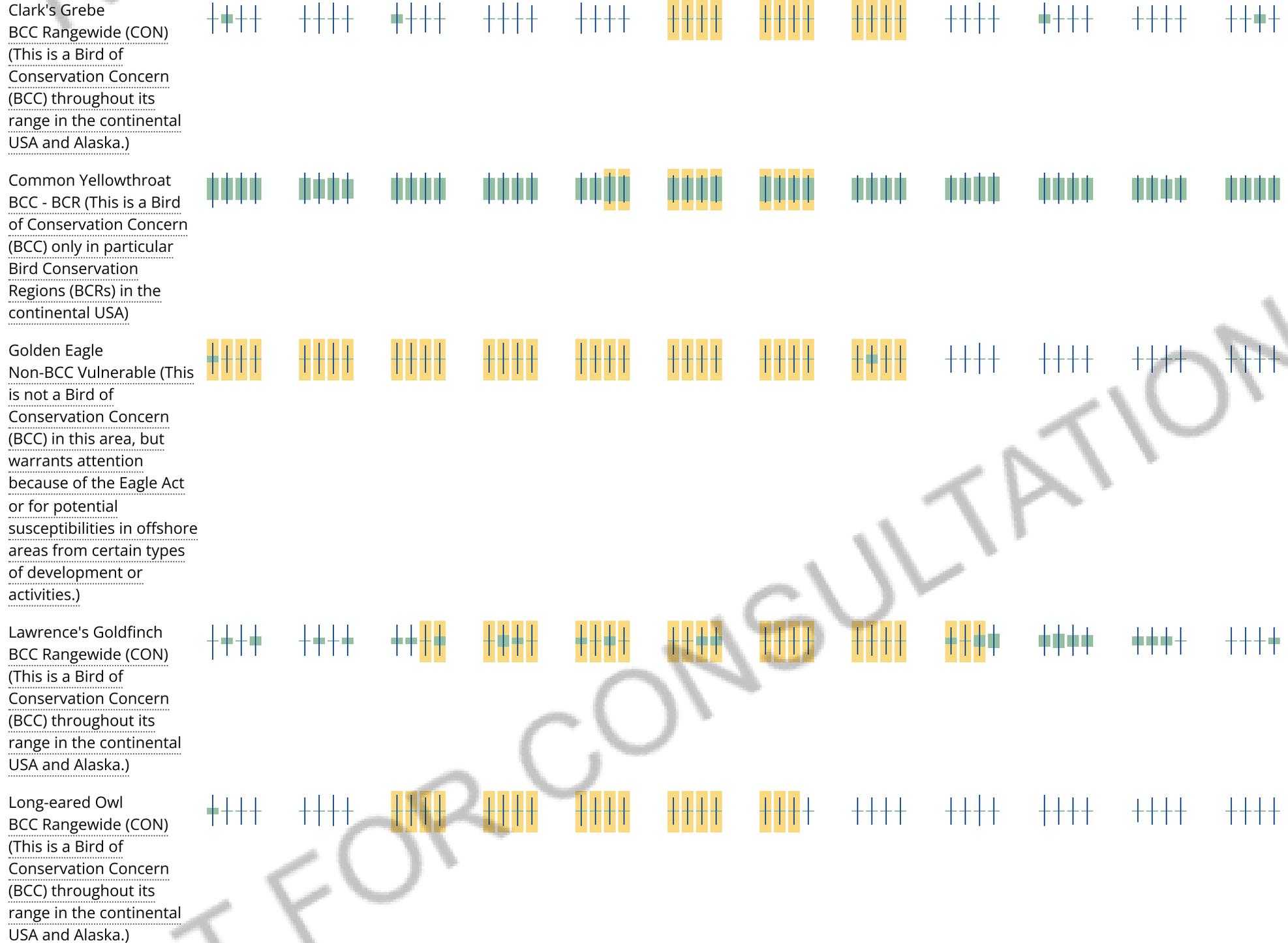
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



NOT FOR CONSULTATION



NOT FOR CONSULTATION

Nuttall's Woodpecker
 BCC - BCR (This is a Bird
 of Conservation Concern
 (BCC) only in particular
 Bird Conservation
 Regions (BCRs) in the
 continental USA)



Oak Titmouse
 BCC Rangewide (CON)
 (This is a Bird of
 Conservation Concern
 (BCC) throughout its
 range in the continental
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Olive-sided Flycatcher
 BCC Rangewide (CON)
 (This is a Bird of
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SPECIES

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

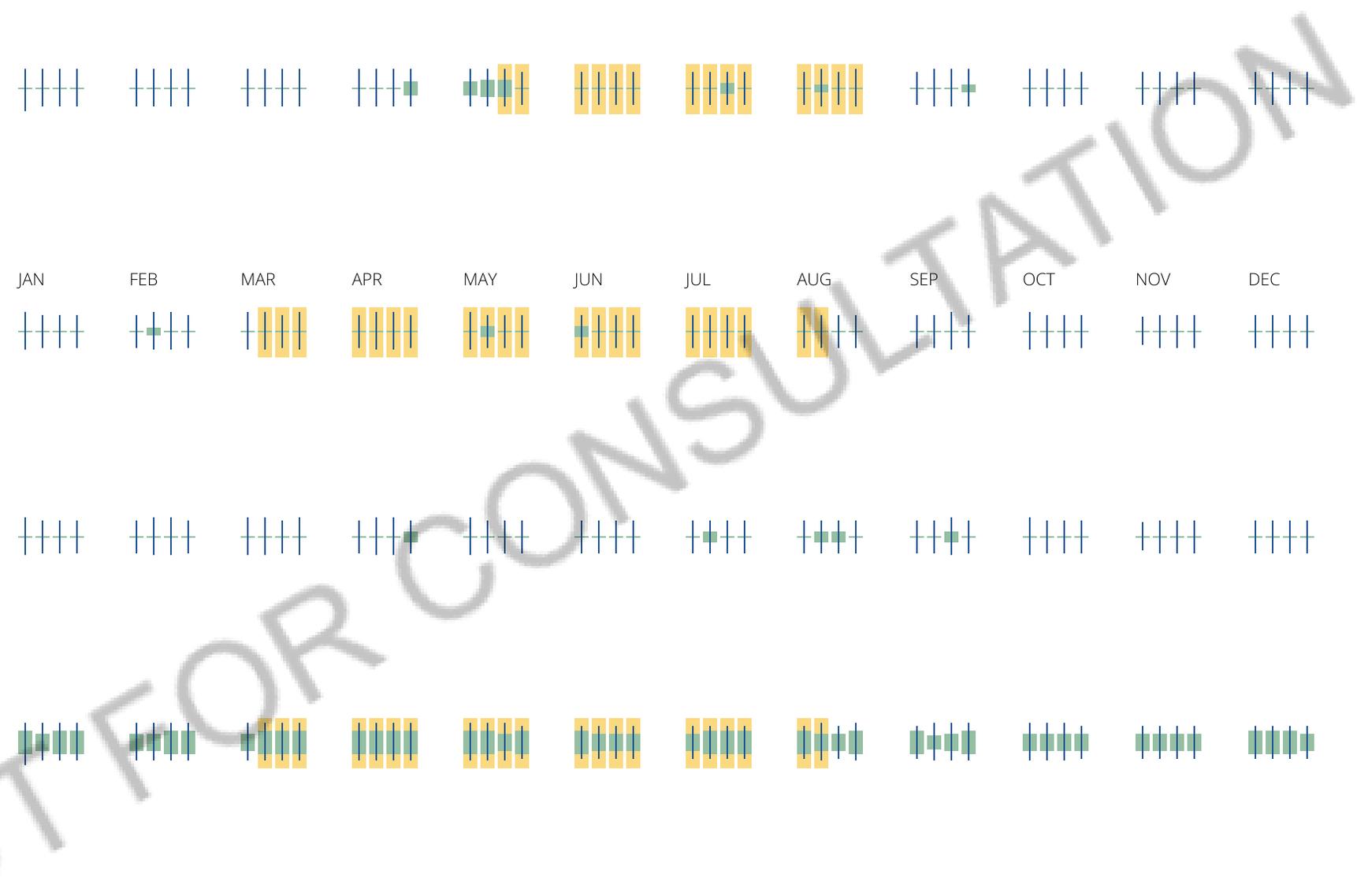
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 (This is a Bird of
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Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);

2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Coastal Barrier Resources System

Projects within the [John H. Chafee Coastal Barrier Resources System](#) (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local [Ecological Services Field Office](#) or visit the [CBRA Consultations website](#). The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

THERE ARE NO KNOWN COASTAL BARRIERS AT THIS LOCATION.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the [official CBRS maps](#). The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: <https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

[Riverine](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

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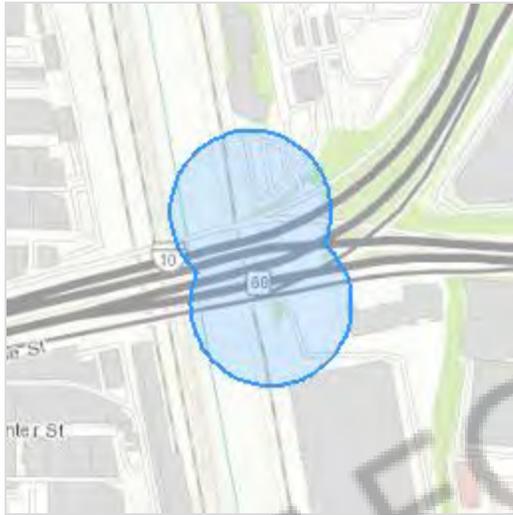
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Location

Los Angeles County, California



Local office

Carlsbad Fish And Wildlife Office

☎ (760) 431-9440

📠 (760) 431-5901

2177 Salk Avenue - Suite 250

Carlsbad, CA 92008-7385

NOT FOR CONSULTATION

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Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

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1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [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.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
Coastal California Gnatcatcher <i>Polioptila californica californica</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/8178	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\) list](#) or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Allen's Hummingbird *Selasphorus sasin*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9637>

Breeds Feb 1 to Jul 15

Black Swift *Cypseloides niger*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8878>

Breeds Jun 15 to Sep 10

Common Yellowthroat *Geothlypis trichas sinuosa*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/2084>

Breeds May 20 to Jul 31

Lawrence's Goldfinch *Carduelis lawrencei*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Breeds Mar 20 to Sep 20

Nuttall's Woodpecker *Picoides nuttallii*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9410>

Breeds Apr 1 to Jul 20

Olive-sided Flycatcher *Contopus cooperi*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Breeds May 20 to Aug 31

Wrentit *Chamaea fasciata*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Mar 15 to Aug 10

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

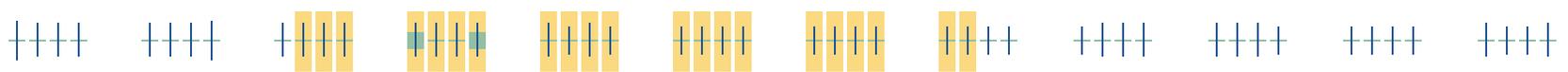
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Wrentit
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the continental
USA and Alaska.)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your

project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and,

therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Coastal Barrier Resources System

Projects within the [John H. Chafee Coastal Barrier Resources System](#) (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local [Ecological Services Field Office](#) or visit the [CBRA Consultations website](#). The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

THERE ARE NO KNOWN COASTAL BARRIERS AT THIS LOCATION.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the [official CBRS maps](#). The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: <https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

[Riverine](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad (San Fernando (3411834) OR Burbank (3411823) OR Pasadena (3411822) OR Van Nuys (3411824) OR Los Angeles (3411812) OR Hollywood (3411813) OR Beverly Hills (3411814) OR Venice (3311884) OR Inglewood (3311883) OR Oat Mountain (3411835) OR Canoga Park (3411825) OR Topanga (3411815) OR Sunland (3411833) OR El Monte (3411811) OR South Gate (3311882) OR Torrance (3311873) OR Mint Canyon (3411844) OR Newhall (3411845)) OR Elevation (greater than OR equal to "0" AND Elevation less than OR equal to "1900")

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
<i>Aglaothorax longipennis</i> Santa Monica shieldback katydid	IIORT32020	None	None	G1G2	S1S2	
<i>Aimophila ruficeps canescens</i> southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	S3	WL
<i>Ammodramus savannarum</i> grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
<i>Anaxyrus californicus</i> arroyo toad	AAABB01230	Endangered	None	G2G3	S2S3	SSC
<i>Anniella spp.</i> California legless lizard	ARACC01070	None	None	G3G4	S3S4	SSC
<i>Anniella stebbinsi</i> Southern California legless lizard	ARACC01060	None	None	G3	S3	SSC
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G4	S3	SSC
<i>Arenaria paludicola</i> marsh sandwort	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1
<i>Arizona elegans occidentalis</i> California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
<i>Artemisiospiza belli belli</i> Bell's sage sparrow	ABPBX97021	None	None	G5T2T3	S3	WL
<i>Aspidoscelis tigris stejnegeri</i> coastal whiptail	ARACJ02143	None	None	G5T5	S3	SSC
<i>Astragalus brauntonii</i> Braunton's milk-vetch	PDFAB0F1G0	Endangered	None	G2	S2	1B.1
<i>Astragalus pycnostachyus var. lanosissimus</i> Ventura Marsh milk-vetch	PDFAB0F7B1	Endangered	Endangered	G2T1	S1	1B.1
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Atriplex pacifica</i> south coast saltscale	PDCHE041C0	None	None	G4	S2	1B.2



Selected Elements by Scientific Name
 California Department of Fish and Wildlife
 California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Atriplex parishii</i> Parish's brittle scale	PDCHE041D0	None	None	G1G2	S1	1B.1
<i>Berberis nevini</i> Nevin's barberry	PDBER060A0	Endangered	Endangered	G1	S1	1B.1
<i>Bombus crotchii</i> Crotch bumble bee	IIHYM24480	None	None	G2	S1S2	
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<i>Brennania belkini</i> Belkin's dune tabanid fly	IIDIP17010	None	None	G1G2	S1S2	
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
California Walnut Woodland California Walnut Woodland	CTT71210CA	None	None	G2	S2.1	
<i>Calochortus clavatus var. gracilis</i> slender mariposa-lily	PMLIL0D096	None	None	G4T2T3	S2S3	1B.2
<i>Calochortus plummerae</i> Plummer's mariposa-lily	PMLIL0D150	None	None	G4	S4	4.2
<i>Calochortus weedii var. intermedius</i> intermediate mariposa-lily	PMLIL0D1J1	None	None	G3G4T3	S3	1B.2
<i>Calystegia felix</i> lucky morning-glory	PDCON040P0	None	None	G1Q	S1	1B.1
<i>Calystegia peirsonii</i> Peirson's morning-glory	PDCON040A0	None	None	G4	S4	4.2
<i>Catostomus santaanae</i> Santa Ana sucker	AFCJC02190	Threatened	None	G1	S1	
<i>Centromadia parryi ssp. australis</i> southern tarplant	PDAST4R0P4	None	None	G3T2	S2	1B.1
<i>Chaenactis glabriuscula var. orcuttiana</i> Orcutt's pincushion	PDAST20095	None	None	G5T1T2	S1	1B.1
<i>Charadrius nivosus nivosus</i> western snowy plover	ABNNB03031	Threatened	None	G3T3	S2	SSC
<i>Chloropyron maritimum ssp. maritimum</i> salt marsh bird's-beak	PDSCR0J0C2	Endangered	Endangered	G4?T1	S1	1B.2
<i>Chorizanthe parryi var. fernandina</i> San Fernando Valley spineflower	PDPGN040J1	None	Endangered	G2T1	S1	1B.1
<i>Chorizanthe parryi var. parryi</i> Parry's spineflower	PDPGN040J2	None	None	G3T2	S2	1B.1
<i>Cicindela hirticollis gravida</i> sandy beach tiger beetle	IICOL02101	None	None	G5T2	S2	
<i>Cicindela latesignata</i> western beach tiger beetle	IICOL02110	None	None	G2G3	S1	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Cicindela senilis frosti</i> senile tiger beetle	IICOL02121	None	None	G2G3T1T3	S1	
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
<i>Coelus globosus</i> globose dune beetle	IICOL4A010	None	None	G1G2	S1S2	
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
<i>Coturnicops noveboracensis</i> yellow rail	ABNME01010	None	None	G4	S1S2	SSC
<i>Danaus plexippus pop. 1</i> monarch - California overwintering population	IILEPP2012	Candidate	None	G4T2T3	S2S3	
<i>Deinandra minthornii</i> Santa Susana tarplant	PDAST4R0J0	None	Rare	G2	S2	1B.2
<i>Diadophis punctatus modestus</i> San Bernardino ringneck snake	ARADB10015	None	None	G5T2T3	S2?	
<i>Dithyrea maritima</i> beach spectaclepod	PDBRA10020	None	Threatened	G1	S1	1B.1
<i>Dodecahema leptoceras</i> slender-horned spineflower	PDPGN0V010	Endangered	Endangered	G1	S1	1B.1
<i>Dudleya cymosa ssp. ovatifolia</i> Santa Monica dudleya	PDCRA040A5	Threatened	None	G5T1	S1	1B.1
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S1	
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Eremophila alpestris actia</i> California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
<i>Eucosma hennei</i> Henne's eucosman moth	IILEM0R390	None	None	G1	S1	
<i>Euderma maculatum</i> spotted bat	AMACC07010	None	None	G4	S3	SSC
<i>Eugnosta busckana</i> Busck's gallmoth	IILEM2X090	None	None	G1G3	SH	
<i>Eumops perotis californicus</i> western mastiff bat	AMACD02011	None	None	G4G5T4	S3S4	SSC
<i>Euphilotes battoides allyni</i> El Segundo blue butterfly	IILEPG201B	Endangered	None	G5T1	S1	
<i>Euphydryas editha quino</i> quino checkerspot butterfly	IILEPK405L	Endangered	None	G5T1T2	S1S2	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Falco peregrinus anatum</i> American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
<i>Gasterosteus aculeatus williamsoni</i> unarmored threespine stickleback	AFCPA03011	Endangered	Endangered	G5T1	S1	FP
<i>Gila orcuttii</i> arroyo chub	AFCJB13120	None	None	G2	S2	SSC
<i>Glaucopsyche lygdamus palosverdesensis</i> Palos Verdes blue butterfly	IILEPG402A	Endangered	None	G5T1	S1	
<i>Glyptostoma gabriellense</i> San Gabriel chestnut	IMGASB1010	None	None	G2	S2	
<i>Gonidea angulata</i> western ridged mussel	IMBIV19010	None	None	G3	S1S2	
<i>Habroscelimorpha gabbii</i> western tidal-flat tiger beetle	IICOL02080	None	None	G2G4	S1	
<i>Harpagonella palmeri</i> Palmer's grapplinghook	PDBOR0H010	None	None	G4	S3	4.2
<i>Helianthus inexpectatus</i> Newhall sunflower	PDAST4N250	None	None	G1	S1	1B.1
<i>Helianthus nuttallii ssp. parishii</i> Los Angeles sunflower	PDAST4N102	None	None	G5TX	SX	1A
<i>Helminthoglypta fontiphila</i> Soledad shoulderband	IMGASC2250	None	None	G1	S1	
<i>Helminthoglypta traskii pacuimensis</i> Pacoima shoulderband	IMGASC2472	None	None	G1G2T1	S1	
<i>Horkelia cuneata var. puberula</i> mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
<i>Icteria virens</i> yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
<i>Lanius ludovicianus</i> loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
<i>Lasiurus cinereus</i> hoary bat	AMACC05030	None	None	G3G4	S4	
<i>Lasiurus xanthinus</i> western yellow bat	AMACC05070	None	None	G4G5	S3	SSC
<i>Lasthenia glabrata ssp. coulteri</i> Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3T1	S1	FP
<i>Lepidium virginicum var. robinsonii</i> Robinson's pepper-grass	PDBRA1M114	None	None	G5T3	S3	4.3
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	AMAEB03051	None	None	G5T3T4	S3S4	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Lupinus paynei</i> Payne's bush lupine	PDFAB2B580	None	None	G1Q	S1	1B.1
<i>Macrotus californicus</i> California leaf-nosed bat	AMACB01010	None	None	G3G4	S3	SSC
<i>Mainland Cherry Forest</i> Mainland Cherry Forest	CTT81820CA	None	None	G1	S1.1	
<i>Malacothamnus davidsonii</i> Davidson's bush-mallow	PDMAL0Q040	None	None	G2	S2	1B.2
<i>Microtus californicus stephensi</i> south coast marsh vole	AMAFF11035	None	None	G5T2T3	S1S2	SSC
<i>Monardella hypoleuca ssp. hypoleuca</i> white-veined monardella	PDLAM180A5	None	None	G4T3	S3	1B.3
<i>Nama stenocarpa</i> mud nama	PDHYD0A0H0	None	None	G4G5	S1S2	2B.2
<i>Navarretia fossalis</i> spreading navarretia	PDPLM0C080	Threatened	None	G2	S2	1B.1
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	PDPLM0C0Q0	None	None	G2	S2	1B.2
<i>Navarretia setiloba</i> Piute Mountains navarretia	PDPLM0C0S0	None	None	G2	S2	1B.1
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
<i>Nyctinomops femorosaccus</i> pocketed free-tailed bat	AMACD04010	None	None	G5	S3	SSC
<i>Nyctinomops macrotis</i> big free-tailed bat	AMACD04020	None	None	G5	S3	SSC
<i>Oncorhynchus mykiss irideus pop. 10</i> steelhead - southern California DPS	AFCHA0209J	Endangered	None	G5T1Q	S1	
<i>Onychobaris langei</i> Lange's El Segundo Dune weevil	IICOL4W010	None	None	G1	S1	
<i>Onychomys torridus ramona</i> southern grasshopper mouse	AMAFF06022	None	None	G5T3	S3	SSC
<i>Opuntia basilaris var. brachyclada</i> short-joint beavertail	PDCAC0D053	None	None	G5T3	S3	1B.2
<i>Orcuttia californica</i> California Orcutt grass	PMPOA4G010	Endangered	Endangered	G1	S1	1B.1
<i>Panoquina errans</i> wandering (=saltmarsh) skipper	IILEP84030	None	None	G4G5	S2	
<i>Passerculus sandwichensis beldingi</i> Belding's savannah sparrow	ABPBX99015	None	Endangered	G5T3	S3	
<i>Pelecanus occidentalis californicus</i> California brown pelican	ABNFC01021	Delisted	Delisted	G4T3T4	S3	FP



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Perognathus longimembris brevinasus</i> Los Angeles pocket mouse	AMAFD01041	None	None	G5T2	S1S2	SSC
<i>Perognathus longimembris pacificus</i> Pacific pocket mouse	AMAFD01042	Endangered	None	G5T1	S1	SSC
<i>Phacelia stellaris</i> Brand's star phacelia	PDHYD0C510	None	None	G1	S1	1B.1
<i>Phrynosoma blainvillii</i> coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
<i>Poliophtila californica californica</i> coastal California gnatcatcher	ABPBJ08081	Threatened	None	G4G5T3Q	S2	SSC
<i>Potentilla multijuga</i> Ballona cinquefoil	PDROS1B120	None	None	GX	SX	1A
<i>Pseudognaphalium leucocephalum</i> white rabbit-tobacco	PDAST440C0	None	None	G4	S2	2B.2
<i>Quercus dumosa</i> Nuttall's scrub oak	PDFAG050D0	None	None	G3	S3	1B.1
<i>Rana muscosa</i> southern mountain yellow-legged frog	AAABH01330	Endangered	Endangered	G1	S1	WL
<i>Rhinichthys osculus ssp. 8</i> Santa Ana speckled dace	AFCJB3705K	None	None	G5T1	S1	SSC
<i>Ribes divaricatum var. parishii</i> Parish's gooseberry	PDGRO020F3	None	None	G5TX	SX	1A
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<i>Riversidian Alluvial Fan Sage Scrub</i> Riversidian Alluvial Fan Sage Scrub	CTT32720CA	None	None	G1	S1.1	
<i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<i>Scutellaria bolanderi ssp. austromontana</i> southern mountains skullcap	PDLAM1U0A1	None	None	G4T3	S3	1B.2
<i>Sidalcea neomexicana</i> salt spring checkerbloom	PDMAL110J0	None	None	G4	S2	2B.2
<i>Siphoteles bicolor mohavensis</i> Mohave tui chub	AFCJB1303H	Endangered	Endangered	G4T1	S1	FP
<i>Socalchemmis gertschi</i> Gertsch's socialchemmis spider	ILARAU7010	None	None	G1	S1	
<i>Sorex ornatus salicornicus</i> southern California saltmarsh shrew	AMABA01104	None	None	G5T1?	S1	SSC
<i>Southern California Arroyo Chub/Santa Ana Sucker Stream</i> Southern California Arroyo Chub/Santa Ana Sucker Stream	CARE2330CA	None	None	GNR	SNR	
<i>Southern California Threespine Stickleback Stream</i> Southern California Threespine Stickleback Stream	CARE2320CA	None	None	GNR	SNR	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Southern Coast Live Oak Riparian Forest Southern Coast Live Oak Riparian Forest	CTT61310CA	None	None	G4	S4	
Southern Coastal Salt Marsh Southern Coastal Salt Marsh	CTT52120CA	None	None	G2	S2.1	
Southern Cottonwood Willow Riparian Forest Southern Cottonwood Willow Riparian Forest	CTT61330CA	None	None	G3	S3.2	
Southern Dune Scrub Southern Dune Scrub	CTT21330CA	None	None	G1	S1.1	
Southern Mixed Riparian Forest Southern Mixed Riparian Forest	CTT61340CA	None	None	G2	S2.1	
Southern Riparian Scrub Southern Riparian Scrub	CTT63300CA	None	None	G3	S3.2	
Southern Sycamore Alder Riparian Woodland Southern Sycamore Alder Riparian Woodland	CTT62400CA	None	None	G4	S4	
Southern Willow Scrub Southern Willow Scrub	CTT63320CA	None	None	G3	S2.1	
Spea hammondi western spadefoot	AAABF02020	None	None	G2G3	S3	SSC
Spermolepis lateriflora western bristly scaleseed	PDAP123080	None	None	G5	SH	2A
Sternula antillarum browni California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
Streptocephalus woottoni Riverside fairy shrimp	ICBRA07010	Endangered	None	G1G2	S1S2	
Symphotrichum greatae Greata's aster	PDASTE80U0	None	None	G2	S2	1B.3
Taricha torosa Coast Range newt	AAAAF02032	None	None	G4	S4	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis hammondi two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
Thelypteris puberula var. sonorensis Sonoran maiden fern	PPTHE05192	None	None	G5T3	S2	2B.2
Trigonoscuta dorothea dorothea Dorothy's El Segundo Dune weevil	IICOL51021	None	None	G1T1	S1	
Tryonia imitator mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	
Valley Oak Woodland Valley Oak Woodland	CTT71130CA	None	None	G3	S2.1	
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Walnut Forest</i> Walnut Forest	CTT81600CA	None	None	G1	S1.1	

Record Count: 144



Search Results

32 matches found. Click on scientific name for details

Search Criteria: 9-Quad include

[3411834:3411823:3411822:3411824:3411812:3411813:3411814:3311884:3311883:3411835:3411825:3411815:3411833:3411811:3311882:3311873:3411844:3411845]

Elevation above 0 feet, Elevation below 1900 feet

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
<u><i>Abronia maritima</i></u>	red sand-verbena	Nyctaginaceae	perennial herb	Feb-Nov	None	None	G4	S3?	4.2	 ©2003 Christopher L. Christie
<u><i>Aphanisma blitoides</i></u>	aphanisma	Chenopodiaceae	annual herb	Feb-Jun	None	None	G3G4	S2	1B.2	 © 2010 Larry Sward
<u><i>Arenaria paludicola</i></u>	marsh sandwort	Caryophyllaceae	perennial stoloniferous herb	May-Aug	FE	CE	G1	S1	1B.1	No Photo Available
<u><i>Astragalus pycnostachyus</i></u> var. <u><i>lanosissimus</i></u>	Ventura Marsh milk-vetch	Fabaceae	perennial herb	(Jun)Aug-Oct	FE	CE	G2T1	S1	1B.1	No Photo Available
<u><i>Astragalus tener</i></u> var. <u><i>titi</i></u>	coastal dunes milk-vetch	Fabaceae	annual herb	Mar-May	FE	CE	G2T1	S1	1B.1	No Photo Available
<u><i>Atriplex coulteri</i></u>	Coulter's saltbush	Chenopodiaceae	perennial herb	Mar-Oct	None	None	G3	S1S2	1B.2	No Photo Available
<u><i>Atriplex pacifica</i></u>	south coast saltscale	Chenopodiaceae	annual herb	Mar-Oct	None	None	G4	S2	1B.2	No Photo Available
<u><i>Atriplex serenana</i></u> var. <u><i>dauidsonii</i></u>	Davidson's saltscale	Chenopodiaceae	annual herb	Apr-Oct	None	None	G5T1	S1	1B.2	No Photo Available
<u><i>Calystegia felix</i></u>	lucky morning-glory	Convolvulaceae	annual rhizomatous herb	Mar-Sep	None	None	G1Q	S1	1B.1	No Photo Available
<u><i>Camissoniopsis lewisii</i></u>	Lewis' evening-primrose	Onagraceae	annual herb	Mar-May(Jun)	None	None	G4	S4	3	No Photo Available
<u><i>Centromadia parryi</i></u> ssp. <u><i>australis</i></u>	southern tarplant	Asteraceae	annual herb	May-Nov	None	None	G3T2	S2	1B.1	No Photo Available
<u><i>Chaenactis glabriuscula</i></u> var. <u><i>glabriuscula</i></u>	Orcutt's pincushion	Asteraceae	annual herb	Jan-Aug	None	None	G5T1T2	S1	1B.1	No Photo Available

<i>orcuttiana</i>											Available
<i>Chenopodium littoreum</i>	coastal goosefoot	Chenopodiaceae	annual herb	Apr-Aug	None	None	G1	S1	1B.2	No Photo Available	
<i>Chloropyron maritimum ssp. maritimum</i>	salt marsh bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct(Nov)	FE	CE	G4?T1	S1	1B.2	No Photo Available	
<i>Cuscuta obtusiflora var. glandulosa</i>	Peruvian dodder	Convolvulaceae	annual vine (parasitic)	Jul-Oct	None	None	G5T4?	SH	2B.2	No Photo Available	
<i>Dichondra occidentalis</i>	western dichondra	Convolvulaceae	perennial rhizomatous herb	(Jan)Mar-Jul	None	None	G3G4	S3S4	4.2	No Photo Available	
<i>Dithyrea maritima</i>	beach spectaclepod	Brassicaceae	perennial rhizomatous herb	Mar-May	None	CT	G1	S1	1B.1	No Photo Available	
<i>Dudleya blochmaniae ssp. blochmaniae</i>	Blochman's dudleya	Crassulaceae	perennial herb	Apr-Jun	None	None	G3T2	S2	1B.1	No Photo Available	
<i>Erysimum insulare</i>	island wallflower	Brassicaceae	perennial herb	Mar-Jul	None	None	G3	S3	1B.3	No Photo Available	
<i>Erysimum suffrutescens</i>	suffrutescent wallflower	Brassicaceae	perennial herb	Jan-Jul(Aug)	None	None	G3	S3	4.2	No Photo Available	
<i>Helianthus inexpectatus</i>	Newhall sunflower	Asteraceae	perennial rhizomatous herb	Aug-Oct	None	None	G1	S1	1B.1	 © 2012 Anuja Parikh and Nathan Gale	
<i>Isocoma menziesii var. decumbens</i>	decumbent goldenbush	Asteraceae	perennial shrub	Apr-Nov	None	None	G3G5T2T3	S2	1B.2	No Photo Available	
<i>Lupinus paynei</i>	Payne's bush lupine	Fabaceae	perennial shrub	Mar-Apr(May-Jul)	None	None	G1Q	S1	1B.1	No Photo Available	
<i>Nama stenocarpa</i>	mud nama	Namaceae	annual/perennial herb	Jan-Jul	None	None	G4G5	S1S2	2B.2	No Photo Available	
<i>Nasturtium gambelii</i>	Gambel's water cress	Brassicaceae	perennial rhizomatous herb	Apr-Oct	FE	CT	G1	S1	1B.1	No Photo Available	
<i>Phacelia ramosissima var. australitoralis</i>	south coast branching phacelia	Hydrophyllaceae	perennial herb	Mar-Aug	None	None	G5?T3Q	S3	3.2	No Photo Available	
<i>Phacelia stellaris</i>	Brand's star phacelia	Hydrophyllaceae	annual herb	Mar-Jun	None	None	G1	S1	1B.1	No Photo Available	
<i>Potentilla multijuga</i>	Ballona cinquefoil	Rosaceae	perennial herb	Jun-Aug	None	None	GX	SX	1A	No Photo Available	

<i>Quercus dumosa</i>	Nuttall's scrub oak	Fagaceae	perennial evergreen shrub	Feb-Apr(May-Aug)	None	None	G3	S3	1B.1	No Photo Available
<i>Ribes divaricatum</i> var. <i>parishii</i>	Parish's gooseberry	Grossulariaceae	perennial deciduous shrub	Feb-Apr	None	None	G5TX	SX	1A	No Photo Available
<i>Suaeda esteroa</i>	estuary seablite	Chenopodiaceae	perennial herb	(Jan-May)Jul-Oct	None	None	G3	S2	1B.2	No Photo Available
<i>Suaeda taxifolia</i>	woolly seablite	Chenopodiaceae	perennial evergreen shrub	Jan-Dec	None	None	G4	S4	4.2	No Photo Available

Showing 1 to 32 of 32 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2022. Rare Plant Inventory (online edition, v9-01 1.5). Website <https://www.rareplants.cnps.org> [accessed 23 May 2022].

CONTACT US

Send questions and comments to rareplants@cnps.org.



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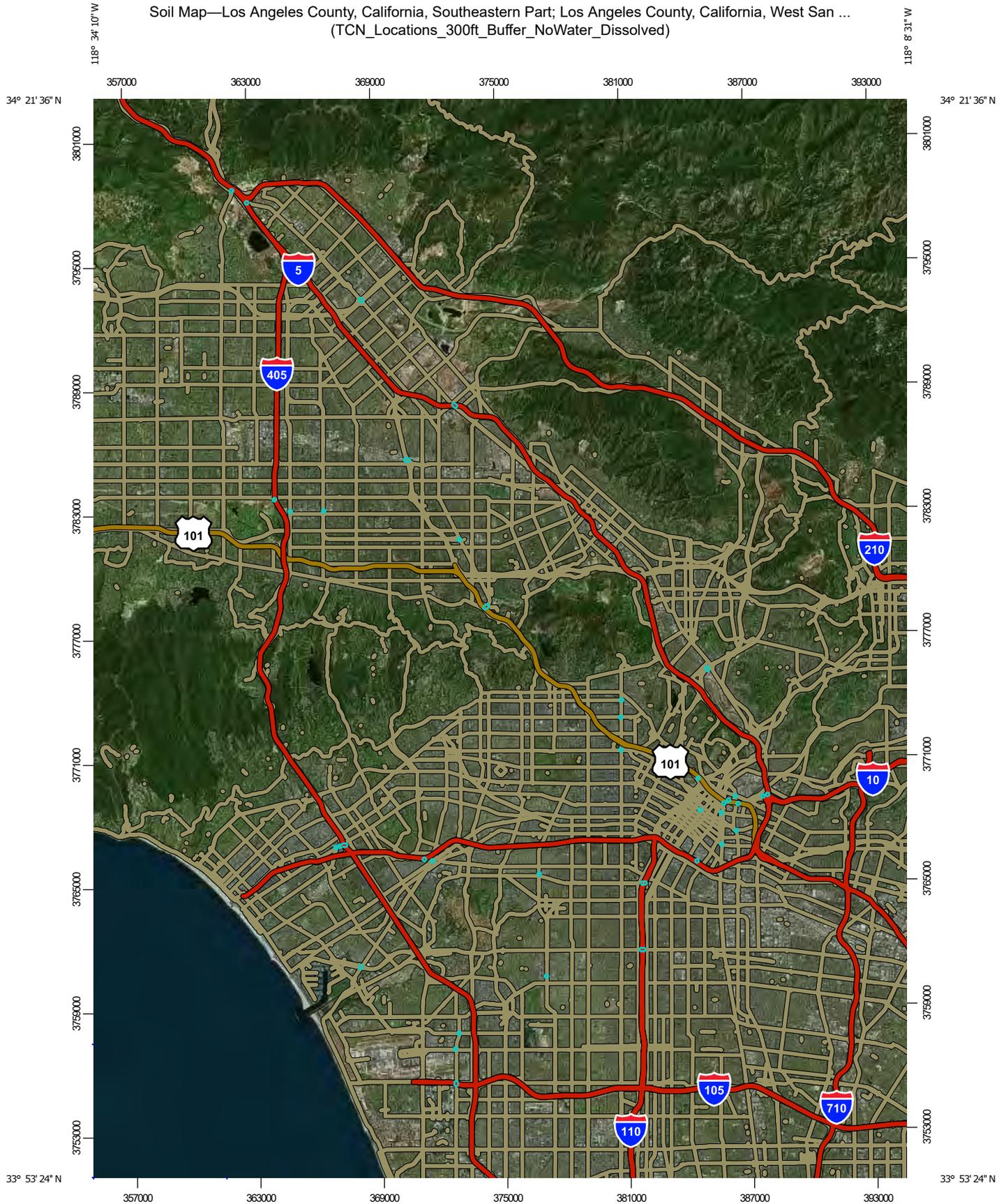
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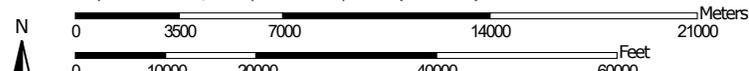
CONTRIBUTORS

[The Calflora Database](#)
[The California Lichen Society](#)
[California Natural Diversity Database](#)
[The Jepson Flora Project](#)
[The Consortium of California Herbaria](#)
[CalPhotos](#)

Soil Map—Los Angeles County, California, Southeastern Part; Los Angeles County, California, West San ...
(TCN_Locations_300ft_Buffer_NoWater_Dissolved)



Map Scale: 1:254,000 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Los Angeles County, California, Southeastern Part

Survey Area Data: Version 8, Sep 13, 2021

Soil Survey Area: Los Angeles County, California, West San Fernando Valley Area

Survey Area Data: Version 14, Sep 13, 2021

Soil Survey Area: Santa Monica Mountains National Recreation Area

Survey Area Data: Version 21, Sep 13, 2021

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 1, 1999—Dec 31, 2003

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

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Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1000	Urban land-Hueneme, drained-San Emigdio complex, 0 to 2 percent slopes	16.9	5.7%
1002	Urban land-Palmview-Tujunga complex, 0 to 5 percent slopes	16.7	5.6%
1006	Urban land-Soboba complex, 0 to 5 percent slopes	10.0	3.4%
1007	Urban land-Biscailuz-Pico complex, 0 to 2 percent slopes	6.5	2.2%
1012	Urban land-Tujunga-Typic Xerorthents, sandy substratum complex, 0 to 2 percent slopes	11.9	4.0%
1013	Urban land-Centinel-Typic Xerorthents, fine substratum complex, 0 to 2 percent slopes	10.0	3.4%
1104	Urban land-Aquic Xerorthents, graded-Pacheco, warm complex, 0 to 2 percent slopes	1.1	0.4%
1106	Urban land, commercial-Soboba complex, 0 to 5 percent slopes	10.7	3.6%
1124	Urban land-Windfetch-Centinel complex, 0 to 5 percent slopes	6.5	2.2%
1128	Urban land-Anthracitic Xerorthents, loamy substratum-Grommet complex, 0 to 5 percent slopes	24.3	8.2%
1129	Urban land-Grommet-Ballona complex, 0 to 5 percent slopes	10.6	3.6%
1130	Urban land-Windfetch-Typic Haploxerolls complex, 0 to 2 percent slopes	13.0	4.4%
1137	Urban land-Ballona-Typic Xerorthents, fine substratum complex, 0 to 5 percent slopes	12.7	4.3%
1200	Urban land, commercial, 0 to 5 percent slopes	62.6	21.2%
1201	Urban land, commercial, 5 to 35 percent slopes	4.8	1.6%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1233	Typic Fluvaquents-Typic Xerorthents, dredged spoil complex, 0 to 1 percent slopes	7.2	2.4%
1238	Urban land-Montebello complex, 0 to 5 percent slopes	25.7	8.7%
1240	Urban land-Dapplegray complex, 5 to 20 percent slopes	9.8	3.3%
Subtotals for Soil Survey Area		261.0	88.4%
Totals for Area of Interest		295.2	100.0%

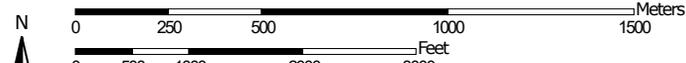
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
108	Capistrano-Urban land complex, 2 to 9 percent slopes	1.4	0.5%
110	Conejo-Urban land complex, 0 to 2 percent slopes, MLRA 19	5.4	1.8%
120	Gazos-Balcom complex, 30 to 50 percent slopes	0.1	0.0%
143	Xerorthents-Urban land-Saugus complex, 15 to 30 percent slopes	11.5	3.9%
145	Dams	1.0	0.4%
1129LA	Urban land-Grommet-Ballona complex, 0 to 5 percent slopes	2.3	0.8%
Subtotals for Soil Survey Area		21.8	7.4%
Totals for Area of Interest		295.2	100.0%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
250	Urban land-Xerorthents, landscaped complex, 0 to 5 percent slopes	11.7	4.0%
290	Topanga-Mipolomol-Sapwi association, 30 to 75 percent slopes	0.7	0.2%
Subtotals for Soil Survey Area		12.4	4.2%
Totals for Area of Interest		295.2	100.0%

Soil Map—Los Angeles County, California, Southeastern Part
(TCN_Locations_300ft_Buffer_LA_River)



Map Scale: 1:20,200 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

6/14/2022
Page 1 of 3

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MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Los Angeles County, California, Southeastern Part

Survey Area Data: Version 8, Sep 13, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2020—Jan 20, 2021

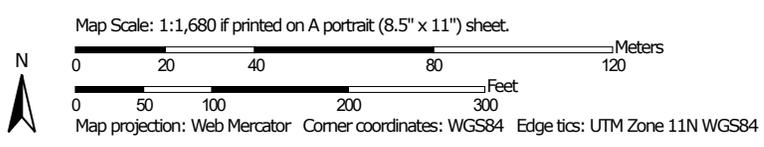
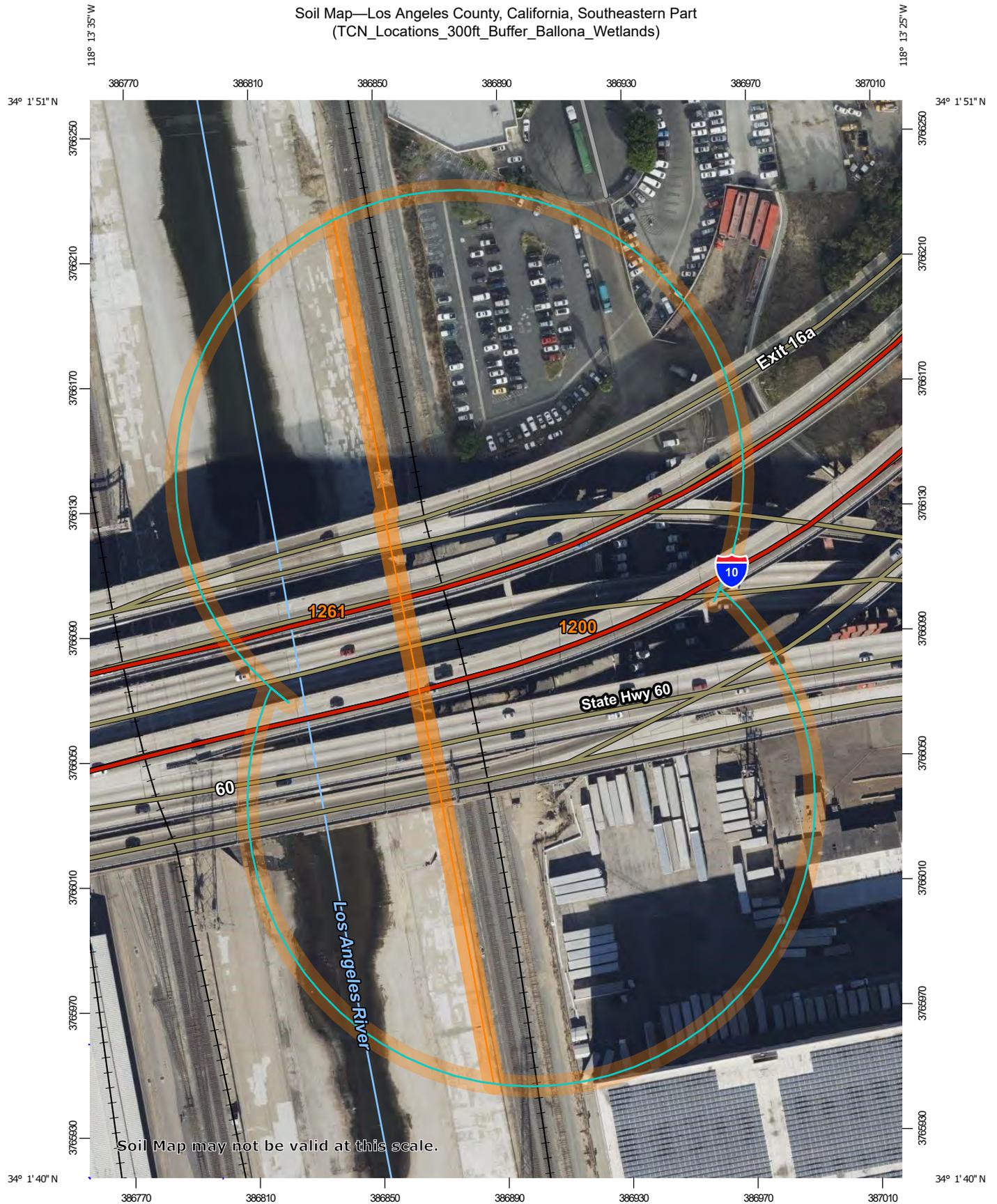
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

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Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1200	Urban land, commercial, 0 to 5 percent slopes	19.0	85.0%
1261	Urban land, frequently flooded, 0 to 5 percent slopes	3.4	15.0%
Totals for Area of Interest		22.4	100.0%

Soil Map—Los Angeles County, California, Southeastern Part
(TCN_Locations_300ft_Buffer_Ballona_Wetlands)



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Los Angeles County, California, Southeastern Part
Survey Area Data: Version 8, Sep 13, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 21, 2020—Jan 20, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

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Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1200	Urban land, commercial, 0 to 5 percent slopes	7.4	67.3%
1261	Urban land, frequently flooded, 0 to 5 percent slopes	3.6	32.7%
Totals for Area of Interest		11.0	100.0%

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Appendix B. Species Evaluated for Potential to Occur in the BSA

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Scientific Name	Status	Habitat Characteristics	Critical Habitat Affected?	Potential for Occurrence	Citation
Invertebrates					
vernal pool fairy shrimp <i>Branchinecta lynchi</i>	USFWS: FT CDFW: None	Endemic to California and the Agate Desert of Southern Oregon. Found only in cool water vernal pools and vernal pool-like habitats. (USFWS 2007).	No	Not expected. Vernal pools and vernal pool-like habitats absent from BSA.	USFWS. 2007. Vernal Pool Fairy Shrimp (<i>Branchinecta lynchi</i>) 5-Year Review: Summary and Evaluation. USFWS; Sacramento, CA.
monarch (California overwintering population) <i>Danaus plexippus pop. 1</i>	USFWS: FC CDFW: None	Typically overwinter in groves of eucalyptus (<i>Eucalyptus</i> sp.), Monterey pine (<i>Pinus radiata</i>), or Monterey cypress (<i>Hesperocyparis macrocarpa</i>) along the California coast (IELP 2012).	No	Low potential. Suitable vegetation communities and soils occur adjacent to BSA.	IELP. 2012. The Legal Status of Monarch Butterflies in California. International Environmental Law Project; Portland, OR.
El Segundo blue <i>Euphilotes battoides allyni</i>	USFWS: FE CDFW: None	Found in the El Segundo sand dunes ecosystem. Requires dune buckwheat (<i>Eriogonum parvifolium</i>) for all four life stages and is usually associated with loose sand (USFWS 2008).	No	Low potential. Suitable vegetation communities and soils occur adjacent to BSA.	USFWS. 2008. El Segundo Blue Butterfly (<i>Euphilotes battoides allyni</i>) 5-Year Review. USFWS; Carlsbad, CA.
Quino checkerspot <i>Euphydryas editha quino</i>	USFWS: FE CDFW: 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 (<i>Plantago erecta</i>), Patagonia plantain (<i>P. patagonica</i>), and Coulter snapdragon (<i>Antirrhinum coulterianum</i>) (USFWS 2009).	No	Not expected. Suitable vegetation communities absent from BSA.	USFWS. 2009. Quino Checkerspot Butterfly (<i>Euphydryas editha quino</i>) 5-Year Review: Summary and Evaluation. USFWS; Carlsbad, CA.
Palos Verdes blue <i>Glaucopsyche lygdamus palosverdesensis</i>	USFWS: FE CDFW: None	Require one of two larval host plants: coast locoweed (<i>Astragalus trichopodus lonchus</i>) or deerweed (<i>Acmispon glaber</i>). Found in coastal sage scrub habitat. Current distribution limited to the vicinity of the Palos Verdes Peninsula (USFWS 2014).	No	Not expected. Suitable vegetation communities absent from BSA.	USFWS. 2014. Palos Verdes Blue Butterfly (<i>Glaucopsyche lygdamus palosverdesensis</i>) 5-Year Review: Summary and Evaluation. USFWS; Carlsbad, CA.
Riverside fairy shrimp <i>Streptocephalus woottoni</i>	USFWS: FE CDFW: 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).	No	Not expected. Vernal pools and non-vegetated ephemeral pools absent from BSA.	USFWS. 2008. Riverside Fairy Shrimp (<i>Streptocephalus woottoni</i>) 5-year Review: Summary and Evaluation. USFWS; Carlsbad, CA.
Fish					
Santa Ana sucker <i>Catostomus santaanae</i>	USFWS: FT CDFW: None	Occur in watersheds draining the San Gabriel and San Bernardino mountains. Can survive in diverse habitats, from clear mountain streams to rivers in alluvial plains with high sediment loads. Currently distributed in 3 watersheds: Santa Ana River system, San Gabriel River system and the Los Angeles River. Also occurs in the Santa Clara watershed, but this population is not considered part of the listed entity (USFWS 2017).	No	Not expected. Suitable aquatic habitat absent from BSA.	U.S. Fish and Wildlife Service. 2017. Recovery Plan for the Santa Ana sucker. U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. xii + 92 pp.
unarmored threespine stickleback <i>Gasterosteus aculeatus williamsoni</i>	USFWS: FE CDFW: SE, FP	Inhabits slow-moving reaches or quiet-water microhabitats in streams and rivers. Currently restricted to three areas: the upper Santa Clara River and its tributaries, San Antonio Creek in Santa Barbara County, and the Shay Creek vicinity in San Bernardino County (USFWS 2009).	No	Not expected. Suitable aquatic habitat absent from BSA.	USFWS. 2009. Unarmored Threespine Stickleback (<i>Gasterosteus aculeatus williamsoni</i>) 5-Year Review: Summary and Evaluation.
arroyo chub <i>Gila orcuttii</i>	USFWS: None CDFW: SSC	Native to Los Angeles, San Gabriel, San Luis Rey, Santa Ana, and Santa margarita Rivers, as well as Malibu and San Juan Creeks. Has been extirpated from much of the native range, but introduced to streams along the coast and the Mojave River system, where they have eliminated the Mohave tui chub (UC Davis 2013). Southern coastal streams in habitats characterized by slow-moving water, mud or sand substrate, and depths greater than 40 cm. Have also been found in pool habitats with gravel, cobble and boulder substrates. Adapted to survive in low oxygen waters and wide temperature fluctuations (Moyle et al 2015).	No	Low potential. The Los Angeles River does transect the 300-foot buffer area of several TCN structure locations, however, this species has been extirpated from the majority of its native range in the Los Angeles River.	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

steelhead (southern California DPS) <i>Oncorhynchus mykiss irideus pop. 10</i>	USFWS: FE CDFW: 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).	No	Not expected. Suitable aquatic habitat absent from BSA.	NOAA. 2019. NOAA Fisheries, West Coast Region, Protected Species Accounts, https://archive.fisheries.noaa.gov/wcr/protected_species/salmon_and_steelhead_listings/steelhead/southern_california/index.html
Santa Ana speckled dace <i>Rhinichthys osculus ssp. 3</i>	USFWS: None CDFW: SSC	Requires permanent flowing streams with summer temperatures of 17-20°C that are often maintained by outflows of cool springs. Inhabits shallow cobble and gravel riffles (Moyle et al. 1995).	No	Not expected. Suitable aquatic habitat absent from BSA.	Moyle, P. B., R. m. Yoshiyama, J. E. Williams, and E. D. Wikramanayake. 1995. Fish species of special concern in California. Second edition. California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, California.
Mohave tui chub <i>Siphateles bicolor mohavensis</i>	USFWS: FE CDFW: SE, FP	Previously found in deep pools and slough-like areas of the Mojave River, now only occurs in highly modified refuge sites in San Bernardino County.	No	Not expected. Suitable aquatic habitat absent from BSA.	https://wildlife.ca.gov/Regions/6/Desert-Fishes/Mohave-Tui-Chub
Amphibians					
arroyo toad <i>Anaxyrus californicus</i>	USFWS: FE CDFW: SSC	Breeding habitat = slow moving streams with shallow pools, nearby sandbars and adjacent stream terraces. Often breed in shallow, sandy pools bordered by sand/gravel flood terraces. Inhabit upland habitats when not breeding, such as sycamore-cottonwood woodlands, oak woodlands, coastal sage scrub, chaparral and grassland (USFWS 2009).	No	Not expected. Suitable aquatic habitat and vegetation communities absent from BSA.	USFWS. 2009. Arroyo Toad (<i>Bufo californicus</i> (=microscaphus)) 5-Year Review: Summary and Evaluation. USFWS; Ventura, CA.
southern mountain yellow-legged frog <i>Rana muscosa</i>	USFWS: FE CDFW: SE	Lakes, ponds, meadow streams, isolated pools, and sunny riverbanks in the southern Sierra Nevada Mountains. Rocky streams in narrow canyons and in the chaparral belt in the mountains of southern California. Found from 984 feet to above 12,000 feet in elevation (Nafis 2019).	No	Not expected. Suitable aquatic habitat absent from BSA.	Nafis, Gary. 2019. California Herps: A Guide to Reptiles and Amphibians of California. http://www.californiaherps.com/
western spadefoot <i>Spea hammondi</i>	USFWS: None CDFW: SSC	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 9oC to 32oC. Pools with invasive species, such as crayfish, bullfrogs (<i>Xenopus laevis</i>), 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).	No	Not expected. Suitable aquatic habitat and vegetation communities absent from BSA	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.
Coast Range newt <i>Taricha torosa</i>	USFWS: None CDFW: SSC	Ranges along the coast from Monterey to Ventura County and Los Angeles to San Diego County with some occurrences in southwestern Riverside County. The population north of Ventura generally occurs in mesic forests on hilly or mountainous terrain. Populations around and south of Ventura generally occur in drier oak, chaparral, and grassland habitats. Specifically, the southern population use permanent streams for breeding, and occasionally seasonal streams free of non-native fish (Thomson et al. 2016).	No	Not expected. Suitable aquatic habitat and vegetation communities absent from BSA	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.
Reptiles					
Southern California legless lizard <i>Anniella stebbinsi</i>	USFWS: None CDFW: SSC	Little is known about this species and this information is based on <i>Anniella pulchra</i> 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 2017). Originally known to occur throughout Southern California south of the Transverse Ranges into northern Baja California, Mexico (Papenfuss and Parham, 2013).	No	Low potential. Suitable vegetation communities and soils occur adjacent to BSA.	Papenfuss, T.J., and J.F. Parham. 2013. Four New Species of California Legless Lizards (<i>Anniella</i>). <i>Breviora</i> . 10.3099/mCZ10.1. AND California Department of Fish and Wildlife (CDFW). 2019. California Natural Diversity Database. Rarefind 5. All Records of Occurrences. Available online < https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data >. Accessed February 4, 2019. CDFW, Natural Heritage Division, Sacramento, CA. AND Nafis, Gary.

					2017. California Herps: A Guide to Reptiles and Amphibians of California. http://www.californiaherps.com/
California glossy snake <i>Arizona elegans occidentalis</i>	USFWS: None CDFW: SSC	Ranges in the cismontane portion of southern California, the southern portion of the central coast ranges, and in isolated pockets up to the Alameda and San Joaquin County border. Generally found in open desert, grasslands, shrublands, chaparral, and woodlands. Some evidence of open and sandy habitat preference exists, but specific habitat requirements for this species aren't known (Thomson et al. 2016).	No	Not expected. Suitable vegetation communities and habitat absent from BSA.	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.
coastal whiptail <i>Aspidoscelis tigris stejnegeri</i>	USFWS: None CDFW: SSC	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).	No	Not expected. Habitat within and adjacent to the BSA too developed.	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.
western pond turtle <i>Emys marmorata</i>	USFWS: None CDFW: SSC	Ranges throughout California except for Inyo and Mono Counties. Generally occurs in various water bodies including permanent and ephemeral systems either natural or artificial. Upland habitat that is at least moderately undisturbed is required for nesting and overwintering, in soils that are loose enough for excavation (Thomson et al. 2016).	No	Not expected. Suitable aquatic and upland habitat absent from BSA.	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.
Blainville's horned lizard <i>Phrynosoma blainvillii</i>	USFWS: None CDFW: SSC	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 (<i>Linepithema humi</i>) (Thomson et al. 2016)	No	Not expected. Suitable soils absent from BSA.	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.
two-striped gartersnake <i>Thamnophis hammondi</i>	USFWS: None CDFW: SSC	Ranges in cismontane Southern California with some occurrences in Monterey and San Luis Obispo Counties and southern San Benito County. Generally found in or near permanent and intermittent freshwater streams, creeks, and pools, as well as stock ponds and other artificial aquatic habitats bordered by dense vegetation. Associated habitat include willow, oak woodlands, chaparral, brushland and coniferous forest from sea level to 8,000 feet elevation (Thomson et al. 2016).	No	Not expected. Suitable aquatic habitat and vegetation communities absent from BSA.	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.
Birds					
tricolored blackbird <i>Agelaius tricolor</i>	USFWS: None CDFW: CT, SSC	Preferred nesting habitat includes cattails (<i>Typha</i> spp.), bulrushes (<i>Schoenoplectus</i> spp.), Himalayan blackberry (<i>Rubus armeniacus</i>), and agricultural silage. Dense vegetation is preferred but heavily lodged cattails not burned in recent years may preclude settlement. Need access to open water. Strips of emergent vegetation along canals are avoided as nest sites unless they are about 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, and can be found in portions of the Colorado Desert (CDFW 2019).	No	Not expected. Suitable aquatic habitat and vegetation communities absent from BSA.	Hamilton, W. J. 2004. Tricolored Blackbird (<i>Agelaius tricolor</i>). 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

Special-Status Wildlife Species Table
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grasshopper sparrow <i>Ammodramus savannarum</i>	USFWS: None CDFW: SSC	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 mid-west 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 (<i>Zea mays</i>) and oat (<i>Avena sativa</i>) fields and avoid areas with high shrub cover (Shuford and Gardali 2008).	No	Not expected. Suitable breeding habitat absent from BSA.	Ruth, J.m. 2015. Status Assessment and Conservation Plan for the Grasshopper Sparrow (<i>Ammodramus savannarum</i>). Version 1.0 U.S. Fish and Wildlife Service, Lakewood, Colorado. 109 pp.
burrowing owl <i>Athene cunicularia</i>	USFWS: None CDFW: SSC	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).	No	Not expected. Over 5 acres of suitable disturbed habitat not present within or adjacent to the BSA.	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 Depart. of Fish and Game, Sacramento, California. Updated by CWHR Program staff, September 1999 / Bates, C. 2006. Burrowing Owl (<i>Athene cunicularia</i>). 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
Marbled murrelet <i>Brachyramphus marmoratus</i>	USFWS: FT CDFW: SE	A long-lived seabird which ranges from Alaska south through British Columbia, Washington, Oregon, and northern California as far south as Monterey Bay. Individuals spend most of their life on the ocean and in marine environments, only leaving to nest in nearby old growth forests (USFWS 2011).	No	Not expected. Suitable habitat absent from BSA.	United States Fish and Wildlife Service (USFWS). 2011. Marbled Murrelet. Available online: https://www.fws.gov/arcata/es/birds/mm/m_murrelet.html . Last Updated October 11,
Swainson's hawk <i>Buteo swainsoni</i>	USFWS: None CDFW: ST	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).	No	Not expected. Suitable vegetation communities and habitat absent from BSA.	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 Depart. of Fish and Game, Sacramento, California. Updated by CWHR Program staff, January 2006.
western snowy plover <i>Charadrius nivosus nivosus</i>	USFWS: FT CDFW: SSC	Coastal populations nest on sandy or gravelly dune-backed beaches, sand spits, and on estuarine salt pans and lagoons (USFWS 2005). Inland populations nest along barren to sparsely vegetated flats and along shores of alkaline and saline lakes, reservoirs, ponds, braided river channels, agricultural wastewater ponds, and salt evaporation ponds (Shuford and Gardali 2008). Inland nesting occurs at Salton Sea, Mono Lake, and isolated sites on the shores of alkali lakes in northeastern California, the Central Valley, and southeastern deserts (CWHR 2008).	No	Not expected. Suitable aquatic habitat absent from BSA.	USFWS. 2005. Designation of Critical Habitat for the Pacific Coast Population of the Western Snowy Plover (<i>Charadrius alexandrinus nivosus</i>). Federal Register Vol. 70 (188): 56969-57018 Shuford, W.D. and Gardali, T., editors. 2008. California Bird Species of Special Concern CWHR. 2008. California Wildlife Habitat Relationships (CHWR) System. Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California. Updated by CWHR Program Staff, February 2005 and August 2008.
western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	USFWS: FT CDFW: SE	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).	No	Not expected. Suitable vegetation communities absent from BSA.	USFWS. 2019. ECOS Environmental Conservation Online System - Species Profile for Yellow-billed Cuckoo https://ecos.fws.gov/ecp0/profile/speciesProfile?spcode=B06R
yellow rail <i>Coturnicops noveboracensis</i>	USFWS: None CDFW: SSC	Densely vegetated marshes. Require sedge marshes/meadows with moist soil or shallow standing water for breeding (Shuford and Gardali 2008).	No	Not expected. Suitable aquatic habitat absent from BSA.	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.

Special-Status Wildlife Species Table
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white-tailed kite <i>Elanus leucurus</i>	USFWS: None CDFW: FP	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 nest 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).	No	Not expected. Suitable foraging habitat absent from BSA.	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 Depart. of Fish and Game, Sacramento, California. Updated by CWHR Program staff, July 2005. Cornell University. 2017. https://www.allaboutbirds.org/guide/White-tailed_Kite/lifehistory
southwestern willow flycatcher <i>Empidonax traillii extimus</i>	USFWS: FE CDFW: SE	Dense riparian forest and scrub habitats associated with rivers, swamps, wetlands, lakes and reservoirs (USFWS 2002).	No	Not expected. Suitable aquatic habitat and vegetation communities absent from BSA.	USFWS. 2002. Final Recovery Plan Southwestern Willow Flycatcher (<i>Empidonax traillii extimus</i>). USFWS; Albuquerque, NM.
American peregrine falcon <i>Falco peregrinus anatum</i>	USFWS: None CDFW: FP	Breeds near wetlands lakes, rivers, or other waters on cliffs, banks, dunes or mounds, mostly in woodland, forest and coastal habitats. Nest is a scrape on a depression or ledge in an open site. May use man-made structures, snags, or trees for nesting (Zeiner et. al. 1988-1990).	No	Not expected. Suitable breeding habitat absent from BSA.	Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California.
California condor <i>Gymnogyps californianus</i>	USFWS: FE CDFW: SE, FP	Chaparral, coniferous forest and oak savannah in southern and central California. Nest in cliff cavities, large rock outcrops, or large trees. Roost on large cliffs or trees near feeding areas (USFWS 1996).	No	Not expected. Suitable vegetation communities and breeding habitat absent from BSA.	USFWS. 1996. Recovery Plan for the California Condor. USFWS; Portland, OR.
yellow-breasted chat <i>Icteria virens</i>	USFWS: None CDFW: SSC	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 nest in dense thicket plants such as blackberry and willow (Shuford 2008).	No	Not expected. Suitable aquatic habitat and breeding habitat absent from BSA.	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.
loggerhead shrike <i>Lanius ludovicianus</i>	USFWS: None CDFW: SSC	Breed in shrublands or open woodlands with a fair amount of grass cover and areas of bare ground (Shuford 2008).	No	Low potential. Suitable vegetation communities and soils occur adjacent to BSA.	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.
California black rail <i>Laterallus jamaicensis coturniculus</i>	USFWS: None CDFW: ST, FP	Saline, brackish, and fresh emergent wetlands. Scarce, but true abundance difficult to determine due to small size and extremely secretive nature. Known to nest at scattered locations in the San Francisco Bay Area and Delta region, Point Reyes National Seashore, San Luis Obispo and Orange Counties, as well as the Imperial and Lower Colorado River Valleys. Appears intermittently and sparingly at a few locations in the Sacramento Valley (CWHR 1999).	No	Not expected. Suitable aquatic habitat absent from BSA.	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 Depart. of Fish and Game, Sacramento, California. Updated by CWHR Program staff, October 1999.
Beldin's savannah sparrow <i>Passerculus sandwichensis beldingi</i>	USFWS: None CDFW: SE	Coastal salt marshes. Associated with dense pickleweed, particularly <i>Salicornia pacifica</i> , for nesting (Zambal and Hoffman 2010).	No	Low potential. Suitable vegetation communities and soils occur adjacent to BSA.	Zambal, R. and S. m. Hoffman. 2010. A Survey of the Belding's Savannah Sparrow (<i>Passerculus sandwichensis beldingi</i>) in California 2010. Clapper Rail Recovery Fun; Huntington Beach, CA.
California brown pelican <i>Pelecanus occidentalis californicus</i>	USFWS: None CDFW: FP	Breeds on dry, rocky offshore islands. Forages over open ocean, along the surfline, and in coastal marine and estuarine environments. Rare inland. (Cornell 2017).	No	Not expected. Suitable breeding and foraging habitat absent from BSA.	Cornell. 2017. https://www.allaboutbirds.org/guide/Brown_Pelican/lifehistory
Coastal California gnatcatcher <i>Polioptila californica californica</i>	USFWS: FT CDFW: SSC	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).	No	Low potential. Suitable vegetation communities occur within BSA.	USFWS. 2010. Coastal California Gnatcatcher (<i>Polioptila californica californica</i>) 5-year Review: Summary and Evaluation. USFWS; Carlsbad, CA.
light-footed Ridgway's rail <i>Rallus obsoletus levipes</i>	USFWS: FE CDFW: SE, FP	Coastal salt marshes, lagoons, and their maritime environs from Santa Barbara County south past San Diego into Baja California. Require	No	Not expected. Suitable foraging habitat absent from BSA.	USFWS. 2019. San Diego Bay National Wildlife Refuge, Facts About Light-footed Ridgway's Rail

		shallow water and mudflats for foraging, with adjacent higher vegetation for cover during high tide (USFWS 2019).			https://www.fws.gov/refuge/san_diego_bay/wildlife_and_habitat/Light-footed_Ridgways_Rail.html
bank swallow <i>Riparia riparia</i>	USFWS: None CDFW: ST	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).	No	Not expected. Suitable foraging and breeding habitat absent from BSA.	CWHR. 1999. California Wildlife Habitat Relationships (CHWR) System. Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California. Updated by CWHR Program Staff, September 1999.
California least tern <i>Sternula antillarum browni</i>	USFWS: FE CDFW: SE, FP	Nest and roost in colonies on open beaches, forage over near shore ocean waters and in shallow estuaries and lagoons (USFWS 2006).	No	Low potential. Suitable foraging habitat occurs adjacent to BSA.	USFWS. 2006. California Least Tern 5-Year Review. USFWS; Carlsbad, CA.
Least Bell's vireo <i>Vireo bellii pusillus</i>	USFWS: FE CDFW: SE	Obligate riparian breeder. Cottonwood, willow, oak woodlands, and mule fat scrub along watercourses (USFWS 1998).	No	Low potential. Suitable foraging habitat occurs adjacent to BSA.	USFWS. 1998. Draft recovery plan for least Bell's vireo. U.S. Fish and Wildlife Service, Portland, Oregon
Mammals					
pallid bat <i>Antrozous pallidus</i>	USFWS: None CDFW: SSC	Ranges across all of California except for high elevation portions of the Sierra Nevada Mountains and Del Norte, western Siskiyou, Humboldt, and northern Mendocino Counties. Generally found in a wide variety of habitats but with some preference for drier areas. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings (CDFW 2018).	No	Low potential. Potentially suitable habitat occurs adjacent to the BSA.	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.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	USFWS: None CDFW: SSC	Ranges throughout California except for high elevation portions of the Sierra Nevada Mountains. Generally prefers mesic habitats but known to occur in all non-alpine habitats of California. Roosting occurs in caves, tunnels, mines, buildings, or other structures and this species may use different roosting sites for day and night (CDFW 2018).	No	Low potential. Potentially suitable habitat occurs adjacent to the BSA.	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 >. Last updated May 2000. CDFW Biogeographic Data Branch; Sacramento, CA.
Spotted bat <i>Euderma maculatum</i>	USFWS: None CDFW: SSC	Ranges along the eastern half of California as well as all of Southern California except for Orange County and southern Los Angeles County. Generally occurs in desert, mixed conifer, and grassland habitats. Specifically this species prefers to roost in rock crevices on cliffs, but will sometimes use caves and buildings (CDFW 2018).	No	Low potential. Potentially suitable habitat occurs adjacent to the BSA.	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 >. Last updated May 2000. CDFW Biogeographic Data Branch; Sacramento, CA.
western mastiff bat <i>Eumops perotis californicus</i>	USFWS: None CDFW: SSC	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 species roosts in rock crevices and buildings. (CDFW 2018).	No	Low potential. Potentially suitable habitat occurs adjacent to the BSA.	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.
western yellow bat <i>Lasiurus xanthinus</i>	USFWS: None CDFW: SSC	Ranges in most of Southern California south of San Bernardino. Generally occurs in riparian, palm oasis, and desert wash habitats (CDFW 2018).	No	Low potential. Potentially suitable habitat occurs adjacent to the BSA.	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 >. Last updated February 2008. CDFW Biogeographic Data Branch; Sacramento, CA.
California leaf-nosed bat <i>Macrotus californicus</i>	USFWS: None CDFW: SSC	Ranges in southern and western San Diego County, the western halves of Riverside and San Bernardino Counties, and all of Imperial County. Generally prefers various types of desert scrub, riparian corridors, and palm oases. Specifically, this species roosts in mine tunnels, caves, and occasionally buildings and bridges and prefers to forage over flats and washes (CDFW 2018).	No	Low potential. Potentially suitable habitat occurs adjacent to the BSA.	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.
south coast marsh vole <i>Microtus californicus stephensi</i>	USFWS: None CDFW: SSC	Generally occurs in most habitats but is most abundant in early montane riparian communities, annual grasslands, and wet meadows (CDFW 2018).	No	Not expected. Suitable vegetation communities absent from BSA.	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.

Special-Status Wildlife Species Table
Transportation Communication Network Program Project

San Diego desert woodrat <i>Neotoma lepida intermedia</i>	USFWS: None CDFW: SSC	This species prefers Joshua tree, pinyon-juniper, mixed and chamise-redshank chaparral, sagebrush, and most desert habitats, but is also found in a variety of other habitats. Moderate to dense canopies are preferred. Particularly abundant in rock outcrops and rocky cliffs and slopes, especially those with Joshua trees. Elevational range from sea level to 8,500 feet (CWHR 2008).	No	Not expected. Suitable vegetation communities and habitat absent from BSA.	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 Depart. of Fish and Game, Sacramento, California. Updated by CWHR program staff February 2008.
pocket free-tailed bat <i>Nyctinomops femorosaccus</i>	USFWS: None CDFW: SSC	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).	No	Low potential. Potentially suitable habitat occurs adjacent to the BSA.	WBWG (Western Bat Working Group). 2016. Western Bat Species Accounts. http://wbwg.org/western-bat-species/
big free-tailed bat <i>Nyctinomops macrotis</i>	USFWS: None CDFW: SSC	Found in rugged, rocky terrain up to 8,000 feet in elevation in New Mexico, southern Arizona, and Texas where it is probably a yearlong resident. Rare in California, and probably does not breed in the state. Many individuals wander widely in autumn, resulting in records far out of the normal range. Records of the species are from urban areas of San Diego County and vagrants found in fall and winter. A probable vagrant was collected in Alameda County but this record is suspect (CWHR 2002).	No	Not expected. Suitable habitat absent from BSA.	CWHR. 2002. Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California. Updated by CWHR program staff March 2002.
southern grasshopper mouse <i>Onychomys torridus ramona</i>	USFWS: None CDFW: SSC	Ranges in Southern California except for Ventura County, Inyo County, Southern Mono County, and the southern portion of the Central Valley. Generally prefers arid habitats of the Mojave Desert and southern portion of the Central Valley. Specifically prefers alkali and desert scrub habitats but will occur in mountain and coastal habitats of Southern California as well (CDFW 2018).	No	Not expected. Suitable vegetation communities and habitat absent from BSA.	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.
Los Angeles pocket mouse <i>Perognathus longimembris brevinasus</i>	USFWS: None CDFW: SSC	Low elevation grasslands, alluvial sage scrub, and coastal sage scrub (Bolster 1998).	No	Not expected. Suitable vegetation communities absent from BSA.	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 Wildlife Management Division.
Pacific pocket mouse <i>Perognathus longimembris pacificus</i>	USFWS: FE CDFW: SSC	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).	No	Not expected. Suitable vegetation communities and soils absent from BSA.	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
Southern California saltmarsh shrew <i>Sorex ornatus salicornicus</i>	USFWS: None CDFW: SSC	Dense vegetative ground cover, protected nesting sites above mean high tide line, and moist surroundings.	No	Not expected. Suitable vegetation communities and breeding habitat absent from BSA.	Collins, Paul W. 1998. Southern California salt marsh shrew, <i>Sorex ornatus salicornicus</i> . Terrestrial Mammal Species of Special Concern in California.

LEGEND: USFWS: U.S. Fish and Wildlife Service; CDFW: California Department of Fish and Wildlife

Species Status:

Federal (USFWS and USDA)

FE Endangered

FT Threatened

FC Federal Candidate

State

SE Endangered

ST Threatened

SSC Species of Special Concern

FP Fully Protected

CT Candidate Threatened

Scientific Name	Status	Habitat Characteristics	Critical Habitat Affected?	Potential for Occurrence	Citation
red-sand verbena <i>Abronia maritima</i>	USFWS: None CDFW: None CRPR: 4.2	Coastal dunes. Elevation: 0–328 feet. Blooming period: February–November	No	Not expected. Suitable soils and habitat absent from BSA.	Source for all plant species habitat characteristics with a CRPR value is: California Native Plant Society (CNPS). 2021. 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). 2021 (January). Special Vascular Plants, Bryophytes, and Lichens List. Sacramento, CA: CDFW, Natural Heritage Division.
aphanisma <i>Aphanisma blitoides</i>	USFWS: None CDFW: None CRPR: 1B.2	Sandy soils in coastal bluff scrub, coastal dunes, and coastal scrub. Elevation: 3–1,000 feet. Blooming period: March–June	No	Not expected. Suitable soils and habitat absent from BSA.	
marsh sandwort <i>Arenaria paludicola</i>	USFWS: FE CDFW: SE CRPR: 1B.1	Sandy soils in marshes and swamps with brackish freshwater. Elevation: 10–558 feet. Blooming period: May–August	No	Not expected. Suitable soils and habitat absent from BSA.	
Braunton's milk-vetch <i>Astragalus brauntonii</i>	USFWS: FE CDFW: None CRPR: 1B.1	Recently burned and disturbed areas, in sandstone and carbonite soils, in chaparral, coastal scrub, and grassland. Elevation: 13–2,099 feet. Blooming period: January–August	No	Not expected. Suitable soils absent from BSA.	
Ventura marsh milk-vetch <i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i>	USFWS: FE CDFW: SE CRPR: 1B.1	Coastal dunes and scrub, marshes and swamps at ocean edges. Elevation: 3–115 feet. Blooming period: June–October	No	Not expected. Suitable soils and habitat absent from BSA.	
coastal dunes milk-vetch <i>Astragalus tener</i> var. <i>titi</i>	USFWS: FE CDFW: SE CRPR: 1B.1	Often in vernal mesic areas in sandy coastal bluff scrub, coastal dunes, and mesic coastal prairie. Elevation: 3–164 feet. Blooming period: March–May	No	Not expected. Suitable soils and habitat absent from BSA.	
Coulter's saltbush <i>Atriplex coulteri</i>	USFWS: None CDFW: None CRPR: 1B.2	Alkaline or clay soils in coastal bluff scrub, coastal dunes, coastal scrub, and grassland. Elevation: 9–1,509 feet. Blooming period: March–October	No	Not expected. Suitable soils and habitat absent from BSA.	
South Coast saltscale <i>Atriplex pacifica</i>	USFWS: None CDFW: None CRPR: 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, playas. Elevation: 0–459 feet. Blooming period: March–October	No	Not expected. Suitable soils and habitat absent from BSA.	
Parish's brittlescale <i>Atriplex parishii</i>	USFWS: None CDFW: None CRPR: 1B.1	Alkaline soils in chenopod scrub, playas, and vernal pools. Elevation: 82–6,232 feet. Blooming period: June–October	No	Not expected. Suitable soils and habitat absent from BSA.	
Davidson's saltscale <i>Atriplex serenana</i> var. <i>davidsonii</i>	USFWS: None CDFW: None CRPR: 1B.2	Alkaline conditions in coastal bluff scrub and coastal scrub. Elevation: 32–656 feet. Blooming period: April–October	No	Not expected. Suitable soils and habitat absent from BSA.	
Nevin's barberry <i>Berberis nevinii</i>	USFWS: FE CDFW: SE CRPR: 1B.1	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub. Elevation: 898–2,707 feet. Blooming period: March–June	No	Not expected. Suitable soils and habitat absent from BSA.	
slender mariposa lily <i>Calochortus clavatus</i> var. <i>gracilis</i>	USFWS: None CDFW: None CRPR: 1B.2	Chaparral, coastal scrub, grassland. Elevation: 1,050–3,280 feet. Blooming period: March–June	No	Not expected. Suitable vegetation communities absent from BSA.	
Plummer's mariposa lily <i>Calochortus plummerae</i>	USFWS: None CDFW: None CRPR: 4.2	Granitic and rocky areas in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and grassland. Elevation: 328–5,576 feet. Blooming period: May–July	No	Not expected. Suitable soils and habitat absent from BSA.	
intermediate mariposa lily <i>Calochortus weedii</i> var. <i>intermedius</i>	USFWS: None CDFW: None CRPR: 1B.2	Rocky and calcareous areas in chaparral, coastal scrub, and grassland. Elevation: 345–2,804 feet. Blooming period: May–July	No	Not expected. Suitable soils and habitat absent from BSA.	
lucky morning-glory <i>Calystegia felix</i>	USFWS: None CDFW: None CRPR: 1B.1	Meadows and seeps that are sometimes alkaline and alluvial riparian scrub. Elevation: elevation range unknown. Blooming period: March–September	No	Not expected. Suitable soils and habitat absent from BSA.	
Peirson's morning glory <i>Calystegia peirsonii</i>	USFWS: None CDFW: None CRPR: 4.2	Chaparral, chenopod scrub, cismontane woodland, coastal scrub, lower montane coniferous forest, grassland. Elevation: 98–4,920 feet. Blooming period: April–June	No	Not expected. Suitable soils and habitat absent from BSA.	

Scientific Name	Status	Habitat Characteristics	Critical Habitat Affected?	Potential for Occurrence	Citation
Lewis' evening primrose <i>Camissoniopsis lewisii</i>	USFWS: None CDFW: None CRPR: 3	Sandy or clay soils in coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, and grassland. Elevation: 0–984 feet. Blooming period: March–June	No	Low potential. Suitable soils and habitat occur adjacent to BSA for TCN structure FF-29 and FF-30.	
southern tarplant <i>Centromadia parryi</i> ssp. <i>australis</i>	USFWS: None CDFW: None CRPR: 1B.1	Found within the margin of marshes and swamps, vernal mesic soils in grassland, and vernal pools. Elevation: 0–1,574 feet. Blooming period: May–November	No	Low potential. Suitable soils and habitat occur adjacent to BSA for TCN structure FF-29 and FF-30.	
Orcutt's pincushion <i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>	USFWS: None CDFW: None CRPR: 1B.1	Sandy soils in coastal bluff scrub and coastal dunes. Elevation: 0–328 feet. Blooming period: January–August	No	Low potential. Suitable soils and habitat occur adjacent to BSA for TCN structure FF-29 and FF-30.	
coastal goosefoot <i>Chenopodium littoreum</i>	USFWS: None CDFW: None CRPR: 1B.2	Coastal dunes. Elevation: 33–98 feet. Blooming period: April–August	No	Not expected. Suitable soils and habitat absent from BSA.	
salt marsh bird's-beak <i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	USFWS: FE CDFW: SE CRPR: 1B.2	Coastal dunes and coastal salt marshes and swamps. Elevation: 0–98 feet. Blooming period: May–October (synonym of <i>Cordylanthus Marchitimus</i> ssp. <i>Marchitimus</i>)	No	Not expected. Suitable soils and habitat absent from BSA.	
San Fernando Valley spineflower <i>Chorizanthe parryi</i> var. <i>fernandina</i>	USFWS: None CDFW: SE CRPR: 1B.1	Sandy soil in coastal scrub and grassland. Elevation: 492–4,002 feet. Blooming period: April–July	No	Not expected. Suitable soils and habitat absent from BSA.	
Parry's spineflower <i>Chorizanthe parryi</i> var. <i>parryi</i>	USFWS: None CDFW: None CRPR: 1B.1	Sandy or rocky openings in chaparral, coastal scrub, cismontane woodland, and grassland. Elevation: 902–4,001 feet. Blooming period: April–June	No	Not expected. Suitable soils and habitat absent from BSA.	
Peruvian dodder <i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	USFWS: None CDFW: None CRPR: 2B.2	Marshes and freshwater swamps. Elevation: 49–918 feet. Blooming period: July–October.	No	Not expected. Suitable habitat absent from BSA.	
Santa Susana tarplant <i>Deinandra minthornii</i>	USFWS: None CDFW: SR CRPR: 1B.2	Rocky soils in chaparral and coastal scrub. Elevation: 918–2,493 feet. Blooming period: July–November.	No	Not expected. Suitable soils and habitat absent from BSA.	
western dichondra <i>Dichondra occidentalis</i>	USFWS: None CDFW: None CRPR: 4.2	Chaparral, cismontane woodland, coastal scrub, grassland. Elevation: 164–1,640 feet. Blooming period: January–July	No	Not expected. Suitable habitat absent from BSA.	
beach spectaclepod <i>Dithyrea maritima</i>	USFWS: None CDFW: ST CRPR: 1B.1	Coastal dunes and sandy coastal scrub. Elevation: 10–164 feet. Blooming period: March–May	No	Not expected. Suitable soils and habitat absent from BSA.	
slender-horned spineflower <i>Dodecahema leptoceras</i>	USFWS: FE CDFW: SE CRPR: 1B.1	Sandy soils in chaparral, cismontane woodland, and alluvial fan coastal scrub. Elevation: 656–2,493 feet. Blooming period: April–June	No	Not expected. Suitable soils and habitat absent from BSA.	
Blochman's dudleya <i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	USFWS: None CDFW: None CRPR: 1B.1	Rocky, often clay or serpentine soils in coastal bluff scrub, chaparral, coastal scrub, and grassland. Elevation: 16–1,476 feet. Blooming period: April–June	No	Not expected. Suitable soils and habitat absent from BSA.	
Santa Monica dudleya <i>Dudleya cymosa</i> ssp. <i>ovatifolia</i>	USFWS: FT CDFW: None CRPR: 1B.1	Volcanic or sedimentary rocky soils in chaparral and coastal scrub. Elevation: 492–5,494 feet. Blooming period: March–June	No	Not expected. Suitable soils and habitat absent from BSA.	
suffrutescent wallflower <i>Erysimum suffrutescens</i>	USFWS: None CDFW: None CRPR: 4.2	Maritime chaparral, coastal bluff scrub, coastal scrub, and coastal dunes. Elevation: 0–492 feet. Blooming period: January–July	No	Low potential. Suitable soils and habitat occur adjacent to BSA for TCN structure FF-29 and FF-30.	
Palmer's grapplinghook <i>Harpagonella palmeri</i>	USFWS: None CDFW: None CRPR: 4.2	Clay soils in chaparral, grassland, coastal sage scrub. Elevation: 65–3,132 feet. Blooming period: March–May	No	Not expected. Suitable soils and habitat absent from BSA.	
Newhall sunflower <i>Helianthus inexpectatus</i>	USFWS: None CDFW: None CRPR: 1B.1	Freshwater and seeps in marshes, swamps, and riparian woodland. Elevation: elevation range unknown. Blooming period: August–October	No	Not expected. Suitable habitat absent from BSA.	

Scientific Name	Status	Habitat Characteristics	Critical Habitat Affected?	Potential for Occurrence	Citation
Los Angeles sunflower <i>Helianthus nuttallii</i> ssp. <i>parishii</i>	USFWS: None CDFW: None CRPR: 1A	Coastal salt and freshwater marshes and swamps. Elevation: 33–5,494 feet. Blooming period: August–October	No	Not expected. Suitable habitat absent from BSA.	
mesa horkelia <i>Horkelia cuneata</i> var. <i>puberula</i>	USFWS: None CDFW: None CRPR: 1B.1	Sandy and gravelly soils within Maritime chaparral, cismontane woodland, and coastal scrub. Elevation: 229–2,657 feet. Blooming period: February–July(September)	No	Not expected. Suitable soils and habitat absent from BSA.	
deumbent goldenbush <i>Isocoma menziesii</i> var. <i>decumbens</i>	USFWS: None CDFW: None CRPR: 1B.2	Chaparral and in sandy coastal scrub, often in sandy disturbed areas. Elevation: 33–443 feet. Blooming period: April–November	No	Not expected. Suitable soils and habitat absent from BSA.	
Coulter's goldfields <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	USFWS: None CDFW: None CRPR: 1B.1	Coastal salt marsh, coastal salt swamps, playas, vernal pools. Elevation: 3–4,001 feet. Blooming period: February–June	No	Not expected. Suitable habitat absent from BSA.	
Robinson's pepper-grass <i>Lepidium virginicum</i> var. <i>robinsonii</i>	USFWS: None CDFW: None CRPR: 4.3	Openings in chaparral and sage scrub. Elevation: below 2,900 feet. Blooming period: January–July	No	Not expected. Suitable habitat absent from BSA.	
Payne's bush lupine <i>Lupinus paynei</i>	USFWS: None CDFW: None CRPR: 1B.1	Sandy soils in coastal and riparian scrub and grassland. Elevation: 720–1,380 feet. Blooming period: March–July	No	Not expected. Suitable soils and habitat absent from BSA.	
Davidson's bush-mallow <i>Malacothamnus davidsonii</i>	USFWS: None CDFW: None CRPR: 1B.2	Chaparral, coastal scrub, cismontane and riparian woodland. Elevation: 607–2,804 feet. Blooming period: June–January	No	Not expected. Suitable habitat absent from BSA.	
white-veined monardella <i>Monardella hypoleuca</i> ssp. <i>hypoleuca</i>	USFWS: None CDFW: None CRPR: 1B.3	Chaparral and cismontane woodland. Elevation: 164–5,002 feet. Blooming period: April–December	No	Not expected. Suitable habitat absent from BSA.	
mud nama <i>Nama stenocarpa</i>	USFWS: None CDFW: None CRPR: 2B.2	Marshes and swamps, also riverbanks and lake margins. Elevation: 16–1,640 feet. Blooming period: January–July	No	Not expected. Suitable habitat absent from BSA.	
Gambel's water cress <i>Nasturtium gambelii</i>	USFWS: FE CDFW: ST CRPR: 1B.1	Freshwater or brackish marshes and swamps. Elevation: 16–1,000 feet. Blooming period: April–October	No	Not expected. Suitable habitat absent from BSA.	
spreading navarretia <i>Navarretia fossalis</i>	USFWS: FT CDFW: None CRPR: 1B.1	Chenopod scrub, assorted freshwater marshes and swamps, playas, and vernal pools. Elevation: 98–2,149 feet. Blooming period: April–June	No	Not expected. Suitable habitat absent from BSA.	
prostrate vernal pool navarretia <i>Navarretia prostrata</i>	USFWS: None CDFW: None CRPR: 1B.1	Mesic coastal scrub, meadows and seeps, alkaline grassland, and vernal pools. Elevation: 49–3,968 feet. Blooming period: April–July	No	Not expected. Suitable soils and habitat absent from BSA.	
Piute Mountains navarretia <i>Navarretia setiloba</i>	USFWS: None CDFW: None CRPR: 1B.1	Clay or gravelly loam soils in Cismontane, pinyon and juniper woodland and grassland. Elevation: 935–6,888 feet. Blooming period: April–July	No	Not expected. Suitable soils and habitat absent from BSA.	
short-joint beavertail <i>Opuntia basilaris</i> var. <i>brachyclada</i>	USFWS: None CDFW: None CRPR: 1B.2	Chaparral, mojavean desert scrub, Joshua tree, pinyon and juniper woodland. Elevation: 1,394–5,904 feet. Blooming period: April–August	No	Not expected. Suitable habitat absent from BSA.	
California Orcutt grass <i>Orcuttia californica</i>	USFWS: FE CDFW: SE CRPR: 1B.1	Vernal pools. Elevation: 49–2,165 feet. Blooming period: April–August	No	Not expected. Suitable habitat absent from BSA.	
south coast branching phacelia <i>Phacelia ramosissima</i> var. <i>austrolitoralis</i>	USFWS: None CDFW: None CRPR: 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	No	Low potential. Suitable soils and habitat occur adjacent to BSA for TCN structure FF-29 and FF-30.	
Brand's star phacelia <i>Phacelia stellaris</i>	USFWS: None CDFW: None CRPR: 1B.1	Coastal dunes, coastal scrub. Elevation: 3–1,312 feet. Blooming period: March–June	No	Not expected. Suitable soils and habitat absent from BSA.	

Scientific Name	Status	Habitat Characteristics	Critical Habitat Affected?	Potential for Occurrence	Citation
Ballona cinquefoil <i>Potentilla multijuga</i>	USFWS: None CDFW: None CRPR: 1A	Meadows and seeps in brackish water. Elevation: 0–7 feet. Blooming period: June–August	No	Not expected. Suitable habitat absent from BSA.	
white rabbit-tobacco <i>Pseudognaphalium leucocephalum</i>	USFWS: None CDFW: None CRPR: 2B.2	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian woodland. Elevation: 0–6,888 feet. Blooming period: July–December	No	Not expected. Suitable soils and habitat absent from BSA.	
Nuttal's scrub oak <i>Quercus dumosa</i>	USFWS: None CDFW: None CRPR: 1B.1	Sandy or clay loam in closed-cone coniferous forest, chaparral, and coastal scrub. Elevation: 49–1,312 feet. Blooming period: February–August	No	Not expected. Suitable soils and habitat absent from BSA.	
Parish's gooseberry <i>Ribes divaricatum</i> var. <i>parishii</i>	USFWS: None CDFW: None CRPR: 1A	Riparian woodland. Elevation: 213–984 feet. Blooming period: February–April	No	Not expected. Suitable habitat absent from BSA.	
Sanford's arrowhead <i>Sagittaria sanfordii</i>	USFWS: None CDFW: None CRPR: 1B.2	Fresh water marshes and swamps that are typically shallow. Elevation: 0–2,132 feet. Blooming period: May–October	No	Not expected. Suitable habitat absent from BSA.	
southern mountains skullcap <i>Scutellaria bolanderi</i> ssp. <i>austromontana</i>	USFWS: None CDFW: None CRPR: 1B.2	Moist embankments of montane creeks, mesic chaparral, mesic Cismontane woodland, and mesic lower montane coniferous forest. Elevation: 1,394–6,562 feet. Blooming period: June–August	No	Not expected. Suitable soils and habitat absent from BSA.	
salt spring checkerbloom <i>Sidalcea neomexicana</i>	USFWS: None CDFW: None CRPR: 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	No	Not expected. Suitable soils and habitat absent from BSA.	
western bristly scaleseed <i>Spermolepis lateriflora</i>	USFWS: None CDFW: None CRPR: 2A	Sandy or rocky soils in Sonoran desert scrub. Elevation: 1,198–2,198 feet. Blooming period: March–April	No	Not expected. Suitable soils and habitat absent from BSA.	
estuary seablite <i>Suaeda esteroa</i>	USFWS: None CDFW: None CRPR: 1B.2	Coastal salt marshes and swamps. Elevation: 0–16 feet. Blooming period: May–January	No	Not expected. Suitable habitat absent from BSA.	
woolly seablite <i>Suaeda taxifolia</i>	USFWS: None CDFW: None CRPR: 4.2	Coastal bluff scrub, coastal dunes, and the margins of coastal salt marshes and swamps. Elevation: 0–164 feet. Blooming period: January–December	No	Not expected. Suitable soils and habitat absent from BSA.	
Greata's aster <i>Symphotrichum greatae</i>	USFWS: None CDFW: None CRPR: 1B.3	Mesic soils in chaparral, cismontane and riparian woodland, broadleaved upland and lower montane coniferous forest. Elevation: 984–6,593 feet. Blooming period: June–October	No	Not expected. Suitable soils and habitat absent from BSA.	

LEGEND

USFWS: U.S. Fish and Wildlife Service; CDFW: California Department of Fish and Wildlife; CRPR: California Rare Plant Rank
 Species Status:

Federal (USFWS and USDA)

FE Endangered
 FT Threatened

State

CE Endangered
 CT Threatened
 SCE Candidate Endangered
 SSC Species of Special Concern
 SR State Rare

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

CRPR Threat Code Extension

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)
- 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
- CRPR Threat Code Extension*
- 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)