Appendix B

Biological Resources Assessment

Shen Residence

Biological Resources Assessment

Prepared for
Drs. Wei-Min Shen & Ying Sai
26810 Fond Du Lac Road
Rancho Palos Verdes, California 90275

Prepared by
Rincon Consultants, Inc.
250 E 1st Street, Suite 301
Los Angeles, California 90012

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Rincon Consultants, Inc.
Environmental Scientists Planners Engineers
www.rinconconsultants.com

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Executive Summary

This document provides the findings of a Biological Resources Assessment (BRA) prepared by Rincon Consultants, Inc. (Rincon) for the proposed Shen Residence (project). The report documents existing conditions at the project site and assess potential impacts to sensitive biological resources based upon proposed project plans.

The proposed project would include an approximate 8,850-square-foot residence, accessory structures and amenities on an approximate 21.14-acre lot in the City of Rolling Hills, California. The site is bordered on three sides by preserves managed under the City of Palos Verde's Draft Natural Communities Conservation Plan (NCCP) and Habitat Conservation Plan (HCP). The project also includes development of an access road and fire lane. The project would require about 4,104 cubic yards of cut soil and 3,932 cubic yards of fill.

Rincon identified eight (8) special-status plant species with a moderate potential to occur within the project area in coastal scrub habitat: Coulter's saltbush (*Atriplex coulteri*); CRPR 1B. 2, south coast saltscale (*Atriplex pacifica*); CRPR 1B.2, Davidson's saltscale (*Atriplex serenana* var. *davidsonii*); CRPR 1B.2, island green dudleya (*Dudleya virens* ssp. *insularis*); CRPR 1B.2, mesa horkelia (*Horkelia cuneata* var. *puberula*); CRPR 1B.1, decumbent goldenbush (*Isocoma menziesii* var. *decumbens*); CRPR 1B.2, sea dahlia (*Leptosyne maritima*); CRPR 1B.2, and Brand's star phacelia (*Phacelia stellaris*); CRPR 1B.1.

Rincon identified five (5) special-status wildlife species with potential to occur on-site. Two (2) of these species have a high potential to occur: Palos Verdes blue butterfly (*Glaucopsyche lygdamus palosverdesensis*); federally endangered, and Coastal California gnatcatcher (*Polioptila californica californica*); federally threatened, State Species of Special Concern (SSC). Three species have at least a moderate potential to occur: southern California legless lizard (*Anniella stebbinsi*); SSC, San Diego desert woodrat (*Neotoma lepida intermedia*); SSC, and coast horned lizard (*Phrynosoma blainvillii*); SSC.

No special status plant or wildlife species were observed during site surveys. In addition to the species listed above, bird species protected by the California Fish and Game Code (CFGC) and the Federal Migratory Bird Treaty Act (MBTA) may nest on-site. Most birds that are not otherwise considered to have any special-status designation still have protection while nesting.

Special-status species and common nesting birds on-site could be affected directly (loss of individuals) or indirectly (construction noise, dust, and other human disturbances) as a result of the construction of the project. These impacts would be potentially significant, but can be reduced to a less than significant level through implementation of proposed mitigation measures.

1 Introduction

This report documents the findings of a biological resources assessment (BRA) conducted at the site of a proposed single family residence in the City of Rolling Hills, California. The purpose of this report is to document existing conditions of the project site and to evaluate the potential for impacts to special-status biological resources for compliance with the California Environmental Quality Act (CEQA) review process.

1.1 Project Location

The project is located south of Portuguese Bend Road (Assessor's Parcel Number [APN] 7567-013-005) in Rolling Hills, California. The regional location is depicted in Figure 1. The site located on the southern portion of the Palos Verdes Peninsula between open space reserves and residential development. The parcel is undeveloped, private land. It is bordered on three sides by reserves: the Portuguese Bend Reserve, which extends from the north border of the property around its western and southern sides, and the Forrestal Nature Reserve, which is immediately southeast of the property. Additionally, Klondike Canyon Creek is approximately 200 feet southeast of the property and Paintbrush Canyon Creek is immediately northwest of the property. Currently, the property owners allow members of the Rolling Hills community with appropriate permission to cross the site on private trails connecting to the Portuguese Bend Reserve. The Burma Road trail in the Portuguese Bend Reserve terminates near the south property corner. An informal unpaved access route extends from that point through the property to Portuguese Bend Road. The property is bordered to the northeast by existing residential development along Running Brand Road. The site is depicted on the San Pedro, California United States Geological Survey (USGS) 7.5-minute topographic quadrangle.

1.2 Project Description

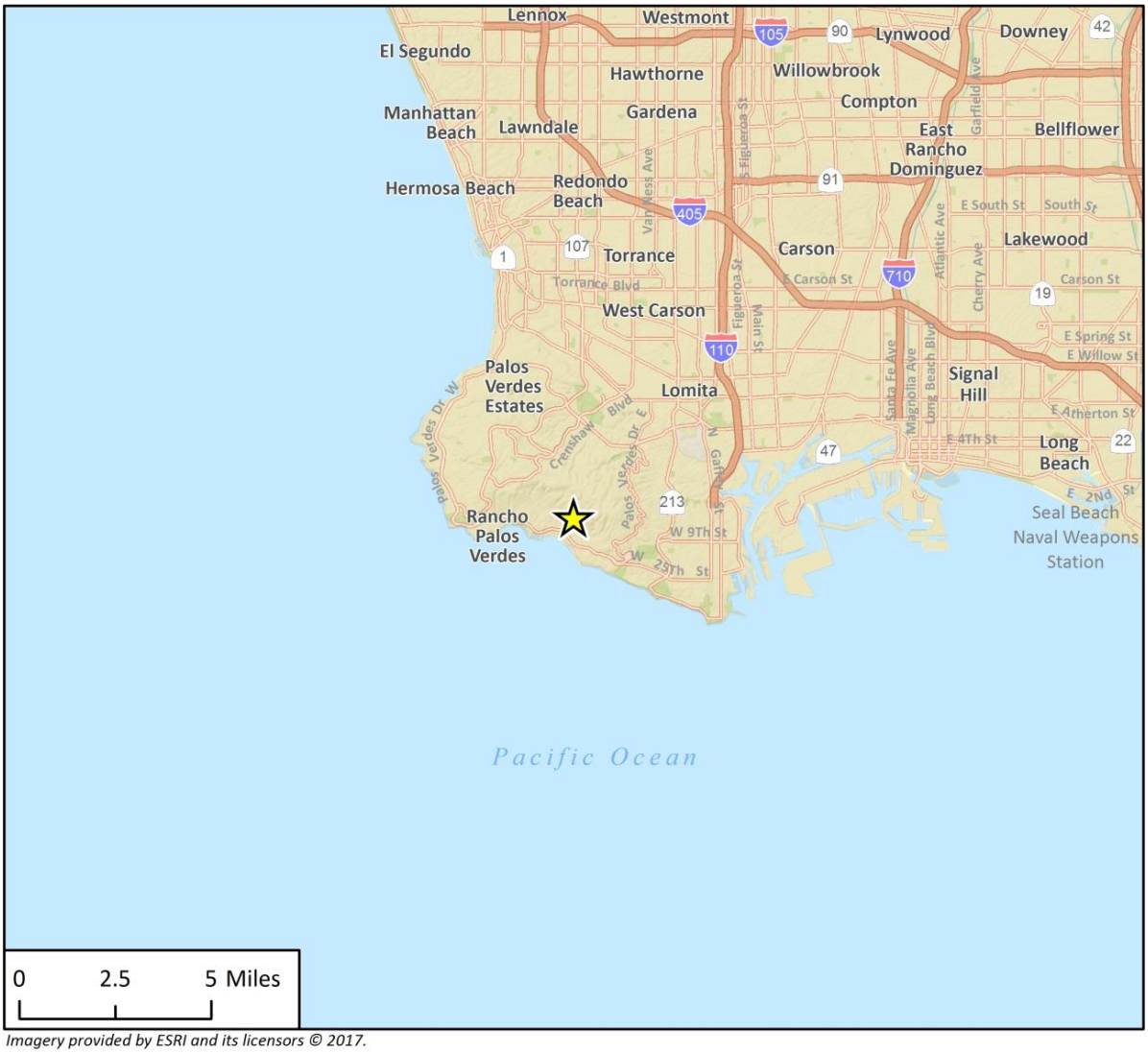
The proposed project would include an approximately 8,850-square-foot residence, an approximate 2,430-square-foot guest house, accessory structures, and amenities on the approximately 21.14-acre lot. The project also includes development of an access road and fire lane with a fire truck turning pad, as well as a 3-foot retaining wall between the fire lane and the eastern side yard. A septic tank and leach field system would also be installed. The project would require about 4,104 cubic yards of cut soil and 3,932 cubic yards of fill. The remaining 172 cy of cut soil would be distributed throughout the lot in disturbed areas to a depth of approximately two to three inches, or as required by the City, instead of being exported from the site. The project also includes improvements to the access road leading to the parcel.

The study area for this report consists of the 2.90 acre project footprint, defined as the area within the grading limits of a single family residence and proposed improvements to the access road, plus the fuel modification areas outside of the project footprint, but within the parcel boundary (per Los Angeles County requirements), and a 150-foot buffer around other areas of the project footprint to consider potential project effects, for a total study area of 15.31acres (Figure 2). Resources on the remainder of the lot were reviewed but not studied in detail. These include portions of the parcel

that occur on active and dormant landslide areas, as reflected on the proposed architectural plans. These areas will likely remain undeveloped due to the City of Rolling Hills building codes.

A Fuel Modification area will be required for the project pursuant to the Los Angeles County Fire Code Section 4908. A Fuel Modification Plan is a landscape plan showing all proposed and existing-to-remain vegetation on the property. The plan includes a site plan with the building footprint and, Zone A, Zone B, and Zone C, which are concentric zones around each structure extending to the property line. Zone A is a setback zone and extends from the outer edge of the structure or appendage to 30 feet. Zone B is an irrigated zone and extends from the edge of Zone A to 100 feet from the structure. Finally, Zone C is a native brush thinning zone and extends from the edge of Zone B up to 200 feet from the structure, or to the property line. Deviations from these fuel modification zone sizes would require approval from the Los Angeles County Fire Department (LA County 2021).

Figure 1 Regional Location Map



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Project Location

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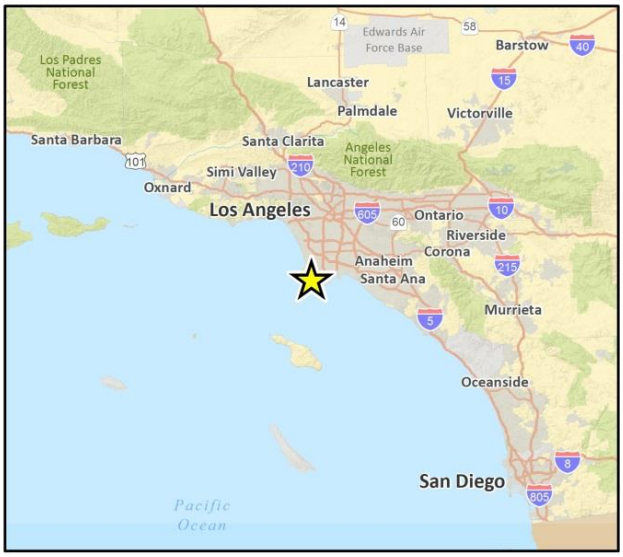
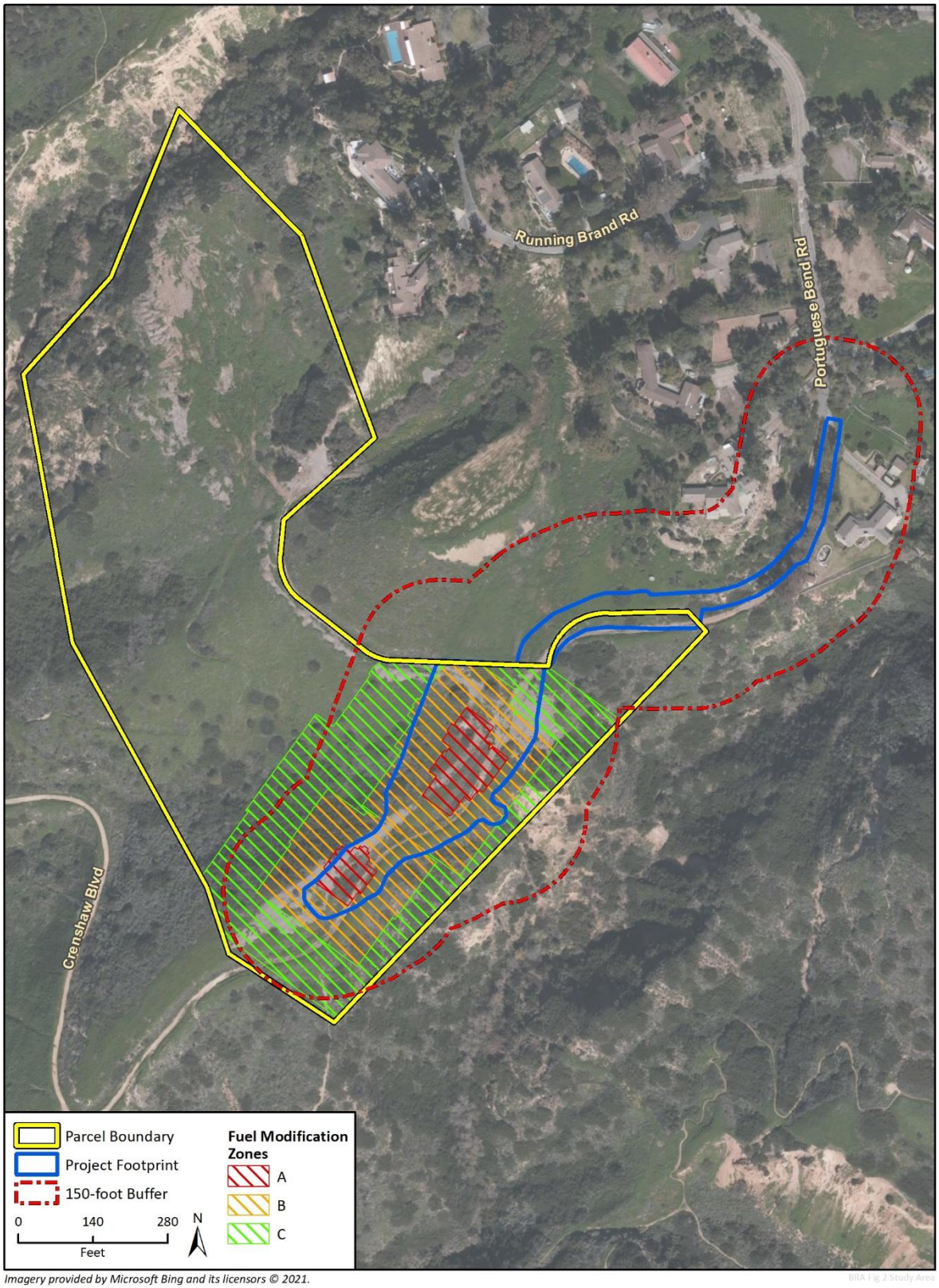


Figure 2 Project Footprint and Study Area



2 Methodology

2.1 Regulatory Overview

Regulated or sensitive resources studied and analyzed herein include special status plant and wildlife species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, and locally protected resources, such as protected trees. The City of Rolling Hills is the lead agency for this project under CEQA.

2.1.1 Environmental Statutes

For the purpose of this report, potential impacts to biological resources were analyzed based on the following statutes:

- CEQA
- Federal Endangered Species Act (ESA)
- California Endangered Species Act (CESA)
- Federal Clean Water Act (CWA)
- California Fish and Game Code (CFGC)
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act
- Los Angeles County Fire Code Section 4908
- City of Rolling Hills Code and Policies, including:
  - Municipal Code, Ordinance Chapter 8.32.095 Planning and Land Development Program requirements for New Development and Redevelopment projects. (2017)
  - Rolling Hills Community Association (RHCA) Covenants, Conditions, and Restrictions (CC&Rs) (1936)
  - RCHA Landscape Guidelines (2015)

2.1.2 Guidelines for Determining CEQA Significance

The following threshold criteria, as defined by the CEQA Guidelines Appendix G Initial Study Checklist, were used to evaluate potential environmental effects. Based on these criteria, the proposed project would have a significant effect on biological resources if it would:

a) Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.

c) Have 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, hydrological interruption, or other means.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.

2.2 Literature Review

This evaluation consisted of a review of relevant background literature followed by a field survey and preparation of this report. The analysis included an investigation to determine the presence/absence of sensitive vegetation, jurisdictional waters and streams, and habitat that could potentially support special-status species. Rincon conducted a search and review of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Data Base (CNDDB) (2017a) records for the San Pedro 7.5-minute quadrangle and the surrounding three quadrangles, a review of the Information for Planning and Consultation (IPaC) list (USFWS, 2017a),CDFW Biogeographic Information and Observation System (2017b), and a review of the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants of California (2017) as reflected in the special-status species table in Appendix B, as well as the United States Fish and Wildlife Service (USFWS) Critical Habitat Portal (2017b), and relevant studies to determine if there were any recorded observations of special-status species, habitats, or other special-status biological resources in the vicinity of the project site.

The literature review included information and data from the following additional sources:

- Palos Verdes Nature Preserve Survey for the California Gnatcatcher and the Cactus Wren. Palos Verdes Peninsula Land Conservancy (2013)
- Local Assistance Grant Report. Wildlife Recovery: Restoration and Monitoring for Portuguese Bend Reserve (2011)
- Habitat Restoration Plan For The Portuguese Bend Reserve in the Palos Verdes Nature Preserve (2010)
- Project site plans dated December 20, 2016 (Obelisk Architects)
- National Wetlands Inventory Wetlands Mapper (USFWS 2017c)
- Essential Connectivity Area, California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California (California Department of Transportation and CDFW 2010).

2.3 Field Reconnaissance Survey

Rincon Biologist Amy Leigh Trost conducted a reconnaissance-level field survey on December 1, 2017, from 8:15 to 10:30 a.m. The purpose of the survey was to document existing biological conditions within the study area, including plant and wildlife species, vegetation communities, potential jurisdictional waters and wetlands, and the potential for presence of special-status species

and/or habitats. The biologist conducted the survey on foot, walking along Portuguese Bend Road, the existing unpaved access route that crosses through the project footprint, and entire project footprint. Accessible areas of the 100 foot buffer were walked. Areas of the buffer that weren't accessible due to steep slope, dense vegetation, or property boundaries were scanned with binoculars. Habitats within the study area were mapped and classified, and species observed during the survey were noted. Additionally, habitat types for the entire property, including areas outside the primary study area, were mapped by marking boundaries of vegetation communities onto USGS topographic maps and aerial imagery. Weather conditions during the survey included an average temperature of 64 degrees Fahrenheit, with winds between 0 and 3 miles per hour, with 0% cloud cover. Site photographs can be found in Appendix C.

3 Existing Conditions

3.1 Physical Characteristics

The study area is on an undeveloped lot surrounded on three sides by the Portuguese Bend Reserve (open space), with private residences (development) to the northeast (Figure 3). Currently, the public crosses the site on informal trails connecting to the Portuguese Bend Reserve, and a portion of the site has also been used as a picnic area, although the site is not formally designated as open space and formal trails have not been established.

3.1.1 Watershed and Drainages

The study area is within the Manhattan Beach-Frontal Santa Monica Bay Hydrologic Unit Code 12 (HUC-12) Watershed, which drains toward the Pacific Ocean. No streams are present on the property, but two streams are present nearby. Klondike Canyon Creek is outside the study area, approximately 200 feet southeast of the property and downslope of the project footprint, and Paintbrush Canyon Creek is north of the property and separated from the project footprint by hilly topography. Klondike Canyon Creek is an ephemeral stream, and based on topography of the area, stormwater runoff from the study area could flow directly toward this stream.

3.1.2 Topography and Soils

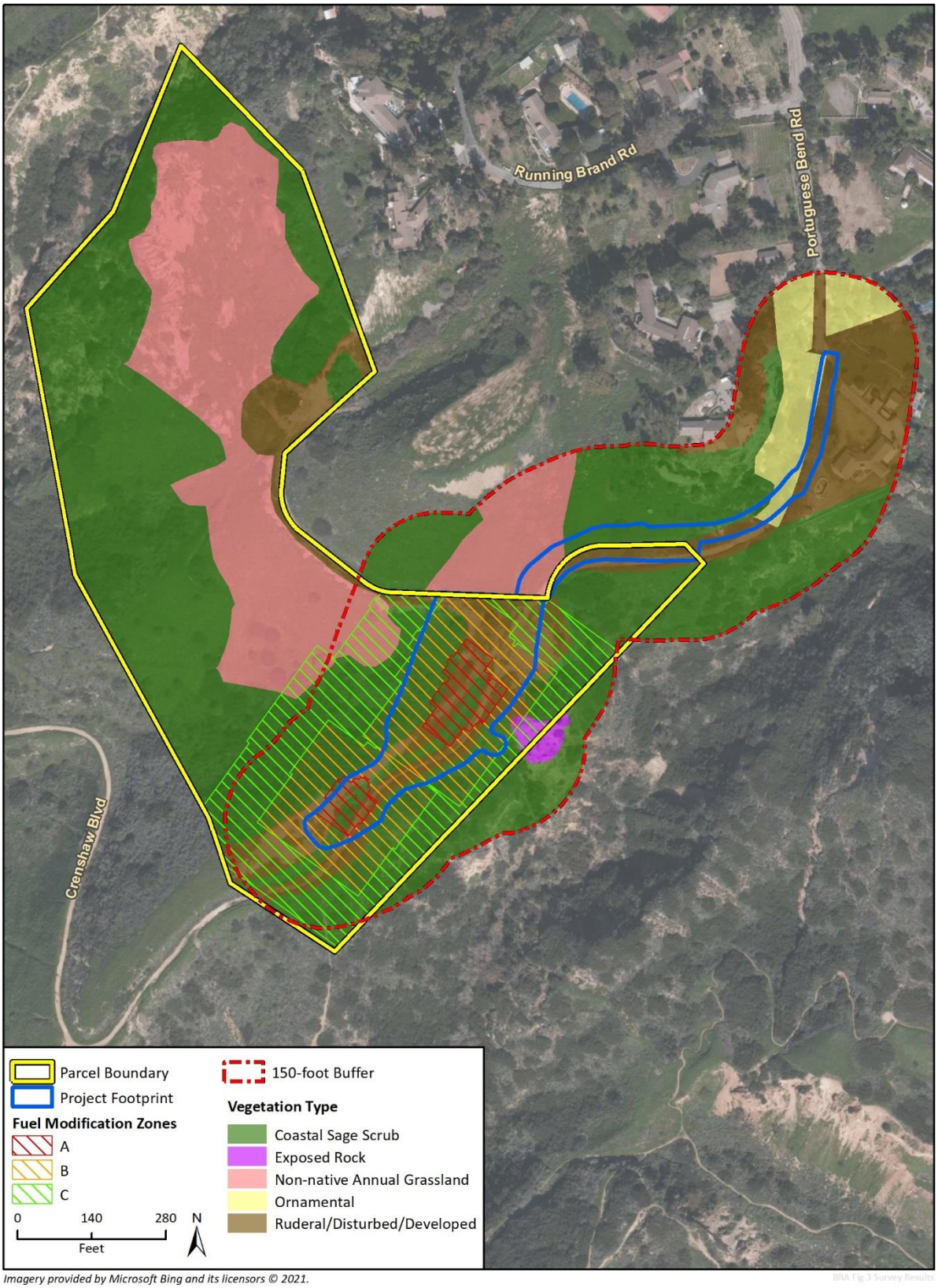
The study area is on a hill, and elevations range from 580 to 770 feet above mean sea level (USGS, 2017; Google Earth 2017). The topography of the study area is a flattened area along a ridgeline, with steep slopes on either side. The study area overlaps a portion of the Flying Triangle landslide; the geological review also determined that portions of the parcel occur on both active and dormant landslide areas. However the project footprint is placed within a geologically stable area (Coast Geotechnical, Inc., 2012), and the presence of these landslides limits the potential to alter the project footprint to other areas of the parcel.

According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, the study area overlaps three soil map units: Haploxerepts, 10 to 35 percent slopes; Mollic Haploxeralfs, coastal-Topdeck-Urban land complex, 20 to 55 percent slopes; and Oceanaire-Filiorum complex, 10 to 35 percent slopes (USDA NRCS 2017).

The Haploxerepts, 10 to 35 percent slopes, soil map unit is typically on landslides and deposits from landslides; this soil map unit primarily overlaps the buffer area. This map unit is primarily slide deposits from calcareous shale. A typical profile consists of layers of loam underlain by channery loam. It is well drained, and the runoff class is high. This soil map unit is not rated as hydric.

The Mollic Haploxeralfs, coastal-Topdeck-Urban land complex, 20 to 55 percent slopes, map unit typically occurs on marine terraces. In the study area, this is the primary soil map unit based on NRCS mapping. It is a complex of unnamed Mollic Haploxeralf soils, Topdeck soils, and urban lands. Parent materials include colluvium and residuum weathered from volcanic and sedimentary rock. A typical Mollic Haploxeralf profile consists of a loam topsoil underlain by layers of clay loam with bedrock at 39 inches. This component is well drained and the runoff class is very high. A typical Topdeck soil profile consists of a loam topsoil underlain at shallow depths by a gravelly clay loam,

Figure 3 Land Cover/ Vegetation Types



with bedrock starting at about 12 inches' depth. This component is well drained and the runoff class is high. The urban lands component refers to modified areas on which native soil is not present. This soil map unit is not rated as hydric.

The Oceanaire-Filiorum complex, 10 to 35 percent slopes, map unit typically occurs on marine terraces. Parent materials include colluvium and residuum weathered from limestone and shale. A typical Oceanaire soil profile consists of loam topsoil, underlain by calcic loam, with bedrock beginning at about 51 inches' depth. This component is well drained and the runoff class is high. A typical Filiorum soil profile consists of clay loam topsoil, underlain by clay, with bedrock beginning at 48 inches' depth. This component is well drained and the runoff class is high. This soil map unit is not rated as hydric.

3.2 Land Cover /Vegetation Types

Five vegetation/land cover types occur within the study area: non-native annual grassland, coastal sage scrub, ornamental woodland, rock outcrop, and ruderal/disturbed and developed areas (Table 1). Vegetation was classified and mapped during biological resource survey work conducted on December 1, 2017, to characterize the study area and the subject parcel. Vegetation communities are depicted on Figure 3 and discussed in more detail below.

Non-native Annual Grassland

This vegetation community is strongly dominated by non-native annual grasses, with intermixed herbaceous weeds and occasional native annuals. Biotic factors (precipitation, temperature, canopy cover and topography) influence the composition of annual grasslands, which can vary somewhat from year to year in response to temperature and rainfall. While this habitat is primarily defined as grassland, many annual herbaceous plants are commonly found within this habitat, with overall community height less than three feet. Dominant species include hare barley (*Hordeum murinum leporinum*), ripgut brome (*Bromus diandrus*), Mediterranean hoary mustard (*Hirschfeldia incana*), and black mustard (*Brassica nigra*). A portion of this community has been mowed to manage fuels for fire suppression. This vegetation type covers 1.33 acres of the study area (Table 1), of which 0.13 acre occur within the project footprint. Furthermore, this vegetation type covers approximately 0.29 acre of the fuel modification area outside of the project footprint, but within the parcel boundary.

Coastal Sage Scrub

Coastal sage scrub, as described by Holland (1986) and Sawyer et al. (2009), is dominated by low, woody sub-shrubs approximately three feet high ranging from a continuous canopy with little understory cover to a more open canopy of widely spaced shrubs with more developed understory of native grasses and herbaceous annuals. This community is typically found on steep xeric slopes. Dominant species observed in the study area were California sagebrush (*Artemisia californica*) and lemonade berry (*Rhus integrifolia*), with black sage (*Salvia mellifera*), purple sage (*Salvia leucophylla,*), California brittlebrush (*Encelia californica*), and California buckwheat (*Eriogonum fasciculatum*). Density of the coastal scrub community varies within the study area, and previous disturbances have resulted in a patchy configuration of this habitat in the project footprint, with intermixed ruderal and disturbed areas between patches of scrub. The coastal sage scrub within the project footprint has been compromised by the establishment of weedy species such as Mediterranean hoary mustard, and nonnative annual grasses. Therefore, the habitat quality of this community is lower than a pristine stand of scrub. Coastal sage scrub occurs on 8.58 acres of the

study area (Table 1), of which 1.06 acres occur within the project footprint. Furthermore, this vegetation type covers approximately 3.31 acres of the fuel modification area outside of the project footprint, but within the parcel boundary.

Ruderal/Disturbed/Developed

This community consists of areas that have been modified such that most or all vegetation has been removed and only a few non-native weedy species are present. The term "ruderal" refers to vegetation that occurs on highly disturbed sites in urbanized areas (along roadsides, footpaths and previously graded areas) that support weedy broadleaf and grass species. Disturbed/developed areas have been significantly altered by the creation of roads, urban development, or recreational use; and little or no vegetation cover remains. Within the study area, disturbed/developed areas include mulched unpaved roads, informal trails, and a picnic area. The most common plant species these habitats support are non-native weedy broadleaf species, including Mediterranean hoary mustard, and annual non-native grasses. Ruderal, disturbed, and developed areas cover 4.26 acres of the study area (Table 1), of which 1.62 acres occur within the project footprint. Furthermore, this vegetation type covers approximately 0.72 acre of the fuel modification area outside of the project footprint, but within the parcel boundary.

Ornamental Woodland

Ornamental woodland within the study area occurs along Portuguese Bend Road between developed residential properties. Species found in this community are primarily non-native ornamental plantings. Ornamental trees including Peruvian pepper tree (*Schinus molle*), Brazilian pepper tree (*Schinus terebinthifolius*), eucalyptus (*Eucalyptus* sp.), and pine (*Pinus* sp.), are present on the within the study area. English ivy (*Hedera helix*) is abundant in the understory and growing on the trees. One coast live oak (*Quercus agrifolia*) was also observed near the proposed driveway. Ornamental woodlands cover 0.98 acre of the study area, of which 0.09 acre occur within the project footprint, primarily along the access road improvement area. This vegetation type is not located within the fuel modification area.

Exposed Rock

An area of exposed rock occurs just south of the project footprint, where there is a small rock slide above Klondike Canyon. This area occurs entirely outside the project footprint, and covers 0.16 acre of the study area. Approximately 0.07 acre of this land cover type is within the fuel modification area.

Table 1 Summary of Vegetation Communities within the Study Area

Vegetation Community	Approximate Acreage within Study Area	Approximate Percentage of the Study Area
Non-native Annual Grassland	1.33	8.69
Coastal Sage Scrub	8.58	56.04
Ornamental Woodland	0.98	6.40
Rock outcrop	0.16	1.05

Vegetation Community	Approximate Acreage within Study Area	Approximate Percentage of the Study Area
Ruderal/Disturbed/Developed	4.26	27.82

Note that land cover/vegetation types were identified for the study area and were also for the remainder of the parcel outside the study area to provide context; however, Table 1 represents acreages within the study area only.

3.3 General Wildlife

The project site and surrounding area provide habitat for wildlife species that commonly occur in coastal scrub habitats and residential areas of the region. Wildlife species observed during the survey included red-tailed hawk (*Buteo jamaicensis*), black phoebe (*Sayornis nigricans*), house finch (*Haemorhous mexicanus*), yellow-rumped warbler (*Setophaga coronata*), American crow (*Corvus brachyrhynchos*), and California ground squirrel (*Otospermophilus beecheyi*).

4 Sensitive Biological Resources

This section evaluates the potential for the project site to support sensitive biological resources. No sensitive species were observed during the site reconnaissance survey, however suitable habitat for sensitive species is present in the study area.

Local, state, and federal agencies regulate special status species and require an assessment of their presence or potential presence to be conducted on-site prior to the approval of any proposed development on a property. Assessments for the potential occurrence of special status species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDB, species occurrence records from other sites in the vicinity of the survey area, and previous reports for the project site. The potential for each special status species to occur in the survey area was evaluated according to the following criteria:

- **Not expected.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- **Low Potential.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- **Moderate Potential**. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- **High Potential.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- **Present.** Species is observed on the site or has been recorded (e.g., CNDDB, other reports) on the site recently (within the last 5 years).

4.1 Special Status Species

For the purpose of this report, special-status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS under the ESA; those listed or candidates for listing as Rare, Threatened, Endangered under CESA or the Native Plant Protection Act; those identified as Fully Protected under Sections 3511, 4700, 5050, and 5515 of the CFGC; Species of Special Concern (SSC) identified by the CDFW; and plants occurring on Ranks 1 and 2 of the California Native Plant Society's California Rare Plant Rank (CRPR) system per the following definitions:

- List 1A = Plants presumed extinct in California.
- List 1B.1 = Rare or endangered in California and elsewhere; seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat).
- List 1B.2 = Rare or endangered in California and elsewhere; fairly endangered in California (20-80% occurrences threatened).

- List 1B.3 = Rare or endangered in California and elsewhere, not very endangered in California (<20% of occurrences threatened or no current threats known).
- List 2A=Plants presumed extirpated in California, but more common elsewhere.
- List 2B = Rare, threatened or endangered in California, but more common elsewhere.

Based on a query of the CNDDB, 22 special-status plant species and 17 special-status animal species are known to occur in the San Pedro, United States Geological Survey (USGS) 7.5-minute topographic quadrangle, and surrounding three quads. All 39 species were evaluated for potential to occur within the survey area, and results of this evaluation can be found in Appendix B. Of those species, 15 special-status plant species and 13 special-status animal species were documented within a 5-mile radius of the project site.

4.1.1 Special Status Plant Species

No special-status plants were observed during the reconnaissance-level field survey; however, a focused botanical survey was not conducted. Eight (8) special-status plant species have a moderate potential to occur within the project area in coastal scrub habitat:

- Coulter's saltbush (*Atriplex coulteri*); CRPR 1B. 2
- South coast saltscale (*Atriplex pacifica*); CRPR 1B.2
- Davidson's saltscale (*Atriplex serenana* var. *davidsonii*); CRPR 1B.2
- Island green dudleya (*Dudleya virens* ssp. *insularis*); CRPR 1B.2
- Mesa horkelia (*Horkelia cuneata* var. *puberula*); CRPR 1B.1
- Decumbent goldenbush (*Isocoma menziesii* var. *decumbens*); CRPR 1B.2
- Sea dahlia (*Leptosyne maritima*); CRPR 1B.2
- Brand's star phacelia (*Phacelia stellaris*); CRPR 1B.1

These species are non-listed CRPR 1B species with moderate potential to occur in scrub and grassland habitats. A protocol botanical survey has not been completed, and the reconnaissance survey was conducted outside the bloom period typically used for survey and identification of these species.

4.1.2 Special Status Wildlife Species

No special status wildlife species were observed during the reconnaissance-level field survey; however protocol level surveys were not performed. Special-status wildlife species typically have very specific habitat requirements which may include, but are not limited to, vegetation communities, elevation levels and topography, and availability of primary constituent elements (i.e., space for individual and population growth, breeding, foraging, and shelter).

Of the 17 special-status wildlife species reported in the CNDDB for the vicinity, six were excluded from having any potential to occur based on a lack of suitable habitat and/or lack of specific required habitat features (e.g., suitable trees for nesting) documented at the site during the reconnaissance survey. Five (5) special-status wildlife species have a moderate or high potential to occur within the study area in coastal scrub habitat or adjacent grassland:

- Southern California legless lizard (*Anniella stebbinsi*); (SSC)
- Palos Verdes blue butterfly (*Glaucopsyche lygdamus palosverdesensis*); federally endangered
- San Diego desert woodrat (*Neotoma lepida intermedia*); SSC

- Coastal California gnatcatcher (*Polioptila californica californica*); federally threatened, SSC
- Coast horned lizard (*Phrynosoma blainvillii*); SSC

The two species that were determined to have a high potential to occur in the study area are coastal California gnatcatcher and Palos Verdes blue butterfly. The remaining species have moderate potential to occur. These species are discussed in greater detail below, grouped by status.

Federally and/or State Listed Species

Coastal California Gnatcatcher

This species is listed as federally threatened (USFWS 1993) and a CDFW SSC. Coastal California gnatcatcher is the northernmost of three subspecies currently recognized. It is restricted to arid, lowland areas and has a range from southwestern California to northwestern Baja California. Within the U.S., the current range of the coastal California gnatcatcher is generally within San Diego, Orange, Los Angeles, eastern Ventura and western Riverside counties. It is a permanent resident of coastal sage scrub-dominated plant communities generally below 2,000 feet, and while strongly associated with coastal sage scrub, it will also use chaparral, grassland, and riparian plant communities where they occur adjacent to or intermixed with sage scrub. California Gnatcatcher may also prefer coastal scrub habitats dominated by California sage over lemonade berry (Attwood, 1998, and Weaver, 1998).

This species has been reported from the Portuguese Bend Reserve that borders the property, and some of the observations are from the same band of scrub that extends into the project area. Maps provided in the 2017 Natural Community Conservation Plan and Habitat Conservation Plan for Rancho Palos Verdes document gnatcatchers at the immediate edge of the study area (City of Ranch Palos Verdes 2017) as shown on Figure 4. Surveys conducted in 2012 on the adjacent Portuguese Bend and Forrestal Nature Reserves identified 14 California gnatcatcher territories, one of which is approximately 800 feet northwest of the study area (Palos Verdes Peninsula Land Conservancy, 2013). Sage scrub in the project footprint has been previously disturbed and of lower quality than scrub on the adjacent reserve, but could still provide habitat for California gnatcatcher.

Palos Verdes Blue Butterfly

This species is a thumbnail-sized butterfly that was federally listed as endangered by the U.S. Fish and Wildlife Service in 1980. The host plants for this species are locoweed (*Astragalus trichopodus* var. *lonchus*) or deerweed (*Lotus scoparius*).

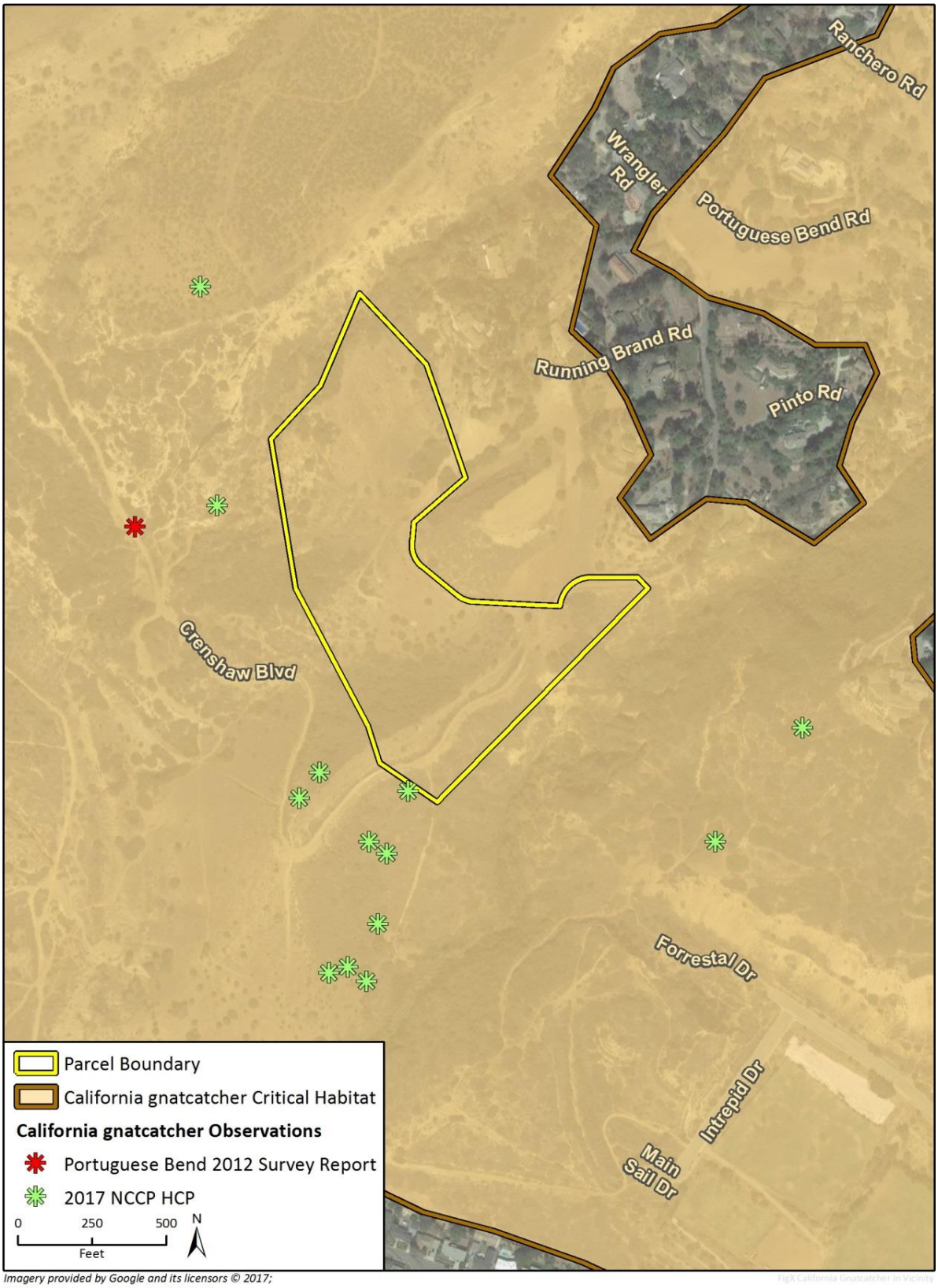
Neither of the host plants were observed during the site visit. However as mentioned above, botanical surveys were not conducted and the timing of the survey was not conducive to detection. Critical habitat for the Palos Verdes blue butterfly occurs approximately 1.6 miles to the southeast of the study area, at the switchbacks on Palos Verde Drive. Historical occurrences are known from the adjacent Forrestal Nature Reserve.

Non-Listed Species of Special Concern

Southern California Legless Lizard

This reptile is a state SSC that occurs in moist warm loose soil with plant cover. Moisture is essential, and the species has been reported from sparsely vegetated areas of beach dunes, chaparral, pine-

Figure 4 California Gnatcatcher Observations reported form Vicinity and Critical Habitat



oak woodlands, scrub, sandy washes, and stream terraces with riparian trees, and occasionally in landscaped areas where mulch is present. Leaf litter under trees and bushes in sunny areas often indicate suitable habitat. This species lives primarily underground, and often can be found under surface objects such as rocks, boards, driftwood, and logs. The nearest reported occurrence is from a landscaped area within the City of Torrance north of the study area (CDFW 2017a). Potentially suitable habitat is present in coastal scrub habitat in the study area. This species was not found during the reconnaissance survey.

Coast Horned Lizard

This species is an SSC reptile that can be found in grasslands, coniferous forests, woodlands, and chaparral, containing open areas and patches of loose soil. Horned lizard diets are specialized and almost exclusively consist of native ants (>94% by prey item [Suarez et al., 2000]). The site is within the historical range of the species, although no nearby recent occurrences are documented in the CNDDB; the nearest record is from a 1930 collection from San Pedro in an area that is now completely urbanized (CDFW 2017a). The majority of the study area consists of suitable habitat except for those areas designated as ruderal/disturbed/developed.

San Diego Desert Woodrat

This species is an SSC mammal that inhabits coastal scrub of southern California from San Diego to San Luis Obispo Counties. It prefers moderate to dense canopies, but is also abundant on rock outcrops, rocky cliffs and slopes. San Diego desert woodrat is reported from coastal sage scrub and bluff habitats approximately 0.5 mile south of the study area on the Palos Verdes Peninsula. Coastal sage scrub and rock outcrops in the study area provide potentially suitable habitat. No woodrat middens were noted during the reconnaissance-level survey.

4.1.3 Critical Habitat

One Critical Habitat unit for California Gnatcatcher falls within the study area; Unit 8: Palos Verdes Peninsula (Figure 4). This species has restricted habitat requirements limited to coastal and inland sage scrub habitats in southern California below 3,000 feet in elevation (USFWS 2007). The Critical Habitat unit at the Portuguese Bend Reserve includes the entire 21-acre parcel, and most of the study area, excluding only the northernmost end of the driveway. California Gnatcatcher normally require at least five to ten acres of coastal sage scrub for nesting and foraging but near coast breeding pairs have been found in coastal sage scrub habitat in areas as small at two to three acres. Although the coastal sage scrub occurring within the study area is of low quality, it is connected to larger patches of scrub habitat on the property and extending into the Portuguese Bend and Forrestal Reserves, where California gnatcatchers are known to occur.

4.1.4 Other Nesting Birds

The non-native annual grassland on the project site could provide habitat for ground nesting birds such as horned lark (*Eremophila alpestris*). Coastal sage scrub provides habitat for a variety of passerines (song birds). The ornamental trees on adjacent properties could provide habitat that has the potential to support protected nesting birds, including raptors such as red-tailed hawk (*Buteo jamaicensis*), Cooper's hawk (*Accipiter cooperii*), and red-shouldered hawk (*Buteo lineatus*).

4.2 Sensitive Plant Communities

Plant communities are considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. The CDFW ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in CNDDB. Similar to special-status plant and wildlife species, vegetation alliances are ranked 1 through 5 based on NatureServe's (2012) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive.

Southern coastal bluff scrub is documented in CNDDB as occurring within a 5-mile radius of the project site. However, this community is restricted to a narrow band along the shoreline and adjacent to coastal dunes. It is not present within the study area. No other sensitive plant communities or habitat types were identified at the site during the reconnaissance survey, and no riparian areas are present.

4.3 Jurisdictional Waters and Wetlands

The project site does not contain any federally protected waters or wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.); riparian habitat or streambed as defined by Section 1600 et seq. of the CFGC; or “waters of the State,” as defined by the Porter-Cologne Water Quality Control Act. Two streams are present offsite and downslope of the site, Paintbrush Canyon Creek and Klondike Creek.

4.4 Wildlife Movement

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

The County of Los Angeles Department of Regional Planning identifies Significant Ecological Areas (SEAs) containing irreplaceable biological resources, and habitat linkages/corridors. As mentioned above, the Counties updated General Plan identifies the Palos Verdes Peninsula and Coastline SEA occurring on the adjacent Portuguese Bend and Forrestal Reserves, bordering the parcel on three sides. The Palos Verdes Peninsula and Coastline SEA includes important linkages for wildlife movement, particularly as a stopover on the Pacific Flyway migration route (Los Angeles County, 2015). This wildlife movement linkage occurs within the SEA primarily along the coastline however. No SEAs were mapped within the project footprint.

The study area and immediate vicinity contain open habitat, but the area north of the site is developed. Wildlife traveling between the Portuguese Bend and Forrestal Reserves are more likely to cross south of the site due to the steepness of Klondike Canyon within and adjacent to the study area. Additionally, the study area does not lie within a wildlife connectivity area as identified by the California Essential Habitat Connectivity Project (Spencer et al., 2010).

4.5 Resources Protected By Local Policies and Ordinances

The Rolling Hills Community Association (RHCA) has jurisdiction over properties within the City. All new development must be approved by the RHCA and the City Planning Department. Under the RHCA Covenants, Conditions, and Restrictions (CC&Rs), the removal of trees twelve (12) feet or over requires approval by the Board of Directors of the Association.

There are existing trees over 12 feet in height within the study area, primarily along the upper reach of Portuguese Bend Road.

4.6 Conservation Plans

The project site is not subject to any Habitat Conservation Plans, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The adjacent Portuguese Bend Reserve is part of the City of Rancho Palos Verde's Natural Communities Conservation Plan (NCCP) and Habitat Conservation Plan (HCP). The Portuguese Bend and Forrestal Preserves are conservation easements under the draft NCCP/HCP, which was adopted in 2004, but has not yet been finalized.

5 Impact Analysis and Mitigation Measures

This section discusses the potential impacts and effects to biological resources that may occur from implementation of the proposed project, and recommends mitigation measures that would reduce those impacts where applicable.

5.1 Special-Status Species

The proposed project would have a significant effect on biological resources if it would:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

5.1.1 Special Status Plants

The Proposed Project has potential to result in direct impacts to special status plant species. Eight (8) special-status plant species have potential to occur within the project area in coastal scrub habitat.

Potentially occurring species are listed by CNPS as CRPR 1B.1 or 1B.2. Impacts to these species would only be considered significant under CEQA if the loss of individuals on the project site represented a population-level impact that resulted in a loss of, or risk to the entire regional population. Given the small size of the project area, and the presence of extensive areas of similar habitat (i.e., coastal sage scrub, annual grassland, and rock outcrops) in adjacent preserves, and outside the footprint on the subject property, impacts to non-listed special status plants that may occur as a result of the project are unlikely to be considered significant under CEQA.

Indirect impacts could occur due to the spread of invasive, non-native species from construction equipment or imported fill materials. Invasive, non-native plant species can out-compete native species and/or alter habitat towards a state that is unsuitable for special status species. For example, the spread of certain weed species can reduce the biodiversity of native habitats through displacement of vital pollinators, potentially eliminating special status plant species. Impacts to special status plants species from invasive weeds are potentially significant because invasive weeds can spread to the extent that they affect rare plants at the local and/or regional population-level.

Implementation of Measure BIO-1 is recommended to reduce potential impacts to special status plant species to a less than significant level.

BIO-1 Special Status Plant Avoidance, Minimization, and Mitigation Measures

1. Invasive Weed Prevention

Impacts to rare plant species should first be avoided where feasible, and, where not feasible. All efforts should be made to avoid the spread or introduction of invasive weeds during

implantation of the proposed project. Appropriate best management practices that are intended and designed to curtail the spread of invasive plant species should be implemented during construction. These include, but are not limited to, the following:

- During construction, the project will make all reasonable efforts to limit the use of imported soils for fill. Soils currently existing on-site should be used for fill material. If the use of imported fill material is necessary, the imported material must be obtained from a source that is known to be free of invasive plant species.
- Equipment and vehicles must be free of caked on mud and weed seeds/propagules before accessing the project site.
- As the site already contains several highly invasive species (rated by the California Invasive Plant Council [Cal-IPC]), all equipment and vehicles must be free of caked on mud and weed seeds/propagules before leaving the project site as well.
- Landscaping materials should not include invasive, non-native ornamentals as identified by the Cal-IPC Inventory.

5.1.2 Special Status Wildlife

The Proposed Project has potential to result in impacts to special status animals. Five (5) special-status wildlife species have potential to occur within the study area in coastal scrub habitat and adjacent grasslands, have potential to occur in the BSA based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDB, species occurrence records from other sites in the vicinity of the survey area, and previous reports for areas in the vicinity of the BSA. Special status wildlife species could be impacted by project activities and those impacts could be considered significant under CEQA.

Listed Species

California Gnatcatcher

This species has potential to be present (nesting) within project sites and the immediate vicinity during construction. Direct impacts to California gnatcatcher could occur if the species is nesting within the site(s). Direct impacts could include injury to or mortality of individuals through destruction of active nests during vegetation trimming, or through nest failure from noise and other disturbance in the vicinity of a nest. Any direct impacts to gnatcatcher would be considered significant under CEQA.

The project site provides low quality foraging habitat for California gnatcatcher and project activity would result in a slight reduction of foraging habitat. The project would also convert approximately 1.19 acres of critical habitat to residential uses within the project footprint (critical habitat includes coastal sage scrub and adjacent grasslands). Approximately 3.61 acres of critical habitat is within the proposed fuel modification area, but outside of the project footprint that would also be impacted by proposed development. Intensity of impact would be greatest in Zones A and B; Zone C would retain some existing vegetation as management is focused on thinning only. The project could result in indirect impacts to the species through loss of habitat. Implementation of Measure BIO-2 is recommended to reduce potential impacts to California gnatcatcher to a less than significant level.

Palos Verdes Blue Butterfly

If this species' host plant occurs in the project site or on adjacent properties, the species may be present during construction. Direct impacts are most likely to occur if eggs, larvae or pupae are present; adults in flight are less likely to be directly impacted. Direct impacts include mortality of individuals due to crushing or removal of host plant species. Indirect impacts may occur if unoccupied host plants are removed, creating a small reduction in suitable habitat. Direct and indirect impacts to the Palos Verdes blue butterfly would be considered significant under CEQA. Measure BIO-3 is recommended to reduce potential impacts to a less than significant level.

In addition to the mitigation measures described below, permitting would be required if federal and state listed species are present and may be impacted by the proposed project. If California gnatcatcher or Palos Verdes blue butterfly are detected during surveys, an Incidental take permit (ITP) pursuant to Section 7(a)(2) or Section 10(a)1(B) of the FESA would be required. In addition, non-federal (private and state) actions affecting listed species and critical habitats are subject to the Habitat Conservation Plan (HCP) requirements of section 10 (a)(1)(B) of the ESA.

The following mitigation measures are recommended to reduce impacts to special status species to less than significant should this species be present at the time of construction:

BIO-2 California Gnatcatcher Avoidance and Minimization

1. California Gnatcatcher Avoidance and Minimization

Prior to construction, protocol level surveys shall be completed in accordance with the guidelines issued by the USFWS, specifically, 9 surveys spaced 2 weeks apart outside breeding season, or 6 surveys spaced one week apart within breeding season (USFWS, February 28, 1997, and revised July 28, 1997). Surveys shall be conducted by a USFWS-permitted biologist prior to the start of construction. The results of the survey must be provided in a report to USFWS. This report should be submitted within 30 days of completion of surveys.

2. Take Avoidance Measures

If protocol surveys determine that occupied habitat is present in the project footprint plus a 500-foot buffer where accessible, measures required during the project construction to avoid and/or minimize direct take of California gnatcatcher include:

- All brushing or grading taking place within occupied habitat of the California gnatcatcher (defined as within 500 feet of any gnatcatcher sightings [USFWS, 2007b]) during construction should be conducted from September 1 through February 14, which is outside the coastal California gnatcatcher breeding season.
- When conducting all other construction activities during the California gnatcatcher breeding season of February 15 through August 30, within habitat in which California gnatcatcher are known to occur or have potential to occur, the following avoidance measures should apply. A USFWS permitted biologist should survey for California gnatcatcher within 10 calendar days prior to initiating activities in an area. The results of the survey should be submitted to USFWS and the City for review and approval prior to initiating any construction activities; and within 14 days of completion of the survey. If coastal California gnatcatcher are present, but not nesting, a USFWS permitted biologist should survey for nesting California gnatcatcher approximately once per week within 500 feet of the construction area, where accessible, for the duration of the activity in that area during the breeding season. California

gnatcatcher surveys should be completed by permitted biologists if proposed projects contain coastal sage scrub, alluvial fan scrub, chaparral, or intermixed or adjacent areas of grassland and riparian habitats, and is located within the range of this species. The protocol should be followed for all surveys unless otherwise authorized by the Service in writing.

- If an active nest is located, a 300-foot no-construction buffer should be established around each nest site; however, there may be a reduction of this buffer zone depending on site-specific conditions such as; topography, line-of-sight to the nest, or the existing ambient level of activity. The Applicant should contact USFWS to determine the appropriate buffer zone. To the extent feasible, no construction should take place within this buffer until the nest is no longer active.
- The project biologist should meet with the owner, permittee or designee, and the construction crew to conduct an on-site educational session regarding the need to avoid impacts outside of the approved development area.
- Conspicuous construction fencing should be maintained in place to protect all habitat outside the approved construction area, until the conclusion of construction. Prior to commencement of grading, the project biologist should confirm with the contractor or a licensed surveyor that the construction fencing has been placed at the outer edge of the construction area.
- All construction activities should take place only inside the fenced area. Grading materials should be stored either inside the fenced development area or in an area approved by the project biologist.
- A Biological Monitor familiar with California gnatcatcher and its habitat should be present during all vegetation clearing and other activities within coastal sage scrub and should monitor the project to ensure that there are no unanticipated impacts the California gnatcatcher and its habitat.
- Access to the site should be via pre-existing access routes to the greatest extent possible.
- All active California gnatcatcher nests will be reported within 24 hours to the USFWS upon detection.
- The biological monitor will halt work if it is determined that active nests would be disturbed by construction activities, until further direction or approval to work is obtained from the appropriate agencies.
- The project site will be kept as clean of debris as possible. All food related trash items should be enclosed in sealed containers and regularly removed from the site.

3. Mitigation Measures to Compensate for Species/Habitat Impacts

Impacts requiring mitigation include; permanent and temporary impacts to occupied and unoccupied habitats. Permanent impacts to occupied habitat should include acquisition and preservation of occupied habitat at a 1:1 ratio. Temporary impacts to occupied habitat should be mitigated at a 1:1 ratio and can include 1:1 onsite restoration and 1:1 acquisition and preservation of occupied habitat

All coastal sage scrub habitat that is not designated for removal should be protected with appropriate buffer zones as determined through agency consultation. Project work areas should be clearly flagged or similarly marked at the outer boundaries to define the limit of work activities. No unauthorized entry or construction disturbance should be permitted within protective buffer zones.

BIO-3 Palos Verdes Blue Butterfly Avoidance and Minimization

1. Palos Verdes Blue Butterfly Preconstruction Surveys

An approved biologist should conduct surveys for the host plants of Palos Verdes blue butterfly; locoweed and deerweed.

- If host plants are located, they should be avoided. If avoidance is not possible, focused surveys should be conducted to determine presence or absence of the butterfly species. This may include transect surveys during the adult flight period (January through May), and/or inspection of host plants for all life forms (egg, larva, pupa, and adult). If individuals of any life stage are detected during focused surveys, a permit for relocation should be obtained from USFWS, and they should be relocated by a USFWS permitted biologist.

Non-Listed SSC Species

Special Status Reptiles

The southern California legless lizard and coast horned lizard may occur onsite during construction, and could be directly impacted due to injury or mortality. Impacts to SSC are considered significant under CEQA if it would threaten the continued existence of the population. Given the small size of the project footprint within the property, and abundant habitat on the Portuguese Bend Preserve, impacts on a population level are not expected, therefore impacts would be less than significant and no mitigation is recommended.

San Diego Desert Woodrat

The San Diego desert woodrat may be directly impacted through injury or mortality if present during construction. Indirect impacts may occur if woodrat middens or habitat are destroyed.

As stated above however, the small size of the project area in comparison to the available habitat on the undevelopable portion of the property, and open space preserves in the surrounding region, the loss of SSC individuals at the site(s) is unlikely to result in a population-level effect. Therefore impacts would be less than significant, and no mitigation is recommended.

5.1.3 Nesting Birds

The study area contains habitat, such as open grassland on the project site and trees and buildings in the adjacent area that can support nesting birds, including raptors protected under the MBTA and the CFGC. Although some of these areas are outside of the project footprint, the project would cause impacts that could, both directly (e.g. ground disturbance) and indirectly (e.g., construction noise, lighting, and fugitive dust), affect these species. Ground disturbing activities could result in the destruction of nests constructed by ground nesting birds and construction noise could result in the abandonment of nests in the adjacent trees.

These impacts could be considered significant under CEQA, and the following proposed mitigation would reduce those impacts to less than significant.

BIO-4 Nesting Bird Avoidance and Minimization

1. Preconstruction Nesting Bird Surveys

Conduct preconstruction nesting bird surveys to determine the presence/absence, location, and status of any active nests onsite. Nesting bird surveys are typically conducted within 7 days prior to construction activities, dependent on local agency requirements.

- Provide the City with pre-construction survey results in a written report, within 14 days of the completion of surveys. The report should include date of the report, authors and affiliations, contact information, introduction, methods, study location (include map), results, discussion, and literature cited.
- If active nests are discovered on the project site, a qualified biologist will establish a buffer around the nest. Typical buffers range from 100 feet for nesting birds and up to 500 feet for nesting raptors around active nests. No construction within the buffer is allowed until a qualified biologist has determined that the nest is no longer active. Encroachment into the buffer can occur at the discretion of a qualified biologist in coordination with the City.

5.2 Sensitive Plant Communities

The proposed project would have a significant effect on biological resources if it would:

b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.

No sensitive plant communities or habitats and no riparian areas occur in the study area. Therefore, the project would have no impact on sensitive natural communities and no mitigation is recommended.

5.3 Jurisdictional Waters and Wetlands

The proposed project would have a significant effect on biological resources if it would:

c) Adversely impact 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, hydrological interruption, or other means.

Although no wetlands or waters of the U.S. or state are present on the site, Paintbrush Canyon Creek and Klondike Creek are in the vicinity. Paintbrush Canyon Creek is northwest of the site and Klondike Creek is approximately 200 feet downslope of the project footprint, where it could be impacted by runoff and sedimentation during construction of the project. However, the City of Rolling Hills' Ordinance for new development and redevelopment projects (Section 8.32.095.A.6) requires compliance with the Los Angeles County Municipal NPDES Permit (MS4 Permit) and in some cases with the County of Los Angeles' Low Impact Development (LID) Standards Manual. This requirement applies to new development directly adjacent to or discharging directly into SEAs as defined in the Los Angeles County General Plan. The County's updated General Plan identifies the

Palos Verdes Peninsula and Coastline SEA occurring on the adjacent Portuguese Bend and Forrestal Reserves, and includes Klondike Canyon Creek and Paintbrush Canyon Creek. The proposed project would, therefore, be subject to the LID standards intended to avoid impacting SEAs adjacent to development projects. Upon compliance with the MS4 Permit and LID standard, potential impacts would be less than significant and no mitigation is recommended.

5.4 Wildlife Movement

The proposed project would have a significant effect on biological resources if it would:

d) Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.

The proposed project is small in size compared with the size of the parcel and surrounding preserved open space, and the project footprint is situated within and close to existing disturbed areas, minimizing the effect on wildlife movement through intact habitat. Wildlife traveling between the Portuguese Bend and Forrestal Reserves are more likely to cross south of the site due to the steepness of Klondike Canyon within and adjacent to the study area, and existing development northeast and east of the site. The project could result in minor alterations of wildlife behavior in the immediate vicinity of the site. However, it would not substantially interfere with movement of resident or migratory fish or wildlife or impede the use of wildlife nursery sites. The impact on wildlife movement would be less than significant, and no mitigation is recommended.

5.5 Local Policies and Ordinances

The proposed project would have a significant effect on biological resources if it would:

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

Removal of trees twelve (12) feet and over requires approval by the RHCA board of directors. Additionally, the 2015 RHCA Landscape Guidelines outline recommended residential plantings. A landscape plan including plant lists is required for all new residences in the RHCA area. Native California species or Mediterranean drought tolerant species are recommended for front yards (visible from the street). Native species are also recommended in canyons and areas leading into canyons. Of these areas, the RHCA guidelines state that “California native should be used since it is common for vegetation to spread property to property. Invasive, non-naturalized or exotic plants should never be planted in this sector”.

The project applicant would be required to obtain approval from the City of Rolling Hills and the RHCA with regard to any necessary tree removals and the proposed landscape plan. Therefore, the project would not conflict with local policies and ordinances and no mitigation is recommended.

5.6 Adopted or Approved Plans

The proposed project would have a significant effect on biological resources if it would:

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.

As stated in section 4.6, the project site does not occur within the jurisdiction of any Habitat Conservation Plans, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The site is adjacent to conservation easements under the City of Rancho Palos Verde's draft NCCP/HCP.

Special status species within the preserve could be indirectly affected by disturbance and a slight reduction in habitat cause by development; if present in the immediate vicinity. Sensitive natural communities could also be impacted if nonnative invasive species were used in landscaping, which could spread to the preserve.

The proposed project is subject to the requirements of the RHCA for native landscaping, and County NPDES Permits and LID standards. Additionally, the City of Rolling Hills Municipal Code for site plan review (Section 17.46.050) requires that site designs integrate existing topographic features of the site and surrounding native vegetation, to the greatest extent possible. The City's residential development standards also include lighting restrictions for outdoor lighting, including; limiting wattage, requiring certain fixtures to cast light downward, and limit the time motion activated lights remain on (Section 17.16.190).

The mitigation measures described above (Bio-1 through Bio-4) address impacts to special status species and natural habitats occurring within the 21-acre lot, and combined with the RHCA, NPDES requirements, and City's Municipal Code, impacts to sensitive species and communities occurring on the preserve are not expected. Thus, no conflicts with the NCCP/HCP are expected, and no additional mitigation is recommended.

6 Limitations, Assumptions, and Use Reliance

This Biological Resources Assessment has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The biological investigation is limited by the scope of work performed. Biological surveys for the presence or absence of certain taxa have been conducted as part of this assessment but were not performed during a particular blooming period, nesting period, or particular portion of the season when positive identification would be expected if present, and therefore, cannot be considered definitive. The biological surveys are limited also by the environmental conditions present at the time of the surveys. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future within the site. In particular, mobile wildlife species could occupy the site on a transient basis, or re-establish populations in the future. Our field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided.

The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, jurisdictional areas, review of CNDDB RareFind5, and specified historical and literature sources. Standard data sources relied upon during the completion of this report, such as the CNDDB, may vary with regard to accuracy and completeness. In particular, the CNDDB is compiled from research and observations reported to CDFG that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

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8 List of Preparers

Rincon Consultants, Inc.

Primary Authors

Samantha Kehr, Associate Biologist
Destiny Timms, Environmental Planner

Technical Review

Brenna Vredeveld, Program Manager/Senior Biologist
Steven J. Hongola, Principal/Senior Ecologist

Graphics

Allysen Valencia, GIS Specialist
Erik Holtz, GIS Analyst

Field Reconnaissance Survey

Amy Trost, Associate Biologist

BRA Appendix A

Regulatory Guidance

Regulatory Setting

Special-status habitats are vegetation types, associations, or sub-associations that support concentrations of special-status plant or wildlife species, are of relatively limited distribution, or are of particular value to wildlife.

Listed species are those taxa that are formally listed as endangered or threatened by the federal government (e.g. U.S. Fish and Wildlife Service [USFWS]), pursuant to the Federal Endangered Species Act (FESA) or as endangered, threatened, or rare (for plants only) by the State of California (i.e. California Fish and Game Commission), pursuant to the California Endangered Species Act or the California Native Plant Protection Act. Some species are considered rare (but not formally listed) by resource agencies, organizations with biological interests/expertise (e.g. Audubon Society, CNPS, The Wildlife Society), and the scientific community.

The following is a brief summary of the regulatory context under which biological resources are managed at the federal, state, and local levels. A number of federal and state statutes provide a regulatory structure that guides the protection of biological resources. Agencies with the responsibility for protection of biological resources within the project site include:

- Regional Water Quality Control Board (waters of the State);
- U.S. Fish and Wildlife Service (federally listed species and migratory birds);
- California Department Fish and Wildlife (riparian areas and other waters of the State, state-listed species);
- City of Rolling Hills

Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) and the local Central Coast Regional Water Quality Control Board (RWQCB) have jurisdiction over "waters of the State," pursuant to the Porter-Cologne Water Quality Control Act, which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. The SWRCB has issued general Waste Discharge Requirements (WDRs) regarding discharges to "isolated" waters of the State (Water Quality Order No. 2004-0004-DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction). The Central Coast RWQCB enforces actions under this general order for isolated waters not subject to federal jurisdiction, and is also responsible for the issuance of water quality certifications pursuant to Section 401 of the Clean Water Act for waters subject to federal jurisdiction.

United States Fish and Wildlife Service

The USFWS implements the Migratory Bird Treaty Act (16 United States Code [USC] Section 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668). The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the Federal Endangered Species Act (FESA) (16 USC § 153 et seq.). The USFWS generally implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadromous species.

Projects that would result in "take" of any federally listed threatened or endangered species are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of FESA, depending on the involvement by the federal government in permitting and/or funding of the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. "Take" under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of FESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) derives its authority from the Fish and Game Code of California. The California Endangered Species Act (CESA) (Fish and Game Code Section 2050 et. seq.) prohibits take of state listed threatened, endangered or fully protected species. Take under CESA is restricted to direct mortality of a listed species and does not prohibit indirect harm by way of habitat modification. The CDFW also prohibits take for species designated as Fully Protected under the Code.

California Fish and Game Code sections 3503, 3503.5, and 3511 describe unlawful take, possession, or destruction of birds, nests, and eggs. Fully protected birds (Section 3511) may not be taken or possessed except under specific permit. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs.

Species of Special Concern (SSC) is a category used by the CDFW for those species which are considered to be indicators of regional habitat changes or are considered to be potential future protected species. Species of Special Concern do not have any special legal status except that which may be afforded by the Fish and Game Code as noted above. The SSC category is intended by the CDFW for use as a management tool to include these species into special consideration when decisions are made concerning the development of natural lands. The CDFW also has authority to administer the Native Plant Protection Act (NPPA) (Fish and Game Code Section 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare. Under Section 1913(c) of the NPPA, the owner of land where a rare or endangered native plant is growing is required to notify the department at least 10 days in advance of changing the land use to allow for salvage of plant.

Perennial and intermittent streams and associated riparian vegetation, when present, also fall under the jurisdiction of the CDFW. Section 1600 et seq. of the Fish and Game Code (Lake and Streambed Alteration Agreements) gives the CDFW regulatory authority over work within the stream zone (which could extend to the 100-year flood plain) consisting of, but not limited to, the diversion or obstruction of the natural flow or changes in the channel, bed, or bank of any river, stream or lake.

Local Jurisdiction

The Rolling Hills Community Association (RHCA) also has jurisdiction over properties within the City. All new development must be approved by the RHCA and the City Planning Department. Under the RHCA Covenants, Conditions, and Restrictions (CC&Rs), the removal of trees twelve (12) feet or over requires approval by the Board of Directors of the Association.

The 2015 RHCA Landscape Guidelines outline recommended residential plantings. A landscape plan including plant lists is required for all new residences in the RHCA area. Native California species or Mediterranean drought tolerant species are recommended for front yards (visible from the street). Native species are also recommended in canyons and areas leading into canyons. Of these areas, the RHCA guidelines state that "California native should be used since it is common for vegetation to spread property to property. Invasive, non-naturalized or exotic plants should never be planted in this sector".

Additionally, the City of Rolling Hills Municipal Code for site plan review (Section 17.46.050) requires that site designs integrate existing topographic features of the site and surrounding native vegetation, to the greatest extent possible. The City's residential development standards also include lighting restrictions for outdoor lighting, including; limiting wattage, requiring certain fixtures to cast light downward, and limit the time motion activated lights remain on (Section 17.16.190).

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BRA Appendix B

Site Photographs

Photograph 1. View of the existing access road (Portuguese Bend Road), facing west

Photograph 2. View of the project footprint, with trails and a picnic area, facing southwest

Photograph 3. View of the existing access road (Portuguese Bend Road), from the project footprint (Klondike Canyon is visible on the left), facing east

Photograph 4. View of the nonnative grassland northwest of the project footprint with coastal sage scrub in the foreground, from Portuguese Bend Road, facing northwest

Photograph 5. Portuguese Bend Road in the middle of the project footprint, facing southwest

Photograph 6. Portuguese Bend Road in the middle of the project footprint with coastal sage scrub alone the edges, facing northeast

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BRA Appendix C

Floral and Faunal Compendium

Plant and Animal Species Observed Within the Study Area on December 1, 2017

Scientific Name	Common Name	Native or Introduced1
Plants		
Trees		
Acacia longifolia	golden wattle	Nonnative
Eucalyptus sp.	eucalyptus	Nonnative
Pinus sp.	pine	Nonnative (planted)
Quercus agrifolia	coast live oak	Native
Schinus molle	Peruvian pepper tree	Nonnative, Cal-IPC rating: limited
Schinus terebinthifolius	Brazilian pepper tree	Nonnative, Cal-IPC rating: limited
Shrubs and Woody Vines		
Artemisia californica	California sage	Native
Encelia californica	California brittlebrush	Native
Eriogonum fasciculatum	California buckwheat	Native
Hazardia squarrosa	Sawtooth goldenbush	Native
Hedera helix	English ivy	Nonnative, Cal-IPC rating: high
Rhus integrifolia	lemonade berry	Native
Salvia leucophylla	purple sage	Native
Salvia mellifera	black sage	Native
Herbs		
Brassica nigra	black mustard	
Carpobrotus edulis	ice plant	Nonnative, Cal-IPC rating: High
Centaurea melitensis	Tocalote	Nonnative
Corethrogyne filaginifolia	California aster	Native
Eriogonum sp.	Buckwheat	Native
Heterotheca grandiflora	telegraph weed	Native
Hirschfeldia incana	Mediterranean hoary mustard	Nonnative, Cal-IPC rating: moderate
Mirabilis jalapa	four o'clock	Nonnative
Salsola tragus	Russian thistle	Nonnative, Cal-IPC rating: limited
Grasses		
Bromus diandrus	ripgut brome	Nonnative, Cal-IPC rating: moderate
Hordeum murinum ssp. *leporinum*	hare barley	Nonnative, Cal-IPC rating: moderate
Wildlife		
Birds		
Buteo jamaicensis	red-tailed hawk	Native
Corvus brachyrhynchos	American crow	Native
Haemorhous mexicanus	house finch	Native
Mimus polyglottos	northern mockingbird	Native
Psaltriparus minimus	bushtit	Native
Sayornis nigricans	black phoebe	Native
Setophaga coronata	yellow-rumped warbler	Native
Mammals		
Otospermophilus beecheyi	California ground squirrel	Native

[1]Cal-IPC – California Invasive Plant Council

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BRA Appendix D

Special Status Species Evaluation Tables

Special Status Plant Species in the Regional Vicinity of the Project Site

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Plants				
Aphanisma blitoides aphanisma	None/None G3G4 / S2 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub. On bluffs and slopes near the ocean in sandy or clay soils. 3-305 m.	Low Potential	Known occurrence within 5 miles, coastal scrub habitat is present.
Atriplex coulteri Coulter's saltbush	None/None G3 / S1S2 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland. Ocean bluffs, ridgetops, as well as alkaline low places. Alkaline or clay soils. 2-460 m.	Moderate Potential	Known occurrence within 5 miles and coastal scrub habitat is present.
Atriplex pacifica south coast saltscale	None/None G4 / S2 1B.2	Coastal scrub, coastal bluff scrub, playas, coastal dunes. Alkali soils. 1-400 m.	Moderate Potential	Known occurrence within 5 miles, coastal scrub is present, however alkali soils are not.
Atriplex parishii Parish's brittlescale	None/None G1G2 / S1 1B.1	Vernal pools, chenopod scrub, playas. Usually on drying alkali flats with fine soils. 5-1420 m.	Not Expected	Suitable habitats, such as vernal pools, chenopod scrub, and playas, are not present.
Atriplex serenana var. *davidsonii* Davidson's saltscale	None/None G5T1 / S1 1B.2	Coastal bluff scrub, coastal scrub. Alkaline soil. 0-460 m.	Moderate Potential	Known occurrence within 5 miles and coastal scrub habitat is present.
Centromadia parryi ssp. *australis* southern tarplant	None/None G3T2 / S2 1B.1	Marshes and swamps (margins), valley and foothill grassland, vernal pools. Often in disturbed sites near the coast at marsh edges; also in alkaline soils sometimes with saltgrass. Sometimes on vernal pool margins. 0-975 m.	Not Expected	Known occurrence within 5 miles, however swamps, marshes, and vernal pools are not present.
Chloropyron maritimum ssp. *maritimum* salt marsh bird's-beak	FE/SE G4?T1 / S1 1B.2	Marshes and swamps, coastal dunes. Limited to the higher zones of salt marsh habitat. 0-10 m.	Not Expected	No known occurrence within 5 miles, and salt marshes, swamps, and coastal dunes are not present.
Crossosoma californicum Catalina crossosoma	None/None G3 / S3 1B.2	Chaparral, coastal scrub. On rocky sea bluffs, wooded canyons, and dry, open sunny spots on rocky clay. 5-535 m.	Low Potential	Known occurrence within 5 miles, coastal scrub habitat is present, and this species is known to occur on the Portuguese bend reserve. This species is a fairly large-statured shrub with thorny branchlets, and would have been visible and identifiable to genus during the December site visit, however this species was not observed on site.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Dithyrea maritima beach spectaclepod	None/ST G1 / S1 1B.1	Coastal dunes, coastal scrub. Sea shores, on sand dunes, and sandy places near the shore. 3-65 m.	Not Expected	No known occurrence within 5 miles, coastal dunes are not present, and the study area is not at the immediate coast near the shore.
Dudleya virens ssp. *insularis* island green dudleya	None/None G3?T3 / S3 1B.2	Coastal bluff scrub, coastal scrub. Rocky soils. 0-275 m.	Moderate Potential	Known occurrence within 5 miles and coastal scrub habitat is present.
Horkelia cuneata var. *puberula* mesa horkelia	None/None G4T1 / S1 1B.1	Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. 15-1645 m.	Moderate Potential	Known occurrence within 5 miles and coastal scrub habitat is present.
Isocoma menziesii var. *decumbens* decumbent goldenbush	None/None G3G5T2T3 / S2 1B.2	Coastal scrub, chaparral. Sandy soils; often in disturbed sites. 1-915 m.	Moderate Potential	Coastal scrub habitat and disturbed areas are present.
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields	None/None G4T2 / S2 1B.1	Coastal salt marshes, playas, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. 1-1375 m.	Not Expected	Suitable habitats, such as coastal salt marshes, playas, and vernal pools are not present.
Leptosyne maritima sea dahlia	None/None G2 / S1 2B.2	Coastal scrub, coastal bluff scrub. Occurs on a variety of soil types, including sandstone. 5-185 m.	Moderate Potential	No known occurrence within 5 miles, however coastal scrub habitat is present.
Nama stenocarpa mud nama	None/None G4G5 / S1S2 2B.2	Marshes and swamps. Lake shores, river banks, intermittently wet areas. 5-500 m.	Not Expected	Suitable habitats, such as swamps or marshes, are not present in the study area.
Navarretia prostrata prostrate vernal pool navarretia	None/None G2 / S2 1B.1	Coastal scrub, valley and foothill grassland, vernal pools, meadows and seeps. Alkaline soils in grassland, or in vernal pools. Mesic, alkaline sites. 3-1235 m.	Not Expected	Suitable habitats, such as vernal pools and/or mesic habitats, are not present.
Nemacaulis denudata var. *denudata* coast woolly-heads	None/None G3G4T2 / S2 1B.2	Coastal dunes. 0-100 m.	Not Expected	Suitable habitats, such as coastal dunes, are not present.
Orcuttia californica California Orcutt grass	FE/SE G1 / S1 1B.1	Vernal pools. 10-660 m.	Not Expected	Suitable habitats, such as vernal pools, are not present.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Pentachaeta lyonii Lyon's pentachaeta	FE/SE G1 / S1 1B.1	Chaparral, valley and foothill grassland, coastal scrub. Edges of clearings in chaparral, usually at the ecotone between grassland and chaparral or edges of firebreaks. Typically occupies pocket grassland sites that intergrade with shrublands, edges of roads and trails on sites with low vegetative cover. Grows best in compact soil, exposed, rocky clay soils of volcanic origin that exhibit a microbiotic crust. 30-630 m.	Not expected	Species is reported from the vicinity of San Pedro Hill within 0.5 mile of the site, based on historical collections that lack specific locality information, however, has not been identified in the vicinity of the Study Area since the 1930s. Status on the Palos Verdes peninsula is unknown with no extant populations currently known in the area. Specific habitat requirements of this species are not met in the Study Area due to the presence of dense weedy annuals in annual grassland areas and the lack of appropriate openings with suitable soils in the scrub areas. Thus, despite historic occurrences in the vicinity, this species is not expected to occur in the Study Area.
Phacelia stellaris Brand's star phacelia	None/None G1 / S1 1B.1	Coastal scrub, coastal dunes. Open areas. 3-370 m.	Moderate Potential	Known occurrence within 5 miles, and coastal scrub habitats are present.
Suaeda esteroa estuary seablite	None/None G3 / S2 1B.2	Marshes and swamps. Coastal salt marshes in clay, silt, and sand substrates. 0-80 m.	Not Expected	Suitable habitats, such as marshes and swamps, are not present.
Symphyotrichum defoliatum San Bernardino aster	None/None G2 / S2 1B.2	Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland. Vernally mesic grassland or near ditches, streams and springs; disturbed areas. 2-2040 m.	Not Expected	Suitable habitats, such as coniferous forests, cismontane woodlands, and seeps or other mesic habitats, are not present.
Sensitive Natural Communities				
Southern Coastal Bluff Scrub	None/None G1 / S1.1	Low scrub (up to 2 meters tall) comprised of woody and succulent species. Exposed to salt and moisture-laden winds.	Not Expected	The site is well inland of the bluffs. Bluff Scrub is not present in the study area.

Regional Vicinity refers to within a [5] mile radius of site.

FE = Federally Endangered FT = Federally Threatened

SE = State Endangered ST = State Threatened SR = State Rare

SSC = State Species of Special Concern FP = State Fully Protected WL = Watch List

G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW's CNDDB RareFind3.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
CRPR (CNPS California Rare Plant Rank):				
1A=Presumed Extinct in California				
1B=Rare, Threatened, or Endangered in California and elsewhere				
2A=Plants presumed extirpated in California, but more common elsewhere				
2B=Plants Rare, Threatened, or Endangered in California, but more common elsewhere				
3=Need more information (a Review List)				
4=Plants of Limited Distribution (a Watch List)				
CRPR Threat Code Extension:				
.1=Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)				
.2=Fairly endangered in California (20-80% occurrences threatened)				
.3=Not very endangered in California (<20% of occurrences threatened)				

Special Status Animal Species in the Regional Vicinity of the Project Site

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Mammals				
Neotoma lepida intermedia San Diego desert woodrat	None/None G5T3T4 / S3S4 SSC	Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	Moderate Potential	Known occurrence within 5 miles. Coastal scrub habitat is present.
Nyctinomops femorosaccus pocketed free-tailed bat	None/None G4 / S3 SSC	Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Rocky areas with high cliffs.	Not expected	Known occurrence within 5 miles (1985), however, the site lacks suitable high cliffs. Only potential foraging habitat is present.
Nyctinomops macrotis big free-tailed bat	None/None G5 / S3 SSC	Low-lying arid areas in Southern California. Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	Not expected	No known occurrences within 5 miles, and the site lacks suitable high cliffs. Only potential foraging habitat is present.
Perognathus longimembris pacificus Pacific pocket mouse	FE/None G5T1 / S1 SSC	Inhabits the narrow coastal plains from the Mexican border north to El Segundo, Los Angeles County. Seems to prefer soils of fine alluvial sands near the ocean, but much remains to be learned.	Low potential	Known occurrences within 5 miles, however the site is inland of the coastal plain and lacks fine alluvial sands.
Birds				
Agelaius tricolor tricolored blackbird	None/CE G2G3 / S1S2 SSC	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	Low potential (foraging only)	Known occurrence within 5 miles (1980's). Suitable nesting habitat is not present and only potential foraging habitat is present.
Coccyzus americanus occidentalis western yellow-billed cuckoo	FT/SE G5T2T3 / S1	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Not expected	No known occurrences within 5 miles and no nesting or foraging habitat occurs in the study area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Pelecanus occidentalis californicus California brown pelican	Delisted/ Delisted G4T3 / S3 FP	Colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators. Roosts communally.	Not expected	No known occurrences within 5 miles and no nesting or foraging habitat occurs in the study area.
Polioptila californica californica coastal California gnatcatcher	FT/None G4G5T2Q / S2 SSC	Obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	High Potential	Known occurrence within the study area. Known population occurs on the adjacent Portuguese Bend Reserve.
Riparia riparia bank swallow	None/ST G5 / S2	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Low potential (Foraging only)	Known occurrence within 5 miles. Riparian nesting habitat is not present.
Sternula antillarum browni California least tern	FE/SE G4T2T3Q / S2 FP	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	Low potential (Foraging only)	Known occurrence within 5 miles. Suitable flat open nesting habitat is not present.
Reptiles				
Anniella stebbinsi southern California legless lizard	None/None G3 / S3 SSC	Generally south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County. Variety of habitats; generally in moist, loose soil. They prefer soils with high moisture content.	Moderate Potential	Known occurrence within 5 miles, and suitable loose soils are present.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Phrynosoma blainvillii coast horned lizard	None/None G3G4 / S3S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial and abundant supply of ants and other insects.	Moderate Potential	Known occurrence within 5 miles. Suitable coastal scrub habitat is present.
Fish				
Siphateles bicolor mohavensis Mohave tui chub	FE/SE G4T1 / S1 FP	Endemic to the Mojave River basin, adapted to alkaline, mineralized waters. Needs deep pools, ponds, or slough-like areas. Needs vegetation for spawning.	Not Expected	One extirpated occurrence within 5 miles of the Study Area was an experimental transplant outside this species' native range. The population was extinct by 1976.
Insects				
Euphilotes battoides allyni El Segundo blue butterfly	FE/None G5T1 / S1	Restricted to remnant coastal dune habitat in Southern California. Host plant is *Eriogonum parvifolium*; larvae feed only on the flowers and seeds; used by adults as major nectar source.	Not Expected	Known occurrence within 5 miles, however, dune habitat is not present and all known populations are several miles north of the site. Collections from the Palos Verdes peninsula are thought to be another subspecies of blue butterfly (USFWS 2008).
Glaucopsyche lygdamus palosverdesensis Palos Verdes blue butterfly	FE/None G5T1 / S1	Restricted to the cool, fog-shrouded, seaward side of Palos Verdes Hills, Los Angeles County. Host plant is *Astragalus trichopodus* var. *lonchus* (locoweed).	Moderate Potential	Known occurrence approximately 0.3 miles west, at the Forrestal Reserve. Critical habitat occurs approximately 1.6 miles southeast of the study area.
Crustaceans				
Streptocephalus woottoni Riverside fairy shrimp	FE/None G1G2 / S1S2	Endemic to Western Riverside, Orange, and San Diego counties in areas of tectonic swales/earth slump basins in grassland and coastal sage scrub. Inhabit seasonally astatic pools filled by winter/spring rains. Hatch in warm water later in the season.	Not Expected	No suitable habitat, such as vernal pools, occurs in the study area.

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FC = Federal Candidate Species
FE = Federally Endangered
SE = State Endangered
ST = State Threatened
SR = State Rare

G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW's CNDDB RareFind3
SSC = CDFW Species of Special Concern
FP = Fully Protected

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