

BIOLOGICAL RESOURCES TECHNICAL REPORT
for the
Solana Torrance Project
City of Torrance, California

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
ACOE	U.S. Army Corps of Engineers
BCC	Birds of Conservation Concern
BMP	best management practice
BMZ	brush management zone
BTR	biological resources technical report
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
ESA	Endangered Species Act
GIS	Geographic Information System
GPS	Global Positioning System
HCP	habitat conservation plan
mph	miles per hour
NCCP	natural community conservation plan
NHD	National Hydrography Dataset
NPDES	National Pollution Discharge Elimination System
NRCS	National Resources Conservation Service
NWI	National Wetlands Inventory
OHWM	ordinary high water mark
PCE	primary constituent element
SSC	Species of Special Concern
SWPPP	storm water pollution prevention plan
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WBWG	Western Bat Working Group

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EXECUTIVE SUMMARY

The 24.67-acre Solana Torrance Project (Project) property boundary is located in the southern portion of the City of Torrance, California. Dudek biologists surveyed the property boundary and a 500-foot buffer (together known as the study area) between April 2015 and June 2016 to evaluate the presence and potential for special-status biological resources to occur within the study area. Although the study area focused on the property boundary, including a 500-foot buffer, the proposed development area consists of the construction of a multifamily condominium with dwelling units within an approximate 6.06-acre area in the northwestern portion of the property boundary. The remainder of the property boundary not proposed to be developed is proposed to be open space preserve. The proposed development area contains 3.03 acres of upland communities (i.e., California sagebrush scrub, disturbed California sagebrush scrub, and non-native grassland), 0.39 acres of woodland communities (toyon chaparral), and 2.63 acres of non-native land covers (i.e., developed land, disturbed land, ornamental, and upland mustards). Additionally, a 100-foot brush management zone (BMZ) will be maintained from the building limits, and will impact 0.73 acre of upland communities (i.e., California sagebrush scrub, disturbed California sagebrush scrub, and non-native grassland); 0.23 acre of woodland community (toyon chaparral), and 0.03 acre of non-native land cover (i.e., disturbed land). Toyon chaparral was the only California Department of Fish and Wildlife (CDFW) sensitive vegetation community mapped within the proposed Project development footprint and BMZ areas. Impacts to this vegetation community were determined to be insignificant given its limited extent (less than 1 acre) within the property boundary and proposed Project development footprint, the steep slopes associated with this habitat, isolated nature of this habitat to other adjoining areas, and thus, low quality habitat to support special-status species. Jurisdictional waters or wetlands do not occur within the proposed Project development footprint; thus, would not be impacted.

Focused surveys for special-status plants, burrowing owl (*Athene cunicularia*; U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern/CDFW Species of Special Concern), and coastal California gnatcatcher (*Poliophtila californica californica*; Federally Threatened/CDFW Species of Special Concern and Watch List species) were conducted between April and June 2016. No special-status plants, burrowing owl, or coastal California gnatcatchers were observed during focused and/or general surveys conducted in 2016 within the study area. Special-status plants and coastal California gnatcatcher are not anticipated to occur within the study area, including the proposed Project development footprint. Although not detected during focused surveys, burrowing owl has a low to moderate potential to occur within the non-native grassland and disturbed areas within the proposed study area in the future. Cooper's hawk (*Accipiter cooperii*; CDFW Watch List species) was the only special-status species detected

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during the April 2016 site visit. A male Cooper's hawk was observed foraging over the study area during the site visit; however, this species did not land in the study area, nor did it exhibit nesting behavior. Although active nests were not detected during the site visits, the ornamental trees (i.e., eucalyptus and pine trees) in the northwestern portion of the study area provide suitable nesting substrate for this species, as well as other nesting raptors. Thus, this species could nest within the study area in the future. Although there is a low to moderate potential for western mastiff bat (*Eumops perotis californicus*) to forage or roost within the study area, construction is proposed to occur during daylight hours, and there is limited suitable habitat to support this species. Additionally, the proposed development footprint is proposed to occur along the lower slopes. As such, impacts to this species are not anticipated. There is no suitable habitat for additional special-status species to occur within the study area. Additionally, the study area does not occur within an established regional wildlife corridor and habitat linkage, or conflict with any habitat conservation plans (HCP), natural community conservation plan (NCCP), or other local or regional plans.

Significant impacts of the proposed Project on biological resources include direct impacts to burrowing owl and nesting birds, as well as potential indirect impacts to special-status vegetation communities and special-status wildlife species. Indirect impacts to sensitive vegetation communities requires disturbance limits be marked and biological monitoring during vegetation removal to reduce the potential for direct impacts to special-status vegetation communities outside of the proposed Project development footprint, implementation of general best management practices (BMPs), and review of the landscape design to ensure that invasive plants are not included. Impacts to nesting birds would require pre-construction nesting bird surveys be conducted and impacts to nesting birds be avoided. Impacts to burrowing owl would require pre-construction burrowing owl surveys be conducted and avoidance to occupied burrowing owl habitat (i.e., suitable open space areas, low slopes, with suitable burrows greater than 4-inch diameter) be maintained, as well as the development of a Burrowing Owl Relocation and Mitigation Plan with guidelines for passive relocation, if detected. Indirect impacts to special-status wildlife species would require the demarcation of construction limits, biological monitoring during vegetation removal, implementation of BMPs, and review of landscape design to ensure invasive plants are not included. These mitigation measures would reduce impacts to biological resources to a less-than-significant level.

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1 INTRODUCTION

The Project is located on privately owned land within the City of Torrance, Los Angeles County, California. The property boundary is composed of 24.67 acres of undeveloped land within the southern portion of the City of Torrance. However, the Project development is proposing to construct a multifamily condominium with 300 dwelling units within an approximate 6.06-acre area of the northeastern portion of the property. Additionally, a BMZ would be maintained 100-foot area from the building limit. The remaining 17.62 acres of the property boundary not proposed for development, is proposed to remain in place as open space preserve. The property is located immediately adjacent to and west of State Route 107 (SR-107)/Hawthorne Boulevard and approximately 0.5 mile south of State Route 1 (SR-1) (Figures 1 and 2).

The purpose of this report as follows: (1) to describe the conditions of biological resources within the proposed Project development footprint in terms of vegetation, flora, jurisdictional waters and wetlands, wildlife, and wildlife habitats; (2) to quantify potential direct and indirect impacts to biological resources that will result from the proposed Project; (3) to discuss those impacts in terms of biological significance in view of federal, state, and local laws and City policies; and (4) to discuss mitigation measures that will reduce significant biological impacts to a less-than-significant level consistent with federal, state, and local regulations, including the California Environmental Quality Act (CEQA).

1.1 Project Description

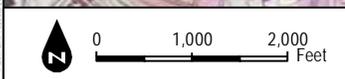
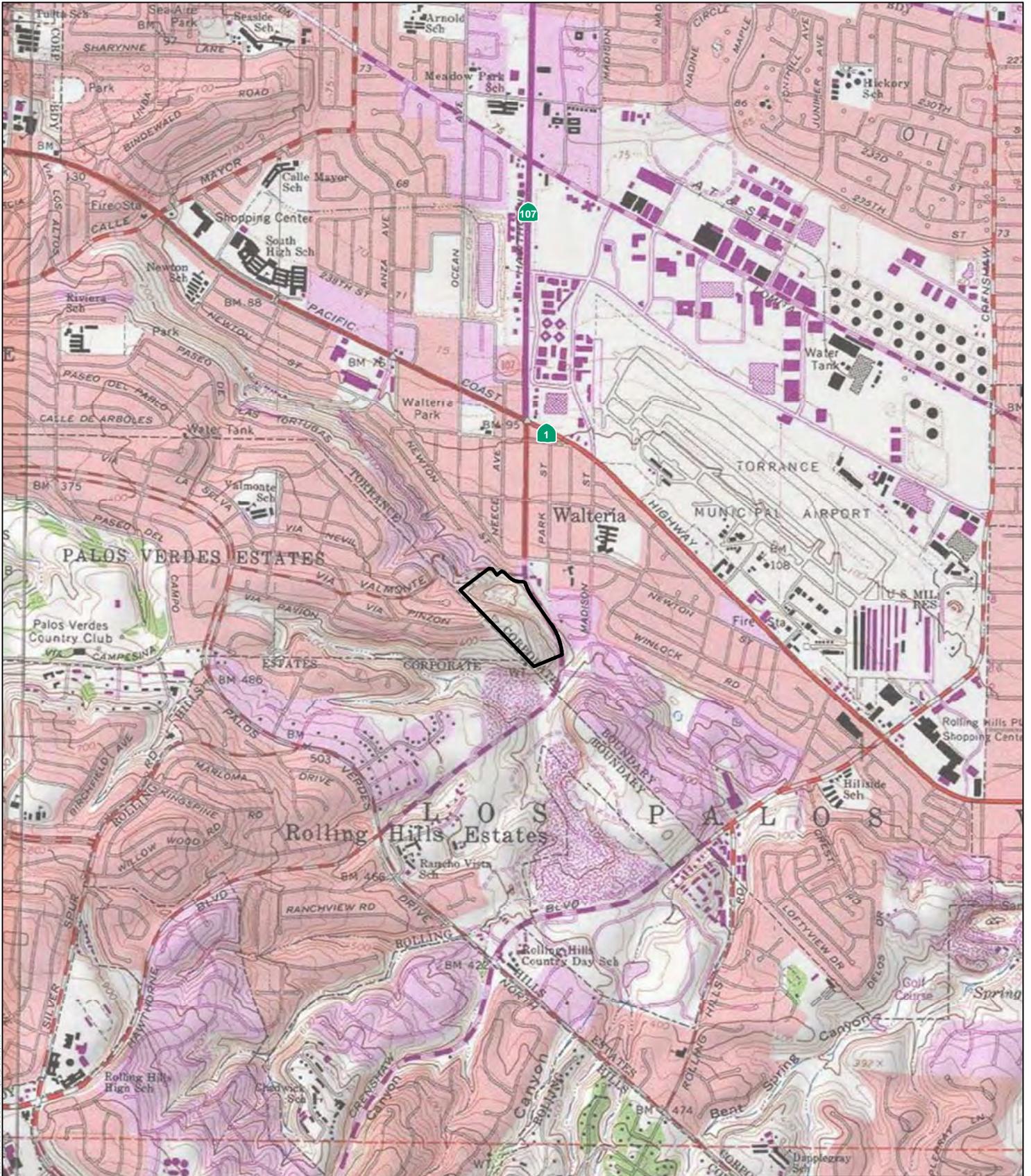
The Project includes the proposed development of a multifamily condominium complex with buildings ranging between 3 to 5 stories in height, constructed over a parking garage with 676 parking spaces, leasing office, and community room/fitness. The proposed Project is estimated to include 300 dwelling units with a minimum lot size of 264,236 square feet (6.06 acres), which is proposed to occur within a disturbed and terraced area along the northeastern portion of the proposed Project development footprint, east of a moderate to steep hillside. Additionally, a BMZ will be maintained 100 feet from the edge of buildings, which will be maintained free of brush, flammable vegetation and combustible growth in accordance with Chapter 5 of the City of Torrance Municipal Code (City of Torrance 2016). The proposed Project is within an area zoned as light agricultural (A-1) within the City of Torrance Property Zoning Map (City of Torrance 2015). The General Plan land use designation for the proposed Project development footprint is low density residential (R-LO), which is located within the Hillside Neighborhood District (City of Torrance 2010). The Hillside Neighborhood District (District) is primarily composed of single-family homes. The scenic qualities and larger residential lots are important to the community within this District; thus, protection of views, light, air, and privacy takes precedence within the Hillside Overlay Zone (City of Torrance 2010).

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 Property Boundary

SOURCE: USGS 7.5-Minute Series Torrance Quadrangle

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Solana Torrance Project

FIGURE 2
Vicinity Map

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2 PROJECT SETTING

2.1 Project Location

The approximately 25-acre Solana Torrance property is located on privately owned land located west and north of Hawthorne Boulevard, south of Via Valmonte, and east of Palos Verdes Drive North within the City of Torrance in southwestern Los Angeles County, approximately 18 miles southwest of downtown Los Angeles (Figure 1). The property is directly adjacent to and west of SR-107/Hawthorne Boulevard and approximately 0.5 mile south of SR-1. More specifically, the property is located southeast of Palos Verdes Estates and north of Rolling Hills Estates. Ernie J. Howlett Park is located directly to the west. The proposed Project development is planned to occur within an approximate 6.06-acre area within an old mining pit and terraced area located southwest of the intersection of Via Valmonte and SR-107/Hawthorne Boulevard in the northeastern portion of the property. The Project is located in the U.S. Geological Survey (USGS) 7.5-minute Torrance quadrangle map, Township 48 North, Range 14 West, and Sections 28 and 33 (USGS 1981).

2.2 Climate

The proposed Project development footprint is located approximately 2.5 miles from the Pacific Ocean. The City of Torrance has a Mediterranean climate with cool, wet winters and warm, dry summers. August is the average warmest month with an average high temperature of 79 degrees Fahrenheit (°F) and December and January are the coolest months on average with a low of 44°F. Rainfall occurs primarily between November and March, with the maximum average precipitation occurring in January. According to the Western Regional Climate Center (2016), the mean annual rainfall for the region is 14.46 approximate inches of rain per year.

2.3 Soils

Soil mapping is from the County of Los Angeles Department of Public Works Water Resources Division, Hydrology Section (2004). U.S. Department of Agriculture (USDA) National Resources Conservation Service (NRCS) Soil Survey Geographic database was also used to assist with soil descriptions (USDA and NRCS 2016). Soils within the property boundary are presented in Table 1. The soil types and spatial distributions of the soils within the Solana Torrance Project property boundary are presented within Figure 3. A brief description of the soil types based on USDA and NRCS (2016) is provided in the following text.

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Table 1
Soils within the Solana Torrance Project Site

Soil Mapping Unit	Acres
Diablo Clay Loam	16.2
Yolo Sandy Loam	3.5

Source: County of Los Angeles 2004.

Diablo clay loam occurs within a majority of the Project area and is extensively present throughout central and southern Coastal California. This soil is well drained, resulting in slow runoff when soil is dry as well as slow permeability. Diablo soil series is found on rolling to steep uplands consisting of 5% to 50% slopes ranging between 25 and 3,000 feet AMSL.

Yolo Sandy loam is located within the northwestern portion of the Project area and is extensively distributed throughout central California and within the valleys of coastal California. Yolo soils series is well drained with slow to medium runoff and moderate permeability. This soil is found on level to moderately sloping alluvial fans ranging from sea level to 2,400 feet AMSL.

2.4 Terrain

Elevations within the property boundary range from 174 feet to 465 feet AMSL. A moderate to steep hillside occurs throughout the middle of the approximate 25-acre property, with the top of the hill located toward the northwestern corner of the property boundary and moderately sloping toward the southern portion of the property. The hill slopes steeply along its eastern extent and more moderately to the west, with a disturbed depression located within the northeastern extent of the property boundary.

Elevations range from 174 feet to 240 feet AMSL within the northeastern portion of the property boundary where the proposed Project development is planned to occur. The majority of the proposed Project development footprint occurs within a disturbed depression area, with terracing occurring along the southern portion of the proposed Project development footprint. The proposed Project development footprint was formerly used for mining operations and is currently composed of graded areas with elevations around 174 feet AMSL within the center of the depression. The proposed Project development footprint ranges between approximately 200 feet AMSL along the northern and eastern portions of the proposed Project development footprint, and 230 feet to 240 feet AMSL along the southern and western portions of the proposed Project development footprint.



SOURCE: Bing Maps, 2016

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Solana Torrance Project

FIGURE 3
Hydrologic Setting

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2.5 Land Uses

2.5.1 On-Site Land Uses

The property is undeveloped, and primarily surrounded by residential and commercial buildings. Within the property boundary, there is a high proportion of disturbed and non-native vegetation, while the northern portion of the site contains a small section of undisturbed coastal sage scrub leading up the eastern ridge of the hillside. There are numerous dirt roads and trails leading to the top of the hill located within the property boundary. These roads and trails also connect a residential area by the passage of Via Pavion and Via Pinzon roads, as well as Ernie J Howlett Park and SR-107/Hawthorne Boulevard.

The proposed Project development footprint was formerly used for mining operation and thus, has experienced a lot of disturbance over the years, which is evident based on the numerous graded roads, trails, and bike trails throughout the proposed Project development area. Minimal vegetation dominated by non-native grassland occurs within this area.

2.5.2 Surrounding Land Uses

The areas surrounding the property boundary are dominated by residential and commercial development. The City of Torrance is bordered by the Cities of Rolling Hills Estates and Palos Verdes Estates to the south, Lomita and Carson to the east, Gardena to the northeast, Palos Verdes Estates to the northwest, and the City of Redondo Beach and the Pacific Ocean to the west. The City of Rolling Hills Estates and Palos Verdes Peninsula encompass and are adjacent to the property boundary along its southern boundary. Palos Verde Landfill is located 0.15 mile southeast from the property boundary with Rolling Hills Country Club 1.2 miles to the east. Torrance Airport is 0.5 mile northeast of the property boundary, while both Palos Verde Gold Club (0.8 mile) and the Pacific Ocean (2.5 miles) are to the west. There is minimal open space within the general vicinity of the property boundary; however, the previously mentioned Torrance Airport, Palos Verde Landfill and golf resorts provide some open space. There are also small parks interspersed within the surrounding residential area including Ernie J Howlett, Via Nivel, Valmonte, De Portola and Walteria Parks.

2.6 Watersheds and Hydrology

The Project property is located within the Coastal Plain Hydrologic Area (HA) of the Los Angeles-San Gabriel River Unit (HU) (Figure 3). The Groundwater Basin Number is 4-11.03 (California's Groundwater Bulletin 118). The Los Angeles River is approximately 8.3 miles east of the property boundary and the San Gabriel River is approximately 15 miles east of the property boundary. The Los Angeles River flows southeast coming out of the Simi Hills and

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Santa Susana Mountains, making its way to the Pacific Ocean through the mouth at the City of Long Beach. The San Gabriel River flows south coming out of the San Gabriel Mountains and then turns west as it makes its way to the Pacific Ocean, into the outlet of Alamitos Bay between the Cities of Long Beach and Seal Beach. The closest drainage to the Project property is an unnamed stream located 0.14 mile west of the property boundary, which flows into Ernie Howlett Park. A number of other unnamed ephemeral drainages flow within the areas adjacent to the property boundary; however, there are no drainages that drain into the property boundary or study area (Figure 3).

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3 METHODS AND SURVEY LIMITATIONS

Data regarding biological resources present within the study area were obtained through a review of pertinent literature and through field reconnaissance, both of which are described in detail in the following text.

3.1 Literature Review

Special-status biological resources present or potentially present in the study area were identified through a literature search using the following sources:

- USFWS Critical Habitat and Occurrence Data (USFWS 2016a) within 5 miles of the Project area.
- CDFW California Natural Diversity Database (CNDDDB) (CDFW 2016a) was queried to compile a list of potentially occurring flora and fauna in the Torrance USGS 7.5-minute topographic quadrangle and surrounding six quadrangles.
- California Native Plant Society (CNPS) Inventory of Rare, Threatened, and Endangered Plants of California, 8th online edition (CNPS 2016), was searched to compose a list of potentially occurring flora in the Torrance USGS 7.5-minute topographic quadrangle and surrounding six quadrangle.
- USFWS National Wetlands Inventory (NWI) Geographic Information System (GIS) Data (USFWS 2016b).
- Los Angeles County GIS Data Portal searched for potential hydric soils (County of Los Angeles 2004).
- USGS National Hydrography Dataset (NHD) (USGS 2016).
- 1:200-scale aerial photographs and USGS 7.5-minute topographic quadrangles were reviewed for potential habitat and jurisdictional resources (Bing Maps 2016; Google Earth 2016; USGS 1981).

3.2 Field Reconnaissance

Between April 2015 and June 2016, Dudek conducted vegetation mapping, a habitat assessment for special-status species to occur, special-status plant surveys for early and late blooming species, focused surveys for burrowing owl (*Athene cunicularia*) and coastal California gnatcatcher (*Poliophtila californica californica*), and a jurisdictional delineation (Table 2). The jurisdictional delineation was conducted within the approximate 25-acre property boundary. The remainder of the biological surveys were conducted within the approximate 25-acre property

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boundary, including a 500-foot width from the property boundary (herein referred to as the study area). Table 2 lists all surveys considered in this biological resources technical report (BTR) and the dates, conditions, survey focus, and personnel for each survey.

Table 2
Survey Conditions

Date	Hours	Survey Focus	Conditions	Personnel*
4/26/2015	0830–1140	Site review, habitat assessment	Not Recorded	BAO
4/12/2016	0710–1000	BUOW Survey (1st Pass)	56°F–70°F, 0% cloud cover, no wind	KM, JCP
4/12/2016	1000–1440	Habitat Assessment; Special-Status Plant Survey (1st pass, early blooming plants); Vegetation Mapping	70°F–72°F, 0% cloud cover, no wind	KM, JCP
4/27/2016	0830–1015	CAGN Survey (1st Pass)	61°–64°F, 10%–20% cloud cover, 3–1 mph wind	KM
5/4/2016	0745–0835	CAGN Survey (2nd Pass)	58°–60°F, 100% cloud cover, 1–5 mph wind	KM
5/4/2016	0855–0935	BUOW Survey (2nd Pass)	60°–61°F, 100% cloud cover, 1–3 mph wind	KM
5/11/2016	0930–1030	CAGN Survey (3rd Pass)	64°F, 100% cloud cover, 1–5 mph wind	KM
5/23/2016	1145–1640	Jurisdictional Delineation	72°F–70°F, 30%–50% cloud cover, 1–3 mph wind	JP
5/25/2016	0920–1000	BUOW Survey (3rd Pass)	60°F–62°F, 1–3mph winds, 80% clouds	KM
5/25/2016	1015–1110	CAGN Survey (4th Pass)	65°F–68°F, 2–5 mph winds, 50%–80% clouds	KM
6/2/2016	0855–1000	CAGN Survey (5th Pass)	65°F–67°F, 0–5 mph winds, 0% clouds	KM
6/2/2016	1000–1130	Special-Status Plant Survey (2nd Pass, late blooming plants)	67°F–69°F, 0–1 mph winds, 0% clouds	KM
6/21/2016	0900–1000	BUOW Survey (4th Pass)	76°F–78°F, 3 mph winds, 0–10% clouds	KM
6/21/2016	0750–0850	CAGN Survey (6th Pass)	73°F–76°F, 3–5 mph winds, 0% clouds	KM

Personnel: BAO (Brock Ortega), KM (Karen Mullen) and JCP (Johanna C. Page)

Notes: °F = degrees Fahrenheit and mph= miles per hour.

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3.2.1 Vegetation Community and Land Cover Mapping

Vegetation communities on the property were mapped using the List of Vegetation Alliances and Associations (Natural Communities List; CDFG¹ 2010a), which is based on the *Manual of California Vegetation, Second Edition* (MCV2; Sawyer et al. 2009). As shown in Table 2, the mapping occurred in April 2016 by Dudek biologists Johanna Page and Karen Mullen. Vegetation communities were mapped in the field directly onto a 200-scale (1 inch = 200 feet) aerial map of the study area. Community classifications were selected based on site factors, descriptions, distribution, and characteristic species present within an area. Information such as dominant species and their associated cover, aspect, and visible disturbance factors were recorded. To create the vegetation community map, Dudek GIS technicians digitized the delineated vegetation boundaries from field maps using ArcGIS software. Holland (1986) was consulted as a resource for constituent plant species, but was not used for mapping.

3.2.2 Flora

The study area was walked thoroughly by Dudek Biologists Johanna Page and Karen Mullen, and all plant species encountered during the field surveys were identified and recorded. Those species that could not be immediately identified were brought into the laboratory for further investigation. Latin and common names for plant species with a California Rare Plant Rank (CRPR; formerly CNPS List) follow the California Native Plant Society On-Line Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2016). The Latin name for plant species without a California Rare Plant Rank follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2016), and common names follow the USDA Natural Resources Conservation Service Plants Database (USDA 2016). The study area was surveyed for habitat and soil conditions known to support special-status plant species. Habitat classification follows *The Manual of California Vegetation* (Sawyer et al. 2009). A compiled list of plant species observed within the property boundary is presented in Appendix A.

3.2.3 Fauna

The study area was walked by Dudek Biologists Johanna Page, Karen Mullen, and Brock Ortega, and all wildlife species, as detected during field surveys by sight, calls, tracks, scat, or other signs, were identified and recorded. In addition to species actually observed, expected wildlife

¹ As of January 2013, the California Department of Fish and Game (CDFG) changed its name to the California Department of Fish and Wildlife (CDFW). Where referring to documents/guidance published before the official name change, CDFG is used in this document; for all references after 2012, CDFW is used.

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usage of the site was determined according to known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. No trapping for special-status or nocturnal species was conducted. Latin and common names for vertebrate species referred to in this report follow Crother et al. (2012) for reptiles and amphibians, American Ornithologists' Union (2012) for birds, and Wilson and Reeder (2005) for mammals. A compiled list of wildlife species observed within the study area is presented in Appendix B.

3.2.4 Special-Status and/or Regulated Resources

The potential for special-status plant and wildlife species to occur on site was evaluated based on the elevation, vegetation communities, and level of disturbance of each site. Furthermore, their status and distribution in the vicinity as well as the results of plant and wildlife surveys conducted on site contributed to assessing potential of special-status species to occur. The following subsections detail the methods for special-status plant and wildlife surveys.

3.2.4.1 Focused Botanical Surveys

Focused special-status plant species surveys were conducted on April 12 and June 2, 2016, to determine the presence or absence of special-status early blooming and late blooming plants with potential to occur within the study area. Most of the focal species have a CRPR of 1B. The locations and number of special-status plant species were mapped when observed in the field. The survey also included a comprehensive botanical inventory of all plants identified within the study area (Appendix A).

3.2.4.2 Focused Burrowing Owl Surveys

A habitat assessment was conducted on April 4, 2016, to identify suitable habitat for burrowing owl (*Athene cunicularia*) in accordance with Appendix C (Habitat Assessment and Reporting Details) of CDFW's Staff Report on Burrowing Owl Mitigation (CDFG 2012). The habitat assessment consisted of pedestrian transects spaced approximately 30 meters (98 feet) apart to allow for 100% visual coverage of the property boundary. For a 500-foot buffer, only visual surveys were conducted as access to the privately owned parcels had not been granted. All burrows suitable for burrowing owl are mapped using a Global Positioning System (GPS).

Survey methods generally followed guidelines for breeding-season surveys in Appendix D (Breeding and Non-Breeding Season Surveys and Reports) of the Staff Report on Burrowing Owl Mitigation (CDFG 2012). Dudek biologists conducted four separate site surveys during the breeding season, and the first visit was conducted in conjunction with the habitat assessment. These surveys were conducted between February 15 and July 15 (following the CDFG 2012 protocol) on April 12, May 4, May 25, and June 21, 2016.

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Dudek Biologists Karen Mullen and Johanna Page conducted surveys during weather that is conducive to observing burrowing owls outside their burrows and detecting burrowing owl signs. Thus, surveys were not conducted during rain, high winds (winds greater than 12 mph), dense fog, temperatures over 90° Fahrenheit (°F), or temperatures less than 69°F. Further, surveys were not conducted within 7 days of a major rainstorm as it takes time to build owl sign after it washes away. Surveys were conducted in hours when burrowing owls are active, generally from approximately 6:00 a.m. until 10:30 a.m. (see Exhibit 3). Biologists were equipped with binoculars (7x35 to 10x50 power) and a map of the site showing all previously documented suitable burrows and/or burrowing owl locations at the site. Pedestrian transects are walked through all suitable habitat spaced between 7 and 20 meters (23 and 65 feet). Burrows were investigated for burrowing owl sign, including regurgitated castings of prey remains (pellets), scat (whitewash), and feathers, and the locations of any burrowing owls were recorded. Biologists mapped the locations of all burrows that were 11 centimeters (approximately 4 inches) or greater at the entrance. Areas of California ground squirrel (*Spermophilus (Otospermophilus) beecheyi*) activity were also noted if present.

3.2.4.3 Focused Coastal California Gnatcatcher Surveys

Six focused surveys for California gnatcatcher were performed within the study area between April 27, 2016, and June 21, 2016, by permitted Dudek biologist Karen Mullen, Ph.D. (Authorized Individual under Permit No. TE781084-9.1) according to the schedule provided in Table 2. The surveys were conducted following the currently accepted methods of the U.S. Fish and Wildlife Service: Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol (USFWS 1997) for breeding season (Appendix C). During each survey, suitable habitat within the property boundary was surveyed six times for California gnatcatcher. Survey areas included coastal sage scrub and an area with a few mulefat scrubs (*Baccharis salicifolia*), since California gnatcatcher have been known to use such habitat for foraging or movement. A topographic map of the site (scale 1 inch = 100 feet) overlain with vegetation polygons was used for the survey. Survey routes completely covered all areas of suitable coastal California gnatcatcher habitat on site. Appropriate birding binoculars (7x35 to 10x50 power) were used by each permitted biologist to aid in detecting and identifying bird species. The survey conditions were within protocol limits (Table 2). A recording of vocalizations was used frequently to elicit a response from the species. The recording was played approximately every 50 to 100 feet. The full survey report is provided in Appendix C.

3.2.5 Jurisdictional Delineation

A formal (routine) jurisdictional delineation of features within the property boundary was conducted by Dudek biologist Johanna C. Page on May 23, 2016. The property boundary was

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surveyed on foot for waters of the United States, including wetlands, under the jurisdiction of the U.S. Army Corps of Engineers (ACOE), pursuant to Section 404 of the federal CWA, RWQCB, pursuant to the Section 401 of the CWA and Porter-Cologne Water Quality Control Act, and under the jurisdiction of the CDFW pursuant to Section 1602 of the California Fish and Game Code.

Non-wetland waters of the United States are delineated based on the presence of an ordinary high water mark (OHWM) as determined using the methodology in *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States, A Delineation Manual* (ACOE 2008a). Wetland waters of the United States are delineated based on methodology described in the 1987 *Corps of Engineers Wetlands Delineation Manual* (ACOE 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (ACOE 2008b). The ACOE and U.S. Environmental Protection Agency Rapanos Guidance states that the ACOE will regulate: (i) traditional navigable waters of the United States and (ii) their adjacent wetlands, as well as (iii) non-navigable tributaries to traditional navigable waters that are relatively permanent, and (iv) wetlands that directly abut such tributaries (ACOE and EPA 2008). In addition, if a significant nexus has been determined, the ACOE may also assert jurisdiction over (i) non-navigable tributaries that are not relatively permanent and (ii) their adjacent wetlands, as well as (iii) wetlands that are adjacent to but that do not directly abut a relatively permanent non-navigable tributary (ACOE and EPA 2008).

The CDFW jurisdiction is defined to the bank of the streams/channels or to the limit of the adjacent riparian vegetation. For shallow drainages and washes that do not support riparian vegetation, the top of bank measurement may be the same as the OHWM measurement. Areas regulated by the RWQCB are generally coterminal with the ACOE, but include features isolated from navigable waters of the United States that have evidence of surface water inundation.

Plant species were characterized as either obligate, facultative wetland, facultative, facultative upland, and/or upland per *The National Wetland Plant List: 2013 Wetland Ratings* (Lichvar 2013). Due to the absence of hydrophytic vegetation, soil pits were not excavated.

Features were delineated using a Trimble GeoXT handheld GPS unit with submeter accuracy. Features were also documented directly onto a 200-scale field map (1 inch = 200 feet) with an aerial base.

To assist in the determination of jurisdictional areas on site, data was collected at 25 locations (i.e., data stations). Hydrology, vegetation, and soils were assessed and data were collected and summarized in a table (Appendix D). The location of data stations were collected using a Trimble GeoXT handheld GPS unit with submeter accuracy. Photographs documenting the data stations and associated drainages are provided in Appendix E.

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3.2.6 Survey Limitations

Special-status plant surveys were conducted in April and June of 2016, which resulted in detection and identification of most annual and perennial plant species that occur in the area. The timing of the surveys coincided with the blooming periods for the target species identified during the CDFW CNDDDB (CDFW 2016a) query. However, lower-than-average rainfall in winter 2015 and 2016, as well as over the last few years, may have limited the number of plant individuals that germinated this year and limited the blooming period of those that did (WRCC 2016).

Limitations of the surveys included a diurnal bias and the absence of trapping for small mammals, reptiles, and amphibians. The surveys were conducted during the daytime to maximize the detection of most animals. Birds represent the largest component of the vertebrate fauna, and because most birds are active in the daytime, diurnal surveys maximize the number of bird observations. Conversely, diurnal surveys usually result in few observations of mammals, many of which may only be active at night. In addition, many species of reptiles and amphibians are secretive in their habits and are difficult to observe using standard meandering transects. The purpose of the field surveys was to determine the likelihood of occurrence of any special-status plant or wildlife species based on the presence/absence of suitable habitat and other natural history elements that might predict their occurrence.

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4 RESULTS

4.1 Vegetation Communities, Land Covers, and Floral Diversity

Eight vegetation community and land cover types were mapped within the study area: toyon chaparral alliance, California sagebrush alliance, disturbed California sagebrush alliance, upland mustards (semi-natural strands), non-native grassland, ornamental, disturbed land, and developed. The communities and land cover types observed within the study area are described in the following text; their acreages for the 500-foot buffer (excluding the property boundary), the total property boundary (including the proposed Project development footprint and BMZ area), the proposed Project development footprint, and the BMZ area are presented in Table 3; and their spatial distributions are shown in Figure 4. Representative photographs are provided in Appendix E.

Table 3
Vegetation Communities and Land Cover Types in Study Area

Vegetation Community/Land Cover	500-feet of Property Boundary (Acreage)	Total Property Boundary (Acreage)	Project Development Footprint (Acreage)	BMZ Area (Acreage)
<i>Native Upland Communities</i>				
Toyon Chaparral ^a	–	0.99	0.39	0.23
California Sagebrush	–	1.90	0.29	0.23
Disturbed California Sagebrush	–	0.89	–	0.10
Non-Native Grassland	3.04	6.75	2.74	0.39
Upland Mustards (Semi-Natural Strands)	3.15	9.07	0.23	–
<i>Subtotal^b</i>	6.19	19.60	3.66	0.96
<i>Non-Native Land Covers</i>				
Disturbed Land	1.20	3.21	2.31	–
Ornamental	8.74	0.85	0.39	–
Developed Land	47.36	1.01	0.05	0.03
<i>Subtotal^b</i>	57.30	5.07	2.40	0.03
Total	63.50	24.67	6.06	0.99

^a Sensitive vegetation community per CDFW (CDFG 2010a).

^b Totals may not add up due to rounding.

In September 2010, CDFG (now CDFW) published the Natural Communities List (CDFG 2010a), which uses the scientific name of the dominant species in that alliance as the alliance name and includes a global and state rarity rank based on the NatureServe Standard Heritage Program methodology (NatureServe 2014). The conservation status of a vegetation community is

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designated by a number 1 to 5, preceded by a letter reflecting the appropriate geographic scale of the assessment (G = global, N = national, and S = subnational).

The numbers have the following meaning (NatureServe 2014):

- 1 = critically imperiled
- 2 = imperiled
- 3 = vulnerable to extirpation or extinction
- 4 = apparently secure
- 5 = demonstrably widespread, abundant, and secure

For example, G1 would indicate that a vegetation community is critically imperiled across its entire range (i.e., globally). A rank of S3 would indicate the vegetation community is vulnerable and at moderate risk within a particular state or province, although it may be more secure elsewhere (NatureServe 2014).

Vegetation communities denoted on the CDFG September 2010 Natural Communities List as G1, G2, or G3 and/or S1, S2, or S3 (high priority for inventory) or otherwise regulated by local, state, and/or federal resource agencies are considered to have “special-status.”

4.1.1 Toyon Chaparral Alliance

In the toyon chaparral alliance, toyon (*Heteromeles arbutifolia*) either dominates or is co-dominant with other coastal sage or chaparral shrubs (Klein and Evens 2006). Toyon chaparral has an open to continuous shrub canopy less than 7 meters (23 feet) in height that is often two-tiered with an open to intermittent herbaceous layer (Sawyer et al. 2009). In California, the toyon chaparral alliance occurs in the Central California Coast, Central California Coast Ranges, Klamath Mountains, and Northern California Coast from 50 to 965 meters (164 to 3,166 feet) (Sawyer et al. 2009).

Toyon chaparral typically occurs on north-facing steep slopes with loamy soils (Sawyer et al. 2009). The alliance was often found in areas with sedimentary parent material, but also occurs in areas where the parent material is metavolcanic or Mesozoic granite. Soils range from moderately coarse sandy loam to loam (Klein and Evens 2006).

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The toyon chaparral within the study area is located in a very steep, section of the north-facing slope within the northern portion of the study area. This vegetation community is dominated by toyon, but is also accompanied by coastal sagebrush (*Artemisia californica*), ripgut brome (*Bromus diandrus*), and Sydney golden wattle (*Acacia longifolia*).

The toyon chaparral alliance is ranked by the CDFG (2010a) as a G5S3 alliance. This ranking indicates that globally the alliance is widespread, abundant, and secure (CDFG 2010a) but is vulnerable within California. This alliance is considered high priority for CNDDDB inventory; thus, considered a sensitive vegetation community by CDFW (CDFG 2010a).

4.1.2 California Sagebrush Alliance

The California sagebrush scrub alliance occurs along the central and south coast of California, as well as on the Channel Islands (Sawyer et al. 2009). This alliance occurs between sea level and 1,200 meters (3,937 feet) amsl (Sawyer et al. 2009). This community often forms on steep, north-facing slopes and rarely flooded low-gradient deposits along streams in shallow alluvial or colluvial-derived soils (Sawyer et al. 2009). This alliance generally grows in areas with a long summer dry season with approximately 35 centimeters (14 inches) of annual precipitation that generally falls between April and November (NatureServe 2009).

California sagebrush scrub is located on very steep, north-facing slopes of the study area. This vegetation community is dominated by coastal sagebrush, but is also accompanied by California laurel (*Umbellularia californica*), ripgut brome (*Bromus diandrus*), and tree tobacco (*Nicotiana glauca*).

The California sagebrush alliance is ranked by the CDFG (2010a) as a G5S5 alliance. This ranking indicates that globally and within California the alliance is widespread, abundant, and secure; thus, is not considered sensitive by CDFW (CDFG 2010b; NatureServe 2009).

4.1.3 Disturbed California Sagebrush Alliance

California sagebrush alliance communities include coastal sagebrush as the dominate shrub in the canopy, details of which can be found in Section 4.1.2, California Sagebrush Alliance.

On site, the disturbed form of this community occurs in the northern portion of the survey area, to the northwest of the mapped California sagebrush alliance. This plant community is dominated by Uruguayan pampas grass (*Cortaderia selloana*) and bare ground with coastal sagebrush scattered throughout the area. Where the percent cover of California sagebrush association species was 20% to 30% cover, these areas were mapped as the disturbed form. Disturbed California sagebrush alliance on site was mapped within extremely steep portions of the proposed Project development footprint.

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The California sagebrush alliance is ranked by the CDFG (2010a) as a G5S5 alliance. This ranking indicates that globally and within California, the alliance is widespread, abundant, and secure; thus, it is not considered a CDFW sensitive vegetation community (CDFG 2010b; NatureServe 2009).

4.1.4 Upland Mustards Semi-Natural Strands

Upland Mustards Semi-Natural Stands consist of herbaceous vegetation dominated by various non-native mustard forbs, mostly annual and biennial species, including *Brassica nigra*, *B. rapa*, *B. tournefortii*, *Hirschfeldia incana*, *Isatis tinctoria*, or *Raphanus sativus*. Most of these species are invasive exotics. These stands are generally of low stature, below 3 meters high; however, *Brassica nigra* often attains a height of 3 meters. Emergent shrubs may be present but only at low relative and absolute cover.

Mustards encompass a large portion of the landscape. Multiple mustard species occur within the survey area including *Brassica nigra*, *Hirschfeldia incana*, and *Raphanus sativus*. Upland mustards semi-natural strands vegetation community is located throughout most of the study area's open landscape and is indicative of the site's disturbance history.

Upland Mustards Semi-Natural Stands is not included in the Natural Communities List (CDFG 2010a). This community is not considered a special-status vegetation community by CDFW.

4.1.5 California Annual (Non-Native) Grassland

California annual grassland (also referred to as non-native grassland in this report) is characterized by a mixture of weedy, introduced annuals, primarily grasses (Sawyer et al. 2009; Holland 1986). California annual grassland typically includes oats (*Avena* spp.), bromes (*Bromus diandrus*, *B. madritensis*, *B. hordeaceus*), black mustard, stork's bill (*Erodium* spp.), dove weed (*Croton setiger*), prickly Russian thistle (*Salsola tragus*), and Maltese star-thistle (*Centaurea melitensis*). It may occur where disturbance by maintenance (e.g., mowing, scraping, disking, and spraying), grazing, repetitive fire, agriculture, or other mechanical disruption has altered soils and removed native seed sources from areas formerly supporting native vegetation (Holland 1986).

California annual grassland is located throughout the northern and southwestern portions of the study area. This vegetation community is dominated by bromes (*Bromus* spp.), slender oat (*Avena barbata*), common Mediterranean grass (*Schismus barbatus*), longbeak stork's bill (*Erodium botrys*), and black mustard (*Brassica nigra*). Coastal sagebrush was also found in low concentration within this vegetation community.

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The California annual (non-native) grassland alliance has a rank of G4S4 in CDFW (CDFG 2010a), meaning that it is apparently secure both globally and within the state, and is therefore not a special-status vegetation community according to CDFW (CDFG 2010a).

4.1.6 Disturbed

Disturbed land includes areas that experience or have experienced high levels of human disturbance and as a result are generally lacking vegetation. Areas mapped as disturbed land may include unpaved roads, trails, and graded areas. Vegetation in these areas, if present at all, is usually sparse and dominated by non-native weedy herbaceous species.

Within the study area, disturbed land includes dirt roads, and bare, open areas with less than 5% vegetative cover. Disturbed land is found throughout the study area, most notably at the top of the slope within the center of the Project area and at the northeastern portion of the study area where mining operations have occurred in the past.

Disturbed land is not included in the Natural Communities List (CDFG 2010a). This community is not considered a sensitive vegetation community by CDFW.

4.1.7 Developed

Developed land refers to areas supported by man-made structures including homes, yards, roadways, sidewalks, and other highly modified lands supporting structures associated with dwellings or other permanent structures. Vegetation in these areas, if present at all, is typically associated with development landscaping. Within the study area, developed land is primarily dominated by surrounding residential development and a retirement home within the 500-foot buffer area, though there is a limited portion to the northeastern corner of the proposed Project development footprint that consists of an existing private resident and associated landscaping.

Developed land is not included in the Natural Communities List (CDFG 2010a). This community is not considered a sensitive vegetation community by CDFW.

4.2 Wildlife

A total of 26 wildlife species were recorded in the study area during 2016 surveys. A full list of wildlife species observed in the study area is provided in Appendix B.

4.2.1 Birds

A total of 21 bird species were audibly detected or observed in the study area. Most bird species observed are common, disturbance-adapted species typical of urban and suburban settings such

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as song sparrow (*Melospiza melodia*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), American crow (*Corvus brachyrhynchos*), and house finch (*Haemorhous mexicanus*). One Cooper's hawk (*Accipiter cooperii*) and a red-tailed hawk (*Buteo jamaicensis*) were observed during the site visits conducted between April 2015 and June 2016. Other raptors may use the property boundary and/or surrounding areas; however, no additional raptor species were observed within the study area during the surveys.

4.2.2 Reptiles and Amphibians

Two reptiles were observed within the study area: common side-blotched lizard (*Uta stansburiana*) and western fence lizard (*Sceloporus occidentalis*). Additional species that are likely to occur within the study area include gophersnake (*Pituophis catenifer*) and southern Pacific rattlesnake (*Crotalus oreganus helleri*). No amphibian species were observed during surveys.

4.2.3 Mammals

Three mammal species were detected within the study area during the survey: Botta's pocket gopher (*Thomomys bottae*), striped skunk (*Mephitis mephitis*), and brush rabbit (*Mephitis mephitis*). Other species that are likely to occur include California ground squirrel (*Spermophilus beecheyi*), common raccoon (*Procyon lotor*), as well as additional mammals adapted to living in areas near human disturbance, such as Virginia opossum (*Didelphis virginica*), may also occur within the study area.

4.2.4 Invertebrates

No invertebrates were observed within the study area during the site visit. Terrestrial invertebrates not observed within study area but likely to be present include western tiger swallowtail (*Papilio rutulus*), cabbage white (*Pieris rapae*), and Sara orangetip (*Anthocharis sara*).

Special-status wildlife species are further addressed in Section 4.3.2, Special-Status Wildlife Species.

4.3 Special-Status/Regulated Resources

4.3.1 Special-Status Plant Species

Special-status plant surveys were conducted to determine the presence or absence of plant species that are considered endangered, rare, or threatened under CEQA Guideline 15380 (14 CCR 15000 et seq.). Endangered, rare, or threatened plant species, as defined in CEQA Guideline 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status plant species" in this report and include (1) endangered or threatened plant species recognized in the context of

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the California Endangered Species Act (CESA) and the federal Endangered Species Act (ESA) and/or (2) plant species with a CRPR 1 or 2 (CDFW 2016a; CNPS 2016). Species of CRPR 3 or 4 may, but generally do not, qualify for protection under this provision. Species of CRPR 3 and 4 are those that require more information to determine status and plants of limited distribution. No special-status plant species were identified during focused plant surveys conducted in April and June 2016.

Appendix F lists the special-status plant species reported in the USGS 7.5-minute Torrance quadrangles and the surrounding six topographic quadrangles resulting from a CNDDDB and CNPS search (CDFW 2016a; CNPS 2016). This appendix analyzes each of these special-status species' occurrence or potential to occur based on known range, habitat associations, preferred soil substrate, life form, elevation, and blooming period. There are no special-status plant species with a moderate or high potential to occur within the study area. Appendix F includes the special-status plant species that are either not expected to occur or have a low potential to occur; these species are not further analyzed in this BTR because no direct, indirect, or cumulative impacts are expected.

4.3.2 Special-Status Wildlife Species

Endangered, rare, or threatened wildlife species, as defined in CEQA Guidelines, Section 15380(b) (14 CCR 15000 et seq.), are referred to as “special-status wildlife species” and, as used in this report, include (1) endangered or threatened wildlife species recognized in the context of the CESA and ESA; (2) California Species of Special Concern (SSC) and Watch List (WL) species, as designated by the CDFG (2011); (3) mammals and birds that are fully protected (FP) species, as described in Fish and Game Code, Sections 4700 and 3511; (4) Birds of Conservation Concern (BCC), as designated by the USFWS (2008); and (5) vertebrate and invertebrate species that do not have other state designations (i.e., CSC, FP, WL) that are listed on the Special Animals list (CDFW 2016b).

Appendices G and H list occurrences of special-status wildlife species reported in the USGS 7.5-minute Torrance quadrangles, as well as the surrounding six topographic quadrangles resulting from a CNDDDB search (CDFW 2016a). These appendices also analyze each of these special-status species' occurrences or potential to occur based on known range, habitat associations, and elevation. Appendix G includes the special-status wildlife species observed or with a moderate or high potential to occur within the study area and are further analyzed in this BTR. Appendix H includes the special-status wildlife species that are either not expected to occur or have a low potential to occur; these species are not further analyzed in this BTR because no direct, indirect, or cumulative impacts are expected.

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One special-status wildlife species was detected during the general and focused surveys conducted between April 2015 and June 2016 (Appendix G): Cooper's hawk (*Accipiter cooperii*). Two additional special-status wildlife species have a low to moderate potential to occur within the study area (Appendix G): burrowing owl (*Athene cunicularia*) and western mastiff bat. These species are described in more detail in the following text. Additionally, even though coastal California gnatcatcher (*Polioptila californica californica*) has a low potential to occur within the study area, it is also discussed further in the following text provided its status.

Birds

Cooper's Hawk (Accipiter cooperi)

Cooper's hawk is a state WL species, which has a high potential to nest on site. Cooper's hawk breeds in extensive forests, smaller woodlots of deciduous, coniferous, and mixed pine-hardwoods; however, this species has also adapted to nest sites in both suburban and urban habitats (Curtis et al. 2006). In urban areas, Cooper's hawks are known to nest within tall ornamental trees (e.g., *Eucalyptus* spp. and *Pinus* spp.) within developed areas (including commercial and industrial areas) (Chiang et al. 2012). Data documented by Chiang (2004) suggest that Cooper's hawks in Southern California appear to be year-round residents and remain close to their nest stands during winter.

This species was observed foraging within the upland mustard habitat along the central portion of the study area during the site visit conducted in April 2016. Although this species did not exhibit breeding behavior and active nests were not observed during the site visit, the ornamental trees within the northern, western, and southern portions of the study area could provide suitable nesting substrate for Cooper's hawk, as well as other raptors (e.g., red-tail hawk).

Burrowing Owl (Athene cunicularia)

Burrowing owl is a CDFW Species of Special Concern. Burrowing owls are considered to be habitat generalists and are recognized as having a relatively wide-ranging distribution throughout the west (Lantz et al. 2004). In California, burrowing owls are yearlong residents of open, dry grassland and desert habitats, and in grass, forb, and open shrub stages of pinyon–juniper and ponderosa pine habitats (Zeiner et al. 1990). Preferred habitat is generally typified by short, sparse vegetation with few shrubs, level to gentle topography, and well-drained soils (Haug et al. 2011).

The presence of suitable burrows (i.e., approximately 4 inches or greater at the entrance) is the most essential component of burrowing owl habitat as they are required for nesting, roosting, cover, and caching prey. In California, western burrowing owls most commonly live in burrows

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created by California ground squirrels. Burrowing owls may occur in human-altered landscapes such as agricultural areas, ruderal grassy fields, vacant lots, and pastures if the vegetation structure is suitable (i.e., open and sparse), useable burrows are available, and foraging habitat occurs in close proximity (Gervais et al. 2008). Furthermore, debris piles, riprap, culverts, and pipes can be used for nesting and roosting.

After conducting the habitat assessment, it was determined that the study area, including the non-native grassland and areas with low growing vegetation mapped throughout the property boundary and proposed Project development area, contains suitable habitat, though marginal, for burrowing owl. The study area contains disturbed, dense and low-growing vegetation, particularly non-native grassland, typically preferred by this species. However, minimal suitable burrows were observed within the study area during the focused burrowing owl surveys conducted between April and June 2016. The upland mustards semi-natural stands on site are too dense to provide suitable burrowing owl habitat. However, if this vegetation is removed the areas mapped as upland mustard also have the potential to provide suitable burrowing owl habitat. No burrowing owls or sign of burrowing owls (including feathers, whitewash, or pellets) were observed during the focused surveys and minimal suitable burrows occur within the study area.

Coastal California Gnatcatcher (Polioptila californica californica)

The coastal California gnatcatcher is a small songbird that is federally listed as threatened (FT) and CDFW SSC species. This species is a year-round resident found below 2,500 feet in elevation within Southern California. This subspecies occurs from northwest Baja California, Mexico to Ventura County. The highest densities for coastal California gnatcatcher occur in coastal areas of Orange and San Diego Counties (Mock 2004), with small, now disjunct populations documented for Ventura and Los Angeles Counties (Atwood et al. 1998). Coastal California gnatcatchers generally prefer open sage scrub habitats with California sagebrush as a dominant or co-dominant species. Nest placement is typically in areas with less than 40% slope gradient (Mock 2004).

No California gnatcatcher pairs or individuals were observed within the study area during focused surveys conducted for coastal California gnatcatcher between April and June 2016. Additionally, the terrain within the study area is steeper than typically preferred by this species, and there is poor connection to existing known populations. Thus, it seems unlikely that coastal California gnatcatchers would inhabit coastal scrub habitats mapped within the property boundary, including the proposed Project development footprint, due to the steep terrain, proximity of the habitat to roads and disturbance, and the minimal and fragmented amount of suitable habitat present within the study area.

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Mammals

Western Mastiff Bat (Eumops perotis californicus)

The western mastiff bat is an SSC and has a Western Bat Working Group (WBWG) status of high priority (H). Also known as the California bonneted bat, it is found in a variety of habitats in the southwestern United States from desert and coastal scrub to coniferous forests and woodlands (NatureServe 2014). Roosting sites tend to be in rocky crevices or cliffs that provide vertical protection from predators. The bat can also be found roosting in trees or man-made tunnels, chimneys or other overhang structures. It is the largest bat in the United States with total lengths averaging anywhere from 157 to 185 millimeters. Much is still unknown about this species, but it is believed to breed in the spring and male and female bats inhabit the same roosts together throughout the year. It feeds primarily on flying insects but has also been known to prey on flightless insects including crickets.

There is suitable foraging and roosting habitat for this species within the grassland and coastal scrub habitats within the study area, including along the western portion of the proposed development area. This species typically prefers rocky canyons for roosting. Although the cliffs along the western portion of the proposed Project development footprint are minimal, these cliffs may still provide suitable roosting habitat for western mastiff bat. Therefore, there is a low to moderate potential for this species to forage and roost within the property boundary, including the proposed Project development footprint.

4.3.3 Critical Habitat

There is federally designated critical habitat (Unit 8: Palos Verde Peninsula Subregion) for coastal California gnatcatcher within the property boundary, including the proposed Project development footprint (USFWS 2014; Figure 5). Unit 8 is known to contain large blocks of high-quality habitat capable of supporting persistent populations of coastal California gnatcatcher. Habitat within Unit 8 was designated by USFWS because the habitat was thought to be occupied at the time of listing or is currently occupied by coastal California gnatcatchers. Additionally, these areas contain primary constituent elements (PCEs), which are essential to the conservation of this species (i.e., dynamic and successional sage scrub habitats, as well as non-sage scrub habitats adjacent to suitable sage scrub habitats that provide space for dispersal, foraging, and nesting) (72 FR 72010 et seq.). This unit includes a core population of coastal California gnatcatchers and high-quality sage scrub habitat in Portuguese Bend, Agua Amarga Canyon, San Pedro, and adjacent canyons and connecting linkages, which provides for connectivity and genetic interchange among core coastal California gnatcatcher populations (USFWS 2007). No other USFWS critical habitat designation overlaps with the study area.

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4.3.4 Sensitive Vegetation Communities

During the 2016 vegetation mapping, one vegetation community was mapped that is considered sensitive under CEQA by CDFW (CDFG 2010a): toyon chaparral.

Table 3 provides the acreage of each mapped vegetation community or land cover. Figure 4 shows the distribution of vegetation communities and land covers mapped within the study area.

4.4 Wildlife Corridors and Habitat Linkages

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for dispersal or migration of animals, as well as dispersal of plants (e.g., via wildlife vectors). Wildlife corridors contribute to population viability by assuring continual exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing routes for recolonization of habitat after local extirpation or ecological catastrophes (e.g., fires).

Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. 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 is a potential route for gene flow and long-term dispersal. Habitat linkages may serve both as habitat and avenues of gene flow for small animals such as reptiles, amphibians, and rodents. Habitat linkages may be represented by continuous patches of habitat or by nearby habitat “islands” that function as stepping stones for dispersal and movement (especially for birds and flying insects). Wildlife corridors and habitat linkages provide avenues for dispersal or migration of animals that also contribute to population viability in several ways, including (1) ensuring continual exchange of genes between populations to aid in maintaining genetic diversity, (2) providing habitat for some species, (3) providing access to adjacent habitat areas representing additional territory for foraging and mating, (4) allowing for a greater carrying capacity, and (5) providing routes for colonization of habitat lands following local population extinctions or habitat recovery from ecological catastrophes.

Potential habitat linkages and wildlife movement corridors in the general area of the property boundary are determined based on a review of available aerial photography and mapping of the study area and adjacent watersheds in the study area, an evaluation of the habitat types and wildlife distribution associated with the property boundary and surrounding areas, and a review of wildlife species known or expected to use these habitats.

The study area does not reside within any designated wildlife corridors or habitat linkages identified in the South Coast Missing Linkages analysis conducted by South Coast Wildlands

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(South Coast Wildlands 2008). The South Coast Missing Linkages Report (South Coast Wildlands 2008) identifies the Santa Monica-Sierra Madre Connection as the major provider of connectivity between the Santa Monica Mountains at the coast to the Santa Susana and Sierra Madre Ranges of the Los Padres National Forest. This linkage has approximately 34% of its land conserved and protected, mostly as National Forest Land, and as such does not have threats from development in those areas. However, fragmentation is still a concern in foothill areas of this linkage and thus the design was developed to have multiple strands to accommodate the varieties of species that could pass through the area. The next closest linkage is the Santa Ana-Palomar Connection, which joins the Santa Ana Mountains and its coastal lowlands to the Palomar Mountains and inland ranges of San Diego County (South Coast Wildlands 2008). This linkage serves as an important connection between the natural areas of Cleveland National Forest and Camp Pendleton. Approximately 33% of this linkage design is protected from conversion to urban or agricultural use.

The study area does not function as a designated wildlife corridor or habitat linkage and is not expected to impact designated wildlife corridors or habitat linkages. The eastern portion of the Santa Monica Mountains Connection wildlife linkage is approximately 20 miles north of the property boundary and the western portion of the Santa Ana-Palomar Connection is approximately 36 miles to the east of the property boundary. The study area provides no habitat connectivity with either of these linkages. No wildlife movement sign was observed in the study area during biological surveys and because the Project is bordered by residential development to the northwestern, northern, eastern, and southeastern borders, it is not expected to prohibit wildlife movement to large open space areas or to natural features. Heavy traffic, human activity, and non-natural land covers on and adjacent to the property boundary, including the proposed Project development footprint, likely inhibit frequent use of, and movement through, the area by wildlife that are relatively intolerant of urban development and intensive human activities, such as cougar (*Puma concolor*), bobcat (*Felis rufus*), mule deer (*Odocoileus hemionus*), and American badger. Other common urban-tolerant species such as coyote (*Canis latrans*) and raccoon, however, may still use the property boundary for local movement. Therefore, the proposed Project activities would not result in impacts to linkages or contribute to habitat fragmentation.

4.5 Jurisdictional Delineation

With respect to ACOE-jurisdictional waters of the United States, including wetlands, the ACOE makes the jurisdictional determination. The ACOE issues two types of jurisdictional

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determinations—preliminary and approved.² Both types of determinations require a submittal of a formal jurisdiction delineation report. CDFW and RWQCB also may request a site visit to review the jurisdictional delineation and may potentially change the limits of delineation. Therefore, the jurisdiction determinations provided in this technical report are preliminary and only identify the potential for jurisdictional areas to be affected by the Project in accordance with the CEQA thresholds.

There are no jurisdictional waters or wetlands within the proposed Project development footprint. Although several non-jurisdictional swale/erosional features occur within the proposed Project development footprint, these features are not anticipated to be jurisdictional under ACOE, RWQCB, and/or CDFW. One water feature (Water Feature A) occurs along the southern portion of the property boundary and conveys water to a concrete v-ditch south of the property boundary. However, Water Feature A is not proposed to be impacted by the proposed Project activities.

Each channel segment has been labeled and is shown on Figure 6. A total of 10 data stations were recorded within the property boundary. Detailed notes including OHWM, if applicable, feature name, general area, feature notes, dominant plant species, and hydrology notes for each data station are provided in Appendix D. Photographs of the data stations and associated drainages are provided in Appendix E.

Each water feature located within the property boundary is described in more detail in the remainder of this section.

4.5.1 Water Feature A

Water Feature A follows the southern concrete wall bordering the southern portion of the property and conveys water flow to a series of concrete v-ditches along the southern portion of the study area, immediately south of the property boundary. Depending on the topography, Water Feature A flows from northeast (upstream) to southwest (downstream), as well as northwest (upstream) to southeast (downstream), to channel water to storm drains located southwest and southeast of the property boundary. There is a concrete wall along the southern

² The ACOE issues two types of JDs—preliminary and approved. A preliminary JD is an expedited process typically initiated at the time that a 404 permit is requested for impacts to federal jurisdictional waters; the preliminary JD is non-binding and does not involve ACOE review. This process is used when the permittee does not wish to request a determination that some or all of the potentially jurisdictional waters on the proposed Project development footprint are isolated (under the Rapanos decision) or otherwise not subject to federal jurisdiction. An approved JD is requested through submittal of a JD report and the accompanying form. It requires ACOE review of the report and application of the criteria used to request a non-federal JD. Depending upon the criteria used in the request for JD and any existing precedents, the JD may require up to 6 months for issuance.

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border of the property boundary, which also conveys water flow to the series of concrete v-ditches south of the property boundary. Water Feature A is approximately 108 feet in length. Because the channel is concrete-lined, it lacks vegetation; thus, these water features lack hydrophytic vegetation adjacent to the channel. No surface water was observed during the site visit. The bottom of the concrete channel, measured as the OHWM, is 4 feet wide. The slopes of the concrete channel are between 1 and 2 feet tall.

4.5.2 Swale/Erosional Features

There are multiple swale/erosional features as shown in Figure 6. Data stations (DS) 1–10 were collected for these features. The swale/erosional features are mostly unvegetated with scattered forbs and non-native grasses and lack evidence of OHWM, bed, or bank. Many of the swales/erosional features within the property boundary are bike trails that convey water during rain events. Additionally, the western most feature (DS01 and DS02) is a topographic feature that facilitates water flow due to the topographic low point. The ACOE, CDFW, and RWQCB typically do not take jurisdictional over swales/erosional features.

4.5.3 Hydrologic Connectivity

The swale/erosional features flow into a disturbed depressional area surrounded by steep to moderate slopes to the north and west, with terracing occurring along the southern and eastern boundaries, where former mining operations were prevalent. This is within the northeastern portion of the property boundary where proposed Project development is planned to occur. Based on evidence of the minimal scattered upland and hydrophytic vegetation, remnant sheet flow, topography within this area, historic aeriels, and lack of storm drains, the water appears to dissipate within this area during a rain event. These swale/erosional features have no apparent connection to jurisdictional state and/or federal waters, and thus, are unlikely to be jurisdictional under ACOE, CDFW, and/or RWQCB.

Water Feature A flows into a storm drain inlet south of the property boundary and north of Sunrise at Palos Verdes Assisted Senior Living Facility and Hawthorne Boulevard where it intersects with Rolling Hills Road. Whether these storm drains flow into the closest drainage is unknown. However, Water Feature A is not proposed to be impacted by the proposed Project activities.



SOURCE: Bing Maps, 2016

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Solana Torrance Project

FIGURE 6
Jurisdictional Delineation Map

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4.5.4 Summary of Jurisdictional Delineation Results

As mentioned, the ACOE, CDFW, and RWQCB typically do not take jurisdictional over swales/erosional features. Due to the absence of hydric soils and hydrophytic vegetation, there are no wetlands present within the proposed Project development footprint. Evidence of flow and presence of an OHWM was documented in Water Feature A. Whether this feature is hydrologically connected to a traditional navigable water of the U.S. is unknown. Based upon the data gathered during the site visit, Water Feature A may be under the jurisdiction of the ACOE, RWQCB, and/or CDFW. Table 4 lists the acreage and linear feet of each on-site drainage.

Table 4
Potential ACOE/RWQCB/CDFW Jurisdictional Resources within the Project Site

Feature	Length (feet)	Width (feet)		Area (acre)		Nature
		USACE/ RWQCB	CDFW	USACE/RWQCB Waters	CDFW Streambed	
Water Feature A	108	4	4	0.07	0.07	Ephemeral
Total	108	N/A	N/A	0.07	0.07	N/A

N/A = not applicable.

4.6 Regional Resource Planning Context

The proposed Project does not occur within any adopted HCPs; NCCP; or any other approved local, regional, or state habitat conservation plans. The City of Torrance General Plan provides goals, policies, and design criteria intended to guide expansion of the City of Torrance as a truly distinctive place. The general guiding principles will guide all decisions made to implement the Torrance General Plan through established benchmarks used to measure decisions related to community values and desires (City of Torrance 2010).

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5 PROJECT IMPACTS

This section defines the types of impacts that would occur as a result of Project implementation, including direct permanent impacts, direct temporary impacts, and indirect impacts.

Impacts were determined and quantified by digitally overlaying the limits of development provided by the Client onto the biological resources map. The proposed Project involves the development of 300 dwelling units with a minimum lot size of 264,236 square feet (6.06 acres), and includes the construction of maintenance roads and biological retention areas. The development is proposed within a disturbed depression and terraced area along the northeastern portion of the property boundary, east and south of moderate to steep slope, where former mining operations were prevalent in the past. Additionally, BMZ areas would be maintained 100-feet from the building limit, and would be maintained free of brush, flammable vegetation and combustible growth in accordance with Chapter 5 (Fire Prevention) of the City of Torrance Municipal Code (City of Torrance 2016). BMZ areas are also analyzed as permanent impacts in the following text. Project impacts are estimated to total approximately 6.06 acres for the proposed Project development footprint and 0.99 acre for BMZ areas. The remaining 17.62 acres of the property boundary not proposed for development or to be maintained as BMZ areas, is proposed to remain in place as open space preserve.

5.1 Definition of Impacts

This section defines the types of impacts that would occur as a result of Project implementation, including direct permanent impacts, direct temporary impacts, and indirect impacts.

Direct permanent impacts refer to the absolute and permanent physical loss of a biological resource due to clearing and grading associated with implementation of the Project and are analyzed in four ways: (1) permanent loss of vegetation communities, land covers, and general wildlife and their habitat; (2) permanent loss of or harm to individuals of special-status plant and wildlife species; (3) permanent loss of suitable habitat for special-status species; and (4) permanent loss of wildlife movement and habitat connectivity in the Project area. Direct impacts associated with the proposed Project include the designed residential development and installation of the flood/debris control infrastructure.

Direct temporary impacts refer to a temporal loss of vegetation communities and land covers resulting from vegetation and land cover clearing and grading associated with construction of proposed temporary haul roads and construction of proposed permanent new access roads, slope remediation, grade control structures, installation of culverts, and other improvements required for the Project. The main criterion for direct temporary impacts is that impacts would occur for a

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short period of time and would be reversible. Areas temporarily disturbed by construction activities would be restored and revegetated with a native species mix similar to that which existed prior to disturbance following completion of work in the area such that full biological function can be restored. Direct temporary impacts are not anticipated to occur as part of the proposed Project development.

Indirect impacts are reasonably foreseeable effects caused by Project implementation on remaining or adjacent biological resources outside the direct construction disturbance zone that may occur during construction (i.e., short-term construction related indirect impacts) or later in time as a result of the development (i.e., long-term, or operational, indirect impacts). Indirect impacts may affect areas within the defined Project development footprint but outside the construction disturbance zone, including open space and areas outside the Project area, such as downstream effects. Indirect impacts include short-term effects immediately related to construction activities and long-term or chronic effects related to the human occupation of developed areas (i.e., development-related long-term effects). For the proposed Project, it is assumed that the potential indirect impacts resulting from construction activities include dust, chemical pollution, noise, and general human presence that may temporarily disrupt species and habitat vitality, as well construction-related soil erosion and runoff that could affect downstream resources. With respect to potential downstream impacts, all Project grading will be subject to the typical restrictions and requirements that address erosion and runoff, including the federal CWA, National Pollution Discharge Elimination System (NPDES), and preparation of a Storm Water Pollution Prevention Plan (SWPPP).

For each of the following impact sections, direct and indirect impacts for biological resources are identified and a significance determination is made for each impact. For each significant impact, mitigation measures that would reduce the impact to less than significant are proposed. The full descriptions of the proposed mitigation measures are provided in Section 6, Significant Impacts.

5.2 Impacts to Vegetation Communities and Land Covers

5.2.1 Direct Impacts to Vegetation Communities and Land Covers

Direct permanent and temporary impacts to vegetation communities within the proposed Project development footprint are summarized in Table 5 and shown in Figure 7. Direct impacts were quantified by comparing the proposed Project development footprint within the boundaries of the vegetation communities mapped in the study area. Direct impacts to vegetation communities would occur as a result of vegetation removal activities. As described in the Project Description (Section 1.1), temporary direct impacts are not proposed at this time. The majority of the proposed Project development impacts are permanent and will occur primarily within disturbed

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land and California annual grassland (i.e., non-native grassland on site). However, direct permanent impacts to mapped California sagebrush alliance, disturbed California sagebrush alliance, and toyon chaparral alliance vegetation communities are also anticipated to occur in order to maintain brush clearance within required BMZs in compliance with the Torrance Fire Code (City of Torrance 2015). Impacts to upland mustards (semi-natural stands), ornamental, and developed areas within the western and southern portions of the property boundary are not anticipated to occur during the proposed Project activities, and are proposed to remain as open space areas.

Table 5
Permanent and Temporary Direct Impacts to Vegetation Communities
and Land Covers within the Solana Torrance Project Site

Vegetation Community/ Land Cover Type	Direct Permanent Impacts Project Development Area (acres)	Direct Permanent Impacts BMZ Areas (acres)	Direct Temporary Impacts (acres)	Total Acreage within the Property Boundary	Remaining Open Space Acreage within the Property Boundary
<i>Upland Communities</i>					
California Sagebrush	0.29	0.23	–	1.90	1.37
Disturbed California Sagebrush	–	0.10	–	0.89	0.79
Non-Native Grassland	2.74	0.39	–	6.75	3.62
<i>Subtotal^b</i>	3.03	0.73	–	9.54	5.78
<i>Woodland Communities</i>					
Toyon Chaparral ^a	0.39	0.23	–	0.99	0.36
<i>Subtotal^b</i>	0.39	0.23	–	0.99	0.36
<i>Non-Native Land Covers</i>					
Developed Land	0.05	0.03	–	1.01	0.93
Disturbed Land	2.31	–	–	3.21	0.90
Ornamental	0.04	–	–	0.85	0.81
Upland Mustards (Semi-Natural Stands)	0.23	–	–	9.07	8.84
<i>Subtotal^b</i>	2.63	0.03	–	14.14	11.48
Total^b	6.06	0.99	–	24.67	17.62

^a Sensitive vegetation community per CDFW (CDFG 2010a).

^b Totals may not add up due to rounding.

The proposed Project development would result in the permanent loss of approximately 6.06 acres, and an additional 0.99 acre would be permanently maintained as a BMZ area (Table 5). Thus, approximately 29% of the property area (25% due to the proposed Project development and 4% due to maintained BMZ areas) would be permanently impacted during the proposed Project activities. Toyon chaparral is the only sensitive vegetation community, which is

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recognized as a sensitive vegetation community by CDFW (CDFG 2010a). The proposed Project activities are anticipated to permanently impact approximately 0.62 acres (0.39 acres due to the proposed Project development footprint and 0.23 due to maintained BMZ areas) of toyon chaparral habitat within the property boundary.

Direct, temporary impacts to vegetation communities could also occur from the removal or trampling of vegetation outside designated work zones.

5.2.2 Indirect Impacts to Vegetation Communities and Land Covers

5.2.2.1 Short-Term Indirect Impacts

Potential short-term indirect impacts to sensitive vegetation communities in the study area would primarily result from construction activities and include impacts related to or resulting from the generation of fugitive dust, increased human activity, and the introduction of chemical pollutants. Potential short-term indirect impacts that could affect the special-status vegetation communities that occur in the study area are described in detail as follows.

Generation of Fugitive Dust. Excessive dust can decrease the vigor and productivity of vegetation through effects on light, penetration, photosynthesis, respiration, transpiration, increased penetration of phytotoxic gaseous pollutants, and increased incidence of pests and diseases.

Increased Human Activity. The proposed Project includes removal of vegetation. Increased human activity could result in the potential for trampling of vegetation outside of the impact footprint, as well as soil compaction, and could affect the viability of vegetation communities. Trampling can alter the ecosystem, creating gaps in vegetation and allowing exotic, non-native plant species to become established, leading to soil erosion. Trampling may also affect the rate of rainfall interception and evapotranspiration, soil moisture, water penetration pathways, surface flows, and erosion.

Chemical Pollutants. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other Project-related materials) may affect special-status vegetation communities. The use of chemical pollutants can decrease the number of plant pollinators, increase the existence of non-native plants, and cause damage to and destruction of native plants.

These potential short-term, construction-related indirect impacts could affect the sensitive vegetation communities in the study area.

-  Data Stations
-  Property Boundary
-  Study Area
-  Vegetation
- CSS - California Sagebrush Alliance
- dCSS - Disturbed California Sagebrush Alliance
- DEV - Developed
- DIST - Disturbed
- NNG - Non-Native Grassland
- ORN - Ornamental
- TC - Toyon Chaparral Alliance
- UP - Upland Mustards Semi-Natural Stands

Impact Type

-  Open Space
-  Project Development Footprint (Permanent Impact)
-  FMZ (100' Buffer)
-  Perimeter of Buildings

Potentially Jurisdictional Features (ACOE/RWQCB/CFW)

-  Water Feature A

Non-Jurisdictional Waters

-  Swale/Erosional Feature



SOURCE: Bing Maps, 2016



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FIGURE 7
Biological Resources and Jurisdictional Delineation Impact Map

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5.2.2.2 *Long-Term Indirect Impacts*

Potential long-term indirect impacts to sensitive vegetation communities in the study area would primarily result from permanent indirect impacts that could affect sensitive vegetation communities including chemical pollutants, non-native invasive species, increased human activity, and alteration of the natural fire regime. Each of these potential indirect impacts is discussed as follows.

Chemical Pollutants. The effects of chemical pollutants on special-status vegetation communities are described in Section 5.2.2.1, Short-Term Indirect Impacts, and may affect special-status vegetation communities in the long-term as well.

Non-Native, Invasive Plant and Animal Species. Invasive plant species that thrive in edge habitats are a well-documented problem in Southern California and throughout the United States. The removal of vegetation could also fragment native plant populations, which may increase the likelihood of invasion by exotic plants in those areas. Bossard et al. (2000) list several adverse effects of non-native species in natural open areas, including but not limited to the fact that exotic plants compete for light, water, and nutrients, and can create a thatch that blocks sunlight from reaching smaller native plants. Exotic plant species may alter habitats and displace native species over time, leading to extirpation of native plant species and unique vegetation communities. The introduction of non-native, invasive animal species could negatively affect native species that may be pollinators of or seed dispersal agents for plants within special-status vegetation communities.

Increased Human Activity. Increased human activity could result in the potential for trampling of vegetation outside of the impact footprint and development of new walking trails, as well as soil compaction, and could affect the viability of vegetation communities. Trampling can alter the ecosystem, creating gaps in vegetation and allowing exotic, non-native plant species to become established, leading to soil erosion. Trampling may also affect the rate of rainfall interception and evapotranspiration, soil moisture, water penetration pathways, surface flows, and erosion.

Alteration of the Natural Fire Regime. Urbanization alters wildfire regimes as a result of human activities at the open space–urban interface, such as accidental ignitions from sparks from equipment, such as mowers striking rocks, cigarettes, children playing with matches, and intentional ignitions, such as arson. While wildfires are most likely to be ignited in edge areas, the actual effect of large wildfires can occur at the much broader landscape level, especially when fires are quickly spread into undeveloped lands by strong winds.

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These potential long-term indirect impacts could affect the special-status vegetation communities in the study area.

5.3 Impacts to Special-Status Plant Species

Special-status plants were not detected during focused plant surveys conducted in April and June 2016. Additionally, there are no special-status plant species with a moderate or high potential to occur within the property boundary. Appendix F includes the special-status plant species that are either not expected to occur or have a low potential to occur; these species are not further analyzed in this BTR because no direct, indirect, or cumulative impacts are expected.

5.4 Impacts to Special-Status Wildlife Species

No special-status wildlife species were detected during the general and focused surveys conducted between April and June 2016. Appendix G describes the special-status wildlife species that have high or moderate potential to occur within the study area. Direct impacts to special-status wildlife species were estimated by comparing the limits of the vegetation removal area with suitable habitat for the wildlife species.

5.4.1 Direct Impacts

Special-Status Birds

Cooper's hawk (*Accipiter cooperii*; WL) was the only special-status bird species detected during surveys conducted between April and June 2016. However, two other special-status bird species have a low to moderate potential to nest, forage, and/or winter in the study area: coastal California gnatcatcher (*Polioptila californica californica*; FT/SSC) and burrowing owl (*Athene cunicularia*; BCC/SSC) and based on their status are discussed further in the following text.

There is a moderate potential for Cooper's hawk to nest within the ornamental trees within the northern, eastern, and southern portions of the study area. Although the proposed Project development footprint does not provide suitable nesting or perching substrate, suitable habitat occurs within the adjacent areas. Thus, direct impacts to Cooper's hawk, and other raptors, are not anticipated. However, other nesting native birds protected under the Migratory Bird Treaty Act and California Fish and Game Codes have the potential to occur within and adjacent to the proposed development footprint. Direct and indirect impacts to nesting native birds could occur.

Coastal California gnatcatcher was not detected during focused surveys conducted for this species in 2016. Additionally, there is limited coastal scrub habitat within the property boundary, most of which occurs along steep slopes. These slopes are typically too steep for this species.

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The closest documented occurrence for coastal California gnatcatcher is approximately 2 miles south of the property boundary and the study area is surrounded by development to the north, east, and south, with no suitable gnatcatcher habitat occurring to the west. Although the property boundary, including the proposed Project development footprint and BMZ areas, occur within USFWS federally designated critical habitat for this species, coastal California gnatcatcher has a low chance of occurring within the study area based on the negative results of focused coastal California gnatcatcher surveys conducted within the study area in 2016, small extent of coastal scrub and chaparral habitats within the study area, the steep slopes in which most of this habitat occurs, as well as the isolation of the site. As such, there is a low potential for coastal California gnatcatcher to occur within the study area and impacts to this species are not anticipated.

Burrowing owl was not detected during focused burrowing owl surveys conducted between April and June 2016. Suitable burrowing owl habitat occurs within non-native grassland habitat throughout the study area. Non-native grassland and disturbed areas mapped within the proposed Project development footprint have the potential to support burrowing owl. Although suitable burrows (i.e., burrows with greater than 4-inch diameter at entrance) were not detected within the proposed Project development footprint, direct impacts to occupied burrowing owl nesting, foraging, or wintering habitat is considered a significant impact, absent mitigation.

Special-Status Mammals

No special-status mammals were detected during the 2016 field survey. The only special-status mammal with low to moderate potential to forage or roost within the study area is western mastiff bat.

Construction activities are anticipated to occur during daylight hours and would not impact occasional bats foraging within the study area. However, there is a potential for disruption of roosting sites for western mastiff bat, if present.

Short-term, construction-related, or temporary direct impacts to special-status wildlife species would primarily result from vegetation removal activities. Clearing or trampling of vegetation communities outside the proposed impact limits could occur in the absence of avoidance and mitigation measures. These potential effects could reduce suitable habitat for wildlife species and alter their ecosystem, thus creating gaps in vegetation that allow exotic, non-native plant species to become established.

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5.4.2 Indirect Impacts

5.4.2.1 *Short-Term Indirect Impacts*

Short-term or temporary indirect impacts to special-status wildlife species would primarily result from vegetation removal activities during grading/filling activities associated with the construction of the new residential development and associated roads, as well as installation of flood/debris control infrastructure. Potential temporary indirect impacts could occur as a result of generation of fugitive dust, noise, lighting, chemical pollutants, increased human activity, and non-native animal species. All special-status wildlife species observed or with a moderate to high potential to occur on site could be impacted by potential temporary indirect impacts such as those listed below.

Generation of Fugitive Dust. Dust can impact vegetation surrounding the proposed Project development footprint, resulting in changes in the community structure and function. These changes could result in impacts to suitable habitat for special-status wildlife species.

Construction Noise. Project-related noise could occur from equipment used during construction activities. Noise impacts can have a variety of indirect impacts on wildlife species, including increased stress, weakened immune systems, altered foraging behavior, displacement due to startle, degraded communication with conspecifics (e.g., masking), damaged hearing from extremely loud noises, and increased vulnerability to predators (Lovich and Ennen 2011). The use of mechanized hand tools could cause temporary disruption of behaviors for the period the tool is in use, including causing wildlife to temporarily vacate an area and suppressing important activities, such as foraging.

Lighting. Lighting may affect behavioral activities, physiology, population ecology, and ecosystems of both diurnal and nocturnal wildlife. Longcore and Rich (2004) refer to these effects as “ecological light pollution” and identify three types of effects: chronic or periodically increased illumination, unexpected changes in lighting, and direct glare. Chronic increased illumination includes skyglow, lighted buildings and towers, streetlights, and security lights. Unexpected changes in lighting may occur from vehicle lights or other discrete events such as flares or spotlighting by law enforcement helicopters. Direct glare may be chronic or unexpected.

Chemical Pollutants. Accidental spills of hazardous chemicals could contaminate surface waters and indirectly impact wildlife species through direct or secondary poisoning and other sub-lethal effects (e.g., endocrine impacts), reduced prey availability, or altering suitable habitat.

Increased Human Activity. Construction activities can deter wildlife from using habitat areas near or adjacent to the proposed activities while activities are in progress.

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Non-Native Animal Species. Trash and garbage from Project-related activities could attract invasive predators such as ravens, gulls, crows, opossums, skunks, and raccoons that could impact the native wildlife species in the Project area, including increased predation.

5.4.2.2 Long-Term Indirect Impacts

Potential long-term or permanent indirect impacts to special-status wildlife species include the invasion of non-native, invasive plant and animal species, habitat fragmentation, and altered hydrology and hydraulics.

Non-Native Invasive Plant and Animal Species. Invasive plant species that thrive in edge habitats are a well-documented problem in Southern California and throughout the United States. Removal of vegetation could fragment native plant populations, which may increase the likelihood of invasion by non-native plants due to the increased interface between natural habitats and developed areas. There are several adverse effects of non-native species in natural open areas, including but not limited to the fact that non-native, invasive plants compete for light, water, and nutrients and can create a thatch that blocks sunlight from reaching smaller native plants. Non-native, invasive plant species may alter habitats and displace native species over time, leading to extirpation of native plant species and subsequently suitable habitat for special-status and other native wildlife species (Bossard et al. 2000). Invasive plant communities may also be an attractant to non-native wildlife such as house mouse (*Mus musculus*) and rats (*Rattus* spp.) that may compete with and/or displace native species.

Altered Hydrology. The removal of vegetation can alter the hydrology, and these hydrologic alterations may affect special-status wildlife species. Altered hydrology can allow for the establishment of non-native plants and invasion by Argentine ants (*Linepithema humile*), which can compete with native ant species that could be seed dispersers or plant pollinators. Changes in plant composition could affect the native vegetation communities and wildlife habitat.

The significance determinations for these potential impacts are presented in Section 6.

5.5 Impacts to Jurisdictional Waters

Direct, indirect, or cumulative permanent and temporary impacts are not anticipated to occur to jurisdictional waters. A number of swales/erosional features overlap with the proposed Project development footprint; however, ACOE, RWQCB, and/or CDFW typically do not take jurisdiction over swales/erosional features. Additionally, these features are isolated and do not connect with a traditional navigable waterway or relatively permanent waterway. Although Water Feature A is potentially jurisdictional under ACOE, RWQCB, and/or CDFW, this water

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feature is not proposed to be impacted by the proposed Project development. Thus, direct, indirect, or cumulative impacts to jurisdictional waters are not anticipated to occur.

5.6 Impacts to Wildlife Corridors and Habitat Connectivity

The proposed Project development footprint does not function as a wildlife corridor or habitat linkage and does not occur within any designated wildlife corridors or habitat linkages. Therefore, direct, indirect, or cumulative impacts to wildlife corridors and habitat connectivity are not anticipated.

5.7 Impacts to Regional Resource Planning

The study area does not occur within any adopted HCPs, NCCPs, or any other approved local, regional or state habitat conservation plans; therefore, there are no conflicts with any adopted HCPs and/or NCCPs. The Project is within an area zoned as light agricultural (A-1) within the City of Torrance Property Zoning Map (City of Torrance 2015). The General Plan land use designation is low density residential (R-LO) within the Hillside Neighborhood District (City of Torrance 2010). The proposed Project development is anticipated to be consistent with the City of Torrance General Plan. Additionally, the proposed Project would not remove any protected trees as defined within the City of Torrance Tree Ordinance. Therefore, conflicts to regional resource planning are not anticipated to occur.

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6 SIGNIFICANT IMPACTS

The purpose of this section is to identify the significant direct, indirect, and cumulative impacts of the Project.

6.1 Explanation of Findings of Significance

Impacts to sensitive vegetation communities or riparian habitat, special-status plant species, special-status wildlife species, wildlife corridors and habitat connectivity, and regional resource planning must be analyzed to determine whether such impacts are significant. CEQA Guidelines Section 15064(b) states that an ironclad definition of “significant” effect is not possible because the significance of an activity may vary with the setting. However, CEQA Guidelines Section 15065(a) lists impacts that are helpful in defining whether a Project may have a significant effect on the environment. Mandatory findings of significance, which require preparation of an EIR, occur when there is substantial evidence that a Project could (1) substantially degrade the quality of the environment, (2) substantially reduce the habitat of a fish or wildlife species, (3) cause a fish or wildlife population to drop below self-sustaining levels, (4) threaten to eliminate a plant or animal community, (5) reduce the number or restrict the range of a rare or endangered plant or animal or (6) eliminate important examples of a major period of California history or prehistory.

The following are the significance thresholds for biological resources provided in the CEQA Appendix G environmental checklist, which states that a Project could potentially have a significant effect if it:

- Has a substantial adverse effect, either directly or through habitat modifications, on any species identified as being a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFG or USFWS
- Has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFG or USFWS
- Has a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrologic interruption, or other means
- Interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites
- Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

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

The evaluation of whether or not an impact to a particular biological resource is significant must consider both the resource itself and the role of that resource in a regional context. Substantial impacts are those that contribute to, or result in, permanent loss of an important resource, such as a population of a rare plant or animal. Impacts may be important locally because they result in an adverse alteration of existing site conditions but considered not significant because they do not contribute substantially to the permanent loss of that resource regionally. The severity of an impact is the primary determinant of whether or not that impact can be mitigated to a less-than-significant level.

The following significance determinations were made based on the impacts from the proposed Project.

6.2 Vegetation Communities and Land Covers

6.2.1 Significant Impacts to Vegetation Communities or Land Covers

Potential construction-related indirect impacts to sensitive vegetation communities including fugitive dust, increased human activity, the introduction of chemical pollutants, and non-native invasive plant and animal species occurrence would be significant absent mitigation. Potential construction-related indirect impacts to special-status vegetation communities would be less than significant with the implementation of **MM-BIO-1**, which requires disturbance limits be marked and biological monitoring during vegetation removal to reduce the potential for direct impacts to special-status vegetation communities outside of the proposed Project development footprint, general BMPs be implemented, and review of the landscape design to ensure that invasive plants are not included.

6.2.2 Impacts to Vegetation Communities or Land Covers Determined to Be Less Than Significant

Direct permanent impacts to vegetation communities are presented in Table 5. Toyon chaparral is the only sensitive vegetation community recognized by CDFW. However, given the limited extent of this vegetation community (less than 1 acre of habitat within the property boundary) and within the proposed Project development footprint and BMZ areas, the steep slopes associated with this habitat, and the isolated nature of this habitat, the toyon chaparral within the property boundary provides low quality habitat and is not anticipated to support special-status resources. As such, impacts to this sensitive vegetation community are considered less than significant absent mitigation.

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6.3 Special-Status Plant Species

6.3.1 Impacts to Special-Status Plant Species Determined to Be Less Than Significant

No special-status plants were detected in the study area. Additionally, no special-status plant species are expected to have high or moderate potential to occur within the study area. Therefore, direct and indirect impacts to special-status plants are not anticipated, and thus, would be less than significant, absent mitigation.

6.4 Special-Status Wildlife Species

6.4.1 Significant Impacts to Special-Status Wildlife

Direct impacts to special-status wildlife species are considered less than significant with mitigation and are addressed further in the following text.

Special-Status Bird Species

The proposed Project development footprint and BMZ area provides suitable habitat to support nesting native birds. Therefore, vegetation removal/clearance and ground disturbing activities conducted during the breeding season for bird species with potential to nest on site (February 1 through August 31) have the potential to significantly impact active native bird nests. Additionally, indirect short-term impacts may occur to special-status birds with moderate potential to occur within the grassland, upland mustard stands, coastal scrub, chaparral, ornamental and/or eucalyptus stands present within the proposed Project development footprint. Impacts to nesting native birds are prohibited by the MBTA and California Fish and Game Codes 3503 and 3503.5. As such, implementation of **MM-BIO-2**, which requires pre-construction nesting bird surveys be conducted and impacts to protected nesting birds be avoided, has been included to avoid potential impacts to native nesting birds. With implementation of **MM-BIO-2**, impacts to native nesting birds would be less than significant.

While the focused surveys were negative for burrowing owl, their population ranges from Canada into Mexico and east to the Mississippi River, and includes residents and migrants that may recolonize areas lacking current occupancy. Therefore, burrowing owl could occur within the study area in the future. Direct permanent impacts may occur to burrowing owl, which has a low to moderate potential to occur within the grassland and disturbed areas mapped within the proposed Project development areas and surrounding study area. Impacts to burrowing owl would be considered less than significant with implementation of **MM-BIO-3**, which provides measures for pre-construction burrowing owl surveys and avoidance to occupied burrowing owl

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habitat (i.e., suitable open areas, low slopes, with suitable burrows greater than 4-inch diameter), as well as the development of a Burrowing Owl Relocation and Mitigation Plan with guidelines for passive relocation, if detected.

Direct or indirect temporary impacts to the special-status wildlife, including bird species listed previously as a result of direct disturbance or indirect impacts (e.g., fugitive dust, construction noise, lighting, chemical pollutants, increased human activity, and non-native, invasive plant and animal species) outside of the impact area would be significant absent mitigation. These direct and indirect temporary impacts would be less than significant with implementation of: **MM-BIO-1**, which requires construction limits be marked and monitored during vegetation removal and measures to reduce the spread on non-native and invasive plant species, and **MM-BIO-4**, which provides (BMPs to minimize indirect impacts to special-status species.

6.4.2 Impacts to Special-Status Wildlife Determined to Be Less Than Significant

Special-Status Birds

Coastal California gnatcatcher was not observed during focused surveys conducted in 2016 for this species. Additionally, the extent of the coastal scrub and chaparral habitats within the study area are limited and primarily occur along steep slopes, not typically preferred by this species. Development borders the study area to the north, east, and west, and the surrounding habitat bordering the study area to the south does not provide suitable habitat (i.e., coastal scrub habitats) to support this species. Therefore, the small patch of habitat within the study area is isolated, and thus, does not provide suitable nesting, foraging, or dispersal habitat. Although the proposed Project development is within the geographic range for this species and within USFWS designated critical habitat for coastal California gnatcatcher, direct and indirect impacts to coastal California gnatcatcher are not anticipated to occur. As such, impacts to coastal scrub habitats are considered less than significant, absent mitigation.

Special-Status Mammals

The western mastiff bat could forage and/or roost in the rocky crevices west of the proposed Project development areas (Appendix G). Although this species may occasionally forage within the coastal scrub and non-native grassland habitats throughout the property boundary at night, the proposed Project development activities are anticipated to occur during the daylight. Thus, foraging bats are anticipated to be unaffected by the Project. The steep cliffs within the property boundary may provide suitable roosting habitat for this species. However, this habitat is limited. Additionally, the proposed impacts within this area are anticipated to be minimal. The closest

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documented occurrence of this species is over 6 miles north of the property boundary (CDFW 2016a). Thus, direct and/or indirect impacts to suitable roosting habitat is anticipated to be minimal. As such, impacts to western mastiff bat are considered less than significant, absent mitigation.

6.5 Jurisdictional Waters

6.5.1 Impacts to Jurisdictional Waters Determined to be Less Than Significant

There are no jurisdictional wetlands and/or waters on the proposed Project development footprint and BMZ area. Therefore, direct, indirect, or cumulative permanent and temporary impacts are not anticipated to occur to jurisdictional waters, and thus, would be less than significant, absent mitigation.

6.6 Wildlife Corridors and Habitat Connectivity

6.6.1 Impacts to Wildlife Corridors and Habitat Connectivity Determined to Be Less Than Significant

The proposed Project development footprint and BMZ area does not function as a wildlife corridor or habitat linkage and does not occur within any designated wildlife corridors or habitat linkages. Direct or indirect impacts to wildlife corridors and habitat connectivity are not anticipated, and therefore, would be less than significant.

6.7 Regional Resource Planning

6.7.1 Impacts to Regional Resource Planning Determined to Be Less Than Significant

The proposed Project development footprint is located within the City of Torrance, Los Angeles County, CA. There are no established HCPs, NCCPs, or other approved regional, local or state approved HCPs within the vicinity of the proposed Project development footprint. The proposed Project would not conflict with an approved local, regional or state conservation plan. Additionally, the Project would not violate the City of Torrance Tree ordinance. The Project as proposed is not anticipated to conflict with any goals, policies, and/or design criteria mentioned in Sections 4.6, Regional Resource Planning Context, and 5.7, Impacts to Regional Resource Planning, and therefore, would be less than significant.

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7 MITIGATION

7.1 Special-Status Vegetation Communities

MM-BIO-1 Indirect Impacts to Special-Status Vegetation Communities

1. **Mark Disturbance Limits.** To prevent inadvertent disturbance to special-status vegetation communities outside the limits of work, the construction limits shall be clearly demarcated (e.g., installation of flagging or temporary high visibility construction fence) prior to ground disturbance activities. All construction activities including equipment staging and maintenance shall be conducted within the marked disturbance limits. Vegetation removal shall be monitored by a biologist and standard best management practices (BMPs) will be implemented. A biologist shall be contracted to perform biological monitoring during all clearing activities.

The following duties shall be carried out by the biological monitor:

- a. Review and/or designate the vegetation removal area in the field with the contractor in accordance with the final plan.
 - b. Be present during initial vegetation clearing and grubbing.
 - c. Record any advertent impacts to vegetation communities outside the designated construction zone in monthly monitoring reports.
2. **Standard Dust Control Measures.** Standard dust control measures shall be implemented to reduce impacts on nearby plants and wildlife. Measures may include replacing ground cover in disturbed areas as quickly as possible, frequently watering active work sites, installation of shaker plates, and suspending excavation and grading operations during periods of high winds.
 3. **Minimize Spills of Hazardous Materials.** All vehicles and equipment shall be maintained in proper condition to minimize the potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. Hazardous spills shall be immediately cleaned up and the contaminated soil shall be immediately cleaned up and the contaminated soil shall be properly handled or disposed of at a licensed facility. Servicing of construction equipment shall take place only at a designated staging area.
 4. **Landscape Design.** Prior to installation of any landscaping, plant palettes shall be reviewed by the Project Biologist to minimize the effects that

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proposed landscape plants could have on biological resources outside of the impact footprint due to potential naturalization of landscape plants in the area designated as open space. Landscape plants will not include invasive plant species on the most recent version of the Cal-IPC California Invasive Plant Inventory for the Project region. All plant stock shall be fumigated for pests, including Argentine ants, just prior to bringing the plants to the site for installation. Landscape plans will include a plant palette composed of native or non-native, non-invasive species that do not require high irrigation rates.

7.2 Special-Status Wildlife

Impact BIO-2 Impacts to protected nesting birds will be avoided with implementation of the following measures.

MM-BIO-2 Nesting Bird Avoidance

Ground-disturbance and vegetation removal activities shall be avoided during nesting bird season, from approximately February 15 through August 31. If ground-disturbing and/or vegetation removal activities cannot be completed outside the nesting bird season, the following measures shall be implemented:

1. Surveys shall be conducted within 300 feet of disturbance areas (500 feet for raptors) no earlier than 3 days prior to the commencement of disturbance. If ground-disturbance activities are delayed, then additional pre-disturbance surveys shall be conducted such that no more than 3 days will have elapsed between the survey and ground-disturbance activities. Surveys need not be conducted if topography, high traffic roads, or buildings are located buffer the survey zone (i.e., a commercial building occurs 100 feet away from construction – surveys would end at the limit of the building and not be required beyond).
2. If active nests are found (CDFW defines “active” as any nest that is under construction or modification; USFWS defines “active” as any nest that is currently supporting viable eggs, chicks, or juveniles), clearing and construction shall be postponed or halted within a buffer area established by the qualified biologist that is suitable to the particular bird species and location of the nest (typically a starting point of 300 feet for most birds and 500 feet for raptors, but may be reduced as approved by the biologist), until the nest is vacated and/or juveniles have fledged, as determined by the qualified biologist. The construction avoidance area shall be clearly

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demarcated in the field with highly visible construction fencing or flagging, and construction personnel shall be instructed on the sensitivity of nest areas. A qualified biologist shall serve as a construction monitor during those periods when construction activities will occur near active nest areas to ensure that no inadvertent impacts on these nests occur. The results of the surveys, including graphics showing the locations of any active nests detected, and documentation of any avoidance measures taken, shall be submitted to the City within 7 days of completion of the pre-construction surveys or construction monitoring to document compliance with applicable state and federal laws pertaining to the protection of native birds.

3. Surveys, and resulting buffers, will be repeated if construction within any phase is paused for more than 30 days.

Impact BIO-3 Significant direct impacts to special-status wildlife species would be less than significant with implementation of the following measures.

MM-BIO-3 Burrowing Owl

Potentially suitable habitat to support burrowing owl is present within the proposed Project development footprint and adjacent areas. Prior to the initiation of construction activities, a qualified biologist shall conduct a pre-construction clearance surveys for burrowing owl. These shall be conducted in accordance with the most current CDFW protocol within 30 days of site disturbance to determine whether the burrowing owl is present at the site. Pre-construction surveys shall include suitable burrowing owl habitat (e.g., areas with open habitat, low slope terrain, 4-inch or greater diameter burrow resources) within the proposed Project development footprint, BMZ areas, and an appropriate buffer as required in the most recent guidelines and where legal access to conduct the survey exists. If burrowing owls are not detected during the clearance survey, no additional mitigation is required.

If burrowing owl is located, occupied burrowing owl burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFW verifies through non-invasive methods that either the birds have not begun egg-laying and incubation or that juveniles from the occurred burrows are foraging independently and capable of independent survival. A 500-foot non-disturbance buffer (where no work activities may be conducted) will be maintained between Project activities and nesting burrowing owls during the nesting season, unless otherwise authorized by CDFW. If burrowing owl is detected during the non-breeding season (September 1 through

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January 31) or confirmed to not be nesting, a 160-foot buffer non-disturbance buffer will be maintained between the Project activities and occupied burrow. Alternatively, a Burrowing Owl Relocation and Mitigation Plan may be prepared and implemented to relocate non-breeding burrowing owls from the proposed Project development footprint. The Plan will detail methods and guidance for passive relocation of burrowing owls from the proposed Project development footprint, provide monitoring and management of the replacement burrow sites, reporting requirements, and ensure that a minimum of two suitable, unoccupied burrows are available off site for every burrowing owl burrow that is closed. Construction work may proceed after owls have been excluded from the site following accepted protocol and approval of CDFW. Results of the surveys and relocation efforts shall be provided to CDFW.

Impact BIO-4 Significant indirect impacts to special-status wildlife species would be less than significant with implementation of the following measures.

MM-BIO-4 Indirect Impacts to Special-Status Wildlife Species

In addition to MM-BIO-1 and MM-BIO-2, the following best management practices (BMPs) shall be implemented to minimize indirect impacts to special-status wildlife species.

1. **Avoid Wildlife Entrapment:**
 - a. **Backfill Trenches.** At the end of each workday, check that all potential wildlife pitfalls (trenches, bores, and other excavations) have been backfilled, covered, or sloped to allow wildlife egress. Should wildlife become trapped, a qualified biologist shall remove and relocate it.
 - b. **Avoid entrapment of nesting or migratory birds.** All pipes or other construction materials or supplies will be covered or capped in storage or laydown areas at the end of each workday. No pipes or tubing of sizes or inside diameters ranging from 1 to 10 inches will be left open either temporarily or permanently.
2. **Trash.** All food-related trash items (such as wrappers, cans, bottles, and food scraps) shall be disposed of in closed containers and removed daily from the proposed Project development footprint. When construction operations are completed, any excess materials of debris will be removed from the work area.
3. **Lighting.** Lighting along the perimeter of natural areas shall be shielded and oriented to limit light shine into the natural areas.

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Biological Resources Technical Report for the Solana Torrance Project

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APPENDIX A
Plant Compendium

APPENDIX A

Plant Compendium

VASCULAR SPECIES

MONOCOTS

AGAVACEAE—AGAVE FAMILY

Yucca schidigera—Mojave yucca

POACEAE—GRASS FAMILY

- * *Avena barbata*—slender oat
- * *Bromus diandrus*—ripgut brome
- * *Bromus hordeaceus*—soft brome
- * *Bromus madritensis* ssp. *rubens*—red brome
- * *Cortaderia selloana*—Uruguayan pampas grass
- * *Schismus barbatus*—common Mediterranean grass

EUDICOTS

ADOXACEAE—MUSKROOT FAMILY

Sambucus nigra ssp. *caerulea*—blue elderberry

AIZOACEAE—FIG-MARIGOLD FAMILY

- * *Carpobrotus chilensis*—sea fig

ANACARDIACEAE—SUMAC OR CASHEW FAMILY

- * *Schinus molle*—Peruvian peppertree

APOCYNACEAE—DOGBANE FAMILY

- Asclepias fascicularis*—Mexican whorled milkweed
- * *Nerium oleander*—oleander

ASTERACEAE—SUNFLOWER FAMILY

- Artemisia californica*—coastal sagebrush
- Baccharis pilularis*—coyotebrush
- Cirsium occidentale*—cobwebby thistle
- Corethrogyne filaginifolia*—common sandaster
- Baccharis salicifolia*—mulefat
- * *Silybum marianum*—blessed milkthistle
- * *Sonchus asper*—spiny sowthistle

APPENDIX A (Continued)

BRASSICACEAE—MUSTARD FAMILY

- * *Brassica nigra*—black mustard
- * *Hirschfeldia incana*—shortpod mustard
- * *Raphanus sativus*—cultivated radish

CHENOPODIACEAE—GOOSEFOOT FAMILY

- * *Chenopodium murale*—nettleleaf goosefoot
- * *Salsola tragus*—prickly Russian thistle

CUCURBITACEAE—GOURD FAMILY

Marah macrocarpa—Cucamonga manroot

EUPHORBIACEAE—SPURGE FAMILY

Croton californicus—California croton

FABACEAE—LEGUME FAMILY

- Acmispon glaber* var. *glaber*—common deerweed
- Lupinus succulentus*—hollowleaf annual lupine
- * *Acacia longifolia*—Sydney golden wattle
- * *Melilotus indicus*—annual yellow sweetclover

GERANIACEAE—GERANIUM FAMILY

- * *Erodium cicutarium*—redstem stork's bill
- * *Erodium botrys*—longbeak stork's bill

LAURACEAE—LAUREL FAMILY

Umbellularia californica—California laurel

LINACEAE—FLAX FAMILY

- * *Linum grandiflorum*—flowering flax

MALVACEAE—MALLOW FAMILY

- * *Malva nicaeensis*—bull mallow
- * *Malva parviflora*—cheeseweed mallow

MYRTACEAE—MYRTLE FAMILY

- * *Eucalyptus camaldulensis*—river redgum
- * *Eucalyptus citriodora*—lemonscented gum

OLEACEAE—OLIVE FAMILY

- * *Olea europaea*—olive

APPENDIX A (Continued)

OXALIDACEAE—OXALIS FAMILY

- * *Oxalis pes-caprae*—Bermuda buttercup

ROSACEAE—ROSE FAMILY

- Heteromeles arbutifolia*—toyon
- Prunus ilicifolia* ssp. *ilicifolia*—hollyleaf cherry

SALICACEAE—WILLOW FAMILY

- Salix laevigata*—red willow

SOLANACEAE—NIGHTSHADE FAMILY

- Datura wrightii*—sacred thorn-apple
- * *Nicotiana glauca*—tree tobacco

TROPAEOLACEAE—NASTURTIUM FAMILY

- * *Tropaeolum majus*—nasturtium

VALERIANACEAE—VALERIAN FAMILY

- * *Centranthus ruber*—red valerian

* signifies introduced (non-native) species

APPENDIX A (Continued)

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APPENDIX B
Wildlife Compendium

APPENDIX B Wildlife Compendium

BIRD

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—bushtit

EMBERIZINES

EMBERIZIDAE—EMBERIZIDS

Melospiza melodia—song sparrow

Melospiza crissalis—California towhee

Pipilo maculatus—spotted towhee

FALCONS

FALCONIDAE—CARACARAS AND FALCONS

Falco sparverius—American kestrel

FINCHES

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Spinus psaltria—lesser goldfinch

Haemorhous mexicanus—house finch

FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Myiarchus cinerascens—ash-throated flycatcher

Sayornis nigricans—black phoebe

HAWKS

ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES

Accipiter cooperii—Cooper's hawk

Buteo jamaicensis—red-tailed hawk

APPENDIX B (Continued)

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS

- Calypte anna*—Anna's hummingbird
- Selasphorus sasin*—Allen's hummingbird
- Selasphorus* sp.—Allen's/rufous hummingbird

JAYS, MAGPIES AND CROWS

CORVIDAE—CROWS AND JAYS

- Aphelocoma californica*—western scrub-jay
- Corvus brachyrhynchos*—American crow
- Corvus corax*—common raven

MOCKINGBIRDS AND THRASHERS

MIMIDAE—MOCKINGBIRDS AND THRASHERS

- Mimus polyglottos*—northern mockingbird

PIGEONS AND DOVES

COLUMBIDAE—PIGEONS AND DOVES

- Zenaida macroura*—mourning dove

STARLINGS AND ALLIES

STURNIDAE—STARLINGS

- * *Sturnus vulgaris*—European starling

WRENS

TROGLODYTIDAE—WRENS

- Troglodytes aedon*—house wren

MAMMAL

HARES AND RABBITS

LEPORIDAE—HARES AND RABBITS

- Sylvilagus bachmani*—brush rabbit

APPENDIX B (Continued)

MUSTELIDS

MEPHITIDAE—SKUNKS

Mephitis mephitis—striped skunk

POCKET GOPHERS

GEOMYIDAE—POCKET GOPHERS

Thomomys bottae—Botta's pocket gopher

REPTILE

LIZARDS

PHRYNOSOMATIDAE—IGUANID LIZARDS

Sceloporus occidentalis—western fence lizard

Uta stansburiana—common side-blotched lizard

APPENDIX B (Continued)

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APPENDIX C
*2016 Coastal California
Gnatcatcher Survey Report*

July 7, 2016

9603-C

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

Subject: Focused Coastal California Gnatcatcher Survey Report, Solana Torrance Project Site, Los Angeles County, California

Dear Recovery Permit Coordinator:

This report documents the results of protocol-level presence/absence surveys for coastal California gnatcatcher (*Polioptila californica californica*) (CAGN), conducted to support the Solana Torrance Project (Project) in the City of Torrance, Los Angeles County, California. The surveys were conducted in all areas of potentially suitable habitat. For the purposes of this survey, potentially suitable CAGN habitat included all sagebrush scrub habitat (including disturbed sagebrush scrub habitat) and chaparral habitat on site. The study area encompassed approximately 3.4 acres of suitable CAGN habitat.

CAGN is a federally listed threatened species and a California Department of Fish and Wildlife Species of Special Concern. It is closely associated with coastal sage scrub habitat and is thereby threatened primarily by loss, degradation, and fragmentation of this habitat. CAGN typically occurs below 820 feet above mean sea level (amsl) within 22 miles of the coast and below 1,640 feet amsl for inland regions (Atwood and Bolsinger 1992). Studies have suggested that CAGN avoid nesting on very steep slopes (greater than 40%) (Bontrager 1991). CAGN is also impacted by brown-headed cowbird (*Molothrus ater*) nest parasitism (Braden et al. 1997).

LOCATION AND EXISTING CONDITIONS

The approximately 20-acre property is located on privately owned land located west and north of Hawthorne Boulevard, south of Via Valmonte, and east of Palos Verdes Drive North within the City of Torrance in southwestern Los Angeles County, approximately 18 miles southwest of downtown Los Angeles (Figure 1). The project site is located directly adjacent to and west of State Route (SR)-107/ Hawthorne Boulevard and approximately 0.5 mile south of SR-1 (Figure 2). More specifically, the site is located southeast of Palos Verdes Estates and north of Rolling Hills Estates. Ernie J. Howlett Park is located directly to the west, and the study area is positioned south of Via Valmonte Road and north of Torrance Memorial Medical Center. The

study area is located in the U.S. Geological Survey 7.5-minute Torrance quadrangle map, Township 4 South, Range 14 West, and Sections 28 and 33 (USGS 1973).

On-site elevation ranges from 158 feet amsl to 319 feet amsl. The study area is composed of a moderate to steep hillside with the top of the hill located on the southwestern corner of the study area and slopes down to steeply to the south and more moderately to the north and east. The northern portion of the study area contains a cut out basin composed of disturbed land cover.

Soils mapping is from the County of Los Angeles Public Works Department (County of Los Angeles 2004). Two loam soils overlap with the study area: Diablo clay loam and Yolo sandy loam.

VEGETATION COMMUNITIES

Eight vegetation communities and land covers were identified within the study area. Vegetation acreages are presented in Table 1, and primary constituent element habitats suitable for CAGN are described following the table.

Table 1
Vegetation Community and Land Cover Acreages in Study Area

Vegetation Community and Land Cover	Acreage
<i>Vegetation Communities</i>	
California Sagebrush	1.90
Non-Native Grassland	4.06
Upland Mustards (Semi-Natural Strands)	7.83
Disturbed California Sagebrush	0.50
Toyon Chaparral	0.99
<i>Subtotal</i>	<i>15.28</i>
<i>Land Covers</i>	
Developed Land	0.38
Disturbed Land	3.15
Ornamental	0.51
<i>Subtotal</i>	<i>4.04</i>
Total	19.32

Toyon Chaparral Alliance

In the toyon chaparral alliance, toyon (*Heteromeles arbutifolia*) either dominates or is co-dominant with other coastal sage or chaparral shrubs (Klein and Evens 2006). Toyon chaparral

has an open to continuous shrub canopy less than 7 meters (23 feet) in height that is often two-tiered with an open to intermittent herbaceous layer (Sawyer et al. 2009).

In California, the toyon chaparral alliance occurs in the Central California Coast, Central California Coast Ranges, Klamath Mountains, and Northern California Coast from 50 to 965 meters (164 to 3,166 feet) (Sawyer et al. 2009).

Toyon chaparral typically occurs on north-facing steep slopes with loamy soils (Sawyer et al. 2009). The alliance was often found in areas with sedimentary parent material, but also occurs in areas where the parent material is metavolcanic or Mesozoic granite. Soils range from moderately coarse sandy loam to loam (Klein and Evens 2006).

Toyon chaparral is located in a very steep, section of the north-facing slope of the study area. This vegetation community is dominated by toyon, but is also accompanied by coastal sagebrush (*Artemisia californica*), ripgut brome (*Bromus diandrus*), and Acacia species.

California Sagebrush Alliance

The California sagebrush scrub alliance occurs along the central and south coast of California, as well as on the Channel Islands (Sawyer et al. 2009). This alliance occurs between sea level and 1,200 meters (3,937 feet) amsl (Sawyer et al. 2009). This community often forms on steep, north-facing slopes and rarely flooded low-gradient deposits along streams in shallow alluvial or colluvial-derived soils (Sawyer et al. 2009).

California sagebrush scrub is located on very steep, north-facing slopes of the study area. This vegetation community is dominated by coastal sagebrush, but is also accompanied by California laurel (*Umbellularia californica*), ripgut brome (*Bromus diandrus*), and tree tobacco (*Nicotiana glauca*).

Disturbed California Sagebrush Alliance

California sagebrush alliance communities include coastal sagebrush as the dominate shrub in the canopy.

On site, the disturbed form of this community occurs in the northern portion of the survey area, to the northwest of the mapped California sagebrush alliance. This plant community is dominated by coastal sagebrush. At the time of surveying, it was evident that this site had been recently maintained; much of the catclaw acacia (*Senegalia greggii*) had been trimmed back and bare ground and rock dominated much of the community; therefore, it was mapped as disturbed catclaw acacia thorn scrub. This area is also subject to pedestrian foot traffic and litter accumulation.

METHODS

Focused surveys for CAGN were performed within the study area between April 27, 2016, and June 21, 2016, by permitted Dudek biologist Karen Mullen, PhD (Authorized Individual under Permit No. TE781084-9.1) (Table 2). The surveys were conducted following the currently accepted methods of the U.S. Fish and Wildlife Service: Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol (USFWS 1997) for breeding season. The survey consisted of six visits at a minimum of 7-day intervals. Survey routes are shown in Figure 3. Survey routes completely covered all areas of suitable CAGN habitat on site. Appropriate birding binoculars (7x35 to 10x50 power) were used by the permitted biologist to aid in detecting and identifying bird species. The survey conditions were within protocol limits, as shown in Table 2. A recording of vocalizations was used frequently to elicit a response from the species. The recording was played approximately every 50 to 100 feet.

Table 2
Survey Details and Conditions

Date	Time	Personnel	Survey Conditions (temperature, skies, wind)
04/27/2016	0830–1015	KMM	61°F–64°F; 1–3 mph winds; 10%–20% clouds
05/04/2016	0745–0835	KMM	58°F–60°F; 1–5 mph winds; 100% clouds
05/11/2015	0930–1030	KMM	64°F–64°F; 1–5 mph winds; 100% clouds
05/25/2015	1015–1110	KMM	65°F–68°F; 2–5 mph winds; 50%–80% clouds
06/02/2016	0855–1000	KMM	65°F–67°F; 0–5 mph winds; 0% clouds
06/21/2016	0750–0850	KMM	73°F–76°F; 3–5 mph winds; 0% clouds

KMM = Karen Mullen; °F = degrees Fahrenheit; mph = miles per hour

RESULTS AND DISCUSSION

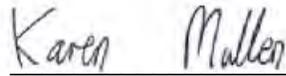
There were no CAGN individuals observed during these focused surveys. Due to the generally poor habitat quality, small extent of suitable habitat, lack of nearby CAGN observations, and isolation, it is highly unlikely that CAGN would occur here in the future. A total of 22 wildlife species were observed during this survey. Species observed included 1 reptile, 19 birds, and 2 mammals. A full list of wildlife species observed within the study area during the surveys is provided in Appendix A. The 15-day pre-survey notification letter sent to the U.S. Fish and Wildlife Service on April 13, 2016, is included in Appendix B.

Recovery Permit Coordinator

Subject: *Focused Coastal California Gnatcatcher Survey Report, Solana Torrance Project Site, Los Angeles County, California*

I certify that the information in this survey report and attached exhibits fully and accurately represent my work. Please contact Karen Mullen (kmullen@dudek.com) or Brock Ortega (bortega@dudek.com) if you have any questions.

Sincerely,



Karen Mullen, PhD
Certified Biologist

Att.: *Figures 1–3*

Appendix A: Cumulative List of Wildlife Species Observed or Detected within the Study Area

Appendix B: 15-Day Pre-Survey Notification Letter

cc: *Brock Ortega, Dudek*

Derek Empey, Reylenn Properties LLC

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Recovery Permit Coordinator

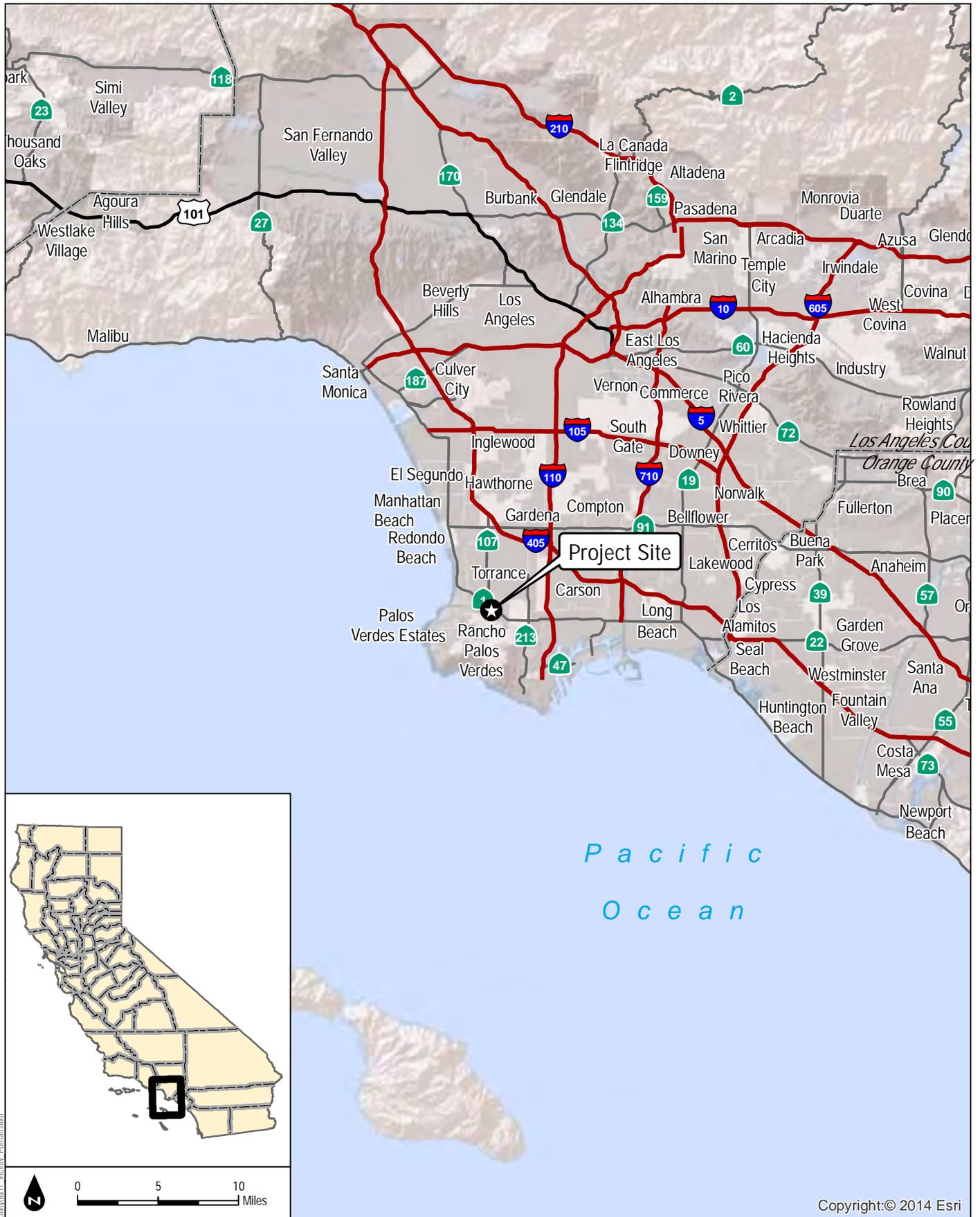
*Subject: Focused Coastal California Gnatcatcher Survey Report, Solana Torrance Project Site,
Los Angeles County, California*

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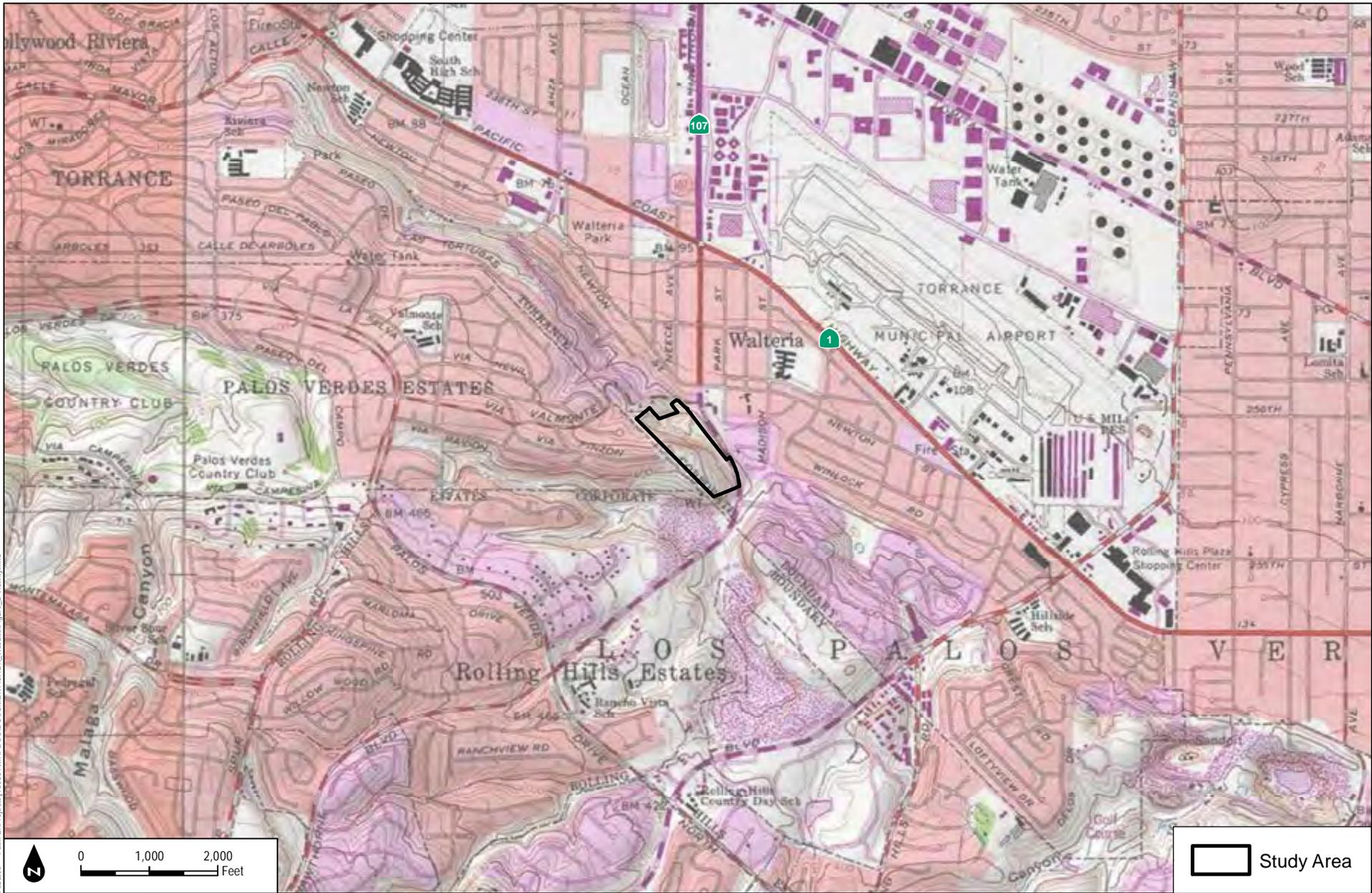


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FIGURE 1
Regional Map

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DUDEK

SOURCE: USGS 7.5-Minute Series Torrance Quadrangle

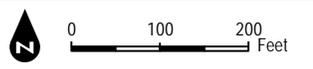
2016 Coastal California Gnatcatcher Survey Report for the Solana Torrance Project, Los Angeles County, California

Study Area

FIGURE 2
Vicinity Map



-  Survey Route
-  Project Boundary
-  Survey Area



SOURCE: Bing Maps, 2016



FIGURE 3
2016 Coastal California Gnatcatcher Survey Results

2016 Coastal California Gnatcatcher Survey Report for the Solana Torrance Project, Los Angeles County, California

APPENDIX A

*Cumulative List of Wildlife Species
Observed or Detected within the Study Area*

APPENDIX A
Cumulative List of Wildlife Species
Observed or Detected within the Study Area

BIRD

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—bushtit

EMBERIZINES

EMBERIZIDAE—EMBERIZIDS

Melospiza melodia—song sparrow

Melospiza crissalis—California towhee

Pipilo maculatus—spotted towhee

FALCONS

FALCONIDAE—CARACARAS AND FALCONS

Falco sparverius—American kestrel

FINCHES

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Spinus psaltria—lesser goldfinch

Haemorhous mexicanus—house finch

FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Myiarchus cinerascens—ash-throated flycatcher

Sayornis nigricans—black phoebe

HAWKS

ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES

Buteo jamaicensis—red-tailed hawk

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird

Selasphorus sp.—Allen's/rufous hummingbird

APPENDIX A (Continued)

JAYS, MAGPIES AND CROWS

CORVIDAE—CROWS AND JAYS

Aphelocoma californica—western scrub-jay

Corvus brachyrhynchos—American crow

MOCKINGBIRDS AND THRASHERS

MIMIDAE—MOCKINGBIRDS AND THRASHERS

Mimus polyglottos—northern mockingbird

PIGEONS AND DOVES

COLUMBIDAE—PIGEONS AND DOVES

Zenaida macroura—mourning dove

STARLINGS AND ALLIES

STURNIDAE—STARLINGS

* *Sturnus vulgaris*—European starling

WRENS

TROGLODYTIDAE—WRENS

Troglodytes aedon—house wren

MAMMAL

HARES AND RABBITS

LEPORIDAE—HARES AND RABBITS

Sylvilagus bachmani—brush rabbit

MUSTELIDS

MEPHITIDAE—SKUNKS

Mephitis mephitis—striped skunk

APPENDIX A (Continued)

REPTILE

LIZARDS

PHRYNOSOMATIDAE—IGUANID LIZARDS

Sceloporus occidentalis—western fence lizard

* signifies introduced (non-native) species

APPENDIX A (Continued)

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APPENDIX B

15-Day Pre-Survey Notification Letter

April 13, 2016

9603

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

Subject: *Notification of Presence/Absence Survey for the Coastal California Gnatcatcher, Solana Torrance Project, City of Torrance, Los Angeles County, California*

Dear Recovery Permit Coordinator:

Dudek will be conducting a protocol presence/absence survey for the coastal California gnatcatcher (*Polioptila californica californica*) in all areas of suitable habitat within the approximately 20-acre Solana Torrance Project site (Figures 1 and 2).

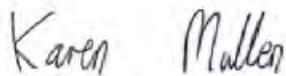
Dudek biologists Brock Ortega (TE813545-6), Erin Bergman (TE813545-5), and Karen Mullen (Authorized Individual under Anita Hayworth, TE781084-9.1) may participate in the surveys.

Surveys will conform to the currently accepted protocol of the U.S. Fish and Wildlife Service (USFWS) Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol (USFWS 1997). The survey area occurs outside of a Natural Communities Conservation Plan (NCCP) enrolled area, therefore, six visits will be conducted during the breeding season (March 15 through June 30), at a minimum interval of 7 days between visits.

Dudek requests to begin focused surveys prior to the 15-day notification period. If Dudek does not receive permission from USFWS to commence survey prior to the 15 day notification period, then surveys will begin after at least 15 days of the USFWS' receipt of this notification.

Please contact me at 949-285-6879 if there are any questions concerning this survey.

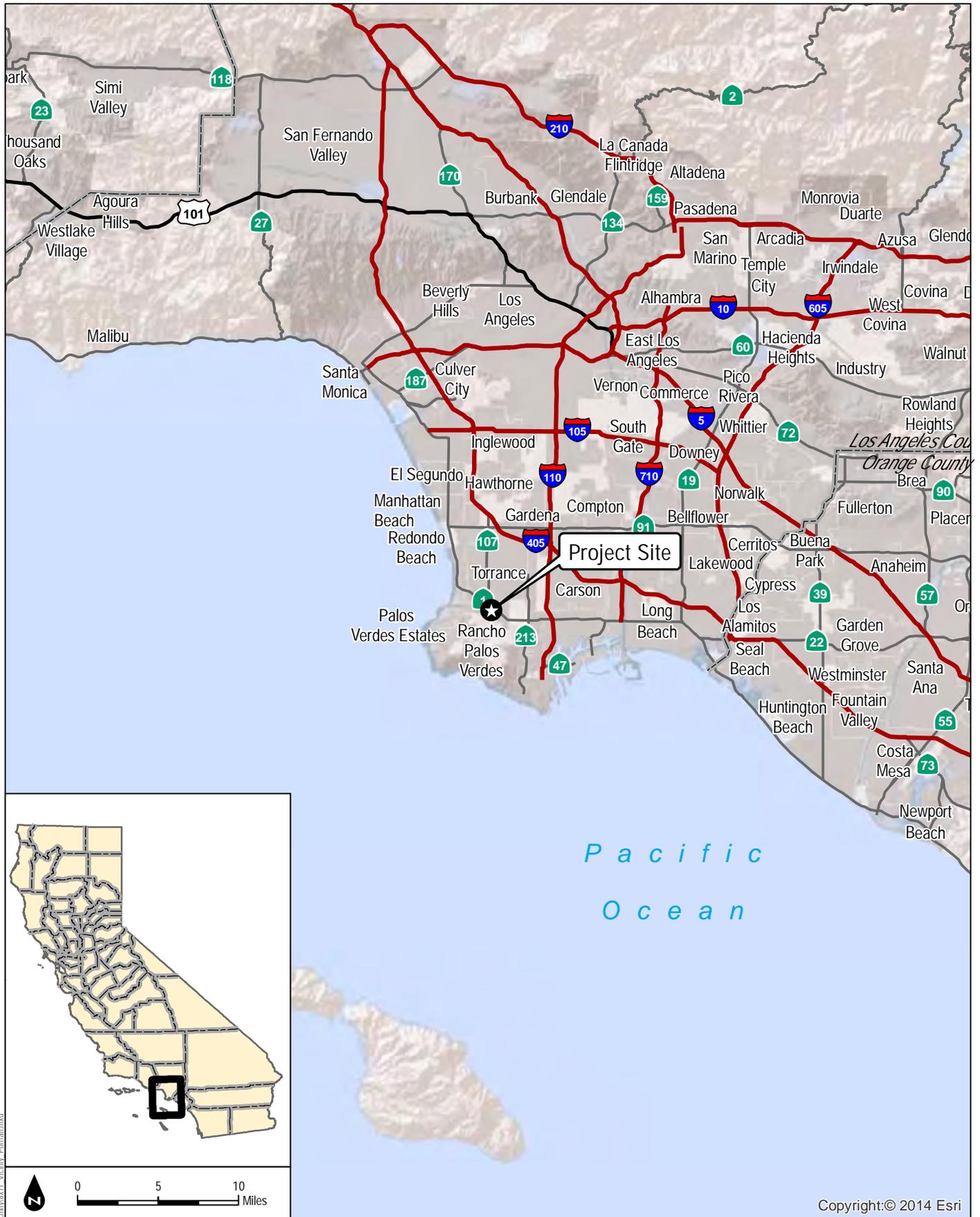
Thank you,



Karen Mullen, Ph.D.
Wildlife Biologist

Att: *Project Regional and Vicinity maps*

Appendix A
Figures



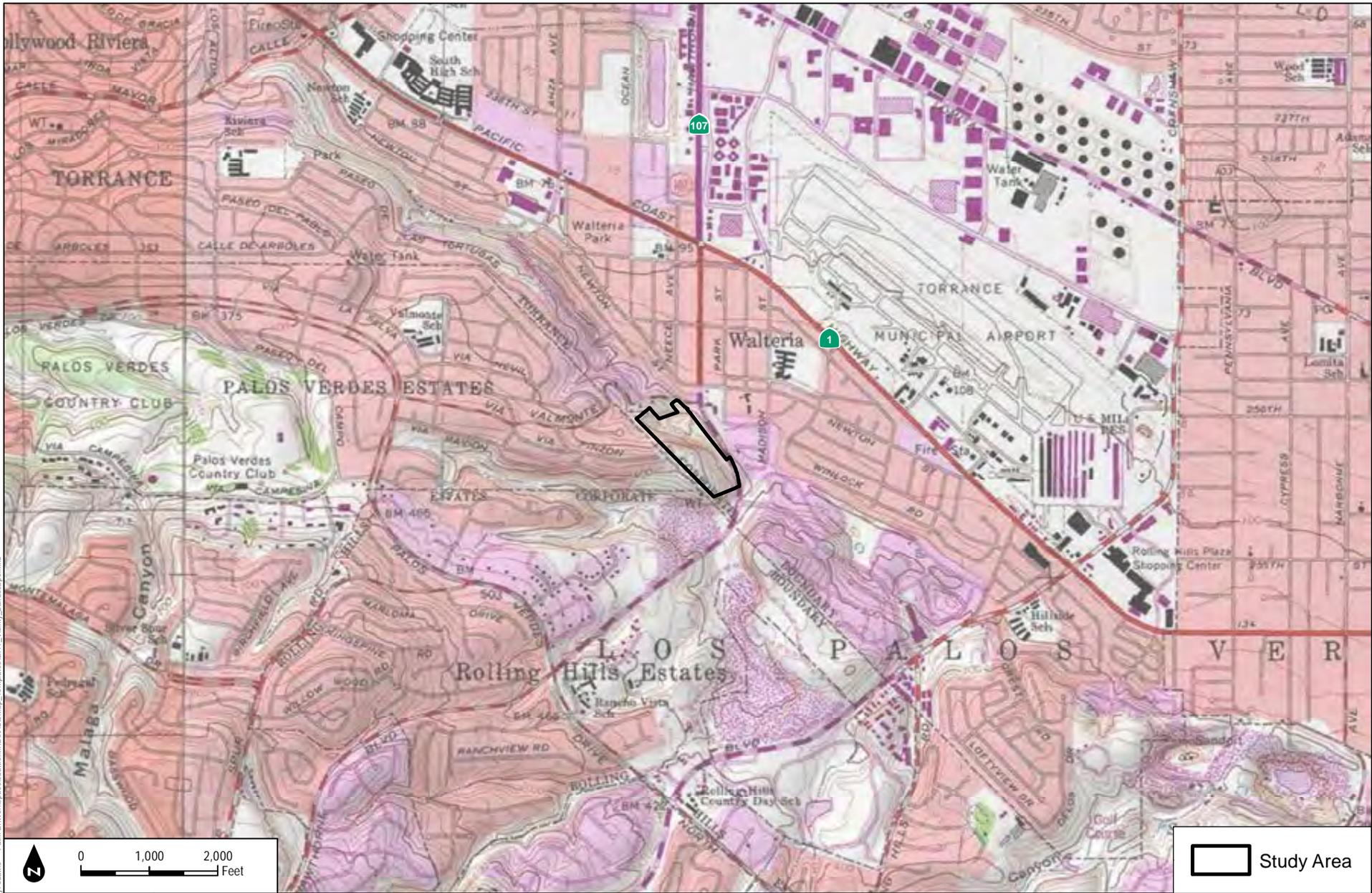
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FIGURE 1
Regional Map



Notification of Focused Presence/Absence Surveys for the Coastal California Gnatcatcher at the Solana Torrance Project, Los Angeles County, California

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DUDEK

SOURCE: USGS 7.5-Minute Series Torrance Quadrangle

Notification of Focused Presence/Absence Surveys for the Coastal California Gnatcatcher at the Solana Torrance Project, Los Angeles County, California

 Study Area

FIGURE 2
Vicinity Map

APPENDIX D

Jurisdictional Delineation Notes

APPENDIX D

Jurisdictional Delineation Notes

Data Station (DS) No.	OHWM/ CDFW	Feature Name	General Area	Notes	Vegetation	Hydrology
DS01	N/A	Swale/Erosional Feature	Ephemeral drainage west of Project footprint; upstream extent at top of steep slope, west of DS02	Upstream extent of ephemeral drainage with evidence of surface flows. This swale is within the northcentral portion of the property boundary, west of Project footprint, south of residential development, and west of DS02. Water flows west (upstream) to (east) along a steep slope during rain events.	Natural bottom, mostly unvegetated, some thatch. Adjacent ornamental and native vegetation: <ul style="list-style-type: none"> river redgum (<i>Eucalyptus camaldulensis</i>; FAC; 25%), tree tobacco (<i>Nicotiana glauca</i>; FAC; 15%), hollyleaf cherry (<i>Prunus ilicifolia</i> ssp. <i>ilicifolia</i>; NL; 10%), small red willow (<i>Salix laevigata</i>; FACW; 3%) 	Swale/erosional; topographic feature
DS02	N/A	Swale/Erosional Feature	Ephemeral drainage immediately west of Project footprint; downstream (east) of DS01; bottom of slope	Downstream extent of ephemeral drainage with minimal evidence of surface flows. This swale is within the northcentral portion of the property boundary, immediately west of Project footprint, south of residential development, and east of DS01. Water flows west (upstream) to (east) along a steep slope during rain events. Water dissipates within a disturbed area dominated by non-native grassland with a few scattered riparian plants east of DS02. Vegetation dominated by tree tobacco (<i>Nicotiana glauca</i>), shortpod mustard (<i>Hirschfeldia incana</i>), and annual yellow sweetclover (<i>Melilotus indicus</i>) at its southern (downstream) extent. No evidence of an OHWM, bed, or bank and/or connection with a traditional navigable waterway (TNW) or relatively permanent waterway (RPW).	Natural bottom, mostly unvegetated, some thatch. Adjacent ornamental vegetation: <ul style="list-style-type: none"> brome (<i>Bromus diandrus</i>; NL; 40%), olive (<i>Olea europaea</i>; NL; 5%), river redgum (<i>Eucalyptus camaldulensis</i>; FAC; 5%), slender oat (<i>Avena barbata</i>; NL; 10%) 	Swale/erosional; topographic feature

APPENDIX D (Continued)

Data Station (DS) No.	OHWM/ CDFW	Feature Name	General Area	Notes	Vegetation	Hydrology
DS03	N/A	Swale/Erosional Feature	Non-native grassland area with some evidence of water flow, located north of DS01, along top of slope northwest of the Project footprint	Northwestern portion of property boundary, west of Project site, north of DS01, and south of DS04 and residential development. Flows southwest (upstream) to east (downstream) along a steep slope. Evidence of sheet flow, though minimal evidence present. Dominated by non-native grassland.	Dominated by non-native grassland, including: <ul style="list-style-type: none"> • ripgut brome (<i>Bromus diandrus</i>; NL; 55%) • red brome (<i>Bromus madritensis</i> ssp. <i>rubens</i>); NL; 5%) • black mustard (<i>brassica nigra</i>); NL; 5%) • thatch (40%) 	Swale/erosional
DS04	N/A	Swale/Erosional Feature	Bike trail with some evidence of water flow, located north of DS01, along top of slope northwest of the Project footprint	Northwestern portion of property boundary, northwest of Project site, north of DS03, and south of residential development. Flows west (upstream) to southeast (downstream) along an existing bike trail and then along a steep slope to connect with DS05 downstream and downslope. Minimal evidence of sheet flow.	Unvegetated, adjacent non-native grassland dominated by: <ul style="list-style-type: none"> • ripgut brome (<i>Bromus diandrus</i>; NL; 55%) • red brome (<i>Bromus madritensis</i> ssp. <i>rubens</i>); NL; 15%) • black mustard (<i>brassica nigra</i>); NL; 15%) 	Swale/erosional
DS05	N/A	Swale/Erosional Feature	Ephemeral drainage with some evidence of water flow, located north of DS02, along bottom of slope northwest of the Project footprint	Northwestern portion of property boundary, immediately northwest of Project site, north of DS02, and south of residential development. Flows west (upstream) to east (downstream) along an existing bike trail (DS04) and swale DS03), then along a steep slope during rain events. Water dissipates within a disturbed area dominated by non-native grassland with a few scattered riparian plants east of DS02. Vegetation dominated by tree tobacco (<i>Nicotiana glauca</i>), shortpod mustard (<i>Hirschfeldia incana</i>), and annual yellow sweetclover (<i>Melilotus indicus</i>) at its southern (downstream) extent. No evidence of an OHWM, bed, or bank; and/or connection with a TNW or RPW.	Mostly unvegetated with some ripgut brome (<i>Bromus diandrus</i>) and a natural bottom. Adjacent non-native grassland, includes: <ul style="list-style-type: none"> • ripgut brome (<i>Bromus diandrus</i>; NL; 55%) • cultivated radish (<i>Raphinus sativa</i>; NL; 5%), • river redgum (<i>Eucalyptus camaldulensis</i>; FAC; 5%), 	Swale/erosional

APPENDIX D (Continued)

Data Station (DS) No.	OHWM/ CDFW	Feature Name	General Area	Notes	Vegetation	Hydrology
DS06	N/A	Swale/Erosional Feature	Bike trail with some evidence of water flow, located northeast of DS05, along bottom of slope northwest of the Project footprint	Northern portion of property boundary, northwest of Project site, northeast of DS05, and south of residential development. Flows northwest (upstream) to southeast (downstream) along an existing bike trail and then along a steep slope during rain events. Water dissipates within a disturbed area dominated by non-native grassland with a few scattered riparian plants east of DS05. Vegetation dominated by tree tobacco (<i>Nicotiana glauca</i>), red brome (<i>Bromus madritensis</i> ssp. <i>rubens</i>), shortpod mustard (<i>Hirschfeldia incana</i>), annual yellow sweetclover (<i>Mellilotus indicus</i>) at its southeastern (downstream) extent. Minimal evidence of sheet flow; primarily bike trails used to facilitate water flow. No evidence of an OHWM, bed, or bank; and/or connection with a TNW or RPW.	Unvegetated, natural bottom. Adjacent non-native grassland dominated by: <ul style="list-style-type: none"> • red brome (<i>Bromus madritensis</i> ssp. <i>rubens</i>; UPL; 30%) • shortpod mustard (<i>Hirschfeldia incana</i>), NL; 15%), • slender oat (<i>Avena barbata</i>; NL; 30%), • bull mallow (<i>Malva nicaeensis</i>; NL; 10%), • prickly Russian thistle (<i>Salsola tragus</i>; FACU; 10%) 	Swale/erosional
DS07	N/A	Swale/Erosional Feature	Bike trail with some evidence of water flow located northeast of DS06, along the top of slope, north of the Project footprint (western fork; downstream of a residential development)	Northcentral portion of study area, immediately north of Project site and south of residential development. Flows north to south along a steep slope and collects within a disturbed area dominated by non-native grassland with a few scattered stands of riparian vegetation dominated by tree tobacco (<i>Nicotiana glauca</i>), red brome (<i>Bromus madritensis</i> ssp. <i>rubens</i>), shortpod mustard (<i>Hirschfeldia incana</i>), and annual yellow sweetclover (<i>Mellilotus indicus</i>) at its southern (downstream) extent. Minimal evidence of sheet flow; primarily bike trails used to facilitate water flow.	Unvegetated, natural bottom. Adjacent non-native grassland dominated by: <ul style="list-style-type: none"> • prickly Russian thistle (<i>Salsola tragus</i>; FACU; 20%), • ripgut brome (<i>Bromus diandrus</i>; NL; 20%), • black mustard (<i>Brassica nigra</i>; NL; 10%), • slender oat (<i>Avena barbata</i>; NL; 5%) 	Swale/erosional

APPENDIX D (Continued)

Data Station (DS) No.	OHWM/ CDFW	Feature Name	General Area	Notes	Vegetation	Hydrology
DS08	N/A	Swale/Erosional Feature	Bike trail with some evidence of water flow located south (downstream) of DS07 and east of DS06, along the bottom of slope, north of the Project footprint (western fork; downstream of a residential development)	Northcentral portion of study area, immediately north of Project site and south of residential development, south (downstream) of DS07. Flows north to south along a steep slope and collects within a disturbed area dominated by non-native grassland with a few scattered stands of riparian vegetation dominated by tree tobacco (<i>Nicotiana glauca</i>), red brome (<i>Bromus madritensis</i> ssp. <i>rubens</i>), shortpod mustard (<i>Hirschfeldia incana</i>), and annual yellow sweetclover (<i>Mellilotus indicus</i>) at its southern (downstream) extent. Minimal evidence of sheet flow; primarily bike trails used to facilitate water flow. No evidence of an OHWM, bed, or bank; and/or connection with a TNW or RPW.	Unvegetated, natural bottom. Adjacent non-native grassland dominated by: <ul style="list-style-type: none"> • prickly Russian thistle (<i>Salsola tragus</i>; FACU; 20%), • ripgut brome (<i>Bromus diandrus</i>; NL; 20%), • black mustard (<i>Brassica nigra</i>; NL; 10%), • slender oat (<i>Avena barbata</i>; NL; 5%) 	Swale/erosional
DS09	N/A	Swale/Erosional Feature	Bike trail with some evidence of water flow located southeast (downstream) of DS07 and northeast of DS08, along the middle of the slope, north of the Project footprint (western fork; downstream of a residential development)	Northcentral portion of study area, immediately north of Project site and south of residential development. Flows northwest (upstream) to southeast (downslope) along a steep trail and collects within a disturbed area dominated by scattered riparian vegetation dominated by tree tobacco (<i>Nicotiana glauca</i>), shortpod mustard (<i>Hirschfeldia incana</i>), and annual yellow sweetclover (<i>Mellilotus indicus</i>) at its southern (downstream) extent.	Unvegetated, natural bottom. Adjacent non-native grassland dominated by: <ul style="list-style-type: none"> • California croton (<i>Croton californicus</i>; NL; 5%), • prickly Russian thistle (<i>Salsola tragus</i>; FACU; 15%), • slender oat (<i>Avena barbata</i>; NL; 10%), • cultivated radish (<i>Raphanus sativus</i>; NL; 1%), • ripgut brome (<i>Bromus diandrus</i>; NL; 30%) 	Swale/erosional

APPENDIX D (Continued)

Data Station (DS) No.	OHWM/ CDFW	Feature Name	General Area	Notes	Vegetation	Hydrology
DS10	N/A	Swale/Erosional Feature	Bike trail with some evidence of water flow located southeast (downstream) of DS07 and northeast of DS08, along the bottom of slope, north of the Project footprint (western fork; downstream of a residential development)	Northcentral portion of study area, immediately north of Project site and south of residential development. Flows northwest (upstream) to southeast (downslope) along a steep trail and collects within a disturbed area dominated by scattered riparian vegetation dominated by tree tobacco (<i>Nicotiana glauca</i>), shortpod mustard (<i>Hirschfeldia incana</i>), and annual yellow sweetclover (<i>Melilotus indicus</i>) at its southern (downstream) extent.	Unvegetated, natural bottom. Adjacent non-native grassland dominated by: <ul style="list-style-type: none"> • prickly Russian thistle (<i>Salsola tragus</i>; FACU; 20%), • ripgut brome (<i>Bromus diandrus</i>; NL; 30%) • slender oat (<i>Avena barbata</i>; NL; 10%), • cultivated radish (<i>Raphanus sativus</i>; NL; 5%), 	Swale/erosional
N/A	4 feet	A	Concrete wall at the southern portion of the property boundary, approximately 900 feet south of the Project site, 320 feet west of the intersection of SR-107/Hawthorne Boulevard and Rolling Hills Road.	Concrete wall bordering the southern extent of the boundary conveys water to existing concrete v-ditches located south of the property boundary. Water flows downstream (to the east and west) through a series of concrete v-ditches north of Sunrise Senior facility. These concrete v-ditches convey water flow to existing drains south, west, and north of the Senior Facility, outside of the property boundary.	Unvegetated, concrete v-ditch. Adjacent ornamental and upland mustard stand alliance dominated by: <ul style="list-style-type: none"> • black mustard (<i>Brassica nigra</i>; NL; 3) • ripgut brome (<i>Bromus diandrus</i>; NL; 15%) • bull mallow (<i>Malva nicaeensis</i>; NL; 5%), • nettleleaf goosefoot (<i>Chenopodium murale</i>; FACU; 15%), • slender oat (<i>Avena barbata</i>; NL; 20%) 	Drift deposits

Legend:

FAC = facultative species
FACU = facultative upland species
FACW = facultative wetland species
NL = not listed
OBL = obligate wetland species
UPL = obligate upland species

APPENDIX D (Continued)

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APPENDIX E

Photo Documentation

APPENDIX E

Photo Documentation



Photo 1. Facing west toward the proposed development footprint. Swale/erosional features occur along the steep slopes.



Photo 2. Taken from southwest, facing north toward proposed development footprint. Note coastal sagebrush scrub along steep slopes.



Photo 3. Facing southeast toward the eastern portion of proposed development footprint.



Photo 4. Facing south toward the proposed development footprint; note remnant non-native grassland vegetation and disturbed land.

APPENDIX E (Continued)



Photo 5. Facing west (downstream) from DS01. A number of eucalyptus trees and non-native grassland present.



Photo 6. Facing west (upstream) from DS01. Evidence of water flow.

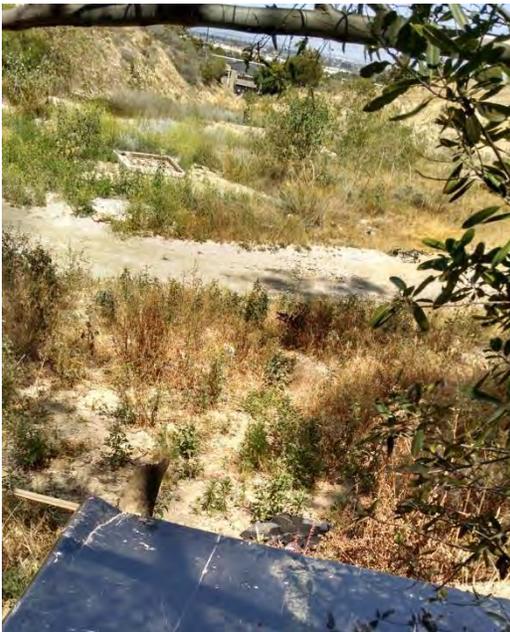


Photo 7. Taken at DS02 facing downstream (east). No evidence of an OHWM, bed, or bank.



Photo 8. Taken at DS02 facing upstream (west). No evidence of an OHWM, bed, or bank.

APPENDIX E (Continued)

	
<p>Photo 9. Facing east (downstream) toward DS04. Evidence of sheet flow down steep slope.</p>	<p>Photo 10. Facing south (upstream) from DS03. No OHWM, bed, or bank present.</p>
	
<p>Photo 11. Facing east (downstream) from DS04. Evidence of sheet flow down steep slope. Mojave yucca present in drainage.</p>	<p>Photo 12. Facing south (upstream) from DS04. Some sheet flow occurs along an existing trail.</p>

APPENDIX E (Continued)



Photo 13. Facing north (upstream) toward DS06. Adjacent area dominated by non-native grassland. No OHWM, bed, or bank.



Photo 14. Facing east toward proposed development footprint and erosional swales where DS07-DS10 were taken.



Photo 15. Facing south (downstream) from DS08 toward a small patch of non-native grassland where sheet flow drains.

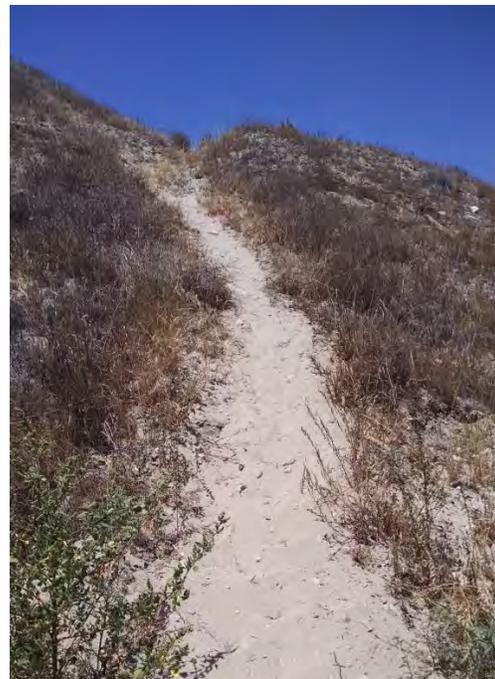


Photo 16. Facing north (upstream) toward DS07 and DS08. No OHWM, bed, or bank.

APPENDIX E (Continued)



Photo 17. Facing north (upstream) toward bike trail (DS07-DS10) that acts as a swale/erosional feature during rain events.



Photo 18. Facing south (downstream) toward DS10 toward graded road and small patch of non-native grassland where sheet flow drains.



Photo 19. Facing south (downstream) toward the southern portion of the property boundary, where a series of concrete culverts occur.



Photo 20. Facing southeast toward concrete wall where there is evidence of sheet flow that drains into a series of concrete v-ditches along southern property boundary.

APPENDIX E (Continued)



Photo 21. Facing east toward the central portion of the property boundary,



Photo 22. Facing north toward the central portion of the property boundary.



Photo 23. Facing northwest toward ornamental vegetation within the northwestern portion of the property boundary.



Photo 24. Facing south toward the eastern portion of the property boundary.

APPENDIX F

*Plant Species Not Expected or Low Potential to
Occur in the Project Site*

APPENDIX F

Plant Species Not Expected or Low Potential to Occur in the Study Area

Scientific Name	Common Name	Status ¹ : Federal/State/CRPR	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur ²
<i>Aphanisma blitoides</i>	aphanisma	None/ None/ 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub; sandy or gravelly/annual herb/Mar–June/3–1001	Low potential to occur. A floristic survey was conducted on site during the species' blooming period and the species was not observed. Suitable habitat in the form of California sagebrush scrub occurs on site.
<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i>	Ventura marsh milk-vetch	FE/CE/1B.1	Coastal dunes, coastal scrub, marshes and swamps (edges, coastal salt or brackish)/perennial herb/June–Oct/3–115	Not expected to occur. The site is outside of the species' known elevation range.
<i>Astragalus tener</i> var. <i>titi</i>	coastal dunes milk-vetch	FE/CE/1B.1	Coastal bluff scrub (sandy), coastal dunes, coastal prairie (mesic); often vernal mesic areas/annual herb/Mar–May/3–164	Not expected to occur. No suitable habitat (i.e., coastal dunes, coastal prairie, or coastal bluff scrub) occur on site. Additionally, mesic habitat does not occur on site.
<i>Atriplex coulteri</i>	Coulter's saltbush	None/None/1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland; alkaline or clay/perennial herb/Mar–Oct/10–1509	Low potential to occur. A floristic survey was conducted on site during the species' blooming period and the species was not observed. Suitable habitat in the form of valley and foothill grasslands is present on site.
<i>Atriplex pacifica</i>	South Coast saltscale	None/None/1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, playas/annual herb/Mar–Oct/0–459	Not expected to occur. No suitable habitat (ie. coastal dunes, coastal prairie, playas, or coastal bluff scrub) present on site. Additionally, a floristic survey was conducted on site during the species' blooming period and the species was not observed.
<i>Atriplex parishii</i>	Parish's brittle scale	None/None/1B.1	Chenopod scrub, playas, vernal pools; alkaline/annual herb/June–Oct/82–6234	Low potential to occur. While there is some suitable habitat in the form of California sagebrush, but the lack of alkaline playas and vernal pool habitat makes it unlikely that this species will occur. Additionally, a floristic survey was conducted on site during the species' blooming period and the species was not observed.
<i>Atriplex serenana</i> var. <i> davidsonii</i>	Davidson's saltscale	None/None/1B.2	Coastal bluff scrub, coastal scrub; alkaline/annual herb/Apr–Oct/33–656	Low potential to occur. While suitable habitat for this species exists on site in the form of California sagebrush, the survey for this site was conducted during this species' blooming season and it was not observed on site.
<i>Camissoniopsis lewisii</i>	Lewis' evening-primrose	None/None/3	Coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland; sandy or clay/annual herb/Mar–May (June)/0–984	Low potential to occur. While suitable California sagebrush and nonnative grassland habitats for this species exists on site, the site survey was conducted during this species' blooming period and was not detected on site.

APPENDIX F (Continued)

Scientific Name	Common Name	Status ¹ : Federal/State/CRPR	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur ²
<i>Centromadia parryi</i> ssp. <i>australis</i>	southern tarplant	None/None/1B.1	Marshes and swamps (margins), valley and foothill grassland (vernally mesic), vernal pools/annual herb/May–Nov/0–1575	Not expected to occur. Suitable habitat (i.e. vernal pools and marsh habitat) is not present on site. Additionally, a floristic survey was conducted on site during the species' blooming period and the species was not observed.
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>	Orcutt's pincushion	None/None/1B.1	Coastal bluff scrub (sandy), coastal dunes/annual herb/Jan–Aug/0–328	Not expected to occur. Sandy habitat is not present on site. The site was surveyed during this species' blooming period and was not detected on site.
<i>Chenopodium littoreum</i>	coastal goosefoot	None/None/1B.2	Coastal dunes/annual herb/Apr–Aug/33–98	Not expected to occur. The site is outside of the species' known elevation range.
<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	salt marsh bird's-beak	FE/CE/1B.2	Coastal dunes, marshes and swamps (coastal salt)/annual herb (hemiparasitic)/May–Oct/0–98	Not expected to occur. The site is outside of the species' known elevation range.
<i>Chorizanthe parryi</i> var. <i>fernandina</i>	San Fernando Valley spineflower	FC/CE/1B.1	Coastal scrub (sandy), valley and foothill grassland/annual herb/Apr–July/492–4003	Not expected to occur. The site is outside of the species' known elevation range.
<i>Crossosoma californicum</i>	Catalina crossosoma	None/None/1B.2	Chaparral, coastal scrub; rocky/perennial deciduous shrub/Feb–May/0–1640	Low potential to occur. There is some suitable habitat on this site in the form of coastal scrub, chaparral, and deciduous shrub; however, the site was surveyed during this species' blooming period and was not detected on site.
<i>Dithyrea maritima</i>	beach spectaclepod	None/CT/1B.1	Coastal dunes, coastal scrub (sandy)/perennial rhizomatous herb/Mar–May/10–164	Not expected to occur. There is not suitable habitat (i.e. coastal dunes, sandy scrub) present on site.
<i>Dudleya multicaulis</i>	many-stemmed dudleya	None/None/1B.2	Chaparral, coastal scrub, valley and foothill grassland; often clay/perennial herb/Apr–July/49–2592	Not expected to occur. Although suitable habitat exists on site in the form of chaparral, coastal scrub, and foothill grassland, the site was surveyed during this species' blooming period and was not detected on site.
<i>Dudleya virens</i> ssp. <i>insularis</i>	island green dudleya	None/None/1B.2	Coastal bluff scrub, coastal scrub; rocky/perennial herb/Apr–June/16–984	Not expected to occur. There is some suitable habitat in the form of coastal scrub; however, the site was surveyed during this species' blooming period and was not detected on site.
<i>Eryngium aristulatum</i> var. <i>parishii</i>	San Diego button-celery	FE/CE/1B.1	Coastal scrub, valley and foothill grassland, vernal pools; mesic/annual / perennial herb/Apr–June/66–2034	Not expected to occur. Suitable habitat in the form of foothill grassland and coastal scrub exist on site; however, the site was surveyed during this species' blooming period and was not detected on site.

APPENDIX F (Continued)

Scientific Name	Common Name	Status ¹ : Federal/State/CRPR	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur ²
<i>Erysimum insulare</i>	island wallflower	None/None/1B.3	Coastal bluff scrub, coastal dunes/perennial herb/Mar–July/0–984	Not expected to occur. Suitable habitat (i.e. coastal dunes, coastal bluffs) does not exist on site.
<i>Hordeum intercedens</i>	vernal barley	None/None/3.2	Coastal dunes, coastal scrub, valley and foothill grassland (saline flats and depressions), vernal pools/annual herb/Mar–June/16–3281	Not expected to occur. Suitable habitat (i.e. coastal dunes and vernal pools) are not present on site.
<i>Horkelia cuneata</i> var. <i>puberula</i>	mesa horkelia	None/None/1B.1	Chaparral (maritime), cismontane woodland, coastal scrub; sandy or gravelly/perennial herb/Feb–July (Sep)/230–2657	Not expected to occur. Suitable habitat, particularly cismontane woodland and maritime chaparral, are not present on site.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	None/None/1B.1	Marshes and swamps (coastal salt), playas, vernal pools/annual herb/Feb–June/3–4003	Not expected to occur. No suitable habitat (i.e. coastal salt, playas, vernal pools) occur on site. Nor are there any potential vernal pools on site.
<i>Leptosyne maritima</i>	sea dahlia	None/None/2B.2	Coastal bluff scrub, coastal scrub/perennial herb/Mar–May/16–492	Low potential to occur. While there is some suitable habitat in the form of coastal scrub, the site was surveyed during this species' blooming period and was not detected on site.
<i>Lycium brevipes</i> var. <i>hassei</i>	Santa Catalina Island desert-thorn	None/None/1B.1	Coastal bluff scrub, coastal scrub/perennial deciduous shrub/June (Aug)/-213–984	Low potential to occur. While there is some suitable habitat in the form of coastal scrub, the site was surveyed during this species' blooming period and was not detected on site.
<i>Nama stenocarpa</i>	mud nama	None/None/2B.2	Marshes and swamps (lake margins, riverbanks)/annual / perennial herb/Jan–July/16–1640	Not expected to occur. No suitable habitat (i.e. lake margins, riverbanks) occurs on site.
<i>Navarretia fossalis</i>	spreading navarretia	FT/None/1B.1	Chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, vernal pools/annual herb/Apr–June/98–2149	Not expected to occur. No suitable habitat (i.e. marshes, playas) occurs on site. Nor are there any potential vernal pools on site.
<i>Navarretia prostrata</i>	prostrate vernal pool navarretia	None/None/1B.1	Coastal scrub, meadows and seeps, valley and foothill grassland (alkaline), vernal pools; mesic/annual herb/Apr–July/10–3970	Not expected to occur. No suitable habitat (i.e. alkaline foothill grassland, meadows) occurs on site. Nor are there any potential vernal pools on site.
<i>Nemacaulis denudata</i> var. <i>denudata</i>	coast woolly-heads	None/None/1B.2	Coastal dunes/annual herb/Apr–Sep/0–328	Not expected to occur. Suitable habitat in the form of coastal dunes does not exist on site.

APPENDIX F (Continued)

Scientific Name	Common Name	Status ¹ : Federal/State/CRPR	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur ²
<i>Orcuttia californica</i>	California Orcutt grass	FE/CE/1B.1	Vernal pools/annual herb/Apr–Aug/49–2165	Not expected to occur. Suitable habitat in the form of vernal pools does not exist on site.
<i>Pentachaeta lyonii</i>	Lyon's pentachaeta	FE/CE/1B.1	Chaparral (openings), coastal scrub, valley and foothill grassland; rocky, clay/annual herb/Mar–Aug/98–2264	Not expected to occur. Although suitable habitat in the form of coastal scrub, foothill grassland, and chaparral exists on site, the focused plant surveys were conducted in April and June of 2016, during this species' blooming period, and this species was not detected on site. Documented occurrences for this species were recorded in CNPS Inventory Database in June 2015 within the Torrance Quadrangle, and this species was identified blooming in April, 2016 in Ventura County. Therefore, this species would have been detectable if present.
<i>Phacelia ramosissima</i> var. <i>australitoralis</i>	south coast branching phacelia	None/None/3.2	Chaparral, coastal dunes, coastal scrub, marshes and swamps (coastal salt); sandy, sometimes rocky/perennial herb/Mar–Aug/16–984	Low potential to occur. While there is some suitable habitat in the form of chaparral and coastal scrub, there are no coastal dunes or marshes on site. Additionally, the site survey was conducted during this species' blooming period and was not detected on site.
<i>Phacelia stellaris</i>	Brand's star phacelia	FC/None/1B.1	Coastal dunes, coastal scrub/annual herb/Mar–June/3–1312	Low potential to occur. Some suitable habitat exists on site in the form of coastal scrub; however, the site survey was conducted during this species' blooming period and it was not detected on site.
<i>Potentilla multijuga</i>	Ballona cinquefoil	None/None/1A	Meadows and seeps (brackish)/perennial herb/June–Aug/0–7	Not expected to occur. Suitable habitat in the form of meadows and seeps does not exist on site.
<i>Suaeda esteroa</i>	estuary seablite	None/None/1B.2	Marshes and swamps (coastal salt)/perennial herb/May–Oct (Jan)/0–16	Not expected to occur. Suitable habitat in the form of marshes and swamps does not exist on site.
<i>Symphotrichum defoliatum</i>	San Bernardino aster	None/None/1B.2	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic); near ditches, streams, springs/perennial rhizomatous herb/July–Nov/7–6693	Low potential to occur. Suitable habitat exists as coastal scrub, but the lack of vernal mesic habitat, as well as the lack of meadows and swamps, makes it unlikely for this species to occur.

¹ Status:

FT: Federally listed as threatened.
 FE: Federally listed as endangered.
 SE: State-listed as endangered.

APPENDIX F (Continued)

SR: State-listed as rare.

CRPR: California Rare Plant Rank

1A (formerly List 1A): Plants Presumed Extinct in California

1B (formerly List 1B): Plants Rare, Threatened, or Endangered in California and Elsewhere

2 (formerly List 2): Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

3 (formerly List 3): Plants About Which We Need More Information—A Review List

4 (formerly List 4): Plants of Limited Distribution—A Watch List

0.1: Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)

0.2: Fairly threatened in California (20%–80% occurrences threatened/moderate degree and immediacy of threat)

0.3: Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known).

² “Vicinity” is based on a search of the CNDDDB and CNPS databases for the Torrance USGS 7.5-minute quadrangle and the six surrounding quadrangles (San Pedro, South Gate, Long Beach, Inglewood, Venice, Redondo Beach) conducted in May 2016.

APPENDIX F (Continued)

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APPENDIX G

*Wildlife Species Detected or Potentially Occurring
within the Study Area*

APPENDIX G

Wildlife Species Detected or Potentially Occurring in Study Area

Common Name	Scientific Name	Status ¹ : Federal/State	Habitat	Potential to Occur ²
<i>Birds</i>				
burrowing owl	<i>Athene cunicularia</i> (burrow sites & some wintering sites)	BCC/SSC	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Low to Moderate potential to occur. However, focused surveys conducted in spring 2016 were negative. Site contains suitable habitat in the form of grassland and disturbed areas. Few ground squirrel burrows were found on site that could support this species. Because this species occurs throughout the western US and may recolonize areas, there remains potential for it to occur on site.
Cooper's hawk	<i>Accipiter cooperii</i> (nesting)	None/WL	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	Present. Moderate potential to nest. This species was observed foraging over the central portion of the property boundary during April 2016 surveys. This species was not exhibiting breeding behavior and no active nests were detected during the site visit. However, the ornamental trees within the northern, western, and southern portions of the study area provide suitable nesting substrate for this species.
<i>Mammals</i>				
western mastiff bat	<i>Eumops perotis californicus</i>	None/SSC	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 to Moderate potential to forage over the site. Suitable vegetation (ie. chaparral, coastal scrub, cliff areas); however, there is minimal rocky canyon areas that would make suitable roosting habitat.

Status Legend:

Federal Designations:

- AFS-V American Fisheries Service - Vulnerable
- BCC Fish and Wildlife Service: Birds of Conservation Concern
- FC Candidate for federal listing as threatened or endangered
- (FD) Federally delisted; monitored for five years
- FE Federally listed Endangered
- FT Federally listed as Threatened
- MNBMC Fish and Wildlife Service Migratory Nongame Birds of Management Concern
- USBC United States Bird Conservation Watch List
- WBWG:M Western Bat Working Group – Medium Priority
- WBWG:H Western Bat Working Group – High Priority
- IUCN: LC The World Conservation Union – Least Concern

APPENDIX G (Continued)

State Designations:

SSC California Special Concern Species
FP California Department of Fish and Game Protected and Fully Protected Species
SA Special Animal List
SE State-listed as Endangered
ST State-listed as Threatened
WL State Watch List Species

² "Vicinity" is based on a search of the CNDDDB database for the Torrance USGS 7.5 minute quadrangle and the six surrounding quadrangles (San Pedro, South Gate, Long Beach, Inglewood, Venice, Redondo Beach) conducted in May 2016.

APPENDIX H

*Wildlife Species Not Expected or Low Potential to
Occur in the Study Area*

APPENDIX H

Wildlife Species Not Expect or Low Potential to Occur in Study Area

Common Name	Scientific Name	Status ¹ : Federal/State	Habitat	Potential to Occur ²
<i>Reptiles</i>				
Blainville's horned lizard	<i>Phrynosoma blainvillii</i>	None/SSC	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. Although this site supports suitable habitat in the form of coastal scrub, annual grasses, and chaparral, the site is isolated (surrounded by development on all sides), dominated by human presence, and lacks harvester ants (its primary food source). Additionally, this species was not observed during field surveys conducted between April 2015 and June 2016.
western pond turtle	<i>Actinemys marmorata</i>	None/SSC	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	Not expected to occur. The site does not support suitable habitat, including intermittent streams or small lakes with emergent basking sites.
silvery legless lizard	<i>Anniella pulchra pulchra</i>	None/SSC	Stabilized dunes, beaches, dry washes, chaparral, scrubs, and pine, oak, and riparian woodlands; associated with sparse vegetation and sandy or loose, loamy soils	Not expected to occur. This site does not support suitable habitat (ie. stabilized dunes, dry washes, sandy soil) for this species.
<i>Birds</i>				
bank swallow	<i>Riparia riparia</i> (nesting)	None/ST	Nests in riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with sandy soils; open country and water during migration	Low potential to occur. Although the site has some vertical sloped bluffs that could act as suitable habitat for this species, the site lacks suitable riparian habitat typically preferred by this species. Additionally, this species was not observed during surveys conducted between April and June 2016.
California black rail	<i>Laterallus jamaicensis coturniculus</i>	BCC/ST, FP	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. Suitable habitat, including tidal marshes and wet areas, does not exist on this site.
coastal California gnatcatcher	<i>Poliophtila californica californica</i>	FT/SSC	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	Low potential to occur. The site has small and isolated patches of California sagebrush and disturbed California sagebrush communities which has some marginal to support this species. This species was not detected during focused protocol-level coastal California gnatcatcher surveys conducted between April and June 2016.

APPENDIX H (Continued)

Common Name	Scientific Name	Status ¹ : Federal/State	Habitat	Potential to Occur ²
tricolored blackbird	<i>Agelaius tricolor</i> (nesting colony)	BCC/SSC	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberry; forages in grasslands, woodland, and agriculture	Low potential to occur. While there is suitable foraging habitat of grassland and disturbed areas, there is no suitable wetland area that could act as sufficient nesting habitat.
least Bell's vireo	<i>Vireo bellii pusillus</i> (nesting)	FE/SE	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	Not expected to occur. There is no riparian vegetation on site that would provide suitable habitat for this species.
southwestern willow flycatcher	<i>Empidonax traillii extimus</i> (nesting)	FE/SE	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	Not expected to occur. There is no riparian vegetation on site that would provide suitable habitat for this species.
Belding's savannah sparrow	<i>Passerculus sandwichensis beldingi</i>	None/SE	Nests and forages in coastal saltmarsh dominated by pickleweed (<i>Salicornia</i> spp.)	Not expected to occur. There is no coastal saltmarsh habitat on site, nor were <i>Salicornia</i> species found on site.
California brown pelican	<i>Pelecanus occidentalis californicus</i> (nesting colonies & communal roosts)	FDL/SDL, FP	Forages in warm coastal marine and estuarine environments; in California, nests on dry, rocky offshore islands	Not expected to occur. The site, while in proximity of the Pacific Ocean, does not itself support a coastal marine environment and therefore this species would not be found.
California least tern	<i>Sternula antillarum browni</i> (nesting colony)	FE/SE, FP	Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flats	Not expected to occur. This site, while in proximity of the Pacific Ocean, does not have an aquatic environment that would support this species.
western snowy plover	<i>Charadrius alexandrinus nivosus</i> (nesting)	FT, BCC/SSC	On coasts nests on sandy marine and estuarine shores; in the interior nests on sandy, barren or sparsely vegetated flats near saline or alkaline lakes, reservoirs, and ponds	Not expected to occur. This site, while in proximity of the Pacific Ocean, does not have an aquatic environment that would support this species.
western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i> (nesting)	FT, BCC/SE	Nests in dense, wide riparian woodlands and forest with well-developed understories	Not expected to occur. Riparian vegetation does not occur on therefore there is no suitable habitat for this species.

APPENDIX H (Continued)

Common Name	Scientific Name	Status ¹ : Federal/State	Habitat	Potential to Occur ²
<i>Fishes</i>				
Mohave tui chub	<i>Siphateles bicolor mohavensis</i>	FE/SE, FP	Lacustrine ponds or pools with minimum water depth of 4 feet and some freshwater flow for a mineralized and alkaline environment; aquatic plants (e.g., <i>Ruppia maritima</i> , <i>Typha</i> spp., and <i>Juncus</i> spp.), that provide habitat for aquatic invertebrate prey and substrate for egg attachment; widgeongrass (<i>Ruppia maritima</i>) appears to be preferred vegetation for egg attachment and thermal refuge in summer months	Not expected to occur. There is no suitable aquatic habitat or sustained water source that would support this species.
<i>Mammals</i>				
American badger	<i>Taxidea taxus</i>	None/SSC	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Not expected to occur. Although suitable vegetation in the form of open grasslands and coastal scrub exists on site, the site is isolated (surrounded by development on all sides), dominated by human presence, and lacks suitable burrows for this species during surveys conducted between April 2015 and June 2016.
Pacific pocket mouse	<i>Perognathus longimembris pacificus</i>	FE/SSC	Fine-grained sandy substrates in open coastal strand, coastal dunes, and river alluvium	Not expected to occur. This site does not have sandy substrate or any river alluvium flowing through it and therefore would not support this species. Additionally, the site is outside of the species known geographic range.
San Diego desert woodrat	<i>Neotoma lepida intermedia</i>	None/SSC	Coastal scrub, desert scrub, chaparral, cacti, rocky areas	Low potential to occur. The site contains suitable habitat in the form of coastal scrub and chaparral that could support this species; however, this habitat is really steep and suitable woodrat middens were not detected.
big free-tailed bat	<i>Nyctinomops macrotis</i>	None/SSC	Rocky areas; roosts in caves, holes in trees, buildings, and crevices on cliffs and rocky outcrops; forages over water	Not expected to occur. The site does not contained water in which this species requires for foraging. While there may be some roosting habitat within tree holes and cliff areas, it is unlikely for this species to occur because of the lack of foraging habitat.

APPENDIX H (Continued)

Common Name	Scientific Name	Status ¹ : Federal/State	Habitat	Potential to Occur ²
pocketed free-tailed bat	<i>Nyctinomops femorosaccus</i>	None/SSC	Pinyon–juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oases; roosts in high cliffs or rock outcrops with dropoffs, caverns, and buildings	Not expected to occur. Suitable vegetation (ie. desert habitat, palm oases) does not exist on site. While there are drop-offs and cliff areas that could support roosting potential for this species, the lack of foraging habitat makes it unlikely to occur.
silver-haired bat	<i>Lasionycteris noctivagans</i>	None/None	Old-growth forest, maternity roosts in trees (primarily woodpecker hollows), large-diameter snags 50 feet aboveground; hibernates in hollow trees, under sloughing bark, in rock crevices, and occasionally in buildings, mines, and caves; forages in or near coniferous or mixed deciduous forest, often following stream or river drainages	Low potential to occur. While the site does not have stream drainages that this species could forage along, there are large trees on the site that could provide suitable roosting habitat.
south coast marsh vole	<i>Microtus californicus stephensi</i>	None/SSC	Tidal marshes	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present on site.
southern California saltmarsh shrew	<i>Sorex ornatus salicornicus</i>	None/SSC	Saltmarsh, saltgrass, dense willow, bulrush	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present on site.
<i>Invertebrates</i>				
Belkin's dune tabanid fly	<i>Brennania belkini</i>	None/None	Inhabits coastal sand dunes of Southern California	Not expected to occur. The site is outside of the species' known geographic range.
Busck's gallmoth	<i>Carolella busckana</i>	None/None	Coastal scrub dunes	Not expected to occur. The site is outside of the species' known geographic range.
Dorothy's El Segundo Dune weevil	<i>Trigonoscuta dorothea dorothea</i>	None/None	Coastal sand dunes in Los Angeles County	Not expected to occur. The site is outside of the species' known geographic range.
El Segundo blue butterfly	<i>Euphilotes battoides allyni</i>	FE/None	Remnant coastal dune habitat in Los Angeles and Santa Barbara Counties	Not expected to occur. The site is outside of the species' known geographic range.
El Segundo flower-loving fly	<i>Rhaphiomidas terminatus terminatus</i>	None/None	Presumed extinct but recently discovered on Malaga Dunes, Los Angeles County	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
globose dune beetle	<i>Coelus globosus</i>	None/None	Inhabitant of coastal sand dune habitat; erratically distributed from Ten Mile Creek in Mendocino County south to Ensenada, Mexico	Not expected to occur. There is no suitable vegetation (ie. coastal sand dunes) present on site.

APPENDIX H (Continued)

Common Name	Scientific Name	Status ¹ : Federal/State	Habitat	Potential to Occur ²
Henne's eucosman moth	<i>Eucosma hennei</i>	None/None	Endemic to El Segundo dunes	Not expected to occur. The site is outside of the species' known geographic range.
Lange's El Segundo Dune weevil	<i>Onychobaris langei</i>	None/None	Known from El Segundo Dunes	Not expected to occur. The site is outside of the species' known geographic range.
mimic tryonia (=California brackishwater snail)	<i>Tryonia imitator</i>	None/None	Inhabits coastal lagoons, estuaries, and saltmarshes, from Sonoma County south to San Diego County	Not expected to occur. There is no suitable vegetation (ie. saltmarshes or coastal lagoons) present on site.
Palos Verdes blue butterfly	<i>Glaucopsyche lygdamus palosverdesensis</i>	FE/None	Cool, fog-shrouded, seaward side of Palos Verdes Hills, Los Angeles County	Not expected to occur. The site is outside of the species' known geographic range.
Riverside fairy shrimp	<i>Streptocephalus woottoni</i>	FE/None	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. There were no vernal pools found on site.
sandy beach tiger beetle	<i>Cicindela hirticollis gravida</i>	None/None	Inhabits areas adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico	Not expected to occur. While the site is within proximity of the Pacific Ocean, the site itself does not have freshwater habitat suitable for this species.
senile tiger beetle	<i>Cicindela senilis frosti</i>	None/None	Inhabits marine shoreline, from Central California coast south to saltmarshes of San Diego; also found at Lake Elsinore	Not expected to occur. While the site is within proximity of the Pacific Ocean, the site itself does not have marine habitat suitable for this species.
western beach tiger beetle	<i>Cicindela latesignata latesignata</i>	None/None	Mudflats and beaches in coastal Southern California	Not expected to occur. While the site is within proximity of the Pacific Ocean, the site itself does not have a mudflat or sandy environment suitable for this species.
western tidal-flat tiger beetle	<i>Cicindela gabbii</i>	None/None	Inhabits estuaries and mudflats along the coast of Southern California	Not expected to occur. While the site is within proximity of the Pacific Ocean, the site itself does not have marine habitat suitable for this species.
monarch	<i>Danaus plexippus</i>	None/None	Wind-protected tree groves with nectar sources and nearby water sources	Low potential to occur. The site has suitable habitat in the form of large tree groves; however, the site does not have its own water sources.
wandering skipper	<i>Panoquina errans</i>	None/None	Saltmarsh	Not expected to occur. While the site is within proximity of the Pacific Ocean, the site itself does not have saltmarsh habitat suitable for this species.

APPENDIX H (Continued)

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