APPENDIX D

Biological Resources Technical Report

Biological Resources Technical Report

Fairmount Avenue Fire Station Project

MARCH 2025

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Table of Contents

SECTION **PAGE NO.**

TABLES

FIGURES

APPENDICES

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Acronyms and Abbreviations

Acronym	Definition
Amsl	above mean sea level
Cal-IPC	California Invasive Plant Council
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CEQA Guidelines	State of California CEQA Guidelines
CESA	California Endangered Species Act
City	City of San Diego
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
EIR	Environmental Impact Report
ESRI	Environmental Systems Research Institute
FESA	Federal Endangered Species Act
GIS	geographic information system
MBTA	Migratory Bird Treaty Act
MM	Mitigation Measure
OHWM	ordinary high water mark
RWQCB	Regional Water Quality Control Board
SWPPP	Stormwater Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

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Executive Summary

The proposed Fairmount Avenue Fire Station Project (project) site is located approximately 0.5 mile east of Interstate 805 and 0.5 mile north of Highway 94 within the Chollas Creek watershed (Figure 1 – Project Location). The 0.59-acre area of project disturbance (referred to as the "project site") is within the 1.28-acre project parcel (Assessor's Parcel Number (APN) 54119016). There is 0.06-acre of the project site that occurs outside the project parcel adjacent to 47th Street within the roadway right-of-way. The project is within the City's Multiple Species Conservation Program (MSCP) Subarea Plan (City of San Diego 1997). The project site is directly adjacent to the City's Multiple Habitat Preservation Area (MHPA) and the project study area overlaps with the MHPA. The MHPA occurs within the undeveloped urban canyon to the west of the project that extends north from Sunshine Berardini Field at Federal Boulevard on the southwest end of the canyon to just northeast of 54th Street. In addition, an off-site construction staging area (APN 5416110100) near Federal Avenue was reviewed which is also adjacent to MHPA lands.

The proposed project study area includes the project site and a 500-foot survey buffer, resulting in a total study area that occupies 25.51 acres located northeast of Fairmount Avenue, west and north of 47th Street, and southeast of Chollas Creek, partially within the Mid-City Communities Plan area and Eastern Community Plan area in the City of San Diego (City), California; the project site boundary occurs only within the Mid-City Communities Plan area. The off-site construction staging area is 0.52-acre and was assessed in conjunction with a surrounding 500-foot survey buffer area (off-site study area) and is also included within the Mid-City Communities Plan and Eastern Community Plan area.

The project would consist of the construction of a fire station, which would serve to add additional emergency and medical response services to the surrounding community. The 0.59-acre project site includes the 0.25-acre fire station and the associated 0.34-acre Zone 1 Defensible Space area. An additional 0.44-acre Zone 2 Brush Management Area extends beyond the project impact footprint and would have a minor overlap with the MHPA boundary. The Zone 2 Brush Management is considered "impact neutral" according to the San Diego Land Development Manual - Biology Guidelines (Biology Guidelines; City of San Diego 2018a). To facilitate the project, the off-site construction staging area at Federal Avenue would be used to store materials and stage construction equipment.

Dudek biologists conducted a field reconnaissance and vegetation mapping survey in addition to focused surveys for jurisdictional aquatic resources, rare plants, and special-status wildlife species in 2018, 2019, 2023, and 2024. The purpose of this biological technical report (BTR) is to provide context regarding the nature and status of biological resources occurring within the project site. This report also identifies those plant and animal species within the project study area and off-site study area recognized as sensitive by local, state, or federal wildlife agencies and/or environmental organizations that a have a moderate to high potential to occur based on habitats present in each area.

Based on species composition and general physiognomy, ten vegetation communities (or habitat types) are identified within the project study area: coastal sage scrub (including disturbed variety), coastal sage scrub (*Baccharis*-dominated), coastal sage scrub (*Rhus*-dominated), mixed chaparral, ornamental plantings, eucalyptus woodland, southern willow forest, southern riparian forest, riparian scrub (mulefat scrub), and natural flood channel. In addition, two land covers are located on site: urban/developed land and disturbed land. At the off-site study area, eight vegetation communities (or habitat types) are identified: coastal Sage Scrub, coastal Sage Scrub (Baccharis-dominated), ornamental plantings, eucalyptus woodland, non-native grassland: broad-leaf dominated,

non-native vegetation, and southern cottonwood-willow riparian forest. In addition, three land covers are located at the off-site study area: urban/developed land, developed concrete-lined channel, and non-vegetated channel.

The project impact footprint does support suitable habitat or substrate for special-status plant species and a rare plant survey was conducted in 2019 to identify and locate potential special-status plants on-site. One special-status plant species, San Diego County viguiera (*Bahiopsis laciniata*), was identified in multiple areas to the west of the impact area within the proposed Zone 2 Brush Management Area and MHPA (Figure 2a – Onsite Biological Resources). Two special-status wildlife species, Cooper's hawk (*Accipiter cooperii*) and the coastal California gnatcatcher (*Polioptila californica californica*), a federal and state listed endangered species, were also detected during site surveys within the project impact footprint. The project impact footprint also supports habitat for several additional special-status species including nesting birds and Crotch's bumble bee *(Bombus crotchii)*. No special-status species were detected within the off-site construction staging area, though coastal California gnatcatcher was incidentally observed in the off-site study area during a non-protocol reconnaissance survey.

Jurisdictional resources within the project study area and off-site study area regulated by California Department of Fish and Wildlife (CDFW) and the City, per the City's Biology Guidelines, include 0.6-acre, comprised of riparian forest (southern willow forest), southern cottonwood-willow riparian forest, riparian forest (southern riparian forest), and riparian scrub (mulefat scrub). In addition, 0.26-acre of the natural flood channel represent the main flow path of Chollas Creek near the project study area; 0.28-acre developed concrete-lined channel occurs within the off-site study area (Figure 2b – Offsite Biological Resources). Chollas Creek is under the jurisdiction of United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), CDFW, and the City. In addition to Chollas Creek, a tributary drainage originates from a storm drain outlet in the ornamental vegetation in the northeastern portion of the project study area that likely contributes ephemeral flows to Chollas Creek but does not support wetland vegetation; therefore, it is under RWQCB and CDFW jurisdiction only (Figure 2a).

Implementation of the proposed project would result in permanent impacts to 0.495 acres of coastal sage scrub (including disturbed) (Tier II), 0.006-acre of mixed chaparral (Tier IIIA), 0.029-acre of disturbed land (Tier IV) and 0.015-acre of urban/developed land (Figure 3 – Onsite Impacts to Biological Resources). The impacts to Tier II and IIIA vegetation communities will require mitigation, since total impacts to this Tier exceed the 0.1-acre threshold set in the City's Biology Guidelines (City of San Diego 2018a). Project impacts to urban/developed land and Tier IV vegetation (disturbed land) and previously developed land would not require mitigation because these land covers provide little native habitat value and foraging opportunities for wildlife, particularly when they occur in contiguous urban environments such as surrounds the project study area. Additional measures are included to reduce impacts to sensitive biological resources and include phasing construction to avoid the breeding season of birds and Crotch's bumble bee, where feasible, and performing pre-construction surveys for nesting birds and Crotch's bumble bee if construction is to occur during their respective breeding seasons.

1 Introduction

This BTR provides an analysis of potential biological resource impacts associated with the proposed Fairmount Avenue Fire Station Project (project). The project is in the Mid-City Communities Plan Area, Council District 9, and sits directly adjacent to the Eastern Community Plan Area in the City of San Diego (City), California (Figure 1 – Project Location).

In accordance with the current City Biology Guidelines (City of San Diego 2018a), this report provides an introduction, a project description, a summary of the pertinent biological resource regulations, the project setting, survey methods, existing biological resources, special-status biological resources, project impacts (direct and indirect), and project mitigation. The project impacts, avoidance, and mitigation measures (MMs) are discussed in accordance with the California Environmental Quality Act (CEQA), Clean Water Act (CWA), Migratory Bird Treaty Act (MBTA), California Fish and Game Code, the *City of San Diego Final Multiple Species Conservation Program (MSCP) Subarea Plan* (City Subarea Plan; City of San Diego 1997), and the City's Environmentally Sensitive Lands (ESLs) regulations.

1.1 Project Location

The project site is located approximately 0.5 mile east of Interstate 805 and 0.5 mile north of Highway 94 within the Chollas Creek watershed. The project site includes 0.59-acre and was assessed in conjunction with a surrounding 500-foot survey buffer area (project study area). The project site is within the larger 1.28-acre project parcel (Assessor's Parcel Number (APN) 54119016). There is 0.06-acre of the project site that is located outside the project parcel, within the 47th Street right-of-way. The proposed 0.59-acre project site, which includes the 0.25-acre fire station footprint and 0.34-acre of associated Zone 1 brush management (impact footprint), is located north of the intersection of 47th Street and Fairmount Avenue, situated on the west side of 47th Street (Figure 1). The location of the proposed fire station is bounded to the east by 47th Street and on the north, south and west by open space connected to Chollas Creek canyon. In addition, a 0.52-acre off-site construction staging area (APN 5416110100) was reviewed for the project in conjunction with a surrounding 500-foot survey buffer area (off-site study area).

1.2 Project Description

The project consists of the construction of a fire station abutting and west of 47th Street. The single primary access to the project site would be directly from 47th Street. Vegetation removal and grading would be required to create a pad level with 47th Street for project access and construction. Construction activities would include ground and foundation preparation, utility installation, framing and assembly of the building and associated apparatus bay, paving of a parking lot and driveway areas, and landscaping.

The project impact footprint includes the fire station structure, a parking lot and an associated Zone 1 Defensible Space area. Zone 1 would extend 35 feet beyond the fire station structure except on the west and south sides of the building, where it would extend 10 feet beyond the structure up to a 6-foot-tall fire wall (which would act as an alternative construction measure to compensate for the reduced Zone 1 Defensible Space). A Zone 2 Brush Management area varying in width extends beyond Zone 1 into the project study area, as described by the project's Brush Management Plan.

1.3 Regional Resource Planning Context

The City is a participant in the San Diego MSCP, a comprehensive, regional long-term habitat conservation program designed to provide permit issuance authority for take of covered species to the local regulatory agencies. The MSCP addresses habitat and species conservation within approximately 900 square miles in the southwestern portion of San Diego County (County of San Diego 1998). It serves as an approved habitat conservation plan pursuant to an approved Natural Communities Conservation Plan in accordance with the state Natural Communities Conservation Planning Act (County of San Diego 1998).

The MSCP establishes a preserve system designed to conserve large blocks of interconnected habitat having high biological value that are delineated in MHPAs. The City MHPA is a "hard line" preserve developed by the City in cooperation with the wildlife agencies, property owners, developers, and environmental groups. The MHPA identifies biological core resource areas and corridors targeted for conservation, in which only limited development may occur (City of San Diego 1997).

The MSCP identifies 85 plants and animals to be "covered" under the plan ("Covered Species"). Many of these Covered Species are subject to one or more protective designations under state and/or federal law, and some are endemic to San Diego. The MSCP seeks to provide adequate habitat in the preserve to maintain ecosystem functions and persistence of extant populations of the 85 Covered Species while also allowing participating landowners "take" of Covered Species on lands located outside of the preserve. The purpose of the MSCP is to address species conservation on a regional level and thereby avoid project-by-project biological mitigation, which tends to fragment habitat.

Within the City of San Diego, the MSCP is implemented through the City of San Diego MSCP Subarea Plan (Subarea Plan) (City of San Diego 1997), which applies within 6,501 acres. Portions of the Project are located adjacent to MHPAs (City of San Diego 1997).

City of San Diego MSCP Subarea Plan

The Subarea Plan (1997) encompasses 206,124 acres within the MSCP Subregional Plan area. The project study area is located within the eastern area of the Subarea Plan. Urban habitat areas within the MHPA include existing designated open space such as Mission Bay, Tecolote Canyon, Marian Bear Memorial Park, Rose Canyon, San Diego River, the southern slopes along Mission Valley, Carroll and Rattlesnake Canyons, Florida Canyon, Chollas Creek, and a variety of smaller canyon systems. The Eastern area includes East Elliott and Mission Trails Regional Park.

The Subarea Plan is characterized by urban land uses with approximately three-quarters either built out or retained as open space/park system. As mentioned previously, the City MHPA is a "hard line" preserve developed by the City in cooperation with the wildlife agencies, property owners, developers, and environmental groups. The MHPA identifies biological core resource areas and corridors targeted for conservation, in which only limited development may occur (City of San Diego 1997). The MHPA is considered an urban preserve that is constrained by existing or approved development and is comprised of habitat linkages connecting several large core areas of habitat. The criteria used to define core and linkage areas involves maintaining ecosystem function and processes, including large animal movement. Each core area is connected to other core areas or to habitat areas outside of the MSCP either through common boundaries or through linkages. Core areas have multiple connections to help ensure that the balance in the ecosystem will be maintained (City of San Diego 1997). Critical habitat linkages between core

areas are conserved in a functional manner with a minimum of 75% of the habitat within identified linkages conserved (City of San Diego 1997). The project study area falls outside of these habitat linkages and core areas.

City of San Diego Biology Guidelines

The City of San Diego Development Services Department developed the Biology Guidelines presented in the Land Development Manual "to aid in the implementation and interpretation of the Environmentally Sensitive Lands Regulations (ESL), San Diego Land Development Code (LDC), Chapter 14, Division 1, Section 143.0101 et seq., and the Open Space Residential (OR-1-2) Zone, Chapter 13, Division 2, Section 131.0201 et seq." (City of San Diego 2018a). The guidelines also provide standards for the determination of impact and mitigation under CEQA and the CCA. Sensitive biological resources, as defined by the Environmentally Sensitive Lands Regulations, include lands within the MHPA, as previously discussed, as well as other lands outside of the MHPA that contain wetlands; vegetation communities classifiable as Tier I, II, IIIA, or IIIB; habitat for rare, endangered, or threatened species; or narrow endemic species.

The City's definition of wetlands is broader than the definition applied by the USACE. The City uses the criteria listed in Section 320.4(b)(2) of the USACE General Regulatory Policies (33 CFR 320–330) to apply an appropriate buffer around wetlands that serves to protect the function and value of the wetland. Guidelines that supplement the development regulation requirements described in this section are provided in the City's Biology Guidelines (City of San Diego 2018a). According to the City's Biology Guidelines, a wetland buffer is an area surrounding a wetland that helps protect the function and value of the adjacent wetland by reducing physical disturbance, provides a transition zone where one habitat phases into another, and acts to slow flood waters for flood and erosion control, sediment filtration, water purification, and groundwater recharge. The width of the buffer is determined by factors such as location within or outside of the Coastal Zone and type and size of development, sensitivity of the wetland resource to edge effects, topography, and the need for upland transition (City of San Diego 2018a).

The San Diego Municipal Code also ranks upland habitat values by rarity and sensitivity. The most sensitive habitats are Tier I, and the least sensitive are Tier IV. The varying mitigation ratios and requirements that mitigation be either in-tier or in-kind are based on the sensitivity of the habitat being affected. The proposed project would be considered an Essential Public Project in that it would service the community at large and not just a single development project or property. Examples of Essential Public Projects include identified circulation element roads, major water and sewer lines, publicly owned schools, parks, libraries, and police and fire facilities.

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2 Survey Methods and Limitations

Data regarding biological resources present within the project study area and off-site study area were obtained through a review of pertinent literature and field reconnaissance, both of which are described in detail as follows. The 25.51-acre project study area is comprised of the project site, Zone 1 Defensible Space, a Zone 2 Brush Management area and the corresponding 500-foot survey buffer. The approximately 30.32-acre off-site study area is comprised of the 0.52-acre off-site construction staging area and a 500-foot study area buffer. The large survey buffer was implemented due to the proximity of project areas to sensitive MHPA lands. Survey areas were determined based on suitable habitat for the resource for which the survey was conducted.

2.1 Literature Review

The following data sources were reviewed to assist with the biological resources analysis:

- U.S. Department of Agriculture Web Soil Survey (USDA 2025a)
- CDFW California Natural Diversity Database – Special Animals List (CDFW 2025b)
- CDFW California Natural Diversity Database – RareFind, Version 5 (CDFW 2025c)
- The Calflora Database (Calflora 2025)
- California Native Plant Society Inventory of Rare and Endangered Plants (CNPS 2025)
- MSCP Subarea Plan (City of San Diego 1997)
- San Diego Municipal Code, Land Development Code—Biology Guidelines (City of San Diego 2018a)
- USFWS Species Occurrence Data (USFWS 2025)
- San Diego Geographic Information Source (SanGIS) database (SanGIS 2022)
- San Diego Natural History Museum (SDNHM 2012)
- Aerial maps from the San Diego Association of Governments (SANDAG 2025) and Bing (Microsoft 2024)
- Topographic maps (Google Earth 2024)

2.2 Field Reconnaissance

Biological field surveys for the project were conducted in 2018, 2019, 2023, and 2024 by Dudek biologists. Field surveys included vegetation and land cover mapping, and a jurisdictional delineation. Initial reconnaissance surveys were conducted in 2018 and then repeated in November 2019 and 2023 to confirm that conditions within the study area were consistent with the original observations made in 2018. Focused surveys were conducted for rare plants, coastal California gnatcatcher (*Polioptila californica californica*), and least Bell's vireo (*Vireo bellii pusillus*). A biological reconnaissance at the off-site construction staging area and surrounding 500-foot study area buffer was conducted in September 2024. Table 1 lists the survey dates, times, surveying biologists, and weather conditions during the survey.

All biological surveys were conducted in accordance with the City's Guidelines for Conducting Biological Surveys (Appendix II in City of San Diego 2018a).

Table 1. Biological Surveys Conducted for the Project

Date	Biologist	Survey Type	Times	Weather Conditions
Vegetation Mapping/Habitat Assessment, Aquatic Resources Delineation, and Rare Plants				
02/26/2018	Scott Gressard	Field Reconnaissance and Vegetation Mapping	0950–1130	62-64 Degrees Fahrenheit (°F), 0% cloud cover, 0–3 mile per hour (mph) winds
05/31/2019	Patricia Schuyler	Jurisdictional Delineation and Rare Plant Survey Pass 1	0920–1230	64–75°F, 100% cloud cover, 0–2 mph winds
07/19/2019	Scott Gressard	Rare Plant Survey Pass 2	1040–1145	74°F, 0% cloud cover, 1–4 mph winds
11/25/2019	Scott Gressard	Update Survey	1100 – 1215	68°F–70°F, 10% cloud cover; 1–3 mph winds
11/10/2023	Kimberly Narel	Field Reconnaissance, Jurisdictional Delineation, and Vegetation Mapping Update	1145 - 1315	71–74°F; 0% cloud cover; 0–4 mph wind
09/11/2024	Kimberly Narel	Field Reconnaissance and Vegetation Mapping at Off-site Study Area	1100 - 1230	71–74°F; 0% cloud cover; 2–3 mph wind
Focused Coastal California Gnatcatcher Surveys				
6/21/2018	Paul Lemons	CAGN Pass 1	0620–0830	64–66°F, 0–100% cloud cover, 0–2 mph winds
7/2/2018	Paul Lemons	CAGN Pass 2	0800–1000	65–73 °F, 0–10% cloud cover, 0–4 mph winds
7/10/2018	Paul Lemons	CAGN Pass 3	0630–0910	71–75 °F, 100–80% cloud cover, 1–5 mph wind
Focused Least Bell's Vireo Surveys				
4/10/2018	Scott Gressard	LBVI Pass 1	0850–0950	65°F–71°F, 10% cloud cover; 0–3 mph winds
4/20/2018	Scott Gressard	LBVI Pass 2	0945–1040	69°F–70°F, 0% cloud cover; 1-2 mph winds
4/30/2018	Scott Gressard	LBVI Pass 3	0945–1050	63°F–66°F, 100-90% cloud cover; 1-4 mph winds
5/10/2018	Scott Gressard	LBVI Pass 4	1010–1100	65°F–69°F, 100-50% cloud cover; 1–3 mph winds
5/21/2018	Scott Gressard	LBVI Pass 5	1000–1050	65°F, 90-70% cloud cover; 1–5 mph winds
6/11/2018	Scott Gressard	LBVI Pass 6	1000–1050	74°F–75°F, 0% cloud cover, 1–3 mph winds
6/21/2018	Scott Gressard	LBVI Pass 7	1010–1055	69°F–70°F, 100-90% cloud cover; 1–3 mph winds
7/2/2018	Jake Marcon	LBVI Pass 8	0745–0845	70°F–74°F, 20% cloud cover; 0–1mph winds

2.3 Survey Limitations

Site visits were conducted during daylight hours. Complete inventories of biological resources present on a site often require numerous focused surveys at different times of day during different seasons. Some species such as annual plants are present in only spring or summer, and nocturnal animals are difficult to detect during the day. Other species may be present in such low numbers that they could be missed. Due to such timing and seasonal variations, survey results are not an absolute list of all species that the study area may support. Sensitive species with potential to occur are described in Sections 3.2.4 and 3.2.5 of this report and in Appendices C and D. Focused surveys for coastal California gnatcatcher and least Bell's vireo were conducted more than 24 months prior to the drafting of this report; therefore, the results from those surveys are only used anecdotally to inform likely presence of these species in the study area. The results from the focused surveys do not represent an official record of the most current resource condition of the site.

3 Results

3.1 Physical Characteristics

The physical characteristics and quantification of biological resources described herein pertains to the project study area, which is comprised of the project site and a 500-foot survey buffer. In addition, an off-site study area has been included in this analysis. The physical characteristics of both areas are analyzed in the following sections.

3.1.1 Topography and Drainage

Within the project study area, the topography in and near the project site slopes down to a flat basin bottom from the north, east and south with steep hillsides identified on the east side of the study area that intersect the project impact footprint. Nearby Chollas Creek represents the lowest point within the project study area and likely collects run-off occurring within the project study area. The elevation in the project study area ranges from approximately 135 feet to 200 feet above mean sea level (AMSL). Portions of the project study area are located within and adjacent to the MHPA (Figures 1 and 2a). The project is not within the City's Coastal Overlay Zone (City of San Diego 2008).

Within the off-site study area, the topography is generally flat. Lands to the north, east, and south slope upwards; lands north and west of the off-site study area are flatter, but also eventually slope upwards towards the edge of the off-site study area. Nearby Chollas Creek represents the lowest point and likely collects run-off occurring within this area. The elevation ranges from approximately 112 feet to 186 feet AMSL. Portions of the off-site study area are located within the MHPA (Figures 1 and 2b). The off-site study area is not within the City's Coastal Overlay Zone (City of San Diego 2008).

Current land uses within and immediately surrounding the project study area include the Leisureland mobile home park, single-family residential development, neighborhood streets, sidewalks, traffic (vehicle and pedestrian), and open space associated with an urban canyon to the west. The off-site study area is adjacent to a public-use park and sports fields.

3.1.2 Soils

According to the San Diego County Soil Survey and the USDA Web Soil Survey (USDA 2024a), two soil types, made land and Huerhuero loam, are mapped within the project study area (Bowman 1973). A total of five soil types are mapped within the off-site study area, including made land, urban land, terrace escarpments, Huerhuero loam, and Redding complex.

3.2 Biological Resources

The following discussion describes the existing biological conditions within the project study area and the off-site study area, provided as biological resource descriptions.

3.2.1 Vegetation Communities and Land Cover Types

The vegetation communities and land covers were mapped according to Holland (1986) and Oberbauer et al. (2008), with a few exceptions. Some vegetation communities were given additional descriptions to identify highly dominant species within the community. These habitats were then cross-walked to their corresponding community listed in the City's Biology Guidelines (City of San Diego 2018a). Four native vegetation communities, four non-native vegetation communities/land cover types, and four native wetlands (including non-wetland waters) were mapped within the project study area. These included coastal sage scrub (including disturbed variety), coastal sage scrub (*Baccharis*-dominated), coastal sage scrub (*Rhus*-dominated), mixed chaparral, ornamental plantings, eucalyptus woodland, disturbed land, urban/developed land, southern willow forest, riparian scrub (mulefat scrub), southern riparian forest, and natural flood channel. A total of two native vegetation communities/land cover types, four non-native vegetation communities/land cover types, and three wetlands (including non-wetland waters) were mapped within the off-site study area. These included coastal sage scrub, coastal sage scrub (*Baccharis*-dominated), Eucalyptus woodland, non-native grassland: broadleaf-dominated, ornamental plantings, non-native vegetation, southern cottonwood-willow (*Populus-Salix*) riparian forest, non-vegetated channel, and developed/concrete-line channel.

The vegetation communities and land cover types recorded in the project study area are described in detail as follows, their acreages are presented in Table 2a, and their spatial distributions are presented on the Biological Resources Maps (Figures 2a,b). Table 2b describes the vegetation communities and land cover types recorded in the off-site study area and surrounding 500-foot survey area buffer. Also included in Tables 2a and 2b are the sensitivity designations of each vegetation community according to the Tiers described in the City's Biology Guidelines (City of San Diego 2018a).

Table 2a. Vegetation Communities and Land Cover Types in the Project Study Area

Vegetation Community or Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	City of San Diego MSCP Habitat Tier	City Right-of-Way Acreage	Project Parcel Acreage*	500-foot Study Area Buffer Acreage
Uplands					
Coastal Sage Scrub	Coastal Sage Scrub	Tier II	-	0.662	3.972
Coastal Sage Scrub (disturbed)	Coastal Sage Scrub	Tier II	0.031	0.096	0.104
Coastal Sage Scrub (Baccharis-dominated)	Coastal Sage Scrub	Tier II	-	-	2.184
Coastal Sage Scrub (Rhus-dominated)	Coastal Sage Scrub	Tier II	-	-	1.019
Mixed chaparral	Mixed chaparral	Tier IIIA	-	0.235	0.375
Disturbed Land	Disturbed Land	Tier IV	0.010	0.165	0.998
Ornamental Plantings	Ornamental Plantings	Tier IV	-	0.031	0.636
Eucalyptus Woodland	Eucalyptus Woodland	Tier IV	-	-	0.098
Urban/Developed Land	Disturbed Land	N/A	0.015	-	13.997

Table 2a. Vegetation Communities and Land Cover Types in the Project Study Area

Vegetation Community or Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	City of San Diego MSCP Habitat Tier	City Right-of-Way Acreage	Project Parcel Acreage*	500-foot Study Area Buffer Acreage
Wetlands					
Southern Willow Forest	Riparian Forest	Wetland	-	0.036	0.419
Southern Riparian Forest	Riparian Forest	Wetland	-	0.058	0.042
Mulefat Scrub	Riparian Scrub	Wetland	-	-	0.051
Natural Flood Channel	Natural Flood Channel	Wetland	-	-	0.256
		Grand Total[1]	**0.056**	**1.283**	**25.513**

Note:
[1] Totals may not sum due to rounding.
* The Project Parcel includes the project site.

Table 2b. Vegetation Communities and Land Cover Types within the Off-Site Study Area

Vegetation Community or Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	City of San Diego MSCP Habitat Tier	Off-site Construction Staging Area Acreage*	500-foot Off-site Study Area Acreage
Uplands				
Coastal Sage Scrub	Coastal Sage Scrub	Tier II	-	0.911
Coastal Sage Scrub (*Baccharis*-dominated)	Coastal Sage Scrub	Tier II	0.039	2.736
Ornamental Plantings	Ornamental Plantings	Tier IV	-	1.695
Eucalyptus Woodland	Eucalyptus Woodland	Tier IV	-	4.389
Non-Native Grassland: Broad-leaf dominated	Non-Native Grassland: Broad-leaf dominated	Tier III	-	1.908
Non-Native Vegetation	Disturbed Land	Tier IV	0.076	0.137
Urban/Developed Land	Disturbed Land	N/A	0.408	17.613
Wetlands				
Developed Concrete-Lined Channel	Disturbed Wetland	Wetland	-	0.284
Southern Cottonwood-Willow Riparian Forest	Riparian Forest	Wetland	-	0.149
Non-Vegetated Channel	Disturbed Wetland	Wetland	-	0.503
		Grand Total[1]	**0.523**	**30.324**

Note:
[1] Totals may not exactly sum due to rounding.

3.2.1.1 Coastal Sage Scrub (including disturbed)

Coastal sage scrub is a native vegetation community that, according to Oberbauer et al. (2008), is composed of a variety of soft, low, aromatic shrubs, characteristically dominated by drought-deciduous species—such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and sages (*Salvia* spp.)—with scattered evergreen shrubs, including lemonade sumac (*Rhus integrifolia*) and laurel sumac (*Malosma laurina*).

Project Study Area

Coastal sage scrub is the dominant vegetation community and makes up a large portion of the habitat on the northern facing slope of the canyon within and adjacent to the proposed project impact footprint (Figure 2a). The disturbed variety of coastal sage scrub is found along the edges of residential development at the bottom of the canyon. Coastal sage scrub is considered a Tier II habitat by the City's Biology Guidelines (City of San Diego 2018a) and impacts to this community would be considered significant.

Off-Site Study Area

Coastal sage scrub occurs within the northern portion of the 500-foot buffer area on an upland slope dominated by California sagebrush and scattered black sage. The coastal California gnatcatcher was incidentally heard calling and foraging within this vegetation community (Figure 2b).

3.2.1.2 Coastal Sage Scrub (*Baccharis-dominated*)

Coastal sage scrub (*Baccharis*-dominated) is a native vegetation community that, according to Oberbauer et al. (2008), typically occurs in nutrient-poor soils and is composed primarily of broom baccharis (*Baccharis sarothroides*) or coyote bush (*Baccharis pilularis*). Other drought-deciduous species may also be sparsely intermixed—such as California sagebrush, California buckwheat, and saw toothed goldenbush (*Hazardia squarrosa*).

Project Study Area

Coastal sage scrub (*Baccharis*-dominated) is primarily situated along the flat bottom of the site in the northwestern section of the study area (Figure 2a). The City's Biology Guidelines (City of San Diego 2018a) do not distinguish between this variety and general coastal sage scrub; therefore, it is considered a Tier II habitat and impacts to this community would be considered significant.

Off-Site Study Area

Coastal sage scrub (*Baccharis-dominated*) borders the northeastern and southeastern boundaries of the off-site construction staging area. It is densely dominated by broom baccharis and extends east into the study area buffer along the uplands of Cholla Creek. Coastal California gnatcatcher was heard foraging and dispersing within the *Baccharis*-dominated coastal sage scrub in the uplands surrounding Cholla Creek.

3.2.1.3 Coastal Sage Scrub (*Rhus-dominated*)

Coastal sage scrub (*Rhus*-dominated) is a native vegetation community that is a variety of general coastal sage scrub previously described in Section 4.2.1.1. This variety typically occurs in nutrient-poor soils and is composed

primarily of lemonadeberry. Other drought-deciduous species may also be sparsely intermixed—such as California sagebrush, California buckwheat, broom baccharis, and laurel sumac.

Coastal sage scrub (*Rhus*-dominated) is primarily situated on slopes in the northeast portion of the project study area (Figure 2a). The City's Biology Guidelines (City of San Diego 2018a) do not distinguish between this variety and general coastal sage scrub; therefore, it is considered a Tier II habitat and impacts to this community would be considered significant.

3.2.1.4 Mixed chaparral

Mixed chaparral is a native vegetation community supporting dense stands of broad-leaved sclerophyll shrubs, typically deep-rooted and about 1.5-3 meters tall. There is typically little to no understory vegetation, but often substantial leaf litter. This community is commonly dominated by chamise (*Adenostoma fasciculatum*), manzanitas (*Arctostaphylos* spp.), and blue-colored lilacs (*Ceanothus* spp.) (Holland 1986).

Mixed chaparral is located in the central section of the study area and slightly overlaps with the northwest boundary of the project impact footprint (Figure 2a). This habitat is dominated primarily by felt leaved yerba santa (*Eriodictyon crassifolium*). Mixed chaparral is considered a Tier IIIA habitat by the City's Biology Guidelines (City of San Diego 2018a) and impacts to this community would be considered significant.

3.2.1.5 Non-Native Grassland: Broadleaf-dominated

Broadleaf-dominated non-native grassland is a non-native herbaceous vegetation community dominated by one or several non-native or invasive broadleaf species that account for more than 50% of the total vegetative cover. This community is commonly dominated by mustards and thistles.

Non-native grassland: broadleaf-dominated is present to the north of the off-site construction staging area. It is sloped upland to the sports park and is co-dominated by black mustard (*Brassica nigra*) and Maltese star-thistle (*Centaurea melitensis*).

3.2.1.6 Disturbed Land

Disturbed Land includes areas which have experienced physical anthropogenic disturbance and as a result cannot be identified as a native or naturalized vegetation association. However, these areas do have a recognizable soil substrate. The existing vegetation is typically composed of non-native ornamental or exotic species (Oberbauer et al. 2008).

This land cover consists of dirt access paths and areas of non-native annual species. Where present, vegetation in this community consists primarily of wild mustard (*Hirshfeldia incana*) and crown daisy (*Glebionis coronaria*). This land cover is ranked as Tier IV and is not considered sensitive under the City's Biology Guidelines (City of San Diego 2018a). Thus, impacts to these areas would not require mitigation.

3.2.1.7 Ornamental Planting

Ornamental planting refers to areas where non-native ornamental species and landscaping schemes have been installed and maintained, usually as part of commercial or residential property. This habitat type supports myriad

ornamental species, including, but not limited to, hottentot fig (*Carpobrotus edulis*), Peruvian pepper tree (*Schinus molle*), Brazilian pepper tree (*Schinus terebinthifolius*), and red apple iceplant (*Aptenia cordifolia*) (Holland 1986).

Project Study Area

Ornamental plannings are present in the project study area, primarily along the edges of 47th Street and the residential development to the northeast. The dominant species in this vegetation community is Brazilian peppertree (*Schinus terebinthifolius*). This vegetation community is ranked as Tier IV and is not considered sensitive under the City's Biology Guidelines (City of San Diego 2018a) and therefore impacts to this community would not require mitigation.

Off-Site Study Area

Ornamental plantings are present in the off-site study area buffer to the southeast of the off-site construction staging area and are associated with commercial development. Species observed included Brazilian pepper tree and Bougainvillea.

3.2.1.8 Eucalyptus Woodland

Eucalyptus woodland, according to Oberbauer et al. (2008), includes eucalyptus species (*Eucalyptus globulus*, *E. camaldulensis*, or *E*. spp.) planted as trees, groves, and windbreaks that form thickets with minimal shrubby understory to scattered trees with a well-developed understory. In most cases however, eucalyptus trees form dense stands with closed canopies where the understory is either depauperate or absent owing to shade and the possible allelopathic (toxic) properties of the eucalyptus leaf litter. Although eucalyptus woodlands are of limited value to most native plants and animals, they frequently provide nesting and perching sites for several raptor species.

Project Study Area

Eucalyptus woodland occurs within the study area in limited patches along the east edge of 47th Street. Eucalyptus woodland is classified as a Tier IV vegetation community under the City's Biology Guidelines (City of San Diego 2018a) and therefore impacts to this community would not require mitigation.

Off-Site Study Area

Eucalyptus woodland is present to the south and west of the off-site construction staging boundary and borders public rights-of-way.

3.2.1.9 Riparian Forest (Southern Willow Forest)

Riparian forest (southern willow forest) is a vegetation community dominated by broad-leafed willow trees, often tall, with a closed, or nearly closed canopy, and may have an understory of shrubby willows (Oberbauer et al. 2008). Dominant species are often arroyo willow (*Salix lasiolepis*) and Gooding's willow (*Salix goodingii*). Other species besides willows that might also be found in riparian forest (southern willow forest) communities include Douglas' sagewort (*Artemisia douglasiana*), mulefat (*Baccharis salicifolia*), manroot (*Marah macrocarpus*), California sycamore, Fremont cottonwood (*Populus fremontii*), and black cottonwood (*Populus trichocarpa*) (Oberbauer et al. 2008).

The area mapped as southern willow forest occurs northwest of the project site impact area. Within the study area, this vegetation community is dominated by Goodding's willow and arroyo willow. The City's Biology Guidelines (City of San Diego 2018a) do not distinguish between this variety and general riparian forest; therefore, it is classified as a wetland habitat and impacts to this community would be considered significant.

3.2.1.10 Riparian Forest (Southern Riparian Forest)

Riparian forest (southern riparian forest) is a vegetation community that, according to Oberbauer et al. (2008), is comprised of dense stands of riparian vegetation with a closed or nearly closed canopy, found in areas along rivers, streams, bottomlands, and sub-irrigated or frequently overflowed lands. California sycamore (*Platanus racemosa*), Fremont cottonwood, and various willows (*Salix* spp.) constitute the dominant species, often in proportional densities. Other species that might also be found in southern riparian forest communities include Douglas' sagewort, mulefat, manroot, and black cottonwood (Oberbauer et al. 2008).

The area mapped as southern riparian forest occurs northwest of the project site impact area. Within the project study area, this vegetation community is dominated by Fremont cottonwood. The City's Biology Guidelines (City of San Diego 2018a) classify riparian forest as a wetland habitat and therefore, impacts to this community would be considered significant.

3.2.1.11 Riparian Forest (Southern Cottonwood-Willow)

Southern cottonwood-willow riparian forest is a vegetation community that, according to Oberbauer et al. (2008), is comprised of tall, open, broadleafed winter-deciduous trees including cottonwoods and willows, with shrubby willow understories. Characteristic species include mulefat, western sycamore (*Platanus racemosa*), Fremont's cottonwood (*Populus fremontii*), and black willow (*Salix gooddingii*).

Southern cottonwood-willow riparian forest is present to the north of the off-site construction staging area and is associated with Cholla Creek. It supports willow thickets in the shrub understory with a relatively open canopy of characteristic tree species consisting of Fremont's cottonwood, western sycamore, and black willow. The City's Biology Guidelines (City of San Diego 2018a) classify southern cottonwood-willow riparian forest as a wetland habitat and therefore, impacts to this community would be considered significant.

This vegetation community is small in extent, relatively narrow, and is connected to a concrete-lined channel that is situated between a sports park and a parking lot in an urbanized area. As such, although this is considered suitable foraging and nesting habitat for the special-status least Bell's vireo (*Vireo bellii pusillus*), it is unlikely to occur within the southern cottonwood-willow riparian forest associated with the portion of Chollas Creek in the off-site study area (Figure 2b).

3.2.1.12 Riparian Scrub (Mulefat Scrub)

According to Oberbauer et al. (2008), riparian scrub (mulefat scrub) is a vegetation community reliant on frequent flooding, dominated by mulefat, with other characteristic species being primarily willows (*Salix* spp.), which may occur sparsely intermixed.

The area mapped as mulefat scrub occurs in the northwestern section of the project study area. This vegetation community is dominated by mulefat with some broom baccharis sparsely intermixed. The City's Biology Guidelines

(City of San Diego 2018a) classify riparian scrub as a wetland habitat and therefore, impacts to this community would be considered significant.

3.2.1.13 Natural Flood Channel / Non-Vegetated Channel

Natural flood channel is a wetland habitat type which Oberbauer et al. (2008) describes as "Non-Vegetated Floodplain or Channel." Sandy, gravelly, or rocky bottoms and fringes of waterways/flood channels dominate this habitat. Total vegetation cover is usually less than 10%, since variable water lines inhibit growth and only allow the presence of weedy species and grasses along the outer edges of the wash.

Project Study Area

The natural flood channel mapped on-site occurs in the far northwest section of the study area. It is a wash-like habitat dominated by sandy substrate. The City's Biology Guidelines (City of San Diego 2018a) classify natural flood channel as a wetland habitat and therefore, impacts to this community would be considered significant.

Off-Site Study Area

Chollas Creek is mapped as a non-vegetated channel that is present to the north of the off-site construction staging area. It is an ephemeral channel with sandy and cobbly substrate.

3.2.1.14 Developed Concrete-Lined Channel

A developed concrete-lined channel is a wetland habitat type which Oberbauer et al. (2008) describes as "Disturbed Wetland". These areas have been significantly modified by human activity and area either permanently or periodically inundated with water. The City's Biology Guidelines (City of San Diego 2018a) classify concrete-lined channel as a (disturbed) wetland habitat and therefore, impacts to this community would be considered significant.

Developed concrete-lined channel occurs immediately north of the off-site study area and is associated with Chollas Creek.

3.2.1.15 Non-Native Vegetation

Non-native vegetation is described by Oberbauer et al. (2008) as a type of disturbed or developed area that is characterized by predominantly non-native species introduced and established through human action. This land cover is ranked as Tier IV and is not considered sensitive under the City's Biology Guidelines (City of San Diego 2018a). Thus, impacts to these areas would not require mitigation.

Non-native vegetation is present along the northern boundary of the off-site construction staging area and consists of a mat of Hottentot figs on the slope leading down to the developed concrete-lined channel associated with Chollas Creek.

3.2.1.16 Urban/Developed Land

According to Oberbauer et al. 2008, urban/developed land represents areas that have been constructed upon or otherwise physically altered to an extent that native vegetation communities are not supported. This land cover type generally consists of semi-permanent structures, homes, parking lots, pavement or hardscape, and landscaped

areas that require maintenance and irrigation (e.g., ornamental greenbelts). Typically, this land cover type is unvegetated or supports a variety of ornamental plants and landscaping.

This land cover type predominantly consists of residential development and paved streets to the south, east, and north of the project site study area and off-site construction staging area. This land cover is not ranked under the City's Biology Guidelines (City of San Diego 2018a) and therefore impacts to urban/developed lands do not require mitigation.

3.2.2 Floral Diversity

Based on the results of biological surveys conducted in 2018, 2019, and 2023, a total of 71 species of vascular plants, 41 native (58%) and 30 non-native (42%), were recorded during the biological surveys for the project. A cumulative list of all common and sensitive plant species observed in the study area are provided in Appendix A.

3.2.3 Wildlife Diversity

The project study area primarily supports habitat for upland species within coastal sage scrub, mixed chaparral, and eucalyptus woodland. These upland habitats also provide foraging and nesting habitat for migratory and resident bird species and other wildlife species. Some suitable habitat for sensitive riparian species is present within riparian scrub (mulefat scrub) and riparian forest (southern willow forest and southern riparian forest); however, it is limited to a narrow area following the drainage that runs east to west just north of the project impact area (Figure 2a). The range of vegetated communities within the study area also likely provides cover and foraging opportunities for wildlife species, including reptiles and mammals. In addition, the off-site study area also supports a mix of native and non—native vegetation communities that can provide foraging and nesting habitat for birds and other wildlife species. Chollas Creek is within the off-site study area buffer and supports native riparian woodland (southern arroyo willow-cottonwood) that contains mulefat scrub and Baccharis-dominated Diegan coastal sage scrub surrounding the natural flood channel, which can provide habitat for wildlife.

As previously mentioned in Section 2.2, wildlife species that were detected during the field survey by sight, calls, tracks, scat, or other signs were recorded directly onto a field notebook. Binoculars (10x42) were used to aid in the identification of wildlife. A total of 35 wildlife species, including 29 birds, 3 mammals, and 3 invertebrates were recorded during the biological reconnaissance and focused surveys for the project. Of the total 35 wildlife species observed during field surveys, two are considered special status (see Section 3.2.5). A cumulative list of all common and sensitive wildlife species observed in the study areas during field surveys is provided in Appendix B.

3.2.4 Special-Status Plants

Plant species are considered sensitive if they have been listed or proposed for listing by the federal or state government as rare, endangered, or threatened ("listed species"); have a California Rare Plant Rank (CRPR) of 1–4; are listed as a MSCP-covered species; and/or have been adopted by the City as narrow endemic. An evaluation of known records in the National City quadrangle, and the surrounding quadrangles including La Mesa, La Jolla, El Cajon, Point Loma, Imperial Beach, Otay Mesa and Jamul Mountains (CDFW 2024c; CNPS 2024; USFWS 2024) was conducted to determine which species have been recorded in the project vicinity. In addition, Dudek's knowledge of biological resources and regional distribution of each species and results from the 2019 focused surveys, as well as elevation, habitat, and soils present within the project study area, were evaluated to determine the potential for various special-status species to occur.

Sensitive plant species directly observed during surveys or known to occur in the surrounding region are also described in Appendix C. One sensitive plant species was directly observed within the study area during field reconnaissance and rare plant surveys in 2019 and is described in detail below: San Diego County viguiera. All other sensitive plant species, including MSCP-covered and narrow endemic plants, are either not expected to occur or have a low potential to occur based on lack recorded occurrences on site or in the vicinity, lack of suitable habitat/elevation/soils/microhabitats, and/or lack of observations during focused surveys conducted in May and July blooming periods.

San Diego County Viguiera (*Bahiopsis laciniata*)

San Diego County viguiera is a California native perennial shrub that is not covered under MSCP, has a CRPR 4.2, and occurs in San Diego and Orange counties (Calflora 2024). This species is found in chaparral and coastal sage scrub habitats at elevations of 195 to 2,460 feet AMSL. San Diego County viguiera blooms from February to August.

Seven patches of San Diego County viguiera plants were observed in the project study area in coastal sage scrub (Figure 2a). Each patch includes several individuals; an exact count was not recorded.

3.2.5 Special-Status Wildlife

Sensitive wildlife species are those listed as federal/state endangered or threatened, proposed for listing, fully protected by CDFW, California Watch List (WL), California SSC, or MSCP-covered Species. An evaluation of known records in the National City quadrangle, and the surrounding quadrangles including La Mesa, La Jolla, El Cajon, Point Loma, Imperial Beach, Otay Mesa and Jamul Mountains (CDFW 2024c; CNPS 2024; USFWS 2024) was conducted. In addition, Dudek's knowledge of biological resources and regional distribution of each species, as well as elevation, habitat, and soils present within the study area were evaluated to determine the potential for various special-status species to occur.

Protocol-level coastal California gnatcatcher and least Bell's vireo surveys were conducted onsite in 2018 based on historic occurrences on and near the project site and the presence of suitable habitat (CDFW 2024b and USFWS 2024). Least Bell's vireo was not observed during protocol surveys on and off-site in the western riparian areas where historic occurrences were reported. Results from coastal California gnatcatcher protocol surveys are described in the species account below. Survey reports are documented in Appendices F and G. Focused surveys for coastal California gnatcatcher and least Bell's vireo were conducted more than 24 months prior to the drafting of this report, therefore the results from those surveys are only used anecdotally to inform likely presence of these species in the study area. The results from the focused surveys do not represent an official record of the most current resource condition of the site.

Additional sensitive wildlife species directly observed during surveys or known to occur in the surrounding region are described in Appendix D. Sensitive wildlife species determined to have moderate to high potential to occur within the study area include orange-throated whiptail (*Aspidoscelis hyperythra*), San Diegan tiger-whiptail (*Aspidoscelis tigris stejnegeri*), red-diamondback rattlesnake (*Crotalus ruber*), two-striped garter snake (*Thamnophis hammondii*), Cooper's hawk (*Accipter cooperii*), Allen's hummingbird (*Selasphorus sasin*), California thrasher (*Toxostoma redivivum*), wrentit (*Chamaea fasciata*), coastal California gnatcatcher, Dulzura pocket mouse (*Chaetodipus californicaus femoralis*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), San Diego desert woodrat (*Neotoma lepida intermedia*), Yuma

myotis (*Myotis yumanensis*), monarch (*Danaus plexippus*), and Crotch's bumble bee (*Bombus crotchii*). Descriptions of special-status species with high potential to occur and observed on site are provided below.

Cooper's Hawk

Cooper's hawk is a state Watch List and a MSCP Covered species. Cooper's hawks inhabit live oak, riparian deciduous, and other forest habitats near water. Nesting and foraging usually occur near open water or riparian vegetation. Nests are built in dense stands with moderate crown depths, usually in second-growth conifer or deciduous riparian areas. Nests in deciduous trees are typically located in crotches 20 to 50 feet above the ground; in conifers, nests are in horizontal branches or the main crotch. Cooper's hawks use patchy woodlands and edges with snags for perching and hunting small birds, small mammals, reptiles, and amphibians (Zeiner et al. 1990). Cooper's hawks are diurnally active and year-round residents. Breeding occurs from March through August, with peak activity in May through July. Males defend an area about 330 feet around potential nest sites (Zeiner et al. 1990).

Cooper's hawk could utilize riparian forest and eucalyptus woodland on and near the site for nesting and scrub habitats for foraging. The species was observed on-site during the 2018 least Bell's vireo and coastal California gnatcatcher surveys. In addition, Cooper's hawk has a potential to nest and forage within native riparian habitat associated with Chollas Creek in the off-site study area.

Coastal California Gnatcatcher

Coastal California gnatcatcher is federally listed threatened, a SSC, and MSCP covered species. Coastal California gnatcatcher (gnatcatcher) breeds in lower elevations (less than 500 meters or 1,640 feet) south and west of the Transverse and Peninsular Ranges (Atwood and Bolsinger 1992). Higher densities of this species occur in coastal San Diego and Orange counties, and lower densities are found in Los Angeles, Orange, western Riverside, southwestern San Bernardino, and inland San Diego counties (Atwood 1993; Preston et al. 1998). The coastal California gnatcatcher primarily occupies open coastal sage scrub habitat that is dominated by California sagebrush. This species is relatively absent from coastal sage scrub habitats dominated by black sage (*Salvia mellifera*), white sage, or sugar sumac (*Rhus ovata*).

Coastal California gnatcatchers were observed within the proposed project impact footprint and within 300 feet of the proposed project on all three survey passes in June and July of 2018. No gnatcatcher nesting behavior was observed during focused surveys, however, quality coastal sage scrub habitat in the study area suggests that gnatcatchers are breeding in the area. Locations of observed gnatcatchers are shown on Figure 2a and in the survey report (Appendix G). In addition, coastal California gnatcatchers were heard foraging and dispersing in the Diegan coastal sage scrubs within the off-site study area during the 2024 biological reconnaissance (Figure 2b).

Wrentit

Wrentit is a U.S. Fish and Wildlife Service (USFWS) Bird of Conservation Concern (BCC) species known to inhabit a variety of communities in the coastal regions of western north America, from Oregon down to southern California and the northern Baja regions. This sedentary species prefers to nest and forage in low-growing shrublands and woodland areas, often found in association with sage scrub, chapparal, oak woodland, and riparian habitats (Zeiner et al. 1990). Wrentit may also occur in urban settings, utilizing planted landscapes to nest and forage. While the species is observed often at lower elevations, wrentit can also survive at higher elevations in more arid, inland regions.

Wrentit was observed incidentally over the course of multiple site investigations conducted at the study area. No nesting behavior was observed during any of the site visits; however, the habitats on-site are appropriate for nesting activity.

3.2.6 Wildlife Corridors and Habitat Linkages

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the immigration and emigration of animals. Wildlife corridors contribute to population viability by (1) assuring the continual exchange of genes between populations, which helps maintain genetic diversity; (2) providing access to adjacent habitat areas, representing additional territory for foraging and mating; (3) allowing for a greater carrying capacity; and (4) providing routes for colonization of habitat lands following local population extinctions or habitat recovery from ecological catastrophes (e.g., fires).

Habitat linkages are patches of native habitat that function to join two larger patches of habitat. They serve as connections between habitat patches and help reduce the adverse effects of habitat fragmentation. Although individual animals may not move through a habitat linkage, the linkage does represent a potential route for gene flow and long-term dispersal. Habitat linkages may serve as both habitat and avenues of gene flow for small animals such as reptiles and amphibians. Habitat linkages may be represented by continuous patches of habitat or by nearby habitat "islands" that function as "stepping stones" for dispersal.

Project Study Area

The project study area is located in the "Urban Area" of the City Subarea Plan. This area is characterized by fragmented MHPA associated with canyons surrounded by development. The MSCP identifies core and linkage areas that includes large movement areas such as the San Diego and Otay River. There are no core or linkages identified in the Chollas Creek watershed. The project study area likely provides refuge and cover for urban-adapted wildlife species and their local movement but is unlikely to be a wildlife corridor as it is not connected to large blocks of habitat (e.g., Mission Trails Regional Park) and is bounded by residential development and significant roads and highways.

While the project study area is not considered wildlife corridor or habitat linkage, conservation of habitat function within the MHPA is important to preserve local species and as such, the project is required to comply with the City's Land Use Adjacency Guidelines (City of San Diego 1997).

Off-Site Study Area

The off-site study area is also located in the "Urban Area" of the Subarea Plan and occurs in the Chollas Creek watershed. The off-site study area buffer includes a terminal segment of MHPA associated with Chollas Creek and surrounding uplands to the north and northeast of the construction staging area boundary. There are no core or linkages identified in the Chollas Creek watershed. The undeveloped portions of the off-site study area likely provide refuge and cover for urban-adapted wildlife species and their local movement, including coastal California gnatcatcher dispersal, but is unlikely to be a wildlife corridor as it is not connected to large blocks of habitat (e.g., Mission Trails Regional Park) and is bounded by mixed development and significant roads and highways.

While the off-site study area is not considered wildlife corridor or habitat linkage, conservation of habitat function within the MHPA is important to preserve local species and as such, the project is required to comply with the City's Land Use Adjacency Guidelines (City of San Diego 1997).

3.2.7 Wetlands Delineation

The project study area intersects a portion of Chollas Creek. Hydrology, vegetation, and soils were examined at two geographically distinct sampling locations, and results were recorded on wetland determination data forms to determine the presence or absence of wetland field indicators. The project study area was assessed for evidence of an ordinary high water mark, hydrology indicators, and wetland vegetation. The extent of wetland features was determined in the field by collecting data using a GPS unit and aerial field maps; these shapes were transferred to topographic base, and a geographic information system (GIS) coverage was created. Figure 2a includes the wetland delineation data collection locations (DS-1 and DS-2); the associated data station forms are included in Appendix E. Hydrophytic vegetation classifications follow Lichvar et al. (2016). An assessment of potential aquatic resources was also completed at the off-site study area.

Jurisdictional resources within the project study area and off-site study area are regulated by CDFW and the City, per the Biology Guidelines, include 0.6-acre, comprised of riparian forest (southern willow forest), southern cottonwood-willow riparian forest, riparian forest (southern riparian forest), and riparian scrub (mulefat scrub) (Table 3). In addition, 0.26 acre of the natural flood channel and 0.28-acre developed concrete-lined channel (i.e., non-wetland waters), represent the main flow path of Chollas Creek near the project study area and is also under the jurisdiction of USACE, RWQCB, CDFW, and the City (Table 3). A separate tributary drainage originates from a storm drain outlet in the ornamental vegetation in the northeastern portion of the project study area; it likely contributes ephemeral flows yet does not support wetland vegetation, and therefore is classified as RWQCB and CDFW jurisdiction only (Figure 2a).

Note that the developed concrete-lined channel immediately north of the off-site study area is considered a disturbed wetland under the jurisdiction of the USACE, RWQCB, CDFW, and City (Figure 2b). The concrete-lined channel supports the main flow path of Chollas Creek, which is characterized as a natural non-vegetated channel (i.e. non-wetland water) under the jurisdiction of USACE, RWQCB, CDFW, and the City (Table 3). Chollas Creek supports a southern cottonwood-willow riparian forest at the interconnection of the non-vegetated channel and the concrete-lined channel within the off-site study area that is also under the jurisdiction of CDFW and the City.

Table 3. Jurisdictional Resources in the Project Study Area and Off-Site Study Area

Vegetation Community or Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	Jurisdiction (USACE/RWQCB/CDFW/City)	Acreage
Wetlands			
Southern Willow Forest	Riparian Forest	CDFW/City	0.45
Southern Riparian Forest	Riparian Forest	CDFW/City	0.10
Mulefat Scrub	Riparian Scrub	CDFW/City	0.05
Southern Cottonwood-Willow Riparian Forest	Riparian Forest	CDFW/City	0.15
Non-Wetland Waters of the United States and State			
Natural Flood Channel	Natural Flood Channel	USACE/RWQCB/CDFW/City	0.26
Developed Concrete-lined Channel	Disturbed Wetland	USACE/RWQCB/CDFW/City	0.28
Non-Wetland Waters of the State			
Disturbed Land	Disturbed Land	RWQCB/CDFW	<0.01
Ornamental Plantings	Ornamental Plantings	RWQCB/CDFW	<0.01
		Grand Total[1]	**1.29**

Note:
[1] Totals may not sum due to rounding.

4 Consistency with City's MSCP

The proposed project would be located adjacent to the MHPA; a small portion (0.02 acre) of the proposed Zone 2 Brush Management Area overlaps with the MHPA. Per Section 1.4.2 of the City's MSCP Subarea Plan, Zone 2 Brush Management is considered a conditionally compatible use within the MHPA subject to certain general planning policies and design guidelines. In general, the proposed project is located on the least sensitive portion of the property, adjacent to roadways and as far from Chollas Creek as possible. Measures such as walls have been incorporated into the project to reduce the width of brush management zones. Consistency of the proposed project with the MSCP Land Use Adjacency Guidelines (LUAG) (Section 1.4.3) is detailed below.

4.1 Project Consistency with MSCP Land Use Adjacency Guidelines

4.1.1 Drainage

All new and proposed parking lots and developed areas in and adjacent to the preserve must not drain directly into the MHPA. All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem processes within the MHPA.

The proposed fire station would be situated at the top of a canyon that drains towards the MHPA. Construction of the fire station would be completed in a manner consistent with the City's Storm Water Standards. During construction, measures to reduce runoff and prevent adverse impacts related to drainage would be required as standard permit conditions (see Section 6.1). Following construction, the new development would incorporate drainage design that minimizes flow toward the MHPA by routing stormwater runoff into an on-site biofiltration system and then into an underground detention system. The underground detention system would discharge into an existing 18-inch storm drainpipe. These stormwater management measures ensure that the release of toxins, chemicals, and other pollutants, as well as potentially erosive flows or sedimentation, are minimized within the MHPA.

The off-site study area would be situated on flat developed land and stormwater runoff would discharge into the existing storm drains along Federal Boulevard immediately south of the study area, away from the MHPA.

4.1.2 Toxics

Land uses, such as recreation and agriculture, that use chemicals or generate by-products such as manure, that are potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA.

During construction, the contractor is required to maintain a Storm Water Pollution Prevention Plan (SWPPP) that includes measures to safely store construction-related toxins, such as fuel. After construction, the fire station is designed with appropriate trash enclosure, fuel tanks, and other operational procedures to safely store chemicals and ensure spills into the MHPA are avoided. The proposed walls around the fire station will also minimize the potential for toxins to enter the MHPA. The temporary construction staging area shall be maintained in accordance with the SWPPP and to ensure spills into the MHPA to the northeast are avoided.

4.1.3 Lighting

Lighting of all developed areas adjacent to the MHPA should be directed away from the MHPA. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive species from night lighting.

The fire station would include exterior lighting and light fixtures to aide in the functions of providing emergency services, but these would be directed away from the MHPA. All exterior lighting on the building façade and elsewhere on the fire station property would be designed to be directed away from the MHPA. A 6-foot-tall fire wall along the southern project boundary would provide additional shielding of any light from the development.

4.1.4 Noise

Uses in or adjacent to the MHPA should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife utilization of the MHPA. Excessively noisy uses or activities adjacent to breeding areas must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures should also be incorporated for the remainder of the year.

Effects from short-term construction and long-term operational noise on covered species that have a moderate to high potential to forage, roost, and nest in the study area may occur. Covered species with potential to occur in the project study area include California gnatcatcher, least Bell's vireo, and Cooper's hawk. These effects are most severe during the breeding season, as they may negatively affect species' ability to reproduce.

Clearing, grubbing, and grading associated with construction would be conditioned such that noise levels are reduced within habitat occupied by breeding California gnatcatcher, least Bell's vireo, or raptors including Cooper's hawk. The details of these standard noise permit conditions are included in Section 6.1 (AM-BIO-1a and AM-BIO-2), with an additional mitigation measure included in Section 7.2 (MM-BIO-3). With implementation of these measures, the project would avoid adverse effects of excessive noise on sensitive species during the breeding season in compliance with the LUAG.

Long-term operational noise is primarily oriented to the south, because of walls and grading that separate the proposed building from the MHPA to the north. Consistent operational noise such as roof-mounted air conditioning units are expected to emit minimal noise and be consistent with the existing urban environmental setting. Sporadic noise from sirens and other infrequent noise emitters are not expected to result in consistently elevated noise levels that would substantially change overall noise levels within the adjacent MHPA. As such, the proposed project would comply with the LUAGs related to noise.

4.1.5 Barriers

New development adjacent to the MHPA may be required to provide barriers (e.g., non-invasive vegetation, rocks/boulders, fences, walls, and/or signage) along the MHPA boundaries to direct public access to appropriate locations and reduce domestic animal predation.

A portion of the project impact footprint runs along the boundary of the MHPA and the siting of the fire station would discourage public access and domestic animal activity within the MHPA. The proposed project includes barriers to

entry into the MHPA including walls, fencing, and landscaping. The project is nearest to the MHPA at the southwest corner of the development; a 6-foot-tall fire wall would be constructed along the southern project boundary to further provide a barrier between the development and the MHPA.

4.1.6 Invasives

No invasive non-native plant species shall be introduced into areas adjacent to the MHPA.

The project would incorporate landscaping and a Zone 1 Defensible Space that would be lightly vegetated with a non-habitat forming, native species palette. All plant species installed within 100 feet of the MHPA shall comply with the Landscape Regulations (LDC142.0400 and per table 142-04F, Revegetation and Irrigation Requirements) and be non-invasive. Dudek reviewed the proposed landscape plan and confirmed that no invasive plant species (as listed by the California Invasive Plant Council [Cal-IPC Inventory] are included.

4.1.7 Brush Management

New residential development located adjacent to and topographically above the MHPA (e.g., along canyon edges) must be set back from slope edges to incorporate Zone 1 brush management areas on the development pad and outside of the MHPA.

The project would have Zone 1 and 2 brush management areas and is sited above and adjacent to the MHPA. The project incorporates a Zone 1 Defensible Space area that is outside of the MHPA and sited within the development pad in the impact area of the project. Although the Zone 2 Brush Management area would encroach into the MHPA, this activity is considered impact neutral and is an approved use within the MHPA, according to the City's Subarea Plan and Biology Guidelines. Therefore, no impacts from Brush Management would occur within the MHPA.

4.1.8 Grading/Land Development

Manufactured slopes associated with site development shall be included within the development footprint for projects within or adjacent to the MHPA.

The development area is proposed to be contoured and graded for construction of the fire station. All manufactured slopes and grading associated with the project would occur within the impact footprint which is located outside the MHPA.

4.1.9 Area Specific Management Directives

Orange-throated Whiptail

Area specific management directives must address edge effects.

Edge effects and disturbance to this species would be reduced and minimized through compliance with the LUAG, as described above. In addition, since the project impact footprint would not overlap with the City's MHPA, no clearing of occupied habitat within the MHPA would occur as a result of the project.

Coastal California Gnatcatcher

Area specific management directives must include measures to reduce edge effects and minimize disturbance during the nesting period, fire protection measures to reduce the potential for habitat degradation due to unplanned fire, and management measures to maintain or improve habitat quality including vegetation structure. No cleaning of occupied habitat within the cities' MHPAs and within the County's Biological Resource Core Areas may occur between March 1 and August 15.

Edge effects and disturbance to this species would be reduced and minimized through compliance with the LUAG, as described above. A Fire Fuel Load Modeling Report (Dudek 2020) has been prepared for the project and contains fire protection measures, including a Brush Management Plan (Appendix F of that report), to reduce the potential for habitat degradation. In addition, since the project impact footprint would not overlap with the City's MHPA, no clearing of occupied habitat within the MHPA would occur as a result of the project.

Least Bell's Vireo

Area specific management directives must include measures to provide appropriate successional habitat, upland buffers for all known populations, cowbird control, and specific measures to protect against detrimental edge effects to this species. Any clearing of occupied habitat must occur between September 15 and March 15 (i.e., outside of the nesting period).

An upland buffer (referred to in this report as "wetland buffer") of approximately 70 to 78 feet would remain between the project impact footprint and adjacent suitable habitat for least Bell's vireo. Focused surveys were negative for this species in 2018 (Appendix F) and there are no known CNDDB or USFWS occurrences within the project vicinity. However, this species is assumed potentially present since there is suitable riparian habitat in the study area (Figure 2a) and the focused surveys are more than 24 months old as of the date of this report; therefore, they cannot be used as an accurate record of the current presence or absence of the species. The project impact footprint has been sited outside of all riparian habitat within the study area, therefore no clearing of occupied habitat would occur as part of the project.

In addition, the off-site study area has been sited outside of all riparian habitat and no clearing of riparian habitat would occur. Southern cottonwood-willow riparian forest occurs immediately north of the temporary construction staging area and is suitable nesting and foraging habitat for least Bell's vireo; there is no wetland buffer at this location since no permanent structures or other project components are proposed.

Cooper's Hawk

Area specific management directives must include 300-foot impact avoidance areas around the active nests, and minimization of disturbance in oak woodlands and oak riparian forests.

Avoidance and resource protection measures (AM-BIO-1a) would ensure that there are no nesting Cooper's hawks present within 300 feet of active construction (i.e., clearing, grubbing, and/or grading). No impacts to oak woodlands or oak riparian forests are proposed as part of the project.

5 Impacts Analysis

The purpose of Section 5 is to describe the direct, indirect, and cumulative impacts of the proposed project on special-status biological resources. The significance determinations for proposed or potential impacts are described in this Section.

5.1 Definition of Impacts

Based upon the project description (Section 1.2), direct impacts, indirect (short-term and long-term), and cumulative impacts are defined as follows.

Direct Impacts include both the permanent loss of on-site habitat and the plant and wildlife species that it contains and the temporary loss of on-site habitat. Direct permanent impacts associated with the project would occur from construction of the fire station and Zone 1 Defensible Space area. Impacts were quantified by overlaying the proposed impact footprint onto the biological resources map and evaluating the impacts by vegetation community. No temporary direct project impacts are proposed.

Indirect Impacts refer to off-site and on-site effects that are short-term impacts (i.e., temporary) due to the project construction or long-term (i.e., permanent) design of the project and the effects it may have to adjacent resources. For this project, it is assumed that the potential short-term indirect impacts resulting from construction activities may include dust, noise, and general human presence that may temporarily disrupt species and habitat vitality and construction-related soil erosion and runoff. Long-term indirect impacts associated with fire station activities may include noise and human presence. However, these impacts would be intermittent and confined to the developed area of the fire station which is separated from open space by walls, grading, and landscaping, reducing adverse impacts to native habitat in the adjacent canyon.

Cumulative impacts refer to the combined environmental effects of the proposed project and other relevant projects. In some cases, the impact from a single project may not be significant, but when combined with other projects, the cumulative impact may be significant.

Lands containing Tier I, II, IIIA, and IIIB habitats (Tables 2a and 2b) and all wetlands (Table 3) are considered sensitive and declining and, as such, impacts to these resources may be considered significant. Lands designated as Tier IV are not considered to have significant habitat value and impacts would not be considered significant.

The City's Biology Guidelines also include additional information regarding significance as follows:

A. Total upland impacts (Tiers I- IIIB) less than 0.1 acre are not considered significant and do not require mitigation.
B. Impacts to non-native grasslands totaling less than 1.0 acre which are completely surrounded by existing urban developments are not considered significant and do not require mitigation. Examples may include urban infill lots.
C. Total wetland impacts less than 0.01 acre are not considered significant and do not require mitigation. This does not apply to vernal pools or wetlands within the Coastal Zone.

D. Removal/control of non-native plants is not considered to be a significant habitat impact. Examples include disturbed wetlands dominated by invasive plant species such as giant reed or Mexican fan palm.

E. Brush management Zone 2 thinning activities, while having the potential to adversely affect biological resources, are not considered potentially significant inside the MHPA, or, to the extent that non-covered species are not impacted, outside the MHPA, because of the implementation of the MSCP. Brush management Zone 2 thinning outside the MHPA which affects non-covered species is potentially significant. Brush management not conducted in accordance with brush management regulations, regardless of where it is located, is also potentially significant.

5.2 Direct Impacts

5.2.1 Vegetation Communities and Land Cover Types

Construction of the proposed fire station and Zone 1 Defensible Space area would result in direct permanent impacts to sensitive vegetation communities, including coastal sage scrub (including disturbed), mixed chaparral, disturbed land, and urban/developed land (Figure 3). Table 4 provides the acreages of these impacts and a list of the corresponding City Biology Guidelines habitat Tiers (City of San Diego 2018a). Direct impacts greater than 0.1 acres to Tier II habitats (City of San Diego 2018a), including coastal sage scrub (all varieties) and mixed chaparral would be considered significant (BIO-1).

The project also includes establishment of a Zone 2 brush management area; this area is shown on Figure 3 but is not included in Table 4 as this area is considered "impact neutral" in accordance with the City Biology Guidelines (City of San Diego 2018a).

Table 4. Direct Impacts to Vegetation Communities and Land Cover Types (all impacts occur outside the MHPA)

Vegetation Community or Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	City of San Diego Biology Guidelines Habitat Tier	Fire Station Footprint (acres)	Zone 1 (acres)	Total[1,2] (acres)
Native Vegetation Communities					
Coastal Sage Scrub (including disturbed)	Coastal Sage Scrub	Tier II	0.229	0.266	0.495
Mixed Chaparral	Mixed Chaparral	Tier IIIA	-	0.006	0.006
		Subtotal	*0.229*	*0.272*	*0.501*
Non-Native Vegetation Communities and Land Covers					
Disturbed Land	Disturbed Land	Tier IV	0.017	0.013	0.029
Urban/Developed Land	Disturbed Land	N/A	0.007	0.008	0.015
		Subtotal	*0.024*	0.021	0.044
		Total	**0.253**	**0.338**	**0.590**

Note:

1 Totals may not sum due to rounding.
2 Zone 2 brush management is impact neutral and is not included in project impact calculations.

The proposed project includes an off-site construction staging area (also referred to as the offsite study area) that would be used on a temporary basis (Figure 2b, Table 5). The portion of the off-site construction staging area that currently supports native vegetation would be revegetated following the City's standard revegetation requirements (AM-BIO-3) resulting in no permanent loss of native vegetation communities and therefore the impact is less than significant (Figure 4: Offsite Impacts).

Table 5. Off-Site Construction Staging Area – Temporary Direct Impacts to Vegetation Communities and Land Cover Types (all impacts occur outside the MHPA)

Vegetation Community or Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	City of San Diego Biology Guidelines Habitat Tier	Construction Staging Area (Acres)
Native Vegetation Communities			
Coastal Sage Scrub: *Baccharis*-dominated	Coastal Sage Scrub	Tier II	0.039
Non-Native Vegetation Communities and Land Covers			
Non-Native Vegetation	Disturbed Land	Tier IV	0.076
Urban/Developed Land	Disturbed Land	N/A	0.408
		Total	**0.523**

BIO-1 The project would result in permanent direct impacts to sensitive vegetation communities from construction of the project impact footprint and associated Zone 1 Defensible Space (Table 4). Permanent direct impacts to upland habitats (Tier I-III) total 0.501 acre (see Table 4) would be significant, absent mitigation.

5.2.2 Waters of the United States, including Wetlands

Implementation of the project would not result in any direct impacts to waters of the U.S. or state, including wetlands. In addition, the project would not impact riparian areas and/or wetlands considered jurisdictional by CDFW and/or the City (City of San Diego 2018a). Utilization of the off-site construction staging area would also not result in direct impacts to any waters of the U.S. or state, including wetlands and riparian areas or wetlands. as defined by the City.

The wetland buffer established for this project varies between 70 and 78 feet in width around the project impact footprint and the project would not result in direct impacts to the buffer. No wetland buffer is required at the off-site construction staging area since no permanent structures or development are proposed.

This wetland buffer width, along with characteristics of the buffer area (vegetation communities present, etc.), provides protection for the functions and values of the City wetlands, according to the City's Biology Guidelines (City of San Diego 2018a) and Section 320.4(b)(2) of the USACE General Regulatory Policies, as follows:

A. **Wildlife habitat:** the disturbed coastal sage scrub, ornamental plantings, and mixed chaparral habitat provide nesting and foraging habitat for wildlife species in the area, including birds, and would be sufficiently wide enough (i.e., 70-78 feet) to be utilized by these species.
B. **Food Chain Productivity:** similar to functions related to wildlife habitat, the wetland buffer would provide food chain productivity through establishing areas, both native and non-native, where wildlife, including birds, can forage. The buffer would also be sufficiently wide enough (i.e., 70-78 feet) to contribute to food chain productivity in the area.
C. **Water Quality:** the wetland buffer is sufficiently wide (i.e., 70-78 feet) and is also densely vegetated with native and non-native species to provide effective water quality protection function to the adjacent City wetland habitats through natural filtering of surface flows that would move through the wetland buffer during storm events which eventually enter adjacent City wetlands.
D. **Ground Water Recharge:** in addition to protecting water quality as surface flows travel across the area, the wetland buffer would also provide opportunity for ground water recharge in the area since the 70-78-foot width would provide sufficient opportunity for some of the surface flows to percolate through the Huerohuero loam soils into the groundwater table.
E. **Protection from Storm and Flood Waters:** the 70 to 78-foot extent and vegetation coverage in the wetland buffer are both wide and dense enough, respectively, to provide protection to surrounding areas, including the proposed fire station, from storm and flood waters that may occur during high storm events based on the site topography and frequency of flows through the study area. The proposed project site boundary does not intersect with the 100-year Federal Emergency Management Agency (FEMA) floodplain boundary but does intersect with the 500-year FEMA floodplain boundary (FEMA 2024).

Therefore, the existing buffer characteristics are in compliance with the City's Biology Guidelines (City of San Diego 2018a) and would result in no net loss of City wetland from implementation of the project.

5.2.3 Direct Impacts to Special-Status Plants

There was one sensitive plant detected within the project study area during the 2019 rare plant surveys: San Diego County viguiera (Figure 2a). San Diego viguiera is present throughout the study area; however, it does not intersect the project impact footprint, therefore direct impacts to this species would be avoided (**AM-BIO-1a** through **1c**). No special-status plant species were detected within the off-site study area. Although there are CNDDB occurrence records of one special-status plant in the coastal sage scrub to the north of the sports park in the off-site study area buffer, it does not intersect the construction staging area footprint and is separated from the staging area by the sports park. Therefore, direct impacts would be avoided.

5.2.4 Direct Impacts to Special-Status Wildlife

There are 14 special-status wildlife species (federal, state, or local status) with moderate or high potential to occur within the project study area. Of these, Cooper's hawk and coastal California gnatcatcher were observed during focused surveys within the project study area. Coastal California gnatcatcher was also incidentally detected within the off-site construction study area buffer during the 2024 biological reconnaissance. Note that because focused project study area surveys conducted for coastal California gnatcatcher occurred more than 24 months since the date of this report (2018), the results cannot be considered to represent a confirmation of the current presence or absence of the species in the study area or project impact footprint. Therefore, this species is assumed to be present in the project impact footprint based on the presence of suitable habitat, previous positive results of

focused surveys on the site, and known CNDDB and USFWS occurrences in the vicinity (Figures 2a, 2b). However, since the project would comply with the LUAG measures described in Section 4.1 of this report and because the project impact footprint is outside of the City's MHPA, direct impacts to coastal California gnatcatchers as a result of the project are less than significant.

There is no suitable habitat for least Bell's vireo within the project impact footprint and, although not a current representation of their presence in the project study area, the species was not detected during focused surveys in 2018. In addition, the limited southern cottonwood-willow riparian forest associated with Chollas Creek north of the off-site construction staging area is narrow in extent and situated within an urban area, so it is unlikely to support least Bell's vireo. However, no focused surveys were conducted within the off-site study area. Given that the project would not result in removal of suitable habitat for least Bell's vireo direct impacts to this species are not expected to occur.

Compliance with the MBTA (16 USC 703–712) and California Fish and Game Code (Sections 3503 and 3503.5) is standard permit condition and required as part of project (**AM-BIO-1a**). This measure would ensure that direct impacts to nesting birds would be avoided.

Other species determined to have a moderate to high potential to occur within the project study area include orange-throated whiptail, San Diegan tiger-whiptail, red-diamondback rattlesnake, Allen's hummingbird, California thrasher, wrentit, two-striped garter snake, Dulzura pocket mouse, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, San Diego desert woodrat, Yuma myotis, monarch, and Crotch's bumble bee, as discussed further in Appendix D. Direct impacts to these species would be reduced through compliance with the LUAG (Section 4.1) and the avoidance and resource protection measures described in Section 6.1 (**AM-BIO 1a through 1c**). However, impacts to Tier II and III upland habitats represent a loss of suitable habitat for these species and is considered a potentially significant impact that requires habitat-based mitigation in accordance with the City's Subarea Plan and Biology Guidelines (BIO-1). In addition, the potential for direct impacts to nesting Crotch's bumble bee is considered a potentially significant impact (BIO-2).

BIO-2 The project may result in permanent direct impacts to nesting Crotch's bumble bee which have a moderate potential to occur within the project impact footprint (i.e., grading areas, not including Zone 2 Brush Management Area).

5.3 Indirect Impacts

5.3.1 Vegetation Communities and Land Covers

Eight native vegetation communities were mapped adjacent to the project impact footprint – coastal sage scrub (including disturbed), coastal sage scrub (*Baccharis*-dominated), coastal sage scrub (*Rhus*-dominated), mixed chaparral, riparian forest (southern willow forest), riparian forest (southern riparian forest), riparian scrub (mulefat scrub) and natural flood channel. In addition, there are three native vegetation communities mapped adjacent to the off-site construction staging area: coastal sage scrub (*Baccharis*-dominated), southern cottonwood-willow riparian forest, and non-vegetated channel. Short-term indirect impacts that may affect these adjacent vegetation communities include dust, erosion, invasive plant species, temporary access impacts, and increased human presence. These short-term indirect impacts would be reduced to less than significant through compliance with the LUAG described in Section 4.1 and the implementation of avoidance measures (**AM-BIO-1a** through **1c** and standard construction stormwater pollution prevention requirements) as described in Section 6.1.

5.3.2 Waters of the United States, including City Wetlands

The project study area contains areas of disturbed land, ornamental plantings, and natural flood channel which are regulated by the USACE, RWQCB, CDFW, and City as wetlands and non-wetland waters of the United States and state. Additional areas of riparian forest (southern willow forest), riparian forest (southern riparian forest), and riparian scrub (mulefat scrub) would be regulated by CDFW and the City as wetlands. Furthermore, the off-site study area contains a non-vegetated channel and a concrete-lined channel associated with Chollas Creek regulated by the USACE, RWQCB, CDFW, and City as wetlands and non-wetland Waters of the United States and state. Additional areas of southern cottonwood-willow riparian forest would be regulated by CDFW and the City as wetlands.

Waters of the United States and City wetlands are typically affected in the short-term by dust, invasive plant species, and increased human presence and in the long term by changes in the velocity of runoff during and following construction, which could adversely affect the integrity of downstream resources causing erosion and sedimentation. These indirect impacts to adjacent jurisdictional resources would be reduced to less than significant through implementation of avoidance and resource protection measures (**AM-BIO-1a** through **1c** and standard construction stormwater pollution prevention requirements), as described in Section 6.1.

The nearest wetland resource is more than 70 feet north of the project impact area. Given the characteristics of the wetland and site development, this wetland buffer width is adequate to preserve the functions and values of the wetland resources that are adjacent to the project impact footprint in accordance with the City's Biology Guidelines (City of San Diego 2018a; Section 5.2.2). Therefore, the project would have a less than significant long-term indirect impact to adjacent wetlands.

5.3.3 Sensitive Plant Species

Potential indirect impacts to off-site sensitive plant species would be similar to those previously described for vegetation communities (increased human presence, dust, etc.). Therefore, short-term indirect impacts to off-site, adjacent special-status plants would be avoided by adherence to **AM-BIO-1a** through **1c** and standard construction stormwater pollution prevention requirements), as described in Section 6.1.

5.3.4 Special-Status Wildlife Species

Most of the indirect impacts to vegetation communities previously described can also affect special-status wildlife. Wildlife may also be indirectly affected in the short-term by construction-related noise, which can disrupt normal activities and subject wildlife to higher predation risks. Adverse edge effects can cause degradation of habitat quality through the invasion of pest species. Breeding birds can be significantly affected by short-term construction-related noise, which can result in the disruption of foraging, nesting, and reproductive activities.

Note that the project includes an emergency generator that would run once a week, typically after 7am, to ensure functionality and run when a power outage occurs. Although noise from the emergency generator may occur during the breeding season and may have adverse indirect effects to special-status wildlife, appropriate barriers have been incorporated into the design to minimize noise impacts. In addition, generator testing would be a short-term event. While power outages are unpredictable, the generator usage would be minimized to the extent possible, and the designed noise barriers would substantially reduce the noise level.

The project study area supports suitable vegetation for bird nesting, including trees associated with the street and property landscaping, and coastal sage scrub vegetation. The off-site study area also supports adjacent suitable vegetation for bird nesting including Baccharis-dominated coastal sage scrub and trees associated with street landscaping. Indirect impacts from construction-related noise may occur to breeding wildlife if construction occurs during the breeding season (i.e., February 1 through September 15). Wildlife that would be significantly affected by noise based on suitable habitat in the project vicinity and in the vicinity of the off-site study area, may occur up to 300 feet from the project work areas (in accordance with the City Biology Guidelines) (City of San Diego 2018a). Special-status species whose breeding/nesting have potential to be affected by noise include all raptor species (regardless of location relative to the MHPA), least Bell's vireo, and coastal California gnatcatchers (within the MHPA only). Indirect impacts to most species would be reduced to less than significant through compliance with standard permit conditions as described in **AM-BIO-1a** through **AM-BIO-1c** and **AM-BIO-2**. However, noise impacts could still occur to least Bell's vireo that are assumed present in suitable habitats adjacent to the project impact footprint and off-site study area. (**BIO-3**).

BIO-3 The project may result in significant indirect impacts to nesting least Bell's vireo which have a moderate potential to occur adjacent to proposed project construction areas. Excessive noise in proximity to active least Bell's vireo nest may result in nest failure which can be consider take, which is not authorized under the City's MSCP and therefore would be significant, absent mitigation.

6 Avoidance and Minimization

The following avoidance and resource protection measures are standard permit conditions that the City has developed to ensure compliance with the City's Biology Guidelines and MSCP. These conditions reduce several potential direct and indirect impacts to biological resources to less than significant.

6.1 Avoidance and Resource Protection Measures

The project is located outside the MHPA and edge effects from adjacent development, including noise during emergency conditions from generator use, comply with the Land Use Adjacency Guidelines. The relevant guideline is as follows:

Uses in or adjacent to the MHPA should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife utilization of the MHPA. Excessively noisy uses or activities adjacent to breeding areas must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures should also be incorporated for the remainder of the year.

AM-BIO-1a Measures Prior to Construction

Biologist Verification - The owner/permittee shall provide a letter to the City's Mitigation Monitoring Coordination (MMC) section stating that a Project Biologist (Qualified Biologist) as defined in the City of San Diego's Biological Guidelines (2018), has been retained to implement the project's biological monitoring program. The letter shall include the names and contact information of all persons involved in the biological monitoring of the project.

Preconstruction Meeting - The Qualified Biologist shall attend the preconstruction meeting, discuss the project's biological monitoring program, and arrange to perform any follow up mitigation measures and reporting including site-specific monitoring, restoration or revegetation, and additional fauna/flora surveys/salvage.

Biological Documents - The Qualified Biologist shall submit all required documentation to MMC verifying that any special mitigation reports including but not limited to, maps, plans, surveys, survey timelines, or buffers are completed or scheduled per City Biology Guidelines, Multiple Species Conservation Program (MSCP), Environmentally Sensitive Lands Ordinance (ESL), project permit conditions; California Environmental Quality Act (CEQA); and/or other local, state or federal requirements.

BCME -The Qualified Biologist shall present a Biological Construction Mitigation/Monitoring Exhibit (BCME) which includes the biological documents in C above. In addition, the exhibit shall include: restoration/revegetation plans, plant salvage/relocation requirements (e.g., coastal cactus wren plant salvage, burrowing owl exclusions, etc.), avian or other wildlife surveys/survey schedules (including general avian nesting and USFWS protocol), timing of surveys, wetland buffers, avian construction avoidance areas/noise buffers/ barriers, other impact avoidance areas, and any subsequent requirements determined by the Qualified Biologist and the City ADD/MMC. The BCME

shall include a site plan, written and graphic depiction of the project's biological mitigation/monitoring program, and a schedule. The BCME shall be approved by MMC and referenced in the construction documents.

Avian Protection Requirements - To avoid any direct impacts to any species identified as a listed, candidate, sensitive, or special status species in the MSCP, removal of habitat that supports active nests in the proposed area of disturbance should occur outside of the breeding season for these species (February 1 to September 15). If removal of habitat in the proposed area of disturbance must occur during the breeding season, the Qualified Biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds (including raptors) on the proposed area of disturbance. The pre-construction survey shall be conducted within 10 calendar days prior to the start of construction activities (including removal of vegetation). The applicant shall submit the results of the pre-construction survey to City DSD for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report in conformance with the City's Biology Guidelines (i.e., appropriate follow up surveys, monitoring schedules, construction and noise barriers/buffers, etc.) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs or disturbance of breeding activities is avoided. The document shall be submitted to the City for review and approval and implemented to the satisfaction of the City. The City's MMC Section and Biologist shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction.

Resource Delineation - Prior to construction activities, the Qualified Biologist shall supervise the placement of orange construction fencing or equivalent along the limits of disturbance adjacent to sensitive biological habitats and verify compliance with any other project conditions as shown on the BCME. This phase shall include flagging plant specimens and delimiting buffers to protect sensitive biological resources (e.g., habitats/flora and fauna species, including nesting birds) during construction. Appropriate steps/care should be taken to minimize attraction of nest predators to the site.

Education – Prior to commencement of construction activities, the Qualified Biologist shall meet with the owner/permittee or designee and the construction crew and conduct an on-site educational session regarding the need to avoid impacts outside of the approved construction area and to protect sensitive flora and fauna (e.g., explain the avian and wetland buffers, flag system for removal of invasive species or retention of sensitive plants, and clarify acceptable access routes/methods and staging areas, etc.).

AM-BIO-1b During Construction

Monitoring - All construction (including access/staging areas) shall be restricted to areas previously identified, proposed for development/staging, or previously disturbed as shown on "Exhibit A" and/or the BCME. The Qualified Biologist shall monitor construction activities as needed to ensure that construction activities do not encroach into biologically sensitive areas, or cause other similar damage, and that the work plan has been amended to accommodate any sensitive species located during the pre-construction surveys. In addition, the Qualified Biologist shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR shall be e-mailed to

MMC on the 1st day of monitoring, the 1st week of each month, the last day of monitoring, and immediately in the case of any undocumented condition or discovery.

Subsequent Resource Identification - The Qualified Biologist shall note/act to prevent any new disturbances to habitat, flora, and/or fauna on site (e.g., flag plant specimens for avoidance during access, etc.). If active nests or other previously unknown sensitive resources are detected, all project activities that directly impact the resource shall be delayed until species specific local, state or federal regulations have been determined and applied by the Qualified Biologist.

AM-BIO-1c Post Construction Measures

Follow-Up Reporting - In the event that impacts exceed previously allowed amounts, additional impacts shall be mitigated in accordance with City Biology Guidelines, ESL and MSCP, State CEQA, and other applicable local, state and federal law. The Qualified Biologist shall submit a final BCME/report to the satisfaction of the City ADD/MMC within 30 days of construction completion.

AM-BIO-2 LUAG Compliance Measures

Coastal California gnatcatcher: Prior to construction, the City's Environmental Designee (or Mitigation Monitoring and Coordination [MMC] staff) shall verify that the MHPA boundaries and the project requirements regarding the California gnatcatcher, specified as follows, are shown on the construction plans.

No clearing, grubbing, grading, or other construction activities shall occur during the California gnatcatcher breeding season (March 1 to August 15), until the following requirements have been met to the satisfaction of the City's Environmental Designee (or MMC staff):

1. Between March 1 and August 15, no clearing, grubbing, or grading of occupied California gnatcatcher habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of a Qualified Biologist; and
2. Between March 1 and August 15, no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dB(a) hourly average at the edge of occupied California gnatcatcher habitat in the MHPA. An analysis showing that noise generated by construction activities would not exceed 60 dB(a) hourly average at the edge of occupied habitat must be completed by a Qualified Acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the MMC staff at least 2 weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of a Qualified Biologist; or
3. At least 2 weeks prior to the commencement of construction activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 dB(a) hourly average at the edge of habitat occupied by the California gnatcatcher. Concurrent with the commencement of construction activities

and the construction of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed 60 dB(a) hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the Qualified Acoustician or Biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (August 16). Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. If not, other measures shall be implemented in consultation with the biologist and the MMC, as necessary, to reduce noise levels to below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

4. Presence/absence of coastal California gnatcatchers shall be determined through protocol surveys conducted by a Qualified Biologist (possessing a valid Endangered Species Act Section 10 (a)(1)(A) Recovery Permit). If coastal California gnatcatchers are not detected during the protocol survey, the Qualified Biologist shall submit substantial evidence to MMC, USFWS, and CDFW staff that demonstrates whether or not measures, such as noise walls, are necessary between March 1 and August 15 as follows:
    a. If this evidence indicates the potential is high for coastal California gnatcatcher to be present based on historical records or site condition, then Condition 3 above shall be adhered to.
    b. If this evidence concludes that no impacts to this species are anticipated, no measures would be necessary.

AM-BIO-3 Temporary Impact Revegetation

Temporary disturbance of existing native habitat within the off-site construction staging area shall be revegetated in accordance with the City of San Diego Landscape Standards in the City's Land Development Manual. Habitat revegetation shall feature native species that are typical of the area, and erosion control features shall include silt fence and straw fiber rolls, where appropriate (e.g., in areas where sheet flow during rain events may cause erosion). The revegetated areas will be subject to a 90-day (with permanent irrigation) or 120-day (with temporary or without irrigation) plant establishment period to include monitoring and maintenance to ensure adequate initial plant establishment. After the establishment period, an additional minimum 25 months of monitoring and maintenance is required to ensure sustainability of the plantings/seedlings to reduce the risk of erosion and/or non-native, invasive plant species establishment, in accordance with the Landscape Standards in the City's Land Development Manual.

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7 Mitigation

This section describes proposed mitigation that would reduce significant impacts to biological resources resulting from project activities to a level that is less than significant, where feasible. A total of three significant impacts (BIO-1, BIO-2, and BIO-3) are identified in Section 5; with implementation of the measures proposed below, these identified direct and indirect impacts would be reduced to a level below significant.

7.1 Mitigation Measures for Direct Impacts

7.1.1 Special-Status Vegetation Communities

The proposed project would result in permanent direct impacts (i.e., removal/loss) to sensitive vegetation communities within the project boundaries. Proposed mitigation ratios for permanent impacts to sensitive vegetation communities were determined based on the location of the impacts relative to the MHPA (all impacts are outside of the MHPA) and are consistent with the City's Biology Guidelines (City of San Diego 2018a). In accordance with the City's Biology Guidelines (City of San Diego 2018a), the small development impact footprint (less than 5 acres) and lower long-term conservation value of the site (being within a disturbed urban area and immediately adjacent to an existing roadway) make the project eligible for mitigation through payment into the Habitat Acquisition Fund. Table 5 outlines the mitigation requirements for permanent impacts.

Table 5. Mitigation for Impacts to Upland Vegetation Communities and Land Cover Types in the Project Study Area

Vegetation Community/ Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	City of San Diego Biology Guidelines Habitat Tier	Impacts (acres)	Mitigation Ratio (for Impacts Outside MHPA/ Preservation Inside MHPA)	Mitigation Required (acres)
Native Vegetation Communities					
Coastal Sage Scrub (including disturbed)	Coastal Sage Scrub	II	0.495	1:1*	0.495
Mixed Chaparral	Mixed Chaparral	IIIA	0.006	0.5:1**	0.003
		Native Subtotal	*0.501*	—	*0.498*
Non-Native Vegetation Communities and Land Covers					
Disturbed Land	Disturbed Land	IV	0.029	0:1	0
Urban/Developed Land	Disturbed Land	N/A	0.015	0:1	0
		Non-native Subtotal	*0.044*	—	*0*
Total Impacts (Outside MHPA) and Mitigation (Inside or Outside MHPA)			**0.546**	**—**	**0.498**

Notes: *Mitigation ratio for Tier II habitat is 1:1 if mitigation occurs in the MHPA and is 1.5:1 if mitigation occurs outside the MHPA.

** Mitigation ratio for Tier IIIA habitat is 0.5:1 if mitigation occurs inside the MHPA and is 1:1 if mitigation occurs outside the MHPA.

BIO-1 The project would result in permanent direct impacts to sensitive vegetation communities from construction of the project impact footprint and associated Zone 1 Defensible Space (Table 6). Permanent direct impacts to upland habitats (Tier I-III) total 0.501 acres and therefore requires mitigation. These habitats also may support special-status wildlife species including orange-throated whiptail, San Diegan tiger-whiptail, red-diamondback rattlesnake, Allen's hummingbird, California thrasher, wrentit, two-striped garter snake, Dulzura pocket mouse, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, San Diego desert woodrat, and Yuma myotis. The loss of habitat for these species is considered significant absent mitigation.

MM-BIO-1 To compensate for the loss of 0.495 acres of coastal sage scrub (including disturbed) and 0.006-acres of mixed chaparral, mitigation would be provided through allocation of credits from the Marron Valley Cornerstone Land Bank, which occurs inside the MHPA. Payment and credit allocation shall be provided for a total of 0.498 acres to achieve the required mitigation ratios prior to the start of construction (Table 5.4-6). The City of San Diego Engineering and Capital Projects Department (ECP) shall be required to contribute the estimated average per acre land cost, multiplied by the mitigation ratio plus any required amount for administration.

Following payment to the HAF, impacts to sensitive vegetation communities and special-status wildlife that may utilize those habitats would be reduced to less than significant through long-term conservation of similar lands.

Furthermore, as stated in AM-BIO-3, temporary disturbance of 0.039 acre of Diegan coastal sage scrub within the off-site construction staging area shall be revegetated in accordance with the City of San Diego Landscape Standards in the City's Land Development Manual and as such is less than significant.

7.1.2 Special-Status Wildlife

The proposed project would result in significant direct impacts during project grading to nesting Crotch's bumble bee which may occur in a variety of habitats (BIO-2).

BIO-2 The project may result in permanent direct impacts to nesting Crotch's bumble bee which have a moderate potential to occur within the project impact footprint (i.e., grading areas, not including Zone 2 Brush Management Area).

MM-BIO-2 Prior to the Notice to Proceed (NTP) for any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits, the City of San Diego Environmental Designee (ED) shall verify the following project requirements regarding the Crotch's bumble bee are shown on the construction plans:

A. To avoid impacts to Crotch's bumble bee, removal of habitat in the proposed area of disturbance must occur outside of the colony active period between April 1 through August 31. If removal of habitat in the proposed area of disturbance must occur during the colony active period, a Qualified Biologist shall conduct a pre-construction survey to determine the presence or absence of Crotch's bumble bee nesting within the proposed area of disturbance and follow the methodology developed consistent with the California

Department of Fish Wildlife (CDFW) Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023).

B. A Qualified Biologist shall demonstrate the following qualifications: at least 40 hours of experience surveying for bee or other co-occurring aerial invertebrate species (such as Quino checkerspot butterfly) and who have completed a Crotch's bumble bee detection/identification training by an expert Crotch's bumble bee entomologist; or the biologist must have at least 20 hours of experience directly observing Crotch's bumble bee.

C. The pre-construction survey shall be conducted by the Qualified Biologist within 30 calendar days prior to the start of construction activities (including removal of vegetation) and shall include a minimum of three (3) visits, a minimum of one (1) week apart.

D. The Qualified Biologist/owner permittee shall submit the results of the pre-construction survey to City DSD (Mitigation Monitoring and Coordination) City Planning Department (MSCP) staff and CDFW for review and written approval prior to initiating any construction activities.

E. If Crotch's bumble bees are determined to be present, then a photographic survey following CDFW guidance (i.e., CDFW Survey Considerations for CESA Candidate Bumble Bee Species) shall be required. If additional activities (e.g., capture or handling) are deemed necessary based on photographic surveys, then the Qualified Biologist shall obtain required authorization via a Memorandum of Understanding or Scientific Collecting Permit pursuant to CDFW Survey Considerations for CESA Candidate Bumble Bee Species (CDFW 2023). Survey methods that involve lethal take of species are not acceptable.

F. If pre-construction surveys identify active Crotch's bumble bee nest colonies, the Qualified Biologist shall notify CDFW in writing and establish, monitor, and maintain no-work buffers around the nest(s) and any associated floral resources. The size and configuration of the no-work buffer shall be based on best professional judgment of the Qualified Biologist in consultation with CDFW. At a minimum, the buffer shall provide at least 50 feet of clearance from construction activities around any nest entrances and maintain disturbance-free airspace between the nest and nearby floral resources. Construction activities shall not occur within the no-work buffers until the colony is no longer active (i.e., no bees are seen flying in or out of the nest for three consecutive days indicating the colony has completed its nesting season and the next season's queens have dispersed from the colony.

Implementation of the above mitigation measure would reduce impacts to less than significant through avoidance of construction within Crotch's active bumble bee nest colonies.

7.2 Mitigation Measures for Indirect Impacts

7.2.1 Special-Status Wildlife

The following significant indirect impact to special-status wildlife would occur, absent mitigation.

BIO-3 The project may result in significant indirect impacts to nesting least Bell's vireo which have a moderate potential to occur adjacent to project construction areas. Excessive noise in proximity to active least Bell's vireo nest may result in nest failure which can be considered take, which is not authorized under the City's MSCP and therefore would be significant, absent mitigation.

MM-BIO-3 Avoidance of LBVI and SWFL Take. Prior to the issuance of a grading permit (or preconstruction meeting if a grading permit is not required), the City's ED/ Mitigation Monitoring Coordination staff (MMC) shall verify that Multi-Habitat Planning Area (MHPA) boundaries and the requirements regarding the least Bell's vireo and southwestern willow flycatcher, as specified below, are shown on the construction plans.

No clearing, grubbing, grading, or other construction activities shall occur during the least Bell's vireo breeding season (March 15 through September 15) or southwestern willow flycatcher habitat during the southwestern willow flycatcher breeding season (May 1 through September 1) until the following requirements have been met to the satisfaction of the ED/MMC:

1. A Qualified Biologist (possessing a valid Endangered Species Act Section 10[a][1][a] Recovery Permit) shall survey those habitat areas within the MHPA that would be subject to construction noise levels exceeding 60 decibels [dB(A)] hourly average for the presence of the least Bell's vireo and southwestern willow flycatcher. Surveys for least Bell's vireo, shall be conducted pursuant to the protocol survey guidelines established by the USFWS within the breeding season prior to the commencement of any construction. If least Bell's vireo or southwestern willow flycatcher are present, then the following conditions must be met:

    a. March 15 through September 15 for least Bell's vireo, no clearing, grubbing, or grading of occupied habitat shall be permitted. May 1 through September 1 for southwestern willow flycatcher no clearing, grubbing, or grading through occupied habitat shall be permitted.

    b. Areas restricted from such activities shall be staked or fenced under the supervision of a Qualified Biologist; and

    c. March 15 through September 15 for least Bell's vireo no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dB(A) hourly average at the edge of occupied habitat. May 1 through September 1 for southwestern willow flycatcher no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dB(A) hourly average at the edge of occupied habitat. An analysis showing that noise generated by construction activities shall not exceed 60 dB(A) hourly average at the edge of occupied habitat must be completed by a Qualified Acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the ED/MMC at least 2 weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of a Qualified Biologist; or,

    d. At least 2 weeks prior to the commencement of construction activities, under the direction of a Qualified Acoustician, attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities would not exceed 60 dB(A) hourly average at the edge of habitat occupied by the least Bell's vireo

or southwestern willow flycatcher. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area to ensure that levels do not exceed 60 dB(A) hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the Qualified Acoustician or Biologist, construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 16 and September 2 for the LBVI and SWFL, respectively). Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. If not, other measures shall be implemented in consultation with the Qualified Biologist and the ED/MMC, as necessary, to reduce noise levels to below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

2. If least Bell's vireo and southwestern willow flycatcher are not detected during the protocol surveys, the Qualified Biologist shall submit substantial evidence to the ED/MMC and applicable resource agencies that demonstrates whether or not mitigation measures such as noise walls are necessary from March 15 through September 15 for least Bell's vireo and May 1 through September 1 for southwestern willow flycatcher, adherence to the following is required:

    a. If this evidence indicates that the potential is high for least Bell's vireo and southwestern willow flycatcher to be present based on historical records or site conditions, then Condition 1(a) shall be adhered to as specified above.

    b. If this evidence concludes that no impacts to this species are anticipated, no mitigation measures would be necessary.

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8 Acknowledgements

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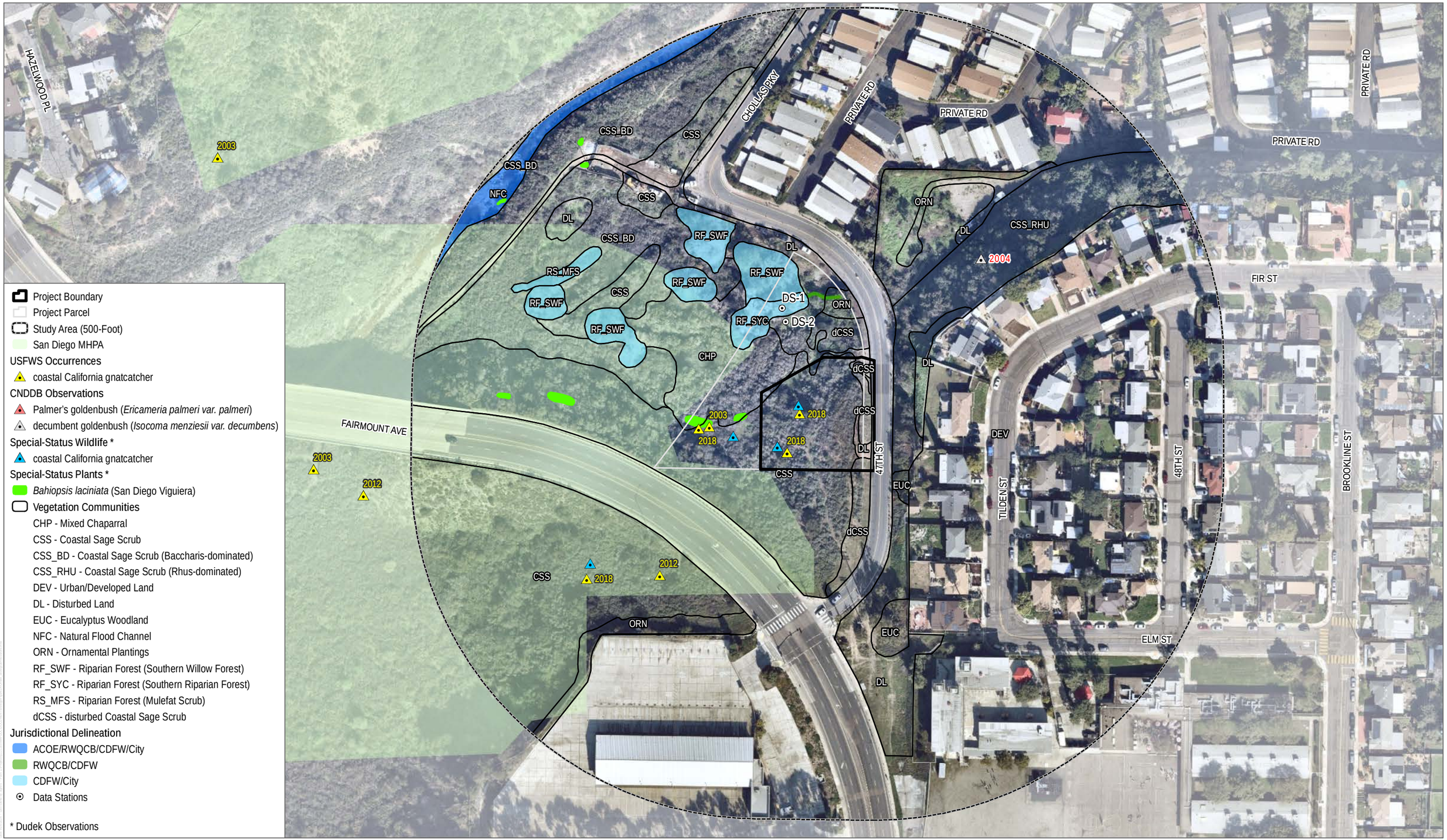
SOURCE: FEMA; SANGIS 2023, 2024

DUDEK

FIGURE 1

Project Location

Fairmount Avenue Fire Station



SOURCE: RRM Design Group 2024; USFWS 2020; SANGIS 2023, 2024

DUDEK

0 100 200 Feet

FIGURE 2A

Biological Resources

Fairmount Avenue Fire Station

SOURCE: RRM Design Group 2024; USFWS 2020; SANGIS 2023, 2024

DUDEK

0 100 200 Feet

FIGURE 2B

Off-Site Biological Resources

Fairmount Avenue Fire Station

Project Boundary
Project Parcel
Study Area (500-Foot)
San Diego MHPA

Project Impacts
Fire Station/Impervious Surface
Zone 1 - Brush Management
Zone 2 - Brush Management

Vegetation Communities
CHP - Mixed Chaparral
CSS - Coastal Sage Scrub
CSS_BD - Coastal Sage Scrub (Baccharis-dominated)
CSS_RHU - Coastal Sage Scrub (Rhus-dominated)
DEV - Urban/Developed Land
DL - Disturbed Land
EUC - Eucalyptus Woodland
NFC - Natural Flood Channel
ORN - Ornamental Plantings
RF_SWF - Riparian Forest (Southern Willow Forest)
RF_SYC - Riparian Forest (Southern Riparian Forest)
RS_MFS - Riparian Forest (Mulefat Scrub)
dCSS - disturbed Coastal Sage Scrub

Jurisdictional Delineation
ACOE/RWQCB/CDFW/City
RWQCB/CDFW
CDFW/City
Data Stations
Distance to Wetland Resource

SOURCE: RRM Design Group 2024; USFWS 2020; SANGIS 2023, 2024

DUDEK

0 100 200 Feet

FIGURE 3

Onsite Project Impacts

Fairmount Avenue Fire Station

SOURCE: RRM Design Group 2024; USFWS 2020; SANGIS 2023, 2024

FIGURE 4

Offsite Construction Staging Area Impacts

Fairmount Avenue Fire Station

DUDEK

0 112.5 225 Feet

Appendix A
Plant Compendium

Vascular Species

Monocots

ARECACEAE – PALM FAMILY

* *Washingtonia robusta* – Mexican fan palm

ASPERAGACEAE – ASPERAGUS FAMILY

Hesperoyucca whipplei – chaparral yucca

CYPERACEAE – SEDGE FAMILY

Carex illota – sheep sedge

IRIDACEAE – IRIS FAMILY

Sisyrinchium bellum – western blue-eyed grass

POACEAE – GRASS FAMILY

* *Arundo donax* – giant reed
* *Avena barbata* – slender wild oat
* *Bromus diandrus* – ripgut brome
* *Bromus hordeaceus* – soft brome
* *Bromus madritensis* – compact brome
* *Cynodon dactylon* – Bermudagrass
* *Hordeum marinum* – seaside barley
* *Schismus barbatus* – common Mediterranean grass
* *Pennisetum setaceum* – fountain grass swards

Eudicots

ADOXACEAE – MUSKROOT FAMILY

Sambucus nigra ssp. *caerulea* – blue elderberry

AIZOACEAE – STONE PLANT FAMILY

* *Carpobrotus edulis* – ice plant

ANACARDIACEAE – SUMAC OR CASHEW FAMILY

Malosma laurina – laurel sumac

* *Schinus terebinthifolius* – Brazilian peppertree

Rhus integrifolia – lemonade berry

APIACEAE – CARROT FAMILY

* *Foeniculum vulgare* – fennel

ASTERACEAE – SUNFLOWER FAMILY

Artemisia californica – California sagebrush
Artemisia dracunculus – wild tarragon
Baccharis pilularis – coyote brush
Baccharis salicifolia – mulefat
Baccharis sarothroides – desertbroom
* *Centaurea melitensis* – Maltese star-thistle
Deinandra fasciculata – clustered tarweed
Encelia californica – California brittle bush
Glebionis coronaria – crowndaisy
Hazardia squarrosa – sawtooth golden bush
Heterotheca grandiflora – telegraph weed
Isocoma menziesii – Menzies's golden bush
Pseudognaphalium beneolens – Wright's cudweed
* *Sonchus asper-* spiny sow-thistle
Stephanomeria exigua – small wire lettuce
Viguiera laciniata – San Diego County viguiera

BORAGINACEAE – BORAGE FAMILY

Heliotropium curassavicum var. *oculatum* – seaside heliotrope
Eriodictyon crassifolium – thick leaf yerba santa

BRASSICACEAE – MUSTARD FAMILY

* *Brassica nigra* – black mustard
* *Hirschfeldia incana* – shortpod mustard
* *Raphanus raphanistrum* – wild radish

CACTACEAE- CACTUS FAMILY

Cylindropuntia californica – California cholla
Opuntia sp. – prickly pear species

CHENOPODIACEAE – GOOSEFOOT FAMILY

* *Chenopodium album* – lambsquarters
* *Chenopodium murale* – nettleleaf goosefoot
* *Salsola tragus* – Russian thistle

CLEOMACEAE – CLEOME FAMILY

Peritoma arborea – bladderpod spiderflower

CONVOLVULACEAE – MORNING-GLORY FAMILY

Cuscuta californica – chaparral dodder

CUCURBITACEAE – GOURD FAMILY

Marah macrocarpa – Cucamonga manroot

EUPHORBIACEAE – SPURGE FAMILY

* *Euphorbia albomarginata* – rattlesnake spurge
* *Ricinus communis* – castorbean

FABACEAE – LEGUME FAMILY

* *Acacia longifolia* – golden wattle, coastal wattle

Acmispon glaber var. *glaber* – common deerweed

Astragalus trichopodus – Santa Barbara milkvetch

GENTIANACEAE – GENTIAN FAMILY

Zeltnera venusta – charming centaury

JUGLANDACEAE – WALNUT FAMILY

* *Carya illinoinensis* – pecan

LAMIACEAE – MINT FAMILY

Salvia apiana – white sage

Salvia mellifera – black sage

* *Marrubium vulgare* – horehound

MALVACEAE – MALLOW FAMILY

Malacothamnus fasciculatus – bush mallow

MONTIACEAE – MONTIA FAMILY

Claytonia perfoliata – miner's lettuce

MYRSINACEAE – MYRSINE FAMILY

* *Lysimachia arvensis* – scarlet pimpernel

MYRTACEAE – MYRTLE FAMILY

* *Eucalyptus globulus* – blue gum

POLEMONIACEAE – PHLOX FAMILY

Navarretia hamata – hooked pincushionplant

POLYGONACEAE – BUCKWHEAT FAMILY

Eriogonum fasciculatum – California buckwheat

SALICACEAE – WILLOW FAMILY

Salix laevigata – red willow

Populus fremontii – Fremont cottonwood

Salix gooddingii – black willow

SOLANACEAE – NIGHTSHADE FAMILY

Datura discolor – desert thorn-apple, small datura

Datura wrightii – jimsonweed

Solanum douglasii – greenspot nightshade

* *Nicotiana glauca* – tree tobacco

TROPAEOLACEAE – NASTURTIUM FAMILY

* *Tropaeolum majus* – nasturtium

* Signifies introduced (non-native) species

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Appendix B
Wildlife Compendium

Amphibians

Frogs

HYLIDAE – TREEFROGS

Pseudacris hypochondriaca – Baja California treefrog

Birds

Blackbirds, Orioles and Allies

ICTERIDAE – BLACKBIRDS

Icterus cucullatus – hooded oriole

Bushtits

AEGITHALIDAE – LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus – bushtit

Falcons

FALCONIDAE – FALCONS AND CARACARAS

Falco sparverius – American kestrel

Finches

FRINGILLIDAE – FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus – house finch

Spinus psaltria – lesser goldfinch

Spinus tristis – American goldfinch

Flycatchers

TYRANNIDAE – TYRANT FLYCATCHERS

Empidonax difficilis – western flycatcher

Sayornis nigricans – black phoebe

Tyrannus vociferans – Cassin's kingbird

Hawks

ACCIPITRIDAE – HAWKS, KITES, EAGLES, AND ALLIES

Accipiter cooperii – Cooper's hawk

Buteo jamaicensis – red-tailed hawk

Herons and Bitterns

ARDEIDAE – HERONS, BITTERNS, AND ALLIES

Egretta thula – snowy egret

Hummingbirds

TROCHILIDAE – HUMMINGBIRDS

Calypte anna – Anna's hummingbird

Selasphorus rufus – rufous hummingbird

Jays, Magpies and Crows

CORVIDAE – CROWS AND JAYS

Corvus brachyrhynchos – American crow

Corvus corax – common raven

Mockingbirds and Thrashers

MIMIDAE – MOCKINGBIRDS AND THRASHERS

Mimus polyglottos – northern mockingbird

Old World Warblers and Gnatcatchers

SYLVIIDAE – SYLVIID WARBLERS

Polioptila caerulea – blue grey gnatcatcher

Polioptila californica californica – coastal California gnatcatcher

Pigeons and Doves

COLUMBIDAE – PIGEONS AND DOVES

Zenaida macroura – mourning dove

* *Columba livia* – rock pigeon (rock dove)

Swallows

HIRUNDINIDAE – SWALLOWS

Stelgidopteryx serripennis – northern rough-winged swallow

Swifts

APODIDAE – SWIFTS

Aeronautes saxatalis – white-throated swift

Wood Warblers and Allies

PARULIDAE – WOOD-WARBLERS

Oreothlypis celata – orange-crowned warbler

Wrens

TROGLODYTIDAE – WRENS

Thryomanes bewickii – Bewick's wren

Wrentits

TIMALIIDAE – BABBLERS

Chamaea fasciata – wrentit

New World Sparrows

PASSERELLIDAE – NEW WORLD SPARROWS

Melospiza melodia – song sparrow

Melozone crissalis – California towhee

Invertebrates

Butterflies

PAPILIONIDAE – SWALLOWTAILS

Papilio rutulus – western tiger swallowtail

PIERIDAE – WHITES AND SULFURS

Phoebis sennae – cloudless sulphur

Pieris rapae – cabbage white

Mammals

Hares and Rabbits

LEPORIDAE – HARES AND RABBITS

Sylvilagus bachmani – brush rabbit

Opossums

DIDELPHIDAE – NEW WORLD OPOSSUMS

* *Didelphis virginiana* – Virginia opossum

Squirrels

SCIURIDAE – SQUIRRELS

Otospermophilus beecheyi – California ground squirrel

* signifies introduced (non-native) species

Appendix C

Special-Status Plant Species Potentially Occurring within the Study Area

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Abronia maritima	red sand-verbena	None/None/4.2/ Not Covered	Coastal dunes/perennial herb/ Feb–Nov/0–330	Not expected to occur. No suitable habitat present.
Acanthomintha ilicifolia	San Diego thorn-mint	FT/SE/1B.1/ Covered – Narrow Endemic	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; Clay, openings/annual herb/Apr–June/ 30–3150	Low potential to occur. The site does not contain suitable vernal pool habitat or clay soils. The nearest recorded occurrence of this species is more than 4 miles to the north of the site.
Acmispon prostratus	Nuttall's acmispon	None/None/1B.1/ Covered	Coastal dunes, Coastal scrub (sandy)/annual herb/ Mar–June(July)/0–35	Not expected to occur. The site is outside of the species' known elevation range.
Adolphia californica	California adolphia	None/None/2B.1/ Not Covered	Chaparral, Coastal scrub, Valley and foothill grassland; Clay/perennial deciduous shrub/Dec–May/30–2430	Low potential to occur. Suitable habitat present and there are several historical occurrences of this species within two miles of the project site, however, the species would have been observed during focused surveys if present.
Agave shawii var. *shawii*	Shaw's agave	None/None/2B.1/ Covered – Narrow Endemic	Coastal bluff scrub, Coastal scrub; Maritime succulent scrub/perennial leaf succulent/Sep–May/5–395	Not expected to occur. The site is just outside of the maritime zone in which this species occurs.
Ambrosia chenopodiifolia	San Diego bur-sage	None/None/2B.1/ Not Covered	Coastal scrub/perennial shrub/ Apr–June/180–510	Not expected to occur. The few recorded historical occurrences of this species are over 5 miles to the south of the project site.
Ambrosia monogyra	singlewhorl burrobrush	None/None/2B.2/ Not Covered	Chaparral, Sonoran desert scrub; sandy/perennial shrub/Aug–Nov/ 30–1640	Low potential to occur. There is some suitable habitat on-site and there are known occurrences of this species within 1 mile of the site, however, this species would have been observed during focused surveys if present.

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Ambrosia pumila	San Diego ambrosia	FE/None/1B.1/ Covered – Narrow Endemic	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; sandy loam or clay, often in disturbed areas, sometimes alkaline/perennial rhizomatous herb/Apr–Oct/65–1360	Not expected to occur. There is no suitable vernal pool habitat or soil substrate for this species.
Aphanisma blitoides	aphanisma	None/None/1B.2/ Covered – Narrow Endemic	Coastal bluff scrub, Coastal dunes, Coastal scrub; sandy or gravelly/ annual herb/Feb–June/0–1000	Not expected to occur. This species occurs mainly in the marine zone within several miles of the coast and there is no suitable coastal habitat on the site. There are no recent historic occurrences within 5 miles of the project area.
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar manzanita	FE/None/1B.1/ Covered	Chaparral (maritime, sandy)/perennial evergreen shrub/Dec–June/0–1200	Not expected to occur. There is no suitable maritime habitat or sandy soils present on the site.
Arctostaphylos otayensis	Otay manzanita	None/None/1B.2/ Covered	Chaparral, Cismontane woodland; metavolcanic/perennial evergreen shrub/Jan–Apr/900–5575	Not expected to occur. The site is outside of the species' known elevation range.
Artemisia palmeri	San Diego sagewort	None/None/4.2/ Not Covered	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland; sandy, mesic/perennial deciduous shrub/(Feb)May–Sep/ 45–3000	Low potential to occur. While suitable chaparral and coastal scrub habitat is present on the site, this species would have been observed during focused surveys if present.
Asplenium vespertinum	western spleenwort	None/None/4.2/ Not Covered	Chaparral, Cismontane woodland, Coastal scrub; rocky/perennial rhizomatous herb/Feb–June/ 590–3280	Not expected to occur. The site is outside of the species' known elevation range.
Astragalus deanei	Dean's milk-vetch	None/None/1B.1/ Not Covered	Chaparral, Cismontane woodland, Coastal scrub, Riparian forest/ perennial herb/Feb–May/245–2280	Not expected to occur. There is suitable habitat present on the site, however this species would have been observed during focused surveys if present.

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Astragalus tener var. *titi*	coastal dunes milk-vetch	FE/SE/1B.1/ Covered – Narrow Endemic	Coastal bluff scrub (sandy), Coastal dunes, Coastal prairie (mesic); often vernally mesic areas/annual herb/ Mar–May/0–165	Not expected to occur. No suitable coastal habitat or suitable soils present.
Atriplex coulteri	Coulter's saltbush	None/None/1B.2/ Not Covered	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland; alkaline or clay/perennial herb/Mar–Oct/5–1510	Low potential to occur. Suitable habitat is present, however the site lacks saline and alkaline soils. The nearest occurrence is approximately 3 miles to the northwest of the site but is dated from 1877.
Atriplex pacifica	South Coast saltscale	None/None/1B.2/ Not Covered	Coastal bluff scrub, Coastal dunes, Coastal scrub, Playas/annual herb/ Mar–Oct/0–460	Low potential to occur. There is some suitable coastal scrub habitat present, but there are no playas in the study area and the site is over 3 miles from the nearest occurrence (dated to 1936).
Bahiopsis laciniata	San Diego County viguiera	None/None/4.3/ Not Covered	Chaparral, Coastal scrub/perennial shrub/Feb–June(Aug)/195–2460	High potential to occur. This species was observed on-site and in the study area in several locations during rare plant surveys in 2019.
Bergerocactus emoryi	golden-spined cereus	None/None/2B.2/ Not Covered	Closed-cone coniferous forest, Chaparral, Coastal scrub; sandy/ perennial stem succulent/May–June/ 5–1295	Low potential to occur. There is some suitable habitat present but this species would have been observed during focused surveys if present and there are no recorded occurrences within 5 miles of the site.
Bloomeria clevelandii	San Diego goldenstar	None/None/1B.1/ Covered	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/ perennial bulbiferous herb/Apr–May/ 160–1525	Not expected to occur. The site lacks suitable vernal pool habitat and clay soils. In addition, the nearest occurrence is over 3 miles from the site.

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Brodiaea orcuttii	Orcutt's brodiaea	None/None/1B.1/ Covered	Closed-cone coniferous forest, Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland, Vernal pools; mesic, clay/perennial bulbiferous herb/ May–July/95–5550	Low potential to occur. The site lacks suitable clay soils, vernal pool and grassland habitat. The nearest historic occurrence is over 3 miles from the site.
Calandrinia breweri	Brewer's calandrinia	None/None/4.2/ Not Covered	Chaparral, Coastal scrub; sandy or loamy, disturbed sites and burns/ annual herb/(Jan)Mar–June/ 30–4005	Low potential to occur. While there is suitable coastal scrub and chaparral habitat present, the site has not recently burned and this species would have been observed during focused surveys if present.
Calochortus dunnii	Dunn's mariposa lily	None/SR/1B.2/ Covered	Closed-cone coniferous forest, Chaparral, Valley and foothill grassland; gabbroic or metavolcanic, rocky/perennial bulbiferous herb/ (Feb)Apr–June/605–6005	Not expected to occur. The site is outside of the species' known elevation range.
Camissoniopsis lewisii	Lewis' evening-primrose	None/None/3/ Not Covered	Coastal bluff scrub, Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland; sandy or clay/annual herb/ Mar–May(June)/0–985	Low potential to occur. There is suitable habitat present and several recent occurrences appear to be within two miles of the project area, however this species would have been observed during focused surveys if present.
Castilleja plagiotoma	Mojave paintbrush	None/None/4.3/ Not Covered	Great Basin scrub (alluvial), Joshua tree woodland, Lower montane coniferous forest, Pinyon and juniper woodland/perennial herb (hemiparasitic)/Apr–June/980–8200	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
Ceanothus cyaneus	Lakeside ceanothus	None/None/1B.2/ Covered	Closed-cone coniferous forest, Chaparral/perennial evergreen shrub/Apr–June/770–2475	Not expected to occur. The site is outside of the species' known elevation range.

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Ceanothus otayensis	Otay Mountain ceanothus	None/None/1B.2/ Not Covered	Chaparral (metavolcanic or gabbroic)/perennial evergreen shrub/Jan–Apr/1965–3610	Not expected to occur. The site is outside of the species' known elevation range.
Ceanothus verrucosus	wart-stemmed ceanothus	None/None/2B.2/ Covered	Chaparral/perennial evergreen shrub/Dec–May/0–1245	Low potential to occur. There is some suitable chaparral habitat present and several recent occurrences appear to be within two miles of the project area, however this species would have been observed during focused surveys if present.
Centromadia pungens ssp. *laevis*	smooth tarplant	None/None/1B.1/ Not Covered	Chenopod scrub, Meadows and seeps, Playas, Riparian woodland, Valley and foothill grassland; alkaline/annual herb/Apr–Sep/0–2100	Not expected to occur. No suitable habitat or alkaline soils present.
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	None/None/1B.1/ Not Covered	Coastal bluff scrub (sandy), Coastal dunes/annual herb/Jan–Aug/0–330	Not expected to occur. No suitable coastal habitat present.
Chamaebatia australis	southern mountain misery	None/None/4.2/ Not Covered	Chaparral (gabbroic or metavolcanic)/ perennial evergreen shrub/Nov–May/ 980–3345	Not expected to occur. The site is outside of the species' known elevation range.
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	FE/SE/1B.2/ Covered	Coastal dunes, Marshes and swamps (coastal salt)/annual herb (hemiparasitic)/May–Oct(Nov)/0–100	Not expected to occur. No suitable coastal marsh habitat present.
Chorizanthe orcuttiana	Orcutt's spineflower	FE/SE/1B.1/ Not Covered	Closed-cone coniferous forest, Chaparral (maritime), Coastal scrub; sandy openings/annual herb/ Mar–May/5–410	Low potential to occur. There are few sandy openings in the project study area and there are no recorded occurrences of the species within 5 miles of the site. This species would have been observed during focused surveys if present.

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	None/None/1B.2/ Not Covered	Chaparral, Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools; often clay/ annual herb/Apr–July/95–5020	Low potential to occur. Although there are several occurrences within 3 miles of the project area, there is no suitable vernal pool habitat or clay soils present on the site. In addition, this species would have been observed during focused surveys if present
Cistanthe maritima	seaside cistanthe	None/None/4.2/ Not Covered	Coastal bluff scrub, Coastal scrub, Valley and foothill grassland; sandy/ annual herb/(Feb)Mar–June(Aug)/ 15–985	Low potential to occur. Although some suitable habitat is present, this species is most often found in coastal areas and would have been observed during focused surveys if present.
Clarkia delicata	delicate clarkia	None/None/1B.2/ Not Covered	Chaparral, Cismontane woodland; often gabbroic/annual herb/ Apr–June/770–3280	Not expected to occur. The site is outside of the species' known elevation range.
Clinopodium chandleri	San Miguel savory	None/None/1B.2/ Covered	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Valley and foothill grassland; Rocky, gabbroic or metavolcanic/perennial shrub/Mar–July/390–3525	Not expected to occur. The site is outside of the species' known elevation range.
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	None/None/1B.2/ Not Covered	Chaparral, Cismontane woodland/ perennial evergreen shrub/Apr–June/ 95–2590	Low potential to occur. Suitable habitat exists on-site and there are several occurrences of the species within 4 miles of the site, however this species would have been observed during focused surveys if present.
Convolvulus simulans	small-flowered morning-glory	None/None/4.2/ Not Covered	Chaparral (openings), Coastal scrub, Valley and foothill grassland; clay, serpentine seeps/annual herb/ Mar–July/95–2430	Low potential to occur. Some suitable habitat is present, but the site does not contain clay and serpentine soils.

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Corethrogyne filaginifolia var. *incana*	San Diego sand aster	None/None/1B.1/ Not Covered	Coastal bluff scrub, Chaparral, Coastal scrub/perennial herb/June–Sep/ 5–375	Low potential to occur. Suitable coastal scrub and chaparral habitat is present, however this species would have been observed during focused surveys if present.
Corethrogyne filaginifolia var. *linifolia*	Del Mar Mesa sand aster	None/None/1B.1/ Covered	Coastal bluff scrub, Chaparral (maritime, openings), Coastal scrub; sandy/perennial herb/ May,July,Aug,Sep/45–490	Low potential to occur. Suitable coastal scrub and chaparral habitat is present, however this species would have been observed during focused surveys if present.
Cylindropuntia californica var. *californica*	snake cholla	None/None/1B.1/ Covered – Narrow Endemic	Chaparral, Coastal scrub/perennial stem succulent/Apr–May/95–490	Low potential to occur. Suitable coastal scrub and chaparral habitat is present and there are several occurrences within 4 miles of the site, however this species would have been observed during focused surveys if present.
Deinandra conjugens	Otay tarplant	FT/SE/1B.1/ Covered – Narrow Endemic	Coastal scrub, Valley and foothill grassland; clay/annual herb/ (Apr)May–June/80–985	Not expected to occur. Suitable habitat is present but the site lacks clay soils. Additionally, this species would have been observed during focused surveys if present.
Deinandra floribunda	Tecate tarplant	None/None/1B.2/ Not Covered	Chaparral, Coastal scrub/annual herb/Aug–Oct/225–4005	Not expected to occur. Suitable habitat present, however all known occurrences are far east of the project site with the nearest occurrence being located approximately 25 miles away. In addition, this species would have been observed during focused surveys if present
Deinandra paniculata	paniculate tarplant	None/None/4.2/ Not Covered	Coastal scrub, Valley and foothill grassland, Vernal pools; usually	Not expected to occur. There is no suitable vernal pool habitat present on the site and this species would

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
			vernally mesic, sometimes sandy/ annual herb/(Mar)Apr–Nov/80–3085	have been observed during focused surveys if present.
Dichondra occidentalis	western dichondra	None/None/4.2/ Not Covered	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/perennial rhizomatous herb/(Jan)Mar–July/160–1640	Low potential to occur. Suitable coastal scrub and chaparral habitat present and there is an occurrence approximately 5 miles from the site, however this species would have been observed during focused surveys if present.
Dicranostegia orcuttiana	Orcutt's bird's-beak	None/None/2B.1/ Covered	Coastal scrub/annual herb (hemiparasitic)/(Mar)Apr–July(Sep)/ 30–1150	Low potential to occur. Suitable coastal scrub habitat is present, however this species would have been observed during focused surveys if present.
Diplacus aridus	low bush monkeyflower	None/None/4.3/ Not Covered	Chaparral (rocky), Sonoran desert scrub/perennial evergreen shrub/ Apr–July/2460–3935	Not expected to occur. The site is outside of the species' known elevation range.
Dudleya attenuata ssp. *attenuata*	Orcutt's dudleya	None/None/2B.1/ Not Covered	Coastal bluff scrub, Chaparral, Coastal scrub; rocky or gravelly/perennial herb/May–July/5–165	Low potential to occur. Some suitable coastal scrub and chaparral habitat present, however there is no suitable rocky or gravelly substrate on the site and this species would have been observed during focused surveys if present
Dudleya blochmaniae ssp. *blochmaniae*	Blochman's dudleya	None/None/1B.1/ Not Covered	Coastal bluff scrub, Chaparral, Coastal scrub, Valley and foothill grassland; rocky, often clay or serpentinite/ perennial herb/Apr–June/15–1475	Low potential to occur. There are no suitable clay soils or serpentinite substrates present on the site. This species would have been observed during focused surveys if present
Dudleya brevifolia	short-leaved dudleya	None/SE/1B.1/ Covered – Narrow Endemic	Chaparral (maritime, openings), Coastal scrub; Torrey sandstone/ perennial herb/Apr–May/95–820	Not expected to occur. Suitable sandstone soils are not present and this species would have been observed during focused surveys if present.

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Dudleya variegata	variegated dudleya	None/None/1B.2/ Covered – Narrow Endemic	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/ perennial herb/Apr–June/5–1905	Low potential to occur. There are no vernal pools on the site and this species would have been observed during focused surveys if present.
Dudleya viscida	sticky dudleya	None/None/1B.2/ Covered	Coastal bluff scrub, Chaparral, Cismontane woodland, Coastal scrub; rocky/perennial herb/May–June/ 30–1805	Low potential to occur. Suitable chaparral and coastal scrub habitat present, however there is not suitable rocky substrate and this species would have been observed during focused surveys if present.
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	None/None/1B.1/ Covered	Chaparral, Coastal scrub; mesic/ perennial evergreen shrub/ (July)Sep–Nov/95–1970	Low potential to occur. Suitable chaparral and coastal scrub habitat is present and there is a recorded occurrence in the northeast section of the study area, however this species would have been observed during focused surveys if present on the project site.
Eryngium aristulatum var. *parishii*	San Diego button-celery	FE/SE/1B.1/ Covered	Coastal scrub, Valley and foothill grassland, Vernal pools; mesic/ annual/perennial herb/Apr–June/ 65–2035	Low potential to occur. This species is known to occur mainly in and around vernal pools, which are not present on-site.
Erysimum ammophilum	sand-loving wallflower	None/None/1B.2/ Covered	Chaparral (maritime), Coastal dunes, Coastal scrub; sandy, openings/ perennial herb/Feb–June/0–195	Low potential to occur. There is suitable coastal scrub habitat present, however this species is more common in coastal areas and would have been observed during focused surveys if present.
Euphorbia misera	cliff spurge	None/None/2B.2/ Not Covered	Coastal bluff scrub, Coastal scrub, Mojavean desert scrub; rocky/ perennial shrub/Dec–Aug(Oct)/ 30–1640	Low potential to occur. There is some suitable coastal scrub habitat present, however rocky soils and substrate are not on the site and this species would have been

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
				observed during focused surveys if present.
Ferocactus viridescens	San Diego barrel cactus	None/None/2B.1/ Covered	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools/ perennial stem succulent/May–June/ 5–1475	Low potential to occur. Suitable coastal scrub habitat is present and there are multiple recorded occurrences of this species less than one mile from the site, however this species would have been observed during focused surveys if present.
Frankenia palmeri	Palmer's frankenia	None/None/2B.1/ Not Covered	Coastal dunes, Marshes and swamps (coastal salt), Playas/perennial herb/ May–July/0–35	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
Fremontodendron mexicanum	Mexican flannelbush	FE/SR/1B.1/ Not Covered	Closed-cone coniferous forest, Chaparral, Cismontane woodland; gabbroic, metavolcanic, or serpentinite/perennial evergreen shrub/Mar–June/30–2350	Low potential to occur. The site lacks the preferred soil type for this species and it would have been observed during focused surveys if present.
Galium proliferum	desert bedstraw	None/None/2B.2/ Not Covered	Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland; rocky, carbonate (limestone)/annual herb/Mar–June/ 3900–5350	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
Geothallus tuberosus	Campbell's liverwort	None/None/1B.1/ Not Covered	Coastal scrub (mesic), Vernal pools; soil/ephemeral liverwort/N.A./ 30–1970	Low potential to occur. There is no suitable vernal pool habitat present.
Githopsis diffusa ssp. *filicaulis*	Mission Canyon bluecup	None/None/3.1/ Not Covered	Chaparral (mesic, disturbed areas)/ annual herb/Apr–June/1475–2295	Not expected to occur. The site is outside of the species' known elevation range.
Grindelia hallii	San Diego gumplant	None/None/1B.2/ Not Covered	Chaparral, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland/perennial herb/May–Oct/605–5725	Not expected to occur. The site is outside of the species' known elevation range.

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Harpagonella palmeri	Palmer's grapplinghook	None/None/4.2/ Not Covered	Chaparral, Coastal scrub, Valley and foothill grassland; Clay; open grassy areas within shrubland/annual herb/Mar–May/65–3135	Low potential to occur. Suitable habitat present and known occurrences are present within one mile of the site.
Hesperocyparis forbesii	Tecate cypress	None/None/1B.1/ Covered	Closed-cone coniferous forest, Chaparral; clay, gabbroic or metavolcanic/perennial evergreen tree/N.A./260–4920	Low potential to occur. The site lacks the preferred soil type for this species and the nearest recent occurrences of the species are well beyond 5 miles of the site.
Heterotheca sessiliflora ssp. *sessiliflora*	beach goldenaster	None/None/1B.1/ Not Covered	Chaparral (coastal), Coastal dunes, Coastal scrub/perennial herb/ Mar–Dec/0–4020	Low potential to occur. There is suitable coastal scrub habitat present, however this species is more typically found in coastal areas and it would have been observed during focused surveys if present.
Holocarpha virgata ssp. *elongata*	graceful tarplant	None/None/4.2/ Not Covered	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/annual herb/May–Nov/ 195–3610	Low potential to occur. Suitable coastal scrub and chaparral habitat is present, however this species would have been observed during focused surveys if present
Hordeum intercedens	vernal barley	None/None/3.2/ Not Covered	Coastal dunes, Coastal scrub, Valley and foothill grassland (saline flats and depressions), Vernal pools/annual herb/Mar–June/15–3280	Low potential to occur. The site lacks the preferred saline flats and depressions for this vernal pool species.
Horkelia truncata	Ramona horkelia	None/None/1B.3/ Not Covered	Chaparral, Cismontane woodland; clay, gabbroic/perennial herb/ May–June/1310–4265	Not expected to occur. The site is outside of the species' known elevation range.
Hosackia crassifolia var. *otayensis*	Otay Mountain lotus	None/None/1B.1/ Not Covered	Chaparral (metavolcanic, often in disturbed areas)/perennial herb/ May–Aug/1245–3295	Not expected to occur. The site is outside of the species' known elevation range.

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Isocoma menziesii var. *decumbens*	decumbent goldenbush	None/None/1B.2/ Not Covered	Chaparral, Coastal scrub (sandy, often in disturbed areas)/perennial shrub/ Apr–Nov/30–445	Low potential to occur. Suitable chaparral and coastal scrub habitat is present and there is a recorded occurrence in the northeast section of the study area, however this species would have been observed during focused surveys if present on the project site.
Iva hayesiana	San Diego marsh-elder	None/None/2B.2/ Not Covered	Marshes and swamps, Playas/ perennial herb/Apr–Oct/30–1640	Not expected to occur. No suitable marshland habitat present. This species would have been observed during focused surveys if present.
Juncus acutus ssp. *leopoldii*	southwestern spiny rush	None/None/4.2/ Not Covered	Coastal dunes (mesic), Meadows and seeps (alkaline seeps), Marshes and swamps (coastal salt)/perennial rhizomatous herb/(Mar)May–June/ 5–2955	Not expected to occur. No suitable dune or marshland habitat present.
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	None/None/1B.1/ Not Covered	Marshes and swamps (coastal salt), Playas, Vernal pools/annual herb/ Feb–June/0–4005	Not expected to occur. No suitable vernal pool habitat present.
Lepechinia cardiophylla	heart-leaved pitcher sage	None/None/1B.2/ Covered	Closed-cone coniferous forest, Chaparral, Cismontane woodland/ perennial shrub/Apr–July/ 1705–4495	Not expected to occur. The site is outside of the species' known elevation range.
Lepechinia ganderi	Gander's pitcher sage	None/None/1B.3/ Covered	Closed-cone coniferous forest, Chaparral, Coastal scrub, Valley and foothill grassland; Gabbroic or metavolcanic/perennial shrub/ June–July/1000–3295	Not expected to occur. The site is outside of the species' known elevation range.
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	None/None/4.3/ Not Covered	Chaparral, Coastal scrub/annual herb/Jan–July/0–2905	Low potential to occur. Suitable coastal scrub and chaparral habitat is present, however this species would have been observed during focused surveys if present.

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Leptosyne maritima	sea dahlia	None/None/2B.2/ Not Covered	Coastal bluff scrub, Coastal scrub/ perennial herb/Mar–May/15–490	Low potential to occur. This species is more typical of coastal habitats; known occurrences are along the coast.
Lilium humboldtii ssp. *ocellatum*	ocellated Humboldt lily	None/None/4.2/ Not Covered	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland; openings/perennial bulbiferous herb/Mar–July(Aug)/95–5905	Low potential to occur. There is suitable coastal scrub and riparian woodland habitat present, however this species would have been observed during focused surveys if present. In addition, all known occurrences are well beyond 5 miles of the project site.
Lycium californicum	California box-thorn	None/None/4.2/ Not Covered	Coastal bluff scrub, Coastal scrub/ perennial shrub/ (Dec)Mar,June,July,Aug/15–490	Low potential to occur. Suitable coastal scrub habitat is present and there is a recent occurrence approximately 2 miles south of the site, however this species would have been observed during focused surveys if present.
Microseris douglasii ssp. *platycarpha*	small-flowered microseris	None/None/4.2/ Not Covered	Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/annual herb/Mar–May/ 45–3510	Low potential to occur. There is no suitable vernal pool habitat or clay soils present.
Mobergia calculiformis	light gray lichen	None/None/3/ Not Covered	Coastal scrub (?); On rocks/crustose lichen (saxicolous)/N.A./30–35	Not expected to occur. The site is outside of the species' known elevation range.
Monardella hypoleuca ssp. *lanata*	felt-leaved monardella	None/None/1B.2/ Covered	Chaparral, Cismontane woodland/ perennial rhizomatous herb/ June–Aug/980–5165	Not expected to occur. The site is outside of the species' known elevation range.
Monardella stoneana	Jennifer's monardella	None/None/1B.2/ Not Covered	Closed-cone coniferous forest, Chaparral, Coastal scrub, Riparian scrub; usually rocky intermittent streambeds/perennial herb/ June–Sep/30–2590	Low potential to occur. Some suitable coastal scrub and intermittent stream habitat is present in the study area, however this species would have been

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
				observed during focused surveys if present.
Monardella viminea	willowy monardella	FE/SE/1B.1/ Covered	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland; alluvial ephemeral washes/ perennial herb/June–Aug/160–740	Low potential to occur. Some suitable coastal scrub and chaparral habitat is present, however this species would have been observed during focused surveys if present.
Mucronea californica	California spineflower	None/None/4.2/ Not Covered	Chaparral, Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland; sandy/annual herb/Mar–July(Aug)/0–4595	Low potential to occur. There is suitable coastal scrub and chaparral habitat present, however this species would have been observed during focused surveys if present.
Myosurus minimus ssp. *apus*	little mousetail	None/None/3.1/ Not Covered	Valley and foothill grassland, Vernal pools (alkaline)/annual herb/ Mar–June/65–2100	Not expected to occur. There is no suitable vernal pool habitat present.
Nama stenocarpa	mud nama	None/None/2B.2/ Not Covered	Marshes and swamps (lake margins, riverbanks)/annual/perennial herb/ Jan–July/15–1640	Not expected to occur. No suitable marshland habitat present.
Navarretia fossalis	spreading navarretia	FT/None/1B.1/ Covered – Narrow Endemic	Chenopod scrub, Marshes and swamps (assorted shallow freshwater), Playas, Vernal pools/ annual herb/Apr–June/95–2150	Not expected to occur. No suitable vernal pool or marshland habitat present.
Navarretia prostrata	prostrate vernal pool navarretia	None/None/1B.1/ Not Covered	Coastal scrub, Meadows and seeps, Valley and foothill grassland (alkaline), Vernal pools; Mesic/annual herb/ Apr–July/5–3970	Low potential to occur. This species is most commonly found in vernal pools, which are not known to be present on the project site.
Nemacaulis denudata var. *denudata*	coast woolly-heads	None/None/1B.2/ Not Covered	Coastal dunes/annual herb/Apr–Sep/ 0–330	Not expected to occur. No suitable dune habitat present.
Nemacaulis denudata var. *gracilis*	slender cottonheads	None/None/2B.2/ Not Covered	Coastal dunes, Desert dunes, Sonoran desert scrub/annual herb/ (Mar)Apr–May/-160–1310	Not expected to occur. No suitable dune or desert habitats present.

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Ophioglossum californicum	California adder's-tongue	None/None/4.2/ Not Covered	Chaparral, Valley and foothill grassland, Vernal pools (margins); mesic/perennial rhizomatous herb/(Dec)Jan–June/195–1720	Not expected to occur. No suitable vernal pool habitat present.
Orcuttia californica	California Orcutt grass	FE/SE/1B.1/ Covered – Narrow Endemic	Vernal pools/annual herb/Apr–Aug/ 45–2165	Not expected to occur. No suitable vernal pool habitat present.
Ornithostaphylos oppositifolia	Baja California birdbush	None/SE/2B.1/ Not Covered	Chaparral/perennial evergreen shrub/Jan–Apr/180–2625	Low potential to occur. There is suitable chaparral habitat present, however this species would have been observed during focused surveys if present.
Orobanche parishii ssp. *brachyloba*	short-lobed broomrape	None/None/4.2/ Not Covered	Coastal bluff scrub, Coastal dunes, Coastal scrub; sandy/perennial herb (parasitic)/Apr–Oct/5–1000	Low potential to occur. There is some suitable coastal scrub habitat present, however this species is more typically found in coastal areas and would have been observed during focused surveys if present.
Pentachaeta aurea ssp. *aurea*	golden-rayed pentachaeta	None/None/4.2/ Not Covered	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland, Valley and foothill grassland/annual herb/Mar–July/260–6070	Low potential to occur. Suitable coastal scrub and chaparral habitat present, however this species would have been observed during focused surveys if present and known occurrences are well beyond 5 miles to the north of the site.
Phacelia stellaris	Brand's star phacelia	None/None/1B.1/ Not Covered	Coastal dunes, Coastal scrub/annual herb/Mar–June/0–1310	Low potential to occur. There is some suitable coastal scrub habitat present, however this species is more typically found in coastal areas and would have been observed during focused surveys if present.

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Pickeringia montana var. *tomentosa*	woolly chaparral-pea	None/None/4.3/ Not Covered	Chaparral; Gabbroic, granitic, clay/ evergreen shrub/May–Aug/0–5575	Not expected to occur. Suitable soils are not present and this species is more typically found in coastal areas and would have been observed during focused surveys if present.
Pinus torreyana ssp. *torreyana*	Torrey pine	None/None/1B.2/ Covered	Closed-cone coniferous forest, Chaparral; Sandstone/perennial evergreen tree/N.A./95–525	Not expected to occur. Suitable soils are not present and this species would have been observed during focused surveys if present.
Piperia cooperi	chaparral rein orchid	None/None/4.2/ Covered – Narrow Endemic	Chaparral, Cismontane woodland, Valley and foothill grassland/perennial herb/Mar–June/45–5200	Low potential to occur. There suitable chaparral habitat present, however this species would have been observed during focused surveys if present.
Pogogyne abramsii	San Diego mesa mint	FE/SE/1B.1/Covered – Narrow Endemic	Vernal pools/annual herb/Mar–July/ 295–655	Not expected to occur. No suitable vernal pool habitat present.
Pogogyne nudiuscula	Otay Mesa mint	FE/SE/1B.1/Covered – Narrow Endemic	Vernal pools/annual herb/May–July/ 295–820	Not expected to occur. No suitable vernal pool habitat present.
Pseudognaphalium leucocephalum	white rabbit-tobacco	None/None/2B.2/ Not Covered	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland; sandy, gravelly/perennial herb/ (July)Aug–Nov(Dec)/0–6890	Low potential to occur. There is suitable coastal scrub and chaparral habitat present, however this species would have been observed during focused surveys if present and the nearest occurrences are well beyond 5 miles from the project area.
Quercus dumosa	Nuttall's scrub oak	None/None/1B.1/ Not Covered	Closed-cone coniferous forest, Chaparral, Coastal scrub; sandy, clay loam/perennial evergreen shrub/ Feb–Apr(May–Aug)/45–1310	Low potential to occur. Suitable coastal scrub and chaparral habitat is present and there is a recent occurrence less than one mile from the project site, however this

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
				species would have been observed during focused surveys if present.
Quercus engelmannii	Engelmann oak	None/None/4.2/ Not Covered	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland/perennial deciduous tree/Mar–June/160–4265	Low potential to occur. Suitable chaparral and riparian woodland habitat is present, however this species would have been observed during focused surveys if present
Ribes viburnifolium	Santa Catalina Island currant	None/None/1B.2/ Not Covered	Chaparral, Cismontane woodland/ perennial evergreen shrub/Feb–Apr/ 95–1150	Not expected to occur. Suitable chaparral habitat present but this species occurs most typically on Santa Catalina Island and would have been observed during focused surveys if present.
Romneya coulteri	Coulter's matilija poppy	None/None/4.2/ Not Covered	Chaparral, Coastal scrub; Often in burns/perennial rhizomatous herb/ Mar–July(Aug)/65–3935	Low potential to occur. Suitable coastal scrub and chaparral habitat is present, however the site has not recently burned and this species would have been observed during focused surveys if present.
Rosa minutifolia	small-leaved rose	None/SE/2B.1/ Covered	Chaparral, Coastal scrub/perennial deciduous shrub/Jan–June/490–525	Not expected to occur. The site is outside of the species' known elevation range.
Salvia munzii	Munz's sage	None/None/2B.2/ Not Covered	Chaparral, Coastal scrub/perennial evergreen shrub/Feb–Apr/375–3495	Not expected to occur. The site is outside of the species' known elevation range.
Selaginella cinerascens	ashy spike-moss	None/None/4.1/ Not Covered	Chaparral, Coastal scrub/perennial rhizomatous herb/N.A./65–2100	Low potential to occur. Suitable coastal scrub and chaparral habitat is present, however this species would have been observed during focused surveys if present.
Senecio aphanactis	chaparral ragwort	None/None/2B.2/ Not Covered	Chaparral, Cismontane woodland, Coastal scrub; sometimes alkaline/ annual herb/Jan–Apr(May)/45–2625	Low potential to occur. Suitable chaparral habitat is present, however this species would have

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
				been observed during focused surveys if present.
Sidalcea neomexicana	salt spring checkerbloom	None/None/2B.2/ Not Covered	Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Playas; alkaline, mesic/ perennial herb/Mar–June/45–5020	Not expected to occur. There are no suitable alkaline soils present.
Sphaerocarpos drewei	bottle liverwort	None/None/1B.1/ Not Covered	Chaparral, Coastal scrub; openings, soil/ephemeral liverwort/N.A./ 295–1970	Low potential to occur. Suitable coastal scrub and chaparral habitat present, however this species would have been observed during focused surveys if present and there are no known occurrences within a 5-mile of the site.
Stemodia durantifolia	purple stemodia	None/None/2B.1/ Not Covered	Sonoran desert scrub (often mesic, sandy)/perennial herb/ (Jan)Apr,June,Aug,Sep,Oct,Dec/ 590–985	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
Stipa diegoensis	San Diego County needle grass	None/None/4.2/ Not Covered	Chaparral, Coastal scrub; rocky, often mesic/perennial herb/Feb–June/ 30–2625	Low potential to occur. Suitable coastal scrub and chaparral habitat is present, however there is no rocky substrate on site and this species would have been observed during focused surveys if present.
Streptanthus bernardinus	Laguna Mountains jewelflower	None/None/4.3/ Not Covered	Chaparral, Lower montane coniferous forest/perennial herb/May–Aug/ 2195–8200	Not expected to occur. The site is outside of the species' known elevation range.
Stylocline citroleum	oil neststraw	None/None/1B.1/ Not Covered	Chenopod scrub, Coastal scrub, Valley and foothill grassland; clay/annual herb/Mar–Apr/160–1310	Low potential to occur. The site lacks the preferred soil type for this species and the nearest recorded occurrences of the species are beyond 5 miles of the site.
Suaeda esteroa	estuary seablite	None/None/1B.2/ Not Covered	Marshes and swamps (coastal salt)/ perennial herb/(May)July–Oct(Jan)/ 0–15	Not expected to occur. The site is outside of the species' known

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
				elevation range and there is no suitable habitat present.
Suaeda taxifolia	woolly seablite	None/None/4.2/ Not Covered	Coastal bluff scrub, Coastal dunes, Marshes and swamps (margins of coastal salt)/perennial evergreen shrub/Jan–Dec/0–165	Not expected to occur. No suitable dune or marshland habitat present.
Tetracoccus dioicus	Parry's tetracoccus	None/None/1B.2/ Covered	Chaparral, Coastal scrub/perennial deciduous shrub/Apr–May/540–3280	Not expected to occur. The site is outside of the species' known elevation range.
Texosporium sancti-jacobi	woven-spored lichen	None/None/3/ Not Covered	Chaparral (openings); On soil, small mammal pellets, dead twigs, and on Selaginella spp/crustose lichen (terricolous)/N.A./195–2165	Not expected to occur. The chaparral present does not contain open soil environments necessary for this lichen species.
Tortula californica	California screw-moss	None/None/1B.2/ Not Covered	Chenopod scrub, Valley and foothill grassland; sandy, soil/moss/N.A./ 30–4790	Not expected to occur. No suitable grassland or chenopod scrub habitat present.
Xanthisma junceum	rush-like bristleweed	None/None/4.3/ Not Covered	Chaparral, Coastal scrub/perennial herb/May–Jan/785–3280	Not expected to occur. The site is outside of the species' known elevation range.

Statuses:
FE: Federally listed as endangered
FT: Federally listed as threatened
SE: State listed as endangered
ST: State listed as threatened
SR: State Rare
CRPR 1A: Plants presumed extirpated in California and either rare or extinct elsewhere
CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
CRPR 2A: Plants presumed extirpated in California but common elsewhere
CRPR 2B: Plants rare, threatened, or endangered in California but more common elsewhere
CRPR 3: Review List: Plants about which more information is needed
CRPR 4: Watch List: Plants of limited distribution
.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 Moderately threatened in California (20-80% 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)

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Appendix D

Special-Status Wildlife Species Potentially Occurring within the Study Area

Row Labels	Common Name	Status (Federal/State/ MSCP)	Habitat	Potential to Occur
Amphibians				
Anaxyrus californicus	arroyo toad	FE/SSC/Covered	Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral and sagebrush; stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering	Not expected to occur. There are no suitable third order stream channels present within the study area.
Spea hammondii	western spadefoot	None/SSC/Not Covered	Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub, valley–foothill woodlands, pastures, and other agriculture	Low potential to occur. Suitable vernal pool and ephemeral wetland habitat is not present in the study area.
Reptiles				
Anniella stebbinsi	southern California legless lizard	None/SSC/Not Covered	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils	Low potential to occur. The study area does not contain suitable dune or wash habitat. In addition, sandy and moist soils are not present in the study area.
Arizona elegans occidentalis	California glossy snake	None/SSC/Not Covered	Commonly occurs in desert regions throughout southern California. Prefers open sandy areas with scattered brush. Also found in rocky areas.	Not expected to occur. The study area lacks open sandy or rocky areas necessary to support this species.
Aspidoscelis hyperythra	orange-throated whiptail	None/WL/Covered	Low-elevation coastal scrub, chaparral, and valley–foothill hardwood	Moderate potential to occur. There is habitat on-site to support this species and there have been occurrences of this species within 2 miles of the project study area.
Aspidoscelis tigris stejnegeri	San Diegan tiger whiptail	None/SSC/Not Covered	Hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.	Moderate potential to occur. There is suitable chaparral and riparian habitat present in the study area.

Row Labels	Common Name	Status (Federal/State/ MSCP)	Habitat	Potential to Occur
Chelonia mydas	green sea turtle	FT/None/Not Covered	Shallow waters of lagoons, bays, estuaries, mangroves, eelgrass, and seaweed beds	Not expected to occur. No suitable aquatic habitat present.
Coleonyx variegatus abbotti	San Diego banded gecko	None/SSC/Not Covered	Rocky areas within coastal scrub and chaparral	Low potential to occur. While coastal scrub habitat is present, the study area lacks suitable rocky habitat. There have not been any recorded occurrences of this species within 5 miles of the study area.
Coluber fuliginosus	Baja California coachwhip	None/SSC/Not Covered	In California restricted to southern San Diego County, where it is known from grassland and coastal sage scrub. Open areas in grassland and coastal sage scrub.	Low potential to occur. While coastal scrub habitat is present, the study area lacks suitable open areas and grassland habitat. The species has not been historically recorded within 5 miles of the site.
Crotalus ruber	red diamondback rattlesnake	None/SSC/Not Covered	Coastal scrub, chaparral, oak and pine woodlands, rocky grasslands, cultivated areas, and desert flats	Moderate potential to occur. There is suitable coastal scrub habitat present within the study area.
Diadophis punctatus similis	San Diego ringneck snake	None/None/Not Covered	Moist habitats including wet meadows, rocky hillsides, gardens, farmland grassland, chaparral, mixed-conifer forest, and woodland habitats	Not expected to occur. The site lacks the habitat that this species prefers and there have been no historic occurrences of the species within 5 miles of the site.
Phrynosoma blainvillii	Blainville's horned lizard	None/SSC/Covered	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley–foothill hardwood, conifer, riparian, pine–cypress, juniper, and annual grassland habitats	Low potential to occur. While coastal scrub is present on the site, suitable sandy soils are not present. There are several historic occurrences of this species within 5 miles of the site.
Plestiodon skiltonianus interparietalis	Coronado skink	None/WL/Not Covered	Woodlands, grasslands, pine forests, and chaparral; rocky areas near water	Not expected to occur. The study area does not contain suitable aquatic habitat and there have been no

Row Labels	Common Name	Status (Federal/State/ MSCP)	Habitat	Potential to Occur
				historic occurrences of the species within 5 miles of the site.
Salvadora hexalepis virgultea	coast patch-nosed snake	None/SSC/Not Covered	Brushy or shrubby vegetation; requires small mammal burrows for refuge and overwintering sites	Low potential to occur. While shrubby habitat occurs on-site, there is not substantial existing burrow habitat present. In addition, no recorded occurrences of this species within 5 miles of the site
Thamnophis hammondii	two-striped gartersnake	None/SSC/Not Covered	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Moderate potential to occur. While there is a lack of true stream or similar aquatic habitat on-site, there has been a recent recorded occurrence of this species within several hundred feet of the project site in the adjacent riparian habitat to the west/southwest.
Birds				
Accipiter cooperii (nesting)	Cooper's hawk	None/WL/Covered	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	High potential to occur. This species was observed during reconnaissance surveys and there is habitat to support this species on-site in the project study area.
Agelaius tricolor (nesting colony)	tricolored blackbird	BCC/PSE, SSC/Covered	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberrry; forages in grasslands, woodland, and agriculture	Low potential to occur. The wetland habitat that this species prefers is not present in the study area
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	None/WL/Covered	Nests and forages in open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches	Low potential to occur. While coastal scrub is present, the study area does not contain suitable rocky or grassy patches interspersed. There are no recorded occurrences of this species within 5 miles of the site.

Row Labels	Common Name	Status (Federal/State/ MSCP)	Habitat	Potential to Occur
Ammodramus savannarum (nesting)	grasshopper sparrow	None/SSC/Not Covered	Nests and forages in moderately open grassland with tall forbs or scattered shrubs used for perches	Low potential to occur. No suitable grassland habitat present in the study area.
Artemisiospiza belli belli	Bell's sage sparrow	BCC/WL/Not Covered	Nests and forages in coastal scrub and dry chaparral; typically in large, unfragmented patches dominated by chamise; nests in more dense patches but uses more open habitat in winter	Low potential to occur. The site's coastal scrub habitat is fragmented and not dominated by chamise. There have been no recorded occurrences of this species within 5 miles of the site.
Athene cunicularia (burrow sites and some wintering sites)	burrowing owl	BCC/SSC/Covered	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Not- expected to occur. The study area lacks existing burrow and open disturbed areas required for this species to nest and forage.
Buteo swainsoni (nesting)	Swainson's hawk	BCC/ST/Covered	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Low potential to occur. The study area lacks open woodland, agricultural, or grassland habitat.
Campylorhynchus brunneicapillus sandiegensis (San Diego and Orange Counties only)	coastal cactus wren	BCC/SSC/Covered	Southern cactus scrub patches	Low potential to occur. The study area lacks suitable cactus scrub habitat, but there is a recently recorded occurrence of this species within several miles of the site.
Chamaea fasciata	wrentit	BCC/None/Not Covered	Nests and forages in dense coastal scrub or chapparal habitats; prefers coastal areas but can occur at higher elevations. May also occur in urban areas with dense shrubs or landscaping.	High potential to occur. Observed in study area which contains appropriate nesting and foraging habitat.
Charadrius alexandrinus	western snowy plover	FT, BCC/SSC/Covered	On coasts nests on sandy marine and estuarine shores; in the interior nests on	Not expected to occur. No suitable habitat present.

Row Labels	Common Name	Status (Federal/State/ MSCP)	Habitat	Potential to Occur
nivosus (nesting)			sandy, barren or sparsely vegetated flats near saline or alkaline lakes, reservoirs, and ponds	
Circus hudsonius (nesting)	northern harrier	None/SSC/Covered	Nests in open wetlands (marshy meadows, wet lightly-grazed pastures, old fields, freshwater and brackish marshes); also in drier habitats (grassland and grain fields); forages in grassland, scrubs, rangelands, emergent wetlands, and other open habitats	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable habitat present.
Coccyzus americanus occidentalis (nesting)	western yellow-billed cuckoo	FT, BCC/SE/Not Covered	Nests in dense, wide riparian woodlands and forest with well-developed understories	Not- expected to occur. The site's riparian forest consists of small, fragmented patches of habitat insufficient to support this species.
Coturnicops noveboracensis	yellow rail	BCC/SSC/Not Covered	Nesting requires wet marsh/sedge meadows or coastal marshes with wet soil and shallow, standing water	Not expected to occur. No suitable habitat present.
Empidonax traillii extimus (nesting)	southwestern willow flycatcher	FE/SE/Covered	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	Low potential to occur. Some suitable habitat present, but willow stands are not substantial enough to support this species, which requires expansive, dense riparian habitat.
Eremophila alpestris actia	California horned lark	None/WL/Not Covered	Nests and forages in grasslands, disturbed lands, agriculture, and beaches; nests in alpine fell fields of the Sierra Nevada	Low potential to occur. While there is some disturbed land on-site, the other habitat requirements of this species are not met by the site.
Falco mexicanus (nesting)	prairie falcon	BCC/WL/Not Covered	Forages in grassland, savanna, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs	Not expected to occur. The site lacks foraging and nesting habitat for this species.
Falco peregrinus anatum (nesting)	American peregrine falcon	FDL, BCC/SDL, FP/Covered	Nests on cliffs, buildings, and bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present	Low potential to occur. The site lacks the required cliffs for nesting and open foraging areas for this species

Row Labels	Common Name	Status (Federal/State/ MSCP)	Habitat	Potential to Occur
Icteria virens (nesting)	yellow-breasted chat	None/SSC/Not Covered	Nests and forages in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush	Low potential to occur. Riparian forest on-site is highly fragmented and isolated to small patches. There have only been few recorded occurrences of the species in the area, all greater than 3 miles from the site.
Ixobrychus exilis (nesting)	least bittern	BCC/SSC/Not Covered	Nests in freshwater and brackish marshes with dense, tall growth of aquatic and semi-aquatic vegetation	Not expected to occur. No suitable habitat present.
Laterallus jamaicensis coturniculus	California black rail	BCC/ST, FP/Not Covered	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations	Not- expected to occur. The site lacks true wetlands and marshes required to support this species.
Pandion haliaetus (nesting)	osprey	None/WL/Not Covered	Large waters (lakes, reservoirs, rivers) supporting fish; usually near forest habitats, but widely observed along the coast	Not- expected to occur. The site lacks large water bodies required to support this species.
Passerculus sandwichensis beldingi	Belding's savannah sparrow	None/SE/Covered	Nests and forages in coastal saltmarsh dominated by pickleweed (*Salicornia* spp.)	Not expected to occur. No suitable habitat present.
Pelecanus occidentalis californicus (nesting colonies and communal roosts)	California brown pelican	FDL/SDL, FP/Covered	Forages in warm coastal marine and estuarine environments; in California, nests on dry, rocky offshore islands	Not expected to occur. The site is not a marine or estuarine environment.
Phalacrocorax auritus (nesting colony)	double-crested cormorant	None/WL/Not Covered	Nests in riparian trees near ponds, lakes, artificial impoundments, slow-moving rivers, lagoons, estuaries, and open coastlines; winter habitat includes lakes, rivers, and coastal areas	Not- expected to occur. The site lacks the types of water bodies required to support this species.

Row Labels	Common Name	Status (Federal/State/ MSCP)	Habitat	Potential to Occur
Polioptila californica californica	coastal California gnatcatcher	FT/SSC/Covered	Nests and forages in various sage scrub communities, often dominated by California sagebrush and buckwheat; generally avoids nesting in areas with a slope of greater than 40%; majority of nesting at less than 1,000 feet above mean sea level	High potential to occur. Observed during focused surveys. Habitat to support this species is present in and around the project area. The species was observed utilizing on-site habitat during 2018 focused surveys and there are numerous recorded historical occurrences of the species in and surrounding the study area.
Rallus obsoletus levipes	Ridgway's rail	FE/SE, FP/Covered	Coastal wetlands, brackish areas, coastal saline emergent wetlands	Not expected to occur. No suitable habitat present.
Selasphorus sasin	Allen's hummingbird	BCC/None/Not Covered	Nests and forages in a variety of habitats in coastal regions. Prefers coastal scrub, semi-open woodlands and brushlands, and often occurs in urban landscapes with planted habitats.	Moderate potential to occur. The study area contains appropriate vegetation with both dense and semi-open sections.
Setophaga petechia (nesting)	yellow warbler	BCC/SSC/Not Covered	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats	Moderate potential to occur. There is suitable habitat within the study area for foraging and/or nesting habitat for this species.
Sternula antillarum browni (nesting colony)	California least tern	FE/SE, FP/Covered	Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flats	Not expected to occur. There is no suitable coastal habitat for this species in the study area.
Toxostoma redivivum	California thrasher	None/None/BCC	Nest and forages in chapparal and sage scrub habitats in both coastal and interior regions. May also occur in association with oak woodlands and riparian habitats, preferring to forage beneath dense cover.	Moderate potential to occur. Suitable habitat occurs in the study area.

Row Labels	Common Name	Status (Federal/State/ MSCP)	Habitat	Potential to Occur
Vireo bellii pusillus (nesting)	least Bell's vireo	FE/SE/Covered	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	Moderate potential to occur. Focused surveys for this species were conducted in 2018 and no observations were made. There is some habitat to support the species on and near the site in addition to a recent recorded occurrence of the species within one mile of the site.
Mammals				
Antrozous pallidus	pallid bat	None/SSC/Not Covered	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	Low potential to occur. The site contains suitable habitat for this species, although it lacks preferred rocky outcrops for roosting. There have also been no historic occurrences of the species within 5 miles of the site.
Chaetodipus californicus femoralis	Dulzura pocket mouse	None/SSC/Not Covered	Open habitat, coastal scrub, chaparral, oak woodland, chamise chaparral, mixed-conifer habitats; disturbance specialist; 0 to 3,000 feet above mean sea level	Moderate potential to occur. There is suitable coastal sage scrub habitat for this species within the study area.
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	None/SSC/Not Covered	Coastal scrub, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon–juniper, and annual grassland	Moderate potential to occur. There is suitable coastal sage scrub habitat for this species within the study area.
Choeronycteris mexicana	Mexican long-tongued bat	None/SSC/Not Covered	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon–juniper woodland; roosts in caves, mines, and buildings	Not expected to occur. Foraging and roosting habitat for this within the study area.
Corynorhinus townsendii	Townsend's big-eared bat	None/SSC/Not Covered	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, man-made structures, and tunnels	Not expected to occur. Foraging and roosting habitat for this species within the study area.

Row Labels	Common Name	Status (Federal/State/ MSCP)	Habitat	Potential to Occur
Euderma maculatum	spotted bat	None/SSC/Not Covered	Foothills, mountains, desert regions of southern California, including arid deserts, grasslands, and mixed-conifer forests; roosts in rock crevices and cliffs; feeds over water and along washes	Not expected to occur. Foraging and roosting habitat for this species within the study area.
Eumops perotis californicus	western mastiff bat	None/SSC/Not Covered	Chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels	Low potential to occur. Suitable roosting habitat for this species are not present within the study area.
Lasionycteris noctivagans	silver-haired bat	None/None/Not Covered	Old-growth forest, maternity roosts in trees, large snags 50 feet aboveground; hibernates in hollow trees, rock crevices, buildings, mines, caves, and under sloughing bark; forages in or near coniferous or mixed deciduous forest, stream or river drainages	Low potential to occur. Roosting habitat for this species is not present on-site and this species is rare in San Diego county with few recorded occurrences.
Lasiurus blossevillii	western red bat	None/SSC/Not Covered	Forest, woodland, riparian, mesquite bosque, and orchards, including fig, apricot, peach, pear, almond, walnut, and orange; roosts in tree canopy	Low potential to occur. Although riparian habitat is present in the study area, there is no suitable orchard habitat in the vicinity. In addition, there are no recent recorded occurrences of this species within 5 miles of the site.
Lasiurus cinereus	hoary bat	None/None/Not Covered	Forest, woodland riparian, and wetland habitats; also juniper scrub, riparian forest, and desert scrub in arid areas; roosts in tree foliage and sometimes cavities, such as woodpecker holes	Low potential to occur. Although riparian habitat is present in the study area, this habitat is limited and no cavity or cavity nesters were observed during field or focused surveys. In addition, there are no recent recorded occurrences of this species within 5 miles of the site.

Row Labels	Common Name	Status (Federal/State/ MSCP)	Habitat	Potential to Occur
Lasiurus xanthinus	western yellow bat	None/SSC/Not Covered	Valley–foothill riparian, desert riparian, desert wash, and palm oasis habitats; below 2,000 feet above mean sea level; roosts in riparian and palms	Not expected to occur. Preferred desert riparian and palm oasis habitat is not present in the study area.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	None/SSC/Not Covered	Arid habitats with open ground; grasslands, coastal scrub, agriculture, disturbed areas, and rangelands	Moderate potential to occur. There is suitable coastal sage scrub and disturbed habitat present within the study area.
Myotis ciliolabrum	western small-footed myotis	None/None/Not Covered	Arid woodlands and shrublands, but near water; roosts in caves, crevices, mines, abandoned buildings	Not expected to occur. Suitable foraging and roosting habitat for this species are not present in the study area.
Myotis evotis	long-eared myotis	None/None/Not Covered	Brush, woodland, and forest habitats from sea level to 9,000 feet above MSL; prefers coniferous habitats; forages along habitat edges, in open habitats, and over water; roosts in buildings, crevices, under bark, and snags; uses caves as night roosts	Not expected to occur. Suitable foraging and roosting habitat for this species are not present in the study area.
Myotis yumanensis	Yuma myotis	None/None/Not Covered	Riparian, arid scrublands and deserts, and forests associated with water (streams, rivers, tinajas); roosts in bridges, buildings, cliff crevices, caves, mines, and trees	Moderate potential to occur. Trees on-site could theoretically be used for roosting (although nearby bridges are more likely roost locations) and the riparian within the study area could support foraging of this species.
Neotoma lepida intermedia	San Diego desert woodrat	None/SSC/Not Covered	Coastal scrub, desert scrub, chaparral, cacti, rocky areas	Moderate potential to occur. There is suitable coastal scrub habitat for this species within the study area.
Nyctinomops femorosaccus	pocketed free-tailed bat	None/SSC/Not Covered	Pinyon–juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and	Not expected to occur. Suitable desert foraging and roosting habitat for this species are not present within the study area.

Row Labels	Common Name	Status (Federal/State/ MSCP)	Habitat	Potential to Occur
			palm oases; roosts in high cliffs or rock outcrops with drop-offs, caverns, and buildings	
Nyctinomops macrotis	big free-tailed bat	None/SSC/Not Covered	Rocky areas; roosts in caves, holes in trees, buildings, and crevices on cliffs and rocky outcrops; forages over water	Low potential to occur. The study area does not contain suitable rocky habitat, tree cavity, or open water foraging habitat for this species.
Perognathus longimembris pacificus	Pacific pocket mouse	FE/SSC/Not Covered	fine-grained sandy substrates in open coastal strand, coastal dunes, and river alluvium	Low potential to occur. The study area does not contain suitable fine-grained sandy habitats for this species.
Taxidea taxus	American badger	None/SSC/Covered	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Not expected to occur. No suitable habitat exists in the study area for this species.
Invertebrates				
Bombus crotchii	Crotch's bumble bee	–/PSE/Not Covered	Open grassland and scrub communities supporting suitable floral resources.	Moderate potential to occur. This species may forage or nest within upland communities within the study area or the immediate vicinity.
Branchinecta sandiegonensis	San Diego fairy shrimp	FE/None/Covered	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. No suitable vernal pool habitat exists on-site.
Callophrys thornei	Thorne's hairstreak	None/None/Covered	Interior cypress woodland dominated by host plant Hesperocyparis forbesii (Tecate cypress)	Not expected to occur. No suitable cypress woodland habitat exists within the study area.
Cicindela gabbii	western tidal-flat tiger beetle	None/None/Not Covered	Inhabits estuaries and mudflats along the coast of Southern California	Not expected to occur. No suitable estuarine habitat present.
Cicindela hirticollis gravida	sandy beach tiger beetle	None/None/Not Covered	Inhabits areas adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico	Not expected to occur. No suitable aquatic habitat present.
Cicindela latesignata latesignata	western beach tiger beetle	None/None/Not Covered	Mudflats and beaches in coastal Southern California	Not expected to occur. No suitable mudflat habitat present.

Row Labels	Common Name	Status (Federal/State/ MSCP)	Habitat	Potential to Occur
Cicindela senilis frosti	senile tiger beetle	None/None/Not Covered	Inhabits marine shoreline, from Central California coast south to saltmarshes of San Diego; also found at Lake Elsinore	Not expected to occur. No suitable coastal habitat present.
Cincindela latesignata obliviosa	Oblivious tiger beetle	None/None/Not Covered	Inhabited the Southern California coastline, from La Jolla north to the Orange County line. Occupied saline mudflats and moist sandy spots in estuaries of small streams in the lower zone. Has not been observed in 20 years. The oblivious tiger beetle (C. l. obliviosa) is no longer the accepted name for this species (ITIS 2016).	Not expected to occur. No suitable coastal habitat present.
Coelus globosus	globose dune beetle	None/None/Not Covered	Inhabitant of coastal sand dune habitat; erratically distributed from Ten Mile Creek in Mendocino County south to Ensenada, Mexico	Not expected to occur. No suitable sand dune habitat present.
Danaus plexippus	monarch	None/None/Not Covered	Wind-protected tree groves with nectar sources and nearby water sources	Moderate potential to occur. There is some suitable tree grove habitat in riparian areas of the study area..
Euphydryas editha quino	quino checkerspot butterfly	FE/None/Not Covered	Annual forblands, grassland, open coastal scrub and chaparral; often soils with cryptogamic crusts and fine-textured clay; host plants include Plantago erecta, Antirrhinum coulterianum, and Plantago patagonica (Silverado Occurrence Complex)	Not expected to occur. No host plants were observed during focused rare plant surveys within the study area.
Helminthoglypta coelata	mesa shoulderband	None/None/Not Covered	Known only from a few locations in coastal San Diego County	Not expected to occur. This species is rare and the study area is not located in coastal areas where it has been known to occur.
Lycaena hermes	Hermes copper	FC/None/Not Covered	Mixed woodlands, chaparral, and coastal scrub	Low potential to occur. Coastal scrub habitat is present on site, but the preferred host plants for this species are not present. .

Row Labels	Common Name	Status (Federal/State/ MSCP)	Habitat	Potential to Occur
Melitta californica	California mellitid bee	None/None/Not Covered	Desert regions of southwestern Arizona, southeastern California, and Baja California, Mexico; also collected from Torrey Pines, San Diego County	Not expected to occur. No suitable desert habitat exists in the study area.
Panoquina errans	wandering skipper	None/None/Covered	Saltmarsh	Not expected to occur. No suitable saltmarsh habitat present.
Streptocephalus woottoni	Riverside fairy shrimp	FE/None/Covered	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. No suitable vernal pool habitat exists within the study area.
Tryonia imitator	mimic tryonia (=California brackishwater snail)	None/None/Not Covered	Inhabits coastal lagoons, estuaries, and saltmarshes, from Sonoma County south to San Diego County	Not expected to occur. No suitable lagoon or estuarine habitat exists in the study area.

Statuses:
FE: Federally Endangered
FT: Federally Threatened
FC: Federal Candidate
FDL: Federally Delisted
BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern
SSC: California Species of Special Concern
FP: California Fully Protected Species
WL: California Watch List Species
SE: State Endangered
ST: State Threatened
PSE: Proposed State Endangered

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Appendix E
Jurisdictional Delineation Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Fairemount Fire Station City/County: San Diego Sampling Date: Nov 8, 2023

Applicant/Owner: City of San Diego State: CA Sampling Point: S2 (Upland)

Investigator(s): Kimberly Narel Section, Township, Range: National City Quad

Landform (hillslope, terrace, etc.): bottom of canyon Local relief (concave, convex, none): flat Slope (%): _____

Subregion (LRR): C - Mediterranean California Lat: N 32.725349 Long: W 117.093979 Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes _____	No ✔	
Wetland Hydrology Present?	Yes _____	No ✔	

Remarks:

Taken upland of S1 past TOB

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Rhus integrifolia	10	Yes	UPL
2. Nicotiana glauca	5		FAC
3.			
4.			
	15	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft)			
1. Baccharis sarothroides	20	Yes	FACU
2. Brassica nigra	30	Yes	UPL
3. Foeniculum vulgare	5		UPL
4.			
5.			
	55	= Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. Hirschfeldia incana	20	Yes	UPL
2. Lactuca serriola	5		UPL
3. Marriubium vulgare	5		UPL
4.			
5.			
6.			
7.			
8.			
	30	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 5% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	1	x 3 =	3
FACU species	20	x 4 =	80
UPL species	75	x 5 =	375
Column Totals:	96 (A)		458 (B)

Prevalence Index = B/A = 4.8

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks:

SOIL

Sampling Point: S2 (Upland)

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/4	50	N/A				Loam	cobbly
	cobble	50					rock	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: cobble

Depth (inches): 4

Hydric Soil Present? Yes ___ No ✔

Remarks:

rocks and compact soil prevented complete soil pit. Hard erosion matting.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): ___

Water Table Present? Yes ___ No ✔ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): ___

Wetland Hydrology Present? Yes ___ No ✔

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Fairmount Fire Station City/County: San Diego Sampling Date: Nov 8, 2023

Applicant/Owner: City of San Diego State: CA Sampling Point: S1

Investigator(s): Kimberly Narel Section, Township, Range:

Landform (hillslope, terrace, etc.): bottom of canyon Local relief (concave, convex, none): concave Slope (%):

Subregion (LRR): C-Meditterranean California Lat: N 32.7254448 Long: W 117.093996 Datum:

Soil Map Unit Name: NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✔	No	**Is the Sampled Area within a Wetland?** Yes No ✔
Hydric Soil Present?	Yes	No ✔	
Wetland Hydrology Present?	Yes ✔	No	

Remarks:

ephemeral riverine feature at bottom of canyon in riparian scrub/woodland. Wetland Sample Point.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus fremontii	20	Yes	FAC
2. Salix gooddingii	15	Yes	FACW
3. Rhus integrifolia	10		FACU
4.			
	45%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft)			
1. Salix laevigata	20	Yes	FACW
2. Brassica nigra	20	Yes	UPL
3. Ricinus communis	5		FACU
4. Baccharis sarothroides	10		FACU
5.			
	55%	= Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. Hirschfeldia incana	10	Yes	UPL
2. Sisymbrium irio	5		UPL
3. Artemisia dracunculus	10	Yes	FACU
4.			
5.			
6.			
7.			
8.			
	25%	= Total Cover	
Woody Vine Stratum (Plot size: N/A)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum 30 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 55% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	20	x 3 =	60
FACU species	35	x 4 =	140
UPL species	35	x 5 =	175
Column Totals:	125 (A)		445 (B)

Prevalence Index = B/A = 3.56

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✔ No

Remarks:

SOIL

Sampling Point: S1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	5Y 2.5/1	100	N/A				sandy clay	
4-8	cobbles	50	N/A				rocky	
4-8	5Y 2.5/1	25	N/A				sandy clay	
4-8	10YR 3/4	25	N/A				sandy loan	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: cobble/rock

Depth (inches): 8

Hydric Soil Present? Yes ___ No ✔

Remarks:

no redox present

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ✔ Water Marks (B1) (**Nonriverine**)
- ✔ Sediment Deposits (B2) (**Nonriverine**)
- ✔ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): ___

Water Table Present? Yes ___ No ✔ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): ___

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

Storm water runoff from Fairemount Ave flows down after rain events to bottom of canyon via approximately 6-ft wide ephemeral channel that connects to mature riparian woodland and riparian scrub. No apparent downstream or upstream connectivity.

Appendix F

Least Bell's Vireo Survey Report

DUDEK

MAIN OFFICE
605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 T 800.450.1818 F 760.632.0164

August 16, 2018 7643-59

U.S. Fish and Wildlife Service
Attn: Recovery Permit Coordinator
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

Subject: ***Focused Least Bell's Vireo Survey Report for Geotechnical Investigations at the Proposed Fairmount Avenue Fire Station Project in San Diego, California***

Dear Recovery Permit Coordinator:

This report documents the results of eight protocol-level presence/absence surveys for the state- and federally listed endangered least Bell's vireo (*Vireo bellii pusillus)*. These focused surveys included approximately 8.49 acres of basin bottom that has connectivity with the off-site natural canyon and streambed and contains patches of suitable riparian habitat within the proposed geotechnical investigation (project) site north of Fairmount Avenue in San Diego, California. The surveys were conducted in all areas of suitable least Bell's vireo habitat.

The least Bell's vireo is closely associated with riparian habitats, especially densely vegetated willow scrub and riparian forest vegetation. These species are threatened primarily by loss, degradation, and fragmentation of riparian habitats. They also are impacted by brown-headed cowbird (*Molothrus ater*) nest parasitism.

LOCATION AND EXISTING CONDITIONS

The approximate 14.5-acre project site is located north of the intersection of 47th Street and Fairmount Avenue on the west side of 47th Street within the City Heights Community Planning Area (District 9) in San Diego, California (Figure 1). The site is situated within a basin north of Sunshine Berardini Park and with connectivity to a natural canyon to the west that contains a streambed that is a tributary to Chollas Creek. The City of San Diego's (City) Multi-Habitat Planning Area (MHPA) boundary is directly adjacent to the proposed geotechnical investigation alignment and intersects the footprint of the planned fire station construction at the same location (Figure 1). The project site also lies within the U.S. Geological Survey (USGS) 7.5-minute map National City quadrangle map; latitude N 32.72519665° and longitude W -117.09450219 (Figure 2).

VEGETATION COMMUNITIES

Eight vegetation communities and two non-native land cover types were mapped within the study area (geotechnical alignment plus 300-foot buffer). These included coastal sage scrub (including disturbed variety), coastal sage scrub (*Baccharis*-dominated), coastal sage scrub (*Rhus*-dominated), mixed chaparral, southern willow forest, riparian scrub (mulefat scrub), southern riparian forest, ornamental plantings, disturbed land, and urban/developed land. Between the vegetation communities present within the project study area, the following are considered suitable habitat for least Bell's vireo: riparian forest (southern willow forest), riparian forest (southern riparian forest), and riparian scrub (mulefat scrub). Surrounding the patches of riparian habitat are extensive stands of freshwater marsh. The suitable habitat vegetation communities are described below; their acreages are presented in Table 1, and their spatial distributions are presented on Figure 3.

Table 1
Existing Vegetation Communities within the Project Study Area*

Vegetation Community/Land Cover	Acres
Riparian/Water and Wetlands	
Southern Willow Forest (Riparian Forest)	0.45
Riparian Forest (Southern Riparian Forest)	0.10
Riparian Scrub (Mulefat Scrub)	0.05
Total	0.60

* Acreage presented in this table includes off-site areas within the project study area.

Riparian Forest (Southern Willow Forest): 0.45 acres in study area

Riparian forest (southern willow forest), also described as southern arroyo willow forest (Oberbauer et al. 2008), is a winter-deciduous riparian forest dominated by broad-leafed trees and arroyo willow. Typically consisting of a moderately tall, closed, or nearly closed canopy, with an understory of shrubby willows (Oberbauer et al. 2008). Riparian forest (southern willow forest) is characterized by the presence of several species besides arroyo willow, including Douglas' sagewort (*Artemisia douglasiana*), mulefat (*Baccharis salicifolia*), manroot (*Marah macrocarpus*), California sycamore, Fremont cottonwood (*Populus fremontii*), black cottonwood (*Populus trichocarpa*), Goodding's willow (*Salix gooddingii*), narrowleaf willow (*Salix exigua*), yellow willow (*Salix lasiandra*), and stinging nettle (*Urtica dioica* ssp. *holosericea*) (Oberbauer et al. 2008). Riparian forest (southern willow forest) often occurs in sub-irrigated and frequently overflowed areas along rivers and streams that are perennially wet.

Southern willow scrub occurs in patches within the project study area and is characterized by a mixed strata including Goodding's willow, arroyo willow, and mulefat, with some upland species, including broom baccharis (*Baccharis sarathroides*), sparsely intermixed (Figure 2).

Riparian Forest (Southern Riparian Forest): 0.10 acres in study area

Riparian forest (southern riparian forest), sometimes described as simply southern riparian forest (Oberbauer et al. 2008), is a dense riparian forest that is characterized by California sycamore and cottonwood (*Populus* spp.), as well as a variety of other wetland plant species. Riparian forest (southern riparian forest) occurs along streams and rivers.

There is a single small patch of riparian forest (southern riparian forest) in the north end of the study area that is directly adjacent to the riparian forest (southern willow forest) as well as the proposed geotechnical investigation impact alignment and consists of Fremont cottonwood trees.

Riparian Scrub (Mulefat Scrub): 0.05 acres in study area

Mulefat scrub is a relatively low (2–3 meters), dense, shrubby plant community that occurs in riparian habitats, edges of catchment basins, and in canyons. It is dominated by mulefat (*Baccharis salicifolia*), and may contain a small number of arroyo willows, upland shrubs, and facultative wetland herbs such as California mugwort.

There are scattered patches of mulefat scrub stands along the western side of the project study area (Figure 2). The patches are relatively small and contain a some upland species sparsely intermixed, including broom baccharis and thick leaved yerba santa (*Eriodictyon crassifolium*). The mulefat scrub is located adjacent to and in association with the riparian forest (southern willow forest).

METHODS

Focused surveys for the least Bell's vireo were conducted for the project on April 10, 20, and 30, May 10 and 21, and June 11 and 21, 2018 by Scott Gressard and on July 2, 2018 by Jake Marcon. Approximately 460 linear feet of suitable riparian habitat were surveyed that included the entire width of the basin. The basin varies in width from approximately 210 feet to 250 feet. Off-site areas to the west were surveyed and included as part of the study area in order to establish the territory boundaries for least Bell's vireo, if present.

A federal recovery permit is not required to conduct surveys for the least Bell's vireo. The currently accepted USFWS protocol (USFWS 2001) states that eight site visits should be

conducted with approximately 10-day intervals between visits. Surveys were conducted between dawn and 11:00 a.m. and were not conducted during periods of excessive or abnormal cold, heat, wind, rain, or other inclement weather. Surveys were conducted between April 10 and July 31, as dictated in the protocol.

The survey method consisted of slowly walking a systematic, meandering transect within and adjacent to all suitable habitat (i.e., riparian forest (southern willow forest), riparian forest (southern riparian forest), and riparian scrub (mulefat scrub)) in the project study area. A vegetation map (scale 1 inch = 200 feet) of the survey area was available to record any least Bell's vireo that were detected. Binoculars (10×50) were used to aid in detecting and identifying wildlife species. Weather conditions, time of day and season were appropriate for the detection of least Bell's vireo (Table 2).

Table 2
Survey Dates and Conditions: Least Bell's Vireo

Date	Hours	Personnel	Conditions
4/10/2018	0850–0950	SCG	10% cloud cover; 0–3 mph winds; 65°F–71°F
4/20/2018	0945–1040	SCG	0% cloud cover; 1-2 mph winds; 69°F–70°F
4/30/2018	0945–1050	SCG	100-90% cloud cover; 1-4 mph winds; 63°F–66°F
5/10/2018	1010–1100	SCG	100-50% cloud cover; 1–3 mph winds; 65°F–69°F
5/21/2018	1000–1050	SCG	90-70% cloud cover; 1–5 mph winds; 65°F
6/11/2018	1000–1050	SCG	0% cloud cover, 1–3 mph winds; 74°F–75°F
6/21/2018	1010–1055	SCG	100-90% cloud cover; 1–3 mph winds; 69°F–70°F
7/2/2018	0745 - 0845	JAM	20% cloud cover; 0–1mph winds; 67°F–74°F

Personnel Key: SCG: Scott Gressard; JAM: Jake Marcon

RESULTS

There were no observations of the state- and federally listed endangered least Bell's vireo during the 2018 focused surveys. A total of 24 bird species were detected in the study area during focused surveys of the site (Appendix A). Common bird species observed include Anna's hummingbird (*Calypte anna*), house finches (*Carpodacus mexicanus*), and lesser goldfinches (*Spinus psaltria*). Brown-headed cowbirds (*Molothrus ater*), varying from two to four individuals, were observed on site. Site photographs are included in Appendix C. A copy of the field notes is included in Appendix D.

Please feel free to contact me at 858.997.6874 or at sgressard@dudek.com with questions or if you require additional information.

I certify that the information in this survey report and attached exhibits fully and accurately represent my work.

Sincerely,

Scott Gressard, MS
Environmental Specialist / Biologist

Att: *Figure 1, Regional Map*
Figure 2, Vicinity Map
Figure 3, Survey Routes/Special-Status Species Locations/Vegetation
Appendix A, Wildlife Species Observed on the Project Site
Appendix B, Site Photographs

cc: *Vipul Joshi, Dudek*

REFERENCES

Holland, R.F. 1986. *Preliminary descriptions of the terrestrial natural communities of California*. Nongame-Heritage Program, California Department of Fish and Game. 156 pp.

Oberbauer, T., M. Kelly, and J. Buegge. 2008. Draft Vegetation Communities of San Diego County. March 2008. Accessed June, 2018. http://www.sdcanyonlands.org/canyon-groups/canyon-group-resources/ canyon-enhancement-guide/189-canyon-enhancement-planning-guide-materials.

Sogge, M.K., Ahlers, Darrell, and S.J. Sferra. 2010. *A natural history summary and survey protocol for the southwestern willow flycatcher.* U.S. Geological Survey Techniques and Methods 2A-10. 38 p.

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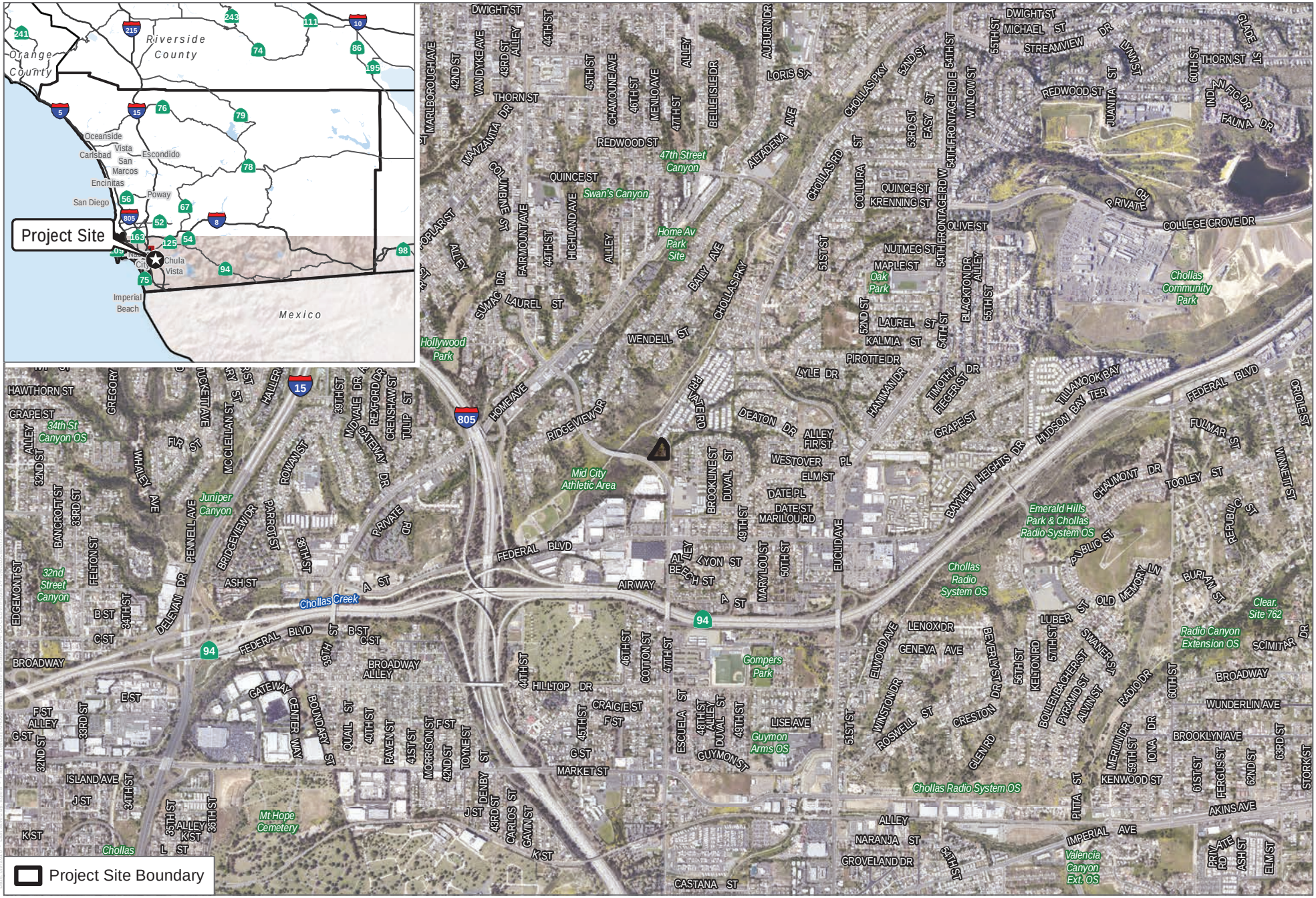


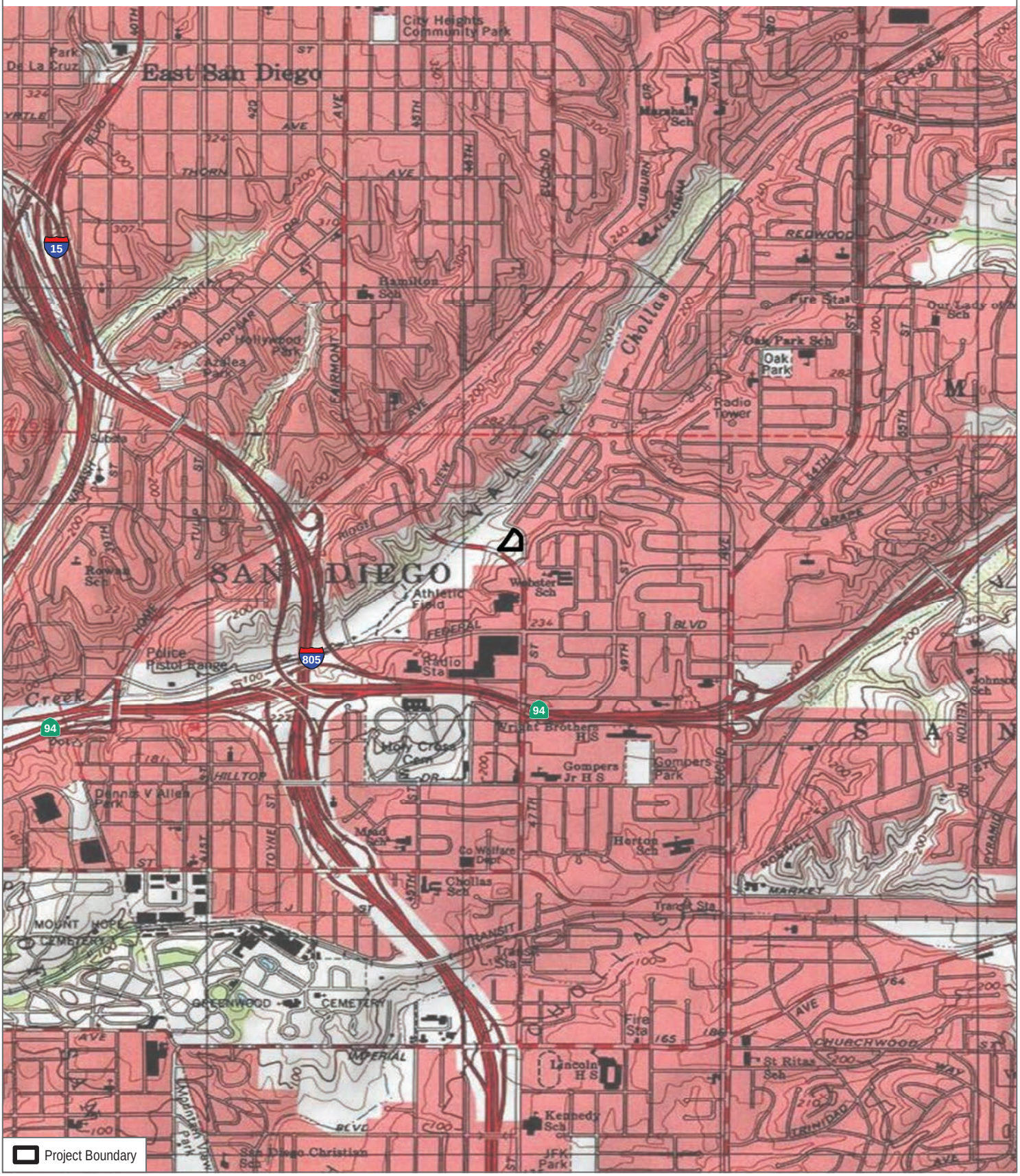
SOURCE: SanGIS 2017

FIGURE 1 **(LBVI)**

Project Location

DUDEK

0 1,000 2,000 Feet



SOURCE: USGS 7.5-Minute Series National City Quadrangle

DUDEK

0 1,000 2,000 Feet

FIGURE 2 **(LBVI)**

USFWS CAGN Notification

Focused Least Bell's Vireo Survey Report for Geotechnical Investigations
at the Proposed Fairmount Avenue Fire Station Project, San Diego, California

SOURCE: SanGIS 2017, 2018

DUDEK

0 50 100 Feet

FIGURE 3 **(LBVI)**

LBVI Survey Routes

Focused Least Bell's Vireo Survey Report for Geotechnical Investigations at the Proposed Fairmount Avenue Fire Station Project, San Diego, California

APPENDIX A

Wildlife Species Observed on the Project Site

APPENDIX A
Wildlife Species Observed on the Project Site

BIRD

BLACKBIRDS, ORIOLES AND ALLIES

ICTERIDAE—BLACKBIRDS

Icterus cucullatus—hooded oriole

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—bushtit

EMBERIZINES

EMBERIZIDAE—EMBERIZIDS

Melospiza melodia—song sparrow

Melozone crissalis—California towhee

FINCHES

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Spinus psaltria—lesser goldfinch

Spinus tristis—American goldfinch

Haemorhous mexicanus—house finch

FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Sayornis nigricans—black phoebe

Tyrannus vociferans—Cassin's kingbird

HAWKS

ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES

Accipiter cooperii—Cooper's hawk

HERONS AND BITTERNS

ARDEIDAE—HERONS, BITTERNS, AND ALLIES

Egretta thula—snowy egret

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird
Selasphorus rufus—rufous hummingbird

JAYS, MAGPIES AND CROWS

CORVIDAE—CROWS AND JAYS

Corvus brachyrhynchos—American crow
Corvus corax—common raven

MOCKINGBIRDS AND THRASHERS

MIMIDAE—MOCKINGBIRDS AND THRASHERS

Mimus polyglottos—northern mockingbird

OLD WORLD WARBLERS AND GNATCATCHERS

SYLVIIDAE—SYLVIID WARBLERS

Polioptila californica californica—coastal California gnatcatcher

PIGEONS AND DOVES

COLUMBIDAE—PIGEONS AND DOVES

Zenaida macroura—mourning dove
* *Columba livia*—rock pigeon (rock dove)

SWALLOWS

HIRUNDINIDAE—SWALLOWS

Stelgidopteryx serripennis—northern rough-winged swallow

SWIFTS

APODIDAE—SWIFTS

Aeronautes saxatalis—white-throated swift

WOOD WARBLERS AND ALLIES

PARULIDAE—WOOD-WARBLERS

Oreothlypis celata—orange-crowned warbler

WRENS

TROGLODYTIDAE—WRENS

Thryomanes bewickii—Bewick's wren

WRENTITS

TIMALIIDAE—BABBLERS

Chamaea fasciata—wrentit

* signifies introduced (non-native) species

APPENDIX B

Site Photographs

Appendix B – Site Photographs

Photo 1: Photo taken from footpath north west of site looking east with mixed chaparral in the foreground and riparian forest visible beyond.

Photo 2: Photo taken looking south at coastal sage scrub (*Baccharis*-dominated) habitat situated just west of the project site (Fairmount Avenue bridge visible in background).

Appendix B – Site Photographs

Photo 3: Photo taken facing south east along 47th Street of disturbed land within and adjacent to the project access route.

Photo 4: Photo taken looking south from 47th Street towards the project site with riparian forest (southern riparian forest) vegetation visible in the foreground.

Appendix B – Site Photographs

Photo 5: Photo taken facing south west looking at mixed chaparral vegetation in the foreground and riparian forest (southern willow forest) in the background on the project site.

Photo 6: Photo taken facing south looking at coastal sage scrub vegetation on the east side of the project site with the Fairmount Avenue bridge visible in the background.

Appendix B – Site Photographs

Photo 7: Photo taken facing north west looking down into the project site with coastal sage scrub in the foreground and riparian forest (southern willow forest) and riparian forest (southern riparian forest) in the background.

Appendix B – Site Photographs

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Appendix G

Coastal California Gnatcatcher Survey Report

DUDEK

MAIN OFFICE
605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 T 800.450.1818 F 760.632.0164

August 2, 2018 7643-59

U.S. Fish and Wildlife Service
Attention: Recovery Permit Coordinator
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

Subject: ***Focused California Gnatcatcher Survey Report for Geotechnical Investigations at the Proposed Fairmount Avenue Fire Station Site, City of San Diego, California***

Dear Recovery Permit Coordinator:

This report documents the results of a protocol-level presence/absence survey for the coastal California gnatcatcher (*Polioptila californica californica*; gnatcatcher). The focused survey was conducted, within the Geotechnical Investigation Project impact footprint and within the 14.5-acre area (300-ft buffer) surrounding the footprint of the proposed fire station (study area), located in the City of San Diego, California (Figure 1).

The gnatcatcher is a federally listed threatened species and a California Department of Fish and Wildlife (CDFW) Species of Special Concern. It is closely associated with coastal sage scrub habitat and typically occurs below elevations of 950 feet above mean sea level (AMSL) and on slopes less than 40%, but gnatcatchers have been observed at elevations greater than 2,000 feet AMSL. The species is threatened primarily by loss, degradation, and fragmentation of coastal sage scrub habitat and is also impacted by brown-headed cowbird (*Molothrus ater*) nest parasitism.

LOCATION AND EXISTING CONDITIONS

The proposed Fairmount Avenue Fire Station site is located in the City of San Diego, California (City). Specifically, the proposed Geotechnical Investigations will be conducted at the proposed Fairmount Avenue Fire Station project, which is located within the City Heights Community Planning Area (District 9) north of the intersection of 47th Street and Fairmount Avenue, situated on the west side of 47th Street (Figure 2).

The site is located on the U.S. Geological Service (USGS) 7.5 minute National City quadrangle map. The elevation in the study area ranges from approximately 135 feet to 200 feet above mean sea level (AMSL). According to the San Diego County Soil Survey, two soil types including made land and Huerohuero loam is mapped within the Study Area (Bowman 1973).

The Project is within the City's Multiple Species Conservation Program (MSCP) Subarea Plan, and portions of the proposed Fairmount Avenue Fire Station study area are located within and adjacent to the City's Multiple Habitat Planning Area (MHPA), however the Geotechnical Investigation Project footprint does not intersect the MHPA boundary.

Current land uses within and immediately surrounding the study area include the Leisureland mobile home park, single-family residential development, neighborhood streets, sidewalks, traffic (vehicle and pedestrian), and open space associated with an urban canyon to the west.

VEGETATION COMMUNITIES

Vegetation types that potentially support California gnatcatchers within the focused survey area include coastal sage scrub and mixed chaparral communities occurring adjacent to coastal sage scrub. All portions of potentially suitable habitat within 300 feet of the proposed project footprint were surveyed for gnatcatchers. Gnatcatcher suitable habitat communities are described below.

Coastal sage scrub (including disturbed variety) is a native vegetation community that, according to Oberbauer et al. (2008), is composed of a variety of soft, low, aromatic shrubs, characteristically dominated by drought-deciduous species—such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and sages (*Salvia* spp.)—with scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*) and laurel sumac (*Malosma laurina*).

Coastal sage scrub (Baccharis-dominated) is a native vegetation community that, according to Oberbauer et al. (2008), typically occurs in nutrient-poor soils and is composed primarily of broom baccharis (*Baccharis sarothroides*) or coyote bush (*Baccharis pilularis*). Other drought-deciduous species may also be sparsely intermixed—such as California sagebrush, California buckwheat, and saw toothed goldenbush (*Hazardia squarrosa*).

Coastal sage scrub (Rhus-dominated) is a native vegetation community that is a variety of general coastal sage scrub typically occuring in nutrient-poor soils and is composed primarily of lemonadeberry. Other drought-deciduous species may also be sparsely intermixed—such as California sagebrush, California buckwheat, broom baccharis, and laurel sumac.

Mixed chaparral is a native vegetation community supporting dense stands of broad-leaved sclerophyll shrubs, typically deep-rooted and about 1.5-3 meters tall. There is typically little to no understory vegetation, but often substantial leaf litter. This community is commonly dominated by chamise (*Adenostoma fasciculatum*), manzanitas (*Arctostaphylos* spp.), and blue-colored lilacs (*Ceanothus* spp.) (Holland 1986).

METHODS

The project site is within the City's MSCP; thus, in accordance with U.S. Fish and Wildlife Service (USFWS) (USFWS 1997) survey protocol, three surveys were conducted. All potentially suitable habitat was surveyed by Dudek wildlife biologist Paul Lemons (Recovery Permit No TE051248). Details and conditions for each survey visit are summarized in Table 1.

Table 1
Survey Details and Conditions

Date	Biologist	Time	Survey Conditions (temp., skies, wind)
6/21/2018	P. Lemons	0620–0830	64–66 Degrees Fahrenheit (°F), 100–0% cloud cover (cc), 0–2 mile per hour (mph) winds
7/2/2018	P. Lemons	0800–1000	65–73 °F, 10–0%cc, 0–4 mph winds
7/10/2018	P. Lemons	0630–0910	71–75 °F, 100–80%cc, 1–5 mph wind

The entire project area was covered on-foot during each survey visit for 100% visual and audible coverage of the survey area; routes of the survey are illustrated on Figure 3. Survey visits were conducted at minimum one-week intervals (i.e., 7-day) and were performed in conformance with the currently accepted protocol of the USFWS *Coastal California Gnatcatcher* (*Polioptila californica californica*) *Presence/Absence Survey Protocol* (USFWS 1997).

A tape of recorded gnatcatcher vocalizations was played approximately every 75–100 feet to induce responses from potentially present gnatcatchers. Tape-playback was terminated immediately upon detection of any gnatcatchers to minimize the potential for harassment. A 250-scale (1 inch = 250 feet) aerial photograph of the site overlaid with 300-foot buffer around the project boundary and a vegetation map was used to identify suitable habitats and map any gnatcatchers detected. Binoculars (10x50 magnification) were used to aid in detecting and identifying bird species. Weather conditions, time of day, and season were appropriate for the detection of gnatcatchers.

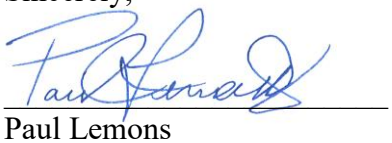
RESULTS

Gnatcatchers were observed within the proposed project footprint and within 300 feet of the proposed project on all three survey passes. No gnatcatcher nesting behavior was observed during the focused surveys, however it is likely that gnatcatchers are breeding in the area. Locations of observed gnatcatchers are shown on Figure 3.

A total of 29 species of wildlife were detected during the survey, which is provided in Appendix A. Please contact me at 760.479.4238 with questions or if you require additional information.

I certify that the information in this survey report and attached exhibits fully and accurately represents my work.

Sincerely,



Paul Lemons
Permit # TE051248

Att: Figure 1, Regional Map
Figure 2, Vicinity Map
Figure 3, Survey Results Map
Appendix A, List of Wildlife Species Observed or Detected

LITERATURE CITED

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American Ornithologists' Union. 1998. Check-list of North American Birds, 7th edition. American Ornithologists' Union. Washington D. C.

Banks, R.C., R.T. Chesser, C. Cicero, J.L. Dunn, A.W. Kratter, I.J. Lovette, P.C. Rasmussen, J.V. Remsen, Jr., J.D. Rising, and D.F. Stotz. 2007. Forty-eighth supplement to the American Ornithologists' Union *Checklist of North American Birds. Auk* 124: 1109–1115.

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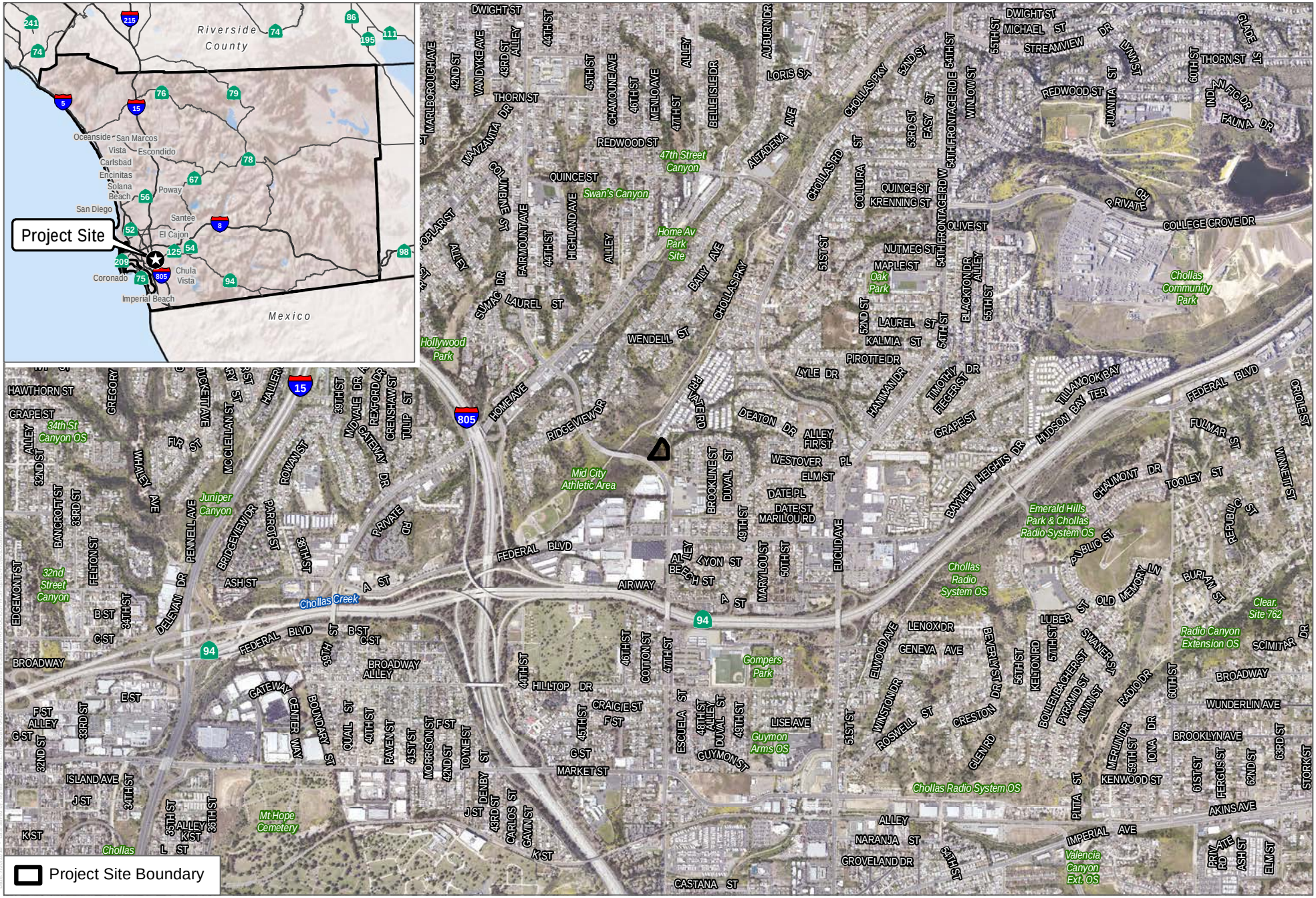
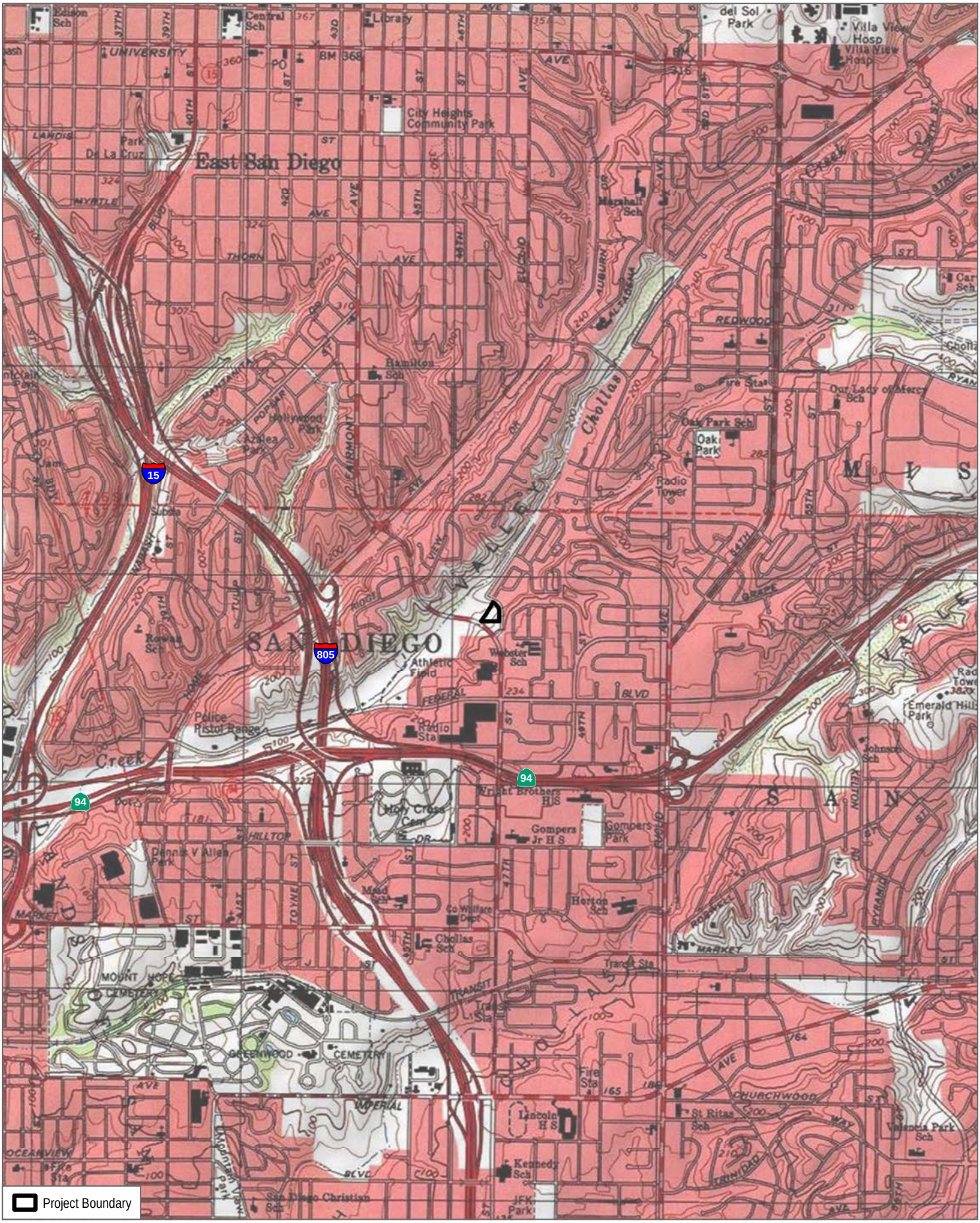


SOURCE: SanGIS 2017

FIGURE 1

Project Location



SOURCE: USGS 7.5-Minute Series National City Quadrangle

FIGURE 2

USFWS CAGN Notification

2018 Focused California Gnatcatcher Survey Report for Geotechnical Investigations at the Proposed Fairmount Avenue Fire Station Site, City of San Diego, California

DUDEK

SOURCE: SanGIS 2017, 2018

DUDEK

0 50 100 Feet

FIGURE 3

CAGN Observations and Survey Routes

2018 Focused California Gnatcatcher Survey Report for Geotechnical Investigations at the Proposed Fairmount Avenue Fire Station Site, City of San Diego, California

APPENDIX A

List of Wildlife Species Observed or Detected

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AMPHIBIAN

FROGS

HYLIDAE—TREEFROGS

Pseudacris hypochondriaca—Baja California treefrog

BIRD

BLACKBIRDS, ORIOLES AND ALLIES

ICTERIDAE—BLACKBIRDS

Icterus cucullatus—hooded oriole

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—bushtit

EMBERIZINES

EMBERIZIDAE—EMBERIZIDS

Melospiza melodia—song sparrow

Melozone crissalis—California towhee

FINCHES

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Spinus psaltria—lesser goldfinch

Spinus tristis—American goldfinch

Haemorhous mexicanus—house finch

FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Sayornis nigricans—black phoebe

Tyrannus vociferans—Cassin's kingbird

HAWKS

ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES

Accipiter cooperii—Cooper's hawk

HERONS AND BITTERNS

ARDEIDAE—HERONS, BITTERNS, AND ALLIES

Egretta thula—snowy egret

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird

Selasphorus rufus—rufous hummingbird

JAYS, MAGPIES AND CROWS

CORVIDAE—CROWS AND JAYS

Corvus brachyrhynchos—American crow

Corvus corax—common raven

MOCKINGBIRDS AND THRASHERS

MIMIDAE—MOCKINGBIRDS AND THRASHERS

Mimus polyglottos—northern mockingbird

OLD WORLD WARBLERS AND GNATCATCHERS

SYLVIIDAE—SYLVIID WARBLERS

Polioptila californica californica—coastal California gnatcatcher

PIGEONS AND DOVES

COLUMBIDAE—PIGEONS AND DOVES

Zenaida macroura—mourning dove

* *Columba livia*—rock pigeon (rock dove)

SWALLOWS

HIRUNDINIDAE—SWALLOWS

Stelgidopteryx serripennis—northern rough-winged swallow

SWIFTS

APODIDAE—SWIFTS

Aeronautes saxatalis—white-throated swift

WOOD WARBLERS AND ALLIES

PARULIDAE—WOOD-WARBLERS

Oreothlypis celata—orange-crowned warbler

WRENS

TROGLODYTIDAE—WRENS

Thryomanes bewickii—Bewick's wren

WRENTITS

TIMALIIDAE—BABBLERS

Chamaea fasciata—wrentit

INVERTEBRATE

BUTTERFLIES

PIERIDAE—WHITES AND SULFURS

Pieris rapae—cabbage white

MAMMAL

HARES AND RABBITS

LEPORIDAE—HARES AND RABBITS

Sylvilagus bachmani—brush rabbit

OPOSSUMS

DIDELPHIDAE—NEW WORLD OPOSSUMS

* *Didelphis virginiana*—Virginia opossum

SQUIRRELS

SCIURIDAE—SQUIRRELS

Spermophilus (Otospermophilus) beecheyi—California ground squirrel

* signifies introduced (non-native) species